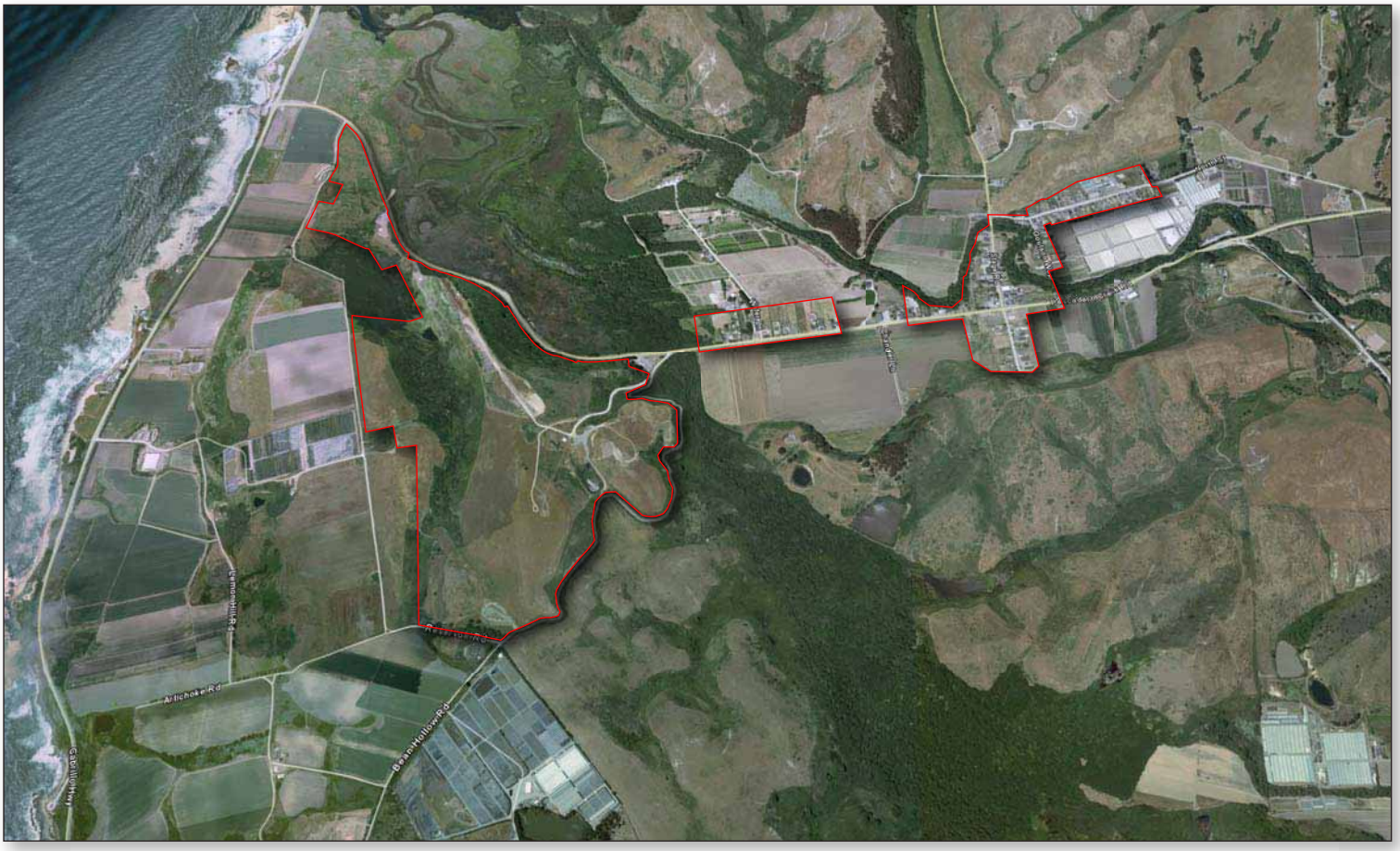


INITIAL STUDY / MITIGATED NEGATIVE DECLARATION
PESCADERO COMMUNITY SEWER PROJECT

MARCH 2009

Lead Agency:

County of San Mateo
555 County Center, First Floor
Redwood City, CA 94063-1665

Prepared By:

Analytical Environmental Services
1801 7th Street, Suite 100
Sacramento, CA 95811

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION
PESCADERO COMMUNITY SEWER PROJECT

MARCH 2009

Lead Agency:

County of San Mateo
555 County Center, First Floor
Redwood City, CA 94063-1665

Prepared By:

Analytical Environmental Services
1801 7th Street, Suite 100
Sacramento, CA 95811

TABLE OF CONTENTS

PESCADERO COMMUNITY SEWER PROJECT
INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

LIST OF TABLES

LIST OF FIGURES

APPENDICES

SECTION 1.0

INTRODUCTION

1.0 INTRODUCTION

1.1 PURPOSE OF STUDY

This Initial Study examines the potential environmental effects of the proposed Pescadero Community Sewer Project (Proposed Project). The Proposed Project would consolidate existing individual septic systems through the construction of a new community sewer collection system and wastewater treatment plant (WWTP). The document has been prepared for the County of San Mateo (Lead Agency) in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified in California Public Resources Code Sections 21000 *et seq*., and the State CEQA *Guidelines* in the Code of Regulations, Title 14, Division 6, Chapter 3.

This Initial Study identifies potentially significant impacts and presents associated mitigation measures that would reduce all identified environmental impacts to less-than-significant levels as defined below. As such, the Proposed Project is eligible for a Mitigated Negative Declaration as defined under CEQA *Guidelines* Section 15070.

1.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental issue areas checked below would be potentially affected by the Proposed Project, involving at least one impact requiring mitigation to bring it to a less-than-significant level. The Proposed Project was determined to have a less-than-significant impact or no impact even without mitigation on unchecked resource areas. Impacts are assessed in **Section 3.0**.

☐	Aesthetics	☐	Land Use and Planning
☐	Agriculture	☐	Mineral Resources
☒	Air Quality	☒	Noise
☒	Biological Resources	☐	Population
☒	Cultural Resources	☐	Public Services
☒	Geology and Soils	☐	Recreation
☒	Hazards and Hazardous Materials	☒	Transportation/Traffic
☒	Hydrology and Water Quality	☐	Utility and Service Systems

1.3 EVALUATION TERMINOLOGY

The following terminology is used to describe the levels of significance for impacts identified for each resource area discussed in **Section 3.0**.

- A conclusion of ***no impact*** is used when it is determined the Proposed Project would not adversely impact the resource area under evaluation.

- A conclusion of ***less-than-significant impact*** is used when it is determined the Proposed Project's adverse impacts to a resource area would not exceed established thresholds of significance.

- A conclusion of ***less-than-significant impact with mitigation*** is used when it is determined that mitigation measures would be required to reduce the Proposed Project's adverse impacts below established thresholds of significance.

1.4 ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into the following sections:

Section 1.0 – Introduction: Describes the purpose, contents, and organization of the document.

Section 2.0 - Project Description: Includes a detailed description of the Proposed Project.

Section 3.0 - Environmental Impact Analysis: Contains the Environmental Checklist with a discussion of the environmental issues. Mitigation measures, if necessary, are noted following each impact discussion.

Section 4.0 – Significance Determination: Identifies the determination of whether impacts associated with development of the Proposed Project are significant, and what, if any, additional environmental documentation may be required.

Section 5.0 – List of Preparers

Section 6.0 – References

Appendices: Contains information to supplement **Section 3.0**.

SECTION 2.0

PROJECT DESCRIPTION

2.0 PROJECT DESCRIPTION

2.1 INTRODUCTION

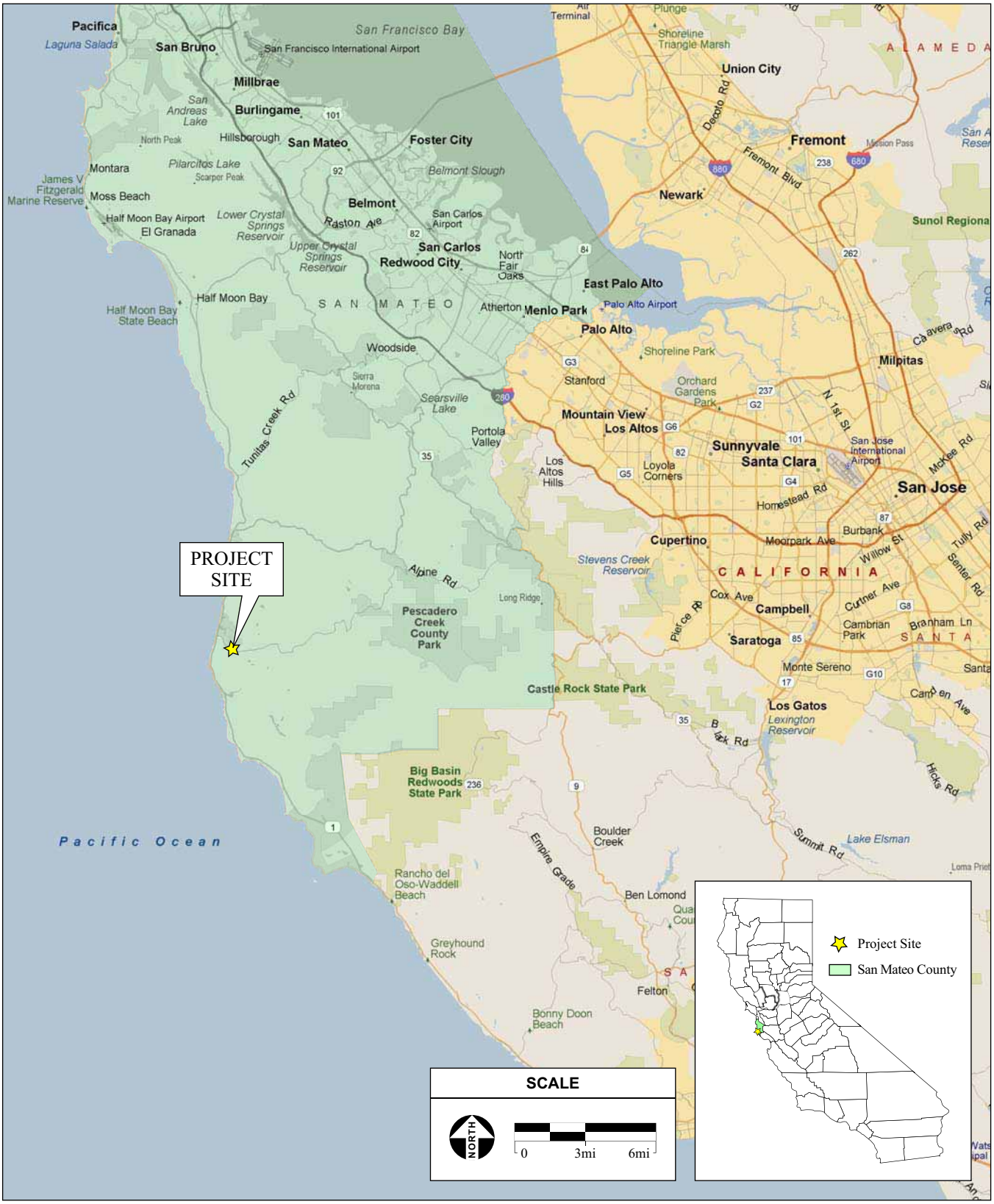
The County of San Mateo (County) proposes to implement a water quality enhancement project within the boundaries of County Service Area–11 (CSA-11) in the community of Pescadero. The Pescadero Community Sewer Project (Proposed Project) would consolidate existing individual septic systems through the construction of a new community sewer collection system and wastewater treatment plant (WWTP). **Section 3.0** provides a description of the Proposed Project that serves as the basis for the assessment of potential environmental consequences associated with development and operation of the Proposed Project.

2.2 PROJECT LOCATION

The Proposed Project would be located in unincorporated San Mateo County, California **(Figure 2-1)**, within the community of Pescadero (**Figure 2-2**). Downtown Pescadero is located inland approximately 1.5 miles east of State Highway 1 (Cabrillo Highway). The project site is located within County Service Area 11 (CSA-11). Project components would be developed within roadways, County owned parcels and private and commercial lots currently utilized for septic disposal.

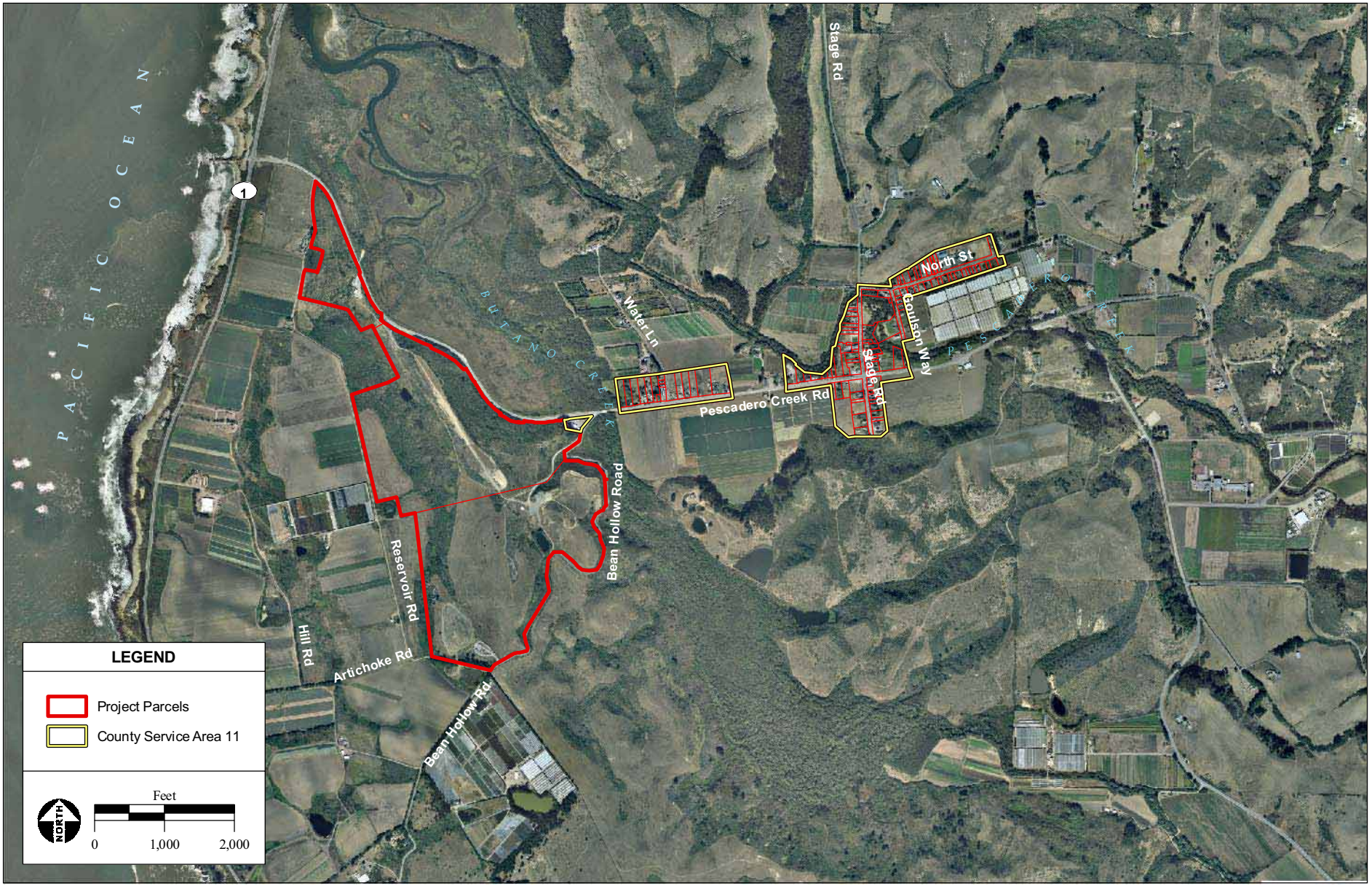
2.3 PROJECT BACKGROUND

Wastewater treatment within the community of Pescadero is currently provided by individual septic tank systems serving each parcel. Some of the systems were installed as far back as the 1890s. Failing to meet existing County septic system requirements (i.e., soil percolation rates and distance to high groundwater levels), these septic systems have resulted in contamination of both surface and groundwater with bacteriological hazards and nitrates. Elevated nitrate levels in the groundwater prompted the County Environmental Health department to issue a Public Health Notification to Pescadero residents in 1974. Although the County eventually developed a community water system using a remote water source, many residents of Pescadero are outside the community system and still rely on the local groundwater for potable uses. In October of 2004, the County issued a Public Health Declaration stating that the existing wastewater treatment system posed a health threat. The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) passed a resolution supporting the County's Public Health Declaration and ordered the community of Pescadero to establish a wastewater improvement project by July 1, 2009 (SFBRWCB, 2004). The Proposed Project was conceived in response to this resolution.



SOURCE: Microsoft Streets & Trips, 2005; AES, 2008

Figure 2-1
Regional Location



SOURCE: HydroScience, Engineers, 2008; AES 2009

Figure 2-2
Project Site and Vicinity

2.4 PROJECT OBJECTIVES

The Proposed Project is designed to meet the following objectives:

- To reduce contamination of surface and groundwater through the consolidation of existing septic systems within CSA-11 into a new community wastewater treatment and disposal system.
- To utilize pre-existing pipeline routes developed during installation of the community water system to minimize land disturbance.
- To provide adequate centralized wastewater treatment with a system designed to ensure adequate capacity for the next 20 years.
- To develop the WWTP consistent with the requirements of the State Water Resource Board's *Small Community Wastewater Grant Program Guidelines* (SCWG Guidelines) in accordance with funding received for the Proposed Project.

2.5 PROJECT DESCRIPTION

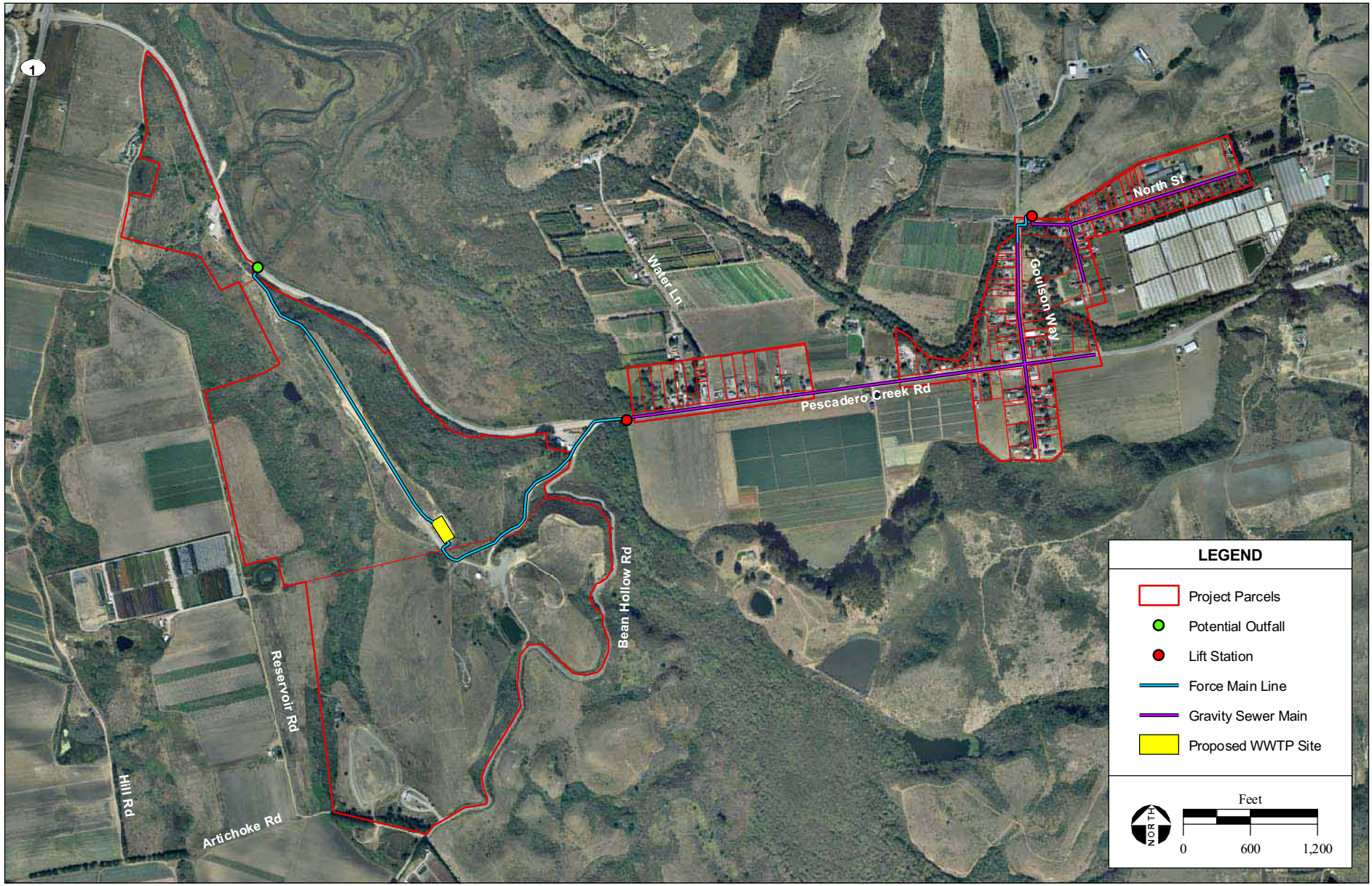
2.5.1 PROJECT COMPONENTS

Wastewater Collection

A gravity collection system would be developed by constructing approximately 9,000 linear feet of 8-inch gravity sewer within CSA-11 and between 4,000 and 6,600 linear feet of a pressurized 4-inch sewer force main from the collection system to the proposed WWTP location. The gravity collection system would be aligned with the existing community water system within Pescadero Creek Road, Stage Road, and North Road (**Figure 2-3**).

The sewer main would be constructed at elevations to maintain a minimum two percent slope. Manholes would be constructed at the upstream end of the pipe run and at pipe intersections to provide access for maintenance and to provide vertical transitions where elevations changes are required. It is anticipated that two collection system lift stations would be required. One would be located at the crossing of Pescadero Creek at North Street and Stage Road and at the other would be located at the crossing of Butano Creek at Pescadero Creek Road. To allow for continued service during maintenance operations, each lift station would be equipped with two pumps, each capable of pumping the full design capacity, as well as a backup generator. The lift stations would be enclosed in concrete structures designed to attenuate noise below the current ambient noise levels.

From the sewer main, service laterals would connect to each parcel's existing sewage system. Cleanouts would be included within each service lateral for routine maintenance and cleaning. Overflow protection devices would be installed to prevent backflow of sewage for service laterals located down gradient from the nearest manhole.



SOURCE: HydroScience, Engineers, 2008; AES 2009

Figure 2-3

Proposed Pescadero Community Sewer System

Wastewater Treatment Plant

Location

The proposed WWTP site would be located southeast of the County's existing Corporation Yard on a hill (approximately 210 above mean sea level (msl)) approximately 600 feet northwest of an existing water storage tank (**Figure 2-3**). The site is currently used as a stockpile area by the County. Access to the WWTP would be either from Pescadero Creek Road via an unpaved access road through the Corporation Yard northwest of the project site or by the unpaved access road off of Bean Hollow Road and southeast of the WWTP site.

Treatment Process

The treatment process will include a screen, prepackaged MBR treatment system, UV disinfection and/or chlorination, effluent storage, dechlorination (for surface water discharge), and an effluent pump station (HSE, 2008). **Figure 2-4** shows the layout of the proposed WWTP. An immersed membrane bioreactor (MBR) system was selected to provide the highest quality of effluent for reuse or subsurface disposal. The MBR system would be sized for an average daily flow of 24,100 gallons per day (gpd). The effluent produced would meet all requirements of California Code of Regulations Title 22, Division 4, Chapter 3 – Water Recycling Criteria (Title 22), and would be suitable for all approved uses under Title 22.

Wastewater Disposal

Two types of disposal methods are under consideration for the Proposed Project: subsurface discharge via leach fields and surface water discharge to an unnamed tributary to the Pescadero Marsh.

Subsurface Discharge

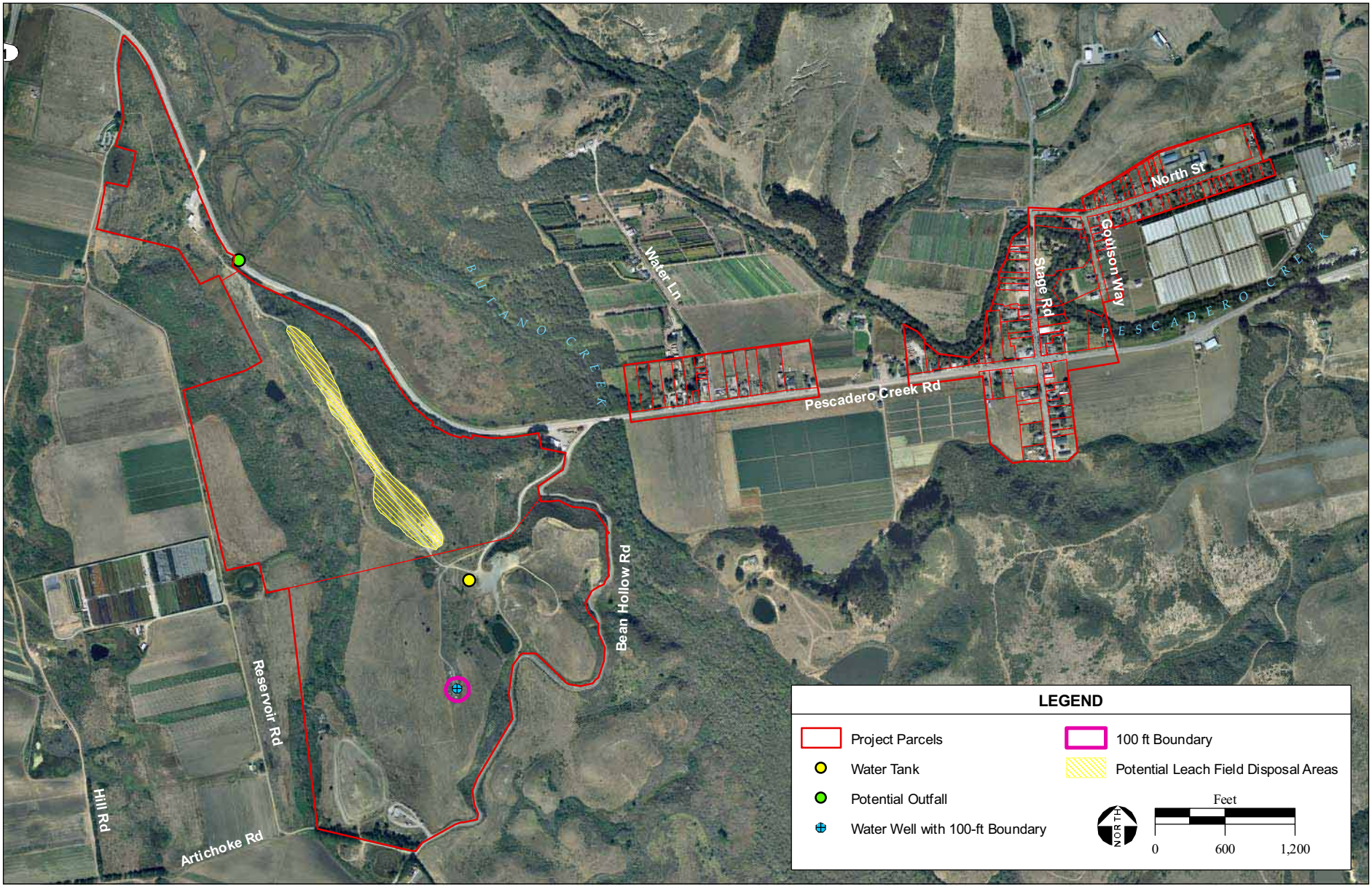
The primary method of wastewater disposal would be through subsurface discharge via leach fields. The proposed leach fields would consist of looped or lateral trenches, typically 1.5 to 2 feet wide and 2 to 5 feet deep, lined with perforated pipes. The trenches would be backfilled with gravel and covered to reduce surface water infiltration. Treated effluent would be gravity fed to the leach fields where it would percolate into the soil. Based on the daily capacity, approximately 4 acres of leach fields would be required for existing wastewater flows and approximately 11 acres of leach fields would be required without any other means for effluent disposal under the full build out of CSA-11 (**Figure 2-5**). However, it is likely that the WWTP owner/operator will obtain an NPDES Permit for surface water discharge which will reduce the demand for leach field disposal.

As shown in **Figure 2-5**, approximately 9.2 acres of County land may be suitable for leach field development. The 9.2 acres identified would be adequate for effluent disposal via leach fields for the full buildout of CSA-11 assuming the NPDES Permit is obtained. Selection of appropriate areas and final design of leach fields would be dependent upon required percolation tests and location of adjacent groundwater wells and surface water resources. The potential leach field areas will be sized to provide disposal of all effluent produced.

SOURCE: HydroScience, Engineers, 2008; AES 2008

Figure 2-4

Proposed Wastewater Treatment Plant



SOURCE: HydroScience, Engineers, 2008; AES 2008

Figure 2-5
Proposed Disposal Areas

Surface Water Discharge

It is anticipated that the future WWTP owner/operator would apply for a National Pollutant Distribution Elimination System (NPDES) permit under Section 402 of the Federal Clean Water Act. NPDES permits are required for point-source discharges of treated wastewater into surface waters. NPDES permits in the project area are administered by the SFBRWQCB and would include discharge prohibitions, treated effluent limitations and discharge specifications, receiving water limitations, and monitoring and reporting requirements.

Under permitted conditions, recycled water would be discharged into an existing culvert located perpendicular to the access road to the north of the proposed WWTP site. This culvert heads north to meet another culvert beneath Pescadero Creek Road where it would discharge into the Pescadero Marsh.

2.5.2 CONSTRUCTION ACTIVITIES

Septic Tank Abatement

After each parcel is connected to the main system via laterals, the remaining septic tanks would be abandoned. A Septic Tank Destruction Permit from the County Environmental Health Department will be required prior to septic tank abandonment. The remaining sewage in the septic tanks would be pumped out and disposed of in accordance with County Environmental Health Services Department guidelines.

Grading and Ground Disturbance

Development of the Proposed Project will involve grading, excavation, and trenching activities associated with the construction of the WWTP, the laying of pipelines, the construction of lift stations, and the installation of at least one concrete outfall. Ground disturbing activities would be confined primarily to existing right-of-ways and other previously disturbed areas.

Staging Areas

Construction equipment and construction employee parking will be staged on previously disturbed areas located adjacent to the WWTP or at the Corporation Yard on Pescadero Creek Road.

Construction Schedule

Development of the Proposed Project would occur once adequate funding has been secured. The construction duration is anticipated to last approximately 12 to 18 months. All construction activities will take place between 6:00 AM and 8:00 PM, Monday through Friday, and between 7:00 AM and 8:00 PM, Saturday and Sunday.

2.6 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

Implementation of the Proposed Project would require the following regulatory permits and approvals:

- San Mateo County would adopt this IS/MND under the requirements of CEQA.

- San Mateo County would adopt of a Mitigation Monitoring and Reporting Plan that incorporates the mitigation measures identified in this document.
- San Mateo County may issue a coastal development permit for development of the proposed project within the Coastal Zone.
- The San Mateo County Environmental Health Department may issue Septic Tank Destruction Permits for the abandonment of existing septic tanks.
- The SFBRWQCB may issue an NPDES permit for surface water discharge of treated effluent in accordance with the Federal Clean Water Act.

SECTION 3.0

ENVIRONMENTAL IMPACT ANALYSIS

3.0 ENVIRONMENTAL IMPACT ANALYSIS

3.1 EVALUATION OF ENVIRONMENTAL IMPACTS

Pursuant to California Environmental Quality Act (CEQA) *Guidelines* Section 15063, an initial study should provide the lead agency with sufficient information to determine whether to prepare an environmental impact report (EIR) or negative declaration (ND) for a proposed project. The CEQA *Guidelines* state that an initial study may identify environmental impacts by use of a checklist, matrix, or other method, provided that conclusions are briefly explained and supported by relevant evidence. If it is determined that a particular physical impact to the environment could occur, then the checklist must indicate whether the impact is Potentially Significant, Less Than Significant with Mitigation, or Less Than Significant. Findings of No Impact for issues that can be demonstrated not to apply to a proposed project do not require further discussion.

3.2 ENVIRONMENTAL CHECKLIST AND DISCUSSION

AESTHETICS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project:				
b) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
c) Substantially damage scenic resources, including, but not limited to, trees, rock croppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
d) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
e) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

SETTING

The development of the new community sewer collection system and wastewater treatment plant (WWTP) would be located mainly within public right-of-way along roadways. The WWTP would be located on a hillside southeast of the Corporation Yard. The proposed WWTP site is currently used as a stockpile area by the County. The project site is located approximately 0.5 miles west of State Highway 1 (Cabrillo Highway), which is designated as a State scenic highway. The County has designated Pescadero Road (which transitions into Pescadero Creek Road) as a scenic County roadway.

The San Mateo County Local Coastal Program (1998) includes the following objectives for the preservation of visual resources in the project area:

8.6 Streams, Wetlands, and Estuaries

a. Setback development from the edge of streams and other natural waterways a sufficient distance to preserve the visual character of the waterway.

b. Prohibit structural development which will adversely affect the visual quality of perennial streams and associated riparian habitat, except for those permitted by Sensitive Habitats Component policies.

c. Retain the open natural visual appearance of estuaries and their surrounding beaches.

d. Retain wetlands intact except for public access ways designed to respect the visual and ecological fragility of the area and adjacent land.

8.7 Ridgelines and Hilltops

a. Prohibit the location of new development on ridgelines and hilltops unless there is no other buildable area on the parcel.

b. Prohibit the removal of tree masses which would destroy the silhouette of the ridgeline or hilltop forms.

c. Restrict the height of structures to prevent their projection above ridgeline or hilltop silhouettes.

d. Prohibit land divisions which would create parcels whose only building site would be on ridgelines or hilltops.

8.13 Special Design Guidelines for Coastal Communities

The following special design guidelines supplement the design criteria in the Community Design Manual:

a. Pescadero. Encourage new buildings to incorporate architectural design features found in the historic buildings of the community (see inventory listing), i.e., clean and simple lines, precise detailing, steep roof slopes, symmetrical relationship of windows and doors, wood construction, white paint, etc. Require remodeling of existing buildings to retain and respect their traditional architectural features, if any.

*8.18 Location of New Development

Require:

a. That new development be located, sited, and designed to fit the physical setting, so that its presence is subordinate to the pre-existing character of the site, enhances the scenic and visual qualities of the area, or maintains the natural characteristics of existing major water courses, established and mature trees, or dominant vegetative communities.

b. That roads, buildings, and other structural improvements be constructed to fit the natural topography and to minimize grading and modification of existing landforms.

c. That private roads and driveways be shared, where feasible, to reduce the amount of grading, cutting and filling required to provide access.

d. That all development minimize the impacts of noise, light, glare, and odors on adjacent properties and the community at large.

IMPACT DISCUSSION

Questions A, B, C, and D

The proposed WWTP would be developed in previously disturbed areas that are not visible from either Pescadero Creek Road or Highway 1. The wastewater conveyance system would be buried within roadways and within existing private or commercial properties. Disturbed areas would be paved or landscaped similar to existing development in Pescadero, which is consistent with Local Coastal Plan objective 8.18. No scenic resources (i.e., rock outcroppings, or historic buildings) would be impacted by development of the Proposed Project. The development of the proposed WWTP or wastewater conveyance system would not change the visual character of the project area, which is consistent with Local Coastal Program objective 8.13. ***No impacts*** would occur.

Question E

The WWTP would be constructed of non-reflective materials and would require minimal exterior lighting. Downcast night-time security lighting may be installed along the exterior of the building. Neither day or nighttime views in the area would be adversely affected by development of the Proposed Project. ***No impact*** would occur.

AGRICULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the Project:				
a) Convert Prime farmland, Unique farmland, or Farmland of Statewide Importance, 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) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to non-agricultural use?	☐	☐	☐	☒

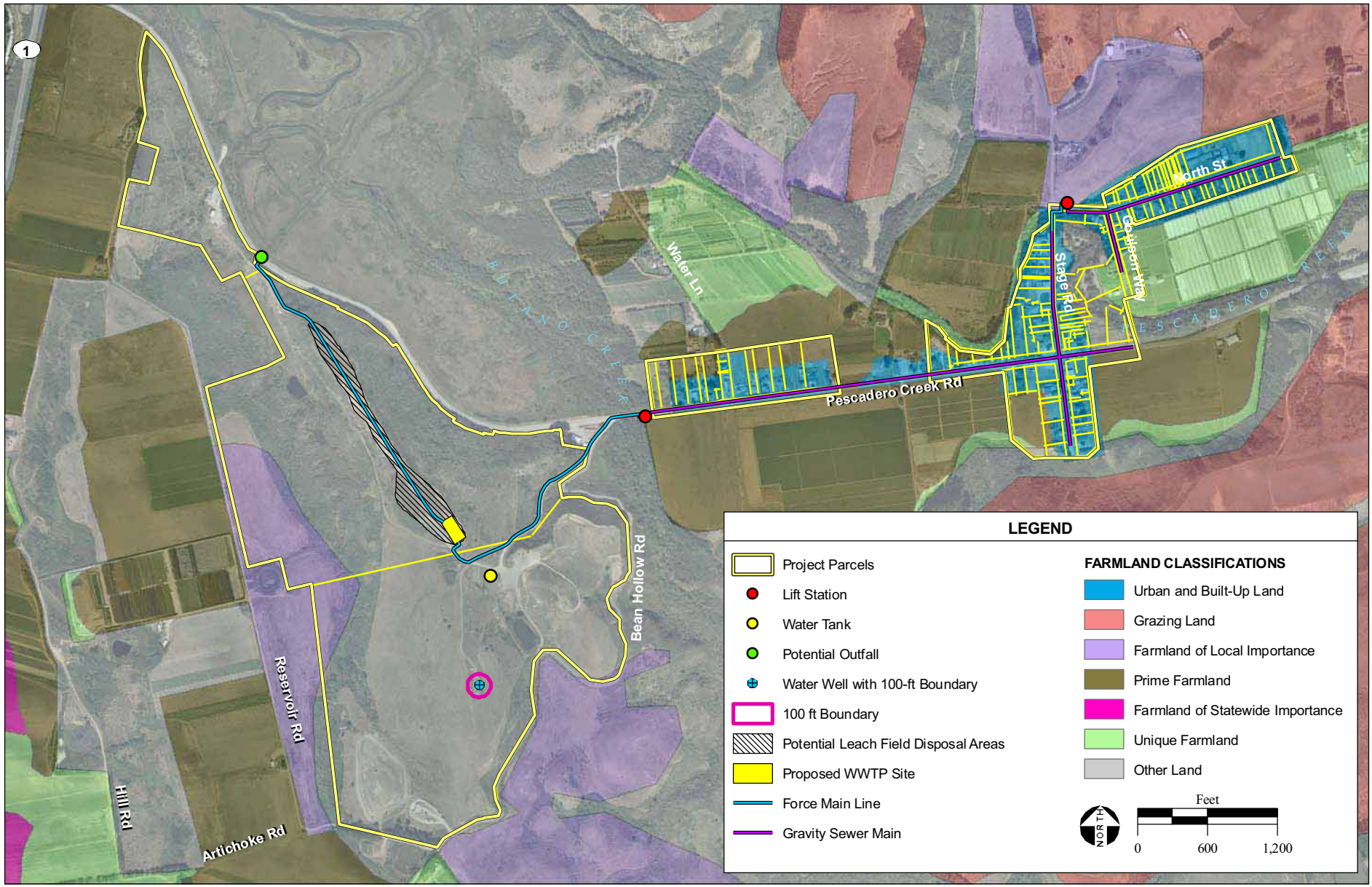
SETTING

Unincorporated San Mateo County contains approximately 2,356 acres of Prime Farmland. The Farmland Mapping and Monitoring Program (FMMP) administered by the U.S. Department of Agriculture (USDA) designates the proposed WWTP site as Other lands which are defined as lands not designated in any other category (i.e. urban and built-up or farmland) (California Department of Conservation, 2008). The proposed sewer collection system located along Pescadero Creek Road is bordered on the south by land designated by the FMMP as Prime Farmland (**Figure 3-1**). The San Mateo General Plan designates this area as Soils with Agricultural Capabilities (San Mateo County, 1986). The project site is not under a Williamson Act contract.

The County's Local Coastal Program (1998) protects the County's agricultural resources. Policy 5.1 of the Local Coastal Program defines Prime Agricultural lands as:

(1) All land which qualifies for rating as Class I or Class II in the U.S. Department of Agriculture Soil Conservation Service Land Use Capability Classification, as well as all Class III lands capable of growing artichokes or Brussels sprouts.

(2) All land which qualifies for rating 80-100 in the Storie Index Rating.



SOURCE: CA Dept. of Conservation Division of Land Resource Protection, Farmland Mapping and Monitoring Program, 2006; HydroScience, Engineers, 2008; AES, 2009

Figure 3-1
Farmland Classifications

(3) Land which supports livestock for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the U.S. Department of Agriculture.

(4) Land planted with fruit or nut bearing trees, vines, bushes, or crops which have a non-bearing period of less than five years and which normally return during the commercial bearing period, on an annual basis, from the production of unprocessed agricultural plant production not less than $200 per acre.

(5) Land which has returned from the production of an unprocessed agricultural plant product an annual value that is not less than $200 per acre within three of the five previous years.

IMPACT DISCUSSION

Questions A-C

As discussed above, the proposed WWTP site and sewer conveyance system locations are not designated in the County's General Plan, Local Coastal Program, or by the FMMP as Prime farmland, Unique farmland, or Farmland of Statewide Importance. The construction and maintenance of the wastewater conveyance and disposal system would not impact surrounding Prime Farmland, as all construction activities would occur along previously disturbed areas. Development of the Proposed Project would not directly, or indirectly, convert active farmland into non-agricultural uses, nor would it conflict with zoning for agricultural use or with Williamson Act contracts. ***No impacts*** to agriculture would occur.

AIR QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Where applicable, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

SETTING

The project site is located within the San Francisco Bay Area Air Basin (SFBAAB), which encompasses nine counties. The SFBAAB is bordered by mountains on the north and south, the Sacramento River Delta on the east, and the Pacific Ocean on the west. The project site is located in the southwestern portion of the SFBAAB, and is highly influenced by marine weather conditions. The Bay Area Air Quality Management District (BAAQMD) has jurisdiction in the SFBAAB under the guidance of the California Air Resources Board (CARB).

Pursuant to the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA), the U.S. Environmental Protection Agency (EPA) and California EPA identify areas throughout the SFBAAB that meet the National Ambient Air Quality Standard (NAAQS) and California AAQS (CAAQS); these areas are labeled either “attainment” or “unclassifiable.” Areas that do not meet the NAAQS or CAAQS are labeled either “nonattainment” or “maintenance.” **Table 3-1** shows the NAAQS and CAAQS attainment status for criteria pollutants in the region of the proposed project. If a region or air basin exceeds the NAAQS and/or CAAQS, a State Implementation Plan (SIP) must be prepared. The SIP outlines strategies to reduce air contaminants to be in compliance with NAAQS and/or CAAQS. As part of the SIP, the BAAQMD has developed an attainment plan for ozone. The EPA does not require a SIP for particulate matter (i.e., $PM_{2.5}$ and PM_{10}). The BAAQMD outlines CEQA guidelines that mirror SIP emission thresholds to reduce criteria air pollutants (CAPs). The BAAQMD CEQA guidelines do not

require that a Proposed Project quantify emissions from construction, but rather utilize mitigation measures to ensure that emissions would not increase or cause a violation of the CAAQS or NAAQS.

TABLE 3-1. SFBAAB ATTAINMENT STATUS

Pollutant	State Status	Federal Status
Ozone (O_3) - 1- hour	Non-attainment	–
Ozone (O_3) - 8- hour	Non-attainment	Non-attainment
Respirable Particulate Matter (PM_{10})	Non-attainment	Unclassified/Attainment
Fine Particulate Matter ($PM_{2.5}$)	Non-attainment	Attainment
Carbon Monoxide (CO)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Lead (Pb)	Attainment	-
Source: BAAQMD, 2008		

Some land uses are considered more sensitive to elevated pollution concentration than others. Residential, school, and hospital land uses are generally more sensitive than commercial and industrial land uses. Sensitive receptors in the vicinity of the project area consist of residences and schools. The nearest sensitive receptor to the WWTP site is a residence located approximately 1,580 feet to the northeast. The nearest school is Pescadero Continuation High School, located at 703 North Street, adjacent to the collection system alignment within North Street. The proposed gravity sewer main would be installed within an existing right-of-way and previously disturbed areas. Construction of the sewer mains and lift stations could occur as close as 25 feet to sensitive receptors located along Pescadero Creek Road, Stage Road, and North Street. The San Mateo General Plan (1986) does not contain any goals or polices related to air quality.

IMPACT DISCUSSION

Questions A, B, and C

Construction

Development of the Proposed Project would result in emissions of CAPs associated with equipment operation, trenching, and excavation during construction. By implementing basic BAAQMD CEQA mitigation measures, construction of the Proposed Project would not conflict with or obstruct the implementation of an applicable air quality plan, violate any air quality standard, result in a substantial contribution to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any CAPs for which the project region is in non-attainment under the NAAQS or CAAQS. With the incorporation of mitigation measure **AQ-1** impacts are considered ***less than significant***.

Operation

Operational activity will be limited to operation, inspection, and maintenance of the WWTP, lift stations, and wastewater conveyance system. Operational activities are not expected to generate new sources of CAP emissions in the SFBAAB nor substantially increase vehicle trips (refer to Transportation/Traffic Section); therefore, no substantial CAP emissions would occur during the operation of the proposed project. Therefore, the proposed project would not conflict with or obstruct the implementation of an applicable air quality plan, violate any air quality standard, result in a substantial contribution to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under the NAAQS or CAAQS. This impact is considered ***less than significant***.

Question D

Construction

Sensitive receptors adjacent to the project area include residences and Pescadero Continuation High School. Trenching, grading and excavation activities associated with the development of the wastewater, lift stations, and conveyance system would occur along roadways adjacent to sensitive receptors.

Construction of the Proposed Project would be temporary and intermittent. Implementation of the BAAQMD CEQA mitigation measure **AQ-1** would further reduce the potential of substantial pollution concentration from construction activities. Therefore impacts would be ***less than significant***.

Operation

The WWTP would be located approximately 1,580 feet east of the nearest sensitive receptors. Operation of the WWTP, lift station, and conveyance system would not expose sensitive receptors to a net increase in emissions of CAPs. ***No impacts*** to sensitive receptors would occur.

Question E

Objectionable odors, such as diesel emissions created during construction of the Proposed Project, would most likely not be detected beyond the construction boundary. Surface water discharge of treated effluent or disposal via leach fields would not result in objectionable odors as the treatment to tertiary standards prevents purification and other odor causing activities from occurring. ***No impacts*** would occur.

MITIGATION MEASURES

AQ-1 The following best management practices would be specified on construction plans and implemented during construction to reduce construction-related emissions:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.

- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status 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 sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents 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?	☐	☐	☐	☒

METHODOLOGY

A list of special-status species that may potentially occur in the vicinity of the study area was compiled for the study area. This list was based on the following resources:

- A review of pertinent scientific literature and aerial photographs of the project site.
- A U.S. Fish and Wildlife Service (USFWS) list of federally listed special-status species with the potential to occur on or to be affected by projects on the "Pigeon Point, California" and "San Gregorio, California" 7.5-minute U.S. Geological (USGS) topographic quadrangle (quad) (USFWS, 2008) (**Appendix A**).

- A California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB) query of special-status species known to occur on the "Pigeon Point, California" 7.5 minute USGS topographic quad and the four surrounding quads (CDFG, 2003) (**Appendix A**).
- A CNDDB map of known occurrences of special-status species documented within a five-mile radius of the study area (**Figure 3-2**).
- A California Native Plant Society (CNPS) query of special-status species known to occur on the "Pigeon Point, California" 7.5 minute USGS topographic quad and the four surrounding quads (CNPS, 2008) (**Appendix A**).

AES conducted a reconnaissance level survey of the study area to define baseline conditions on May 29 - 30, 2008. This included a pedestrian survey using 10- to 15-meter-wide linear transects within the entire study area that contained the three wastewater treatment plant alternatives, the lift stations, the outfall location, and adjacent areas within approximately 250 feet surrounding these project components. A linear survey was conducted of the collection system that included Pescadero Creek Road, North Road, and Stage Road. The assessment involved complete coverage of all accessible components of the study area. The survey consisted of recording habitat types documenting potential habitat for federal and state listed special-status species with the potential to occur within the study area.

Habitat types were classified based on the classification systems presented in *A Manual of California Vegetation* (MCV) (Sawyer and Keeler-Wolf, 1995), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986), and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988), and modified to reflect the current conditions within the project site. All visible plant and wildlife species were noted and identified to the lowest possible taxonomic level, which is required for accurate identification and reporting. The nomenclature described in the habitat types was based on *The Jepson Manual: Higher Plants of California* (Hickman, 1993).

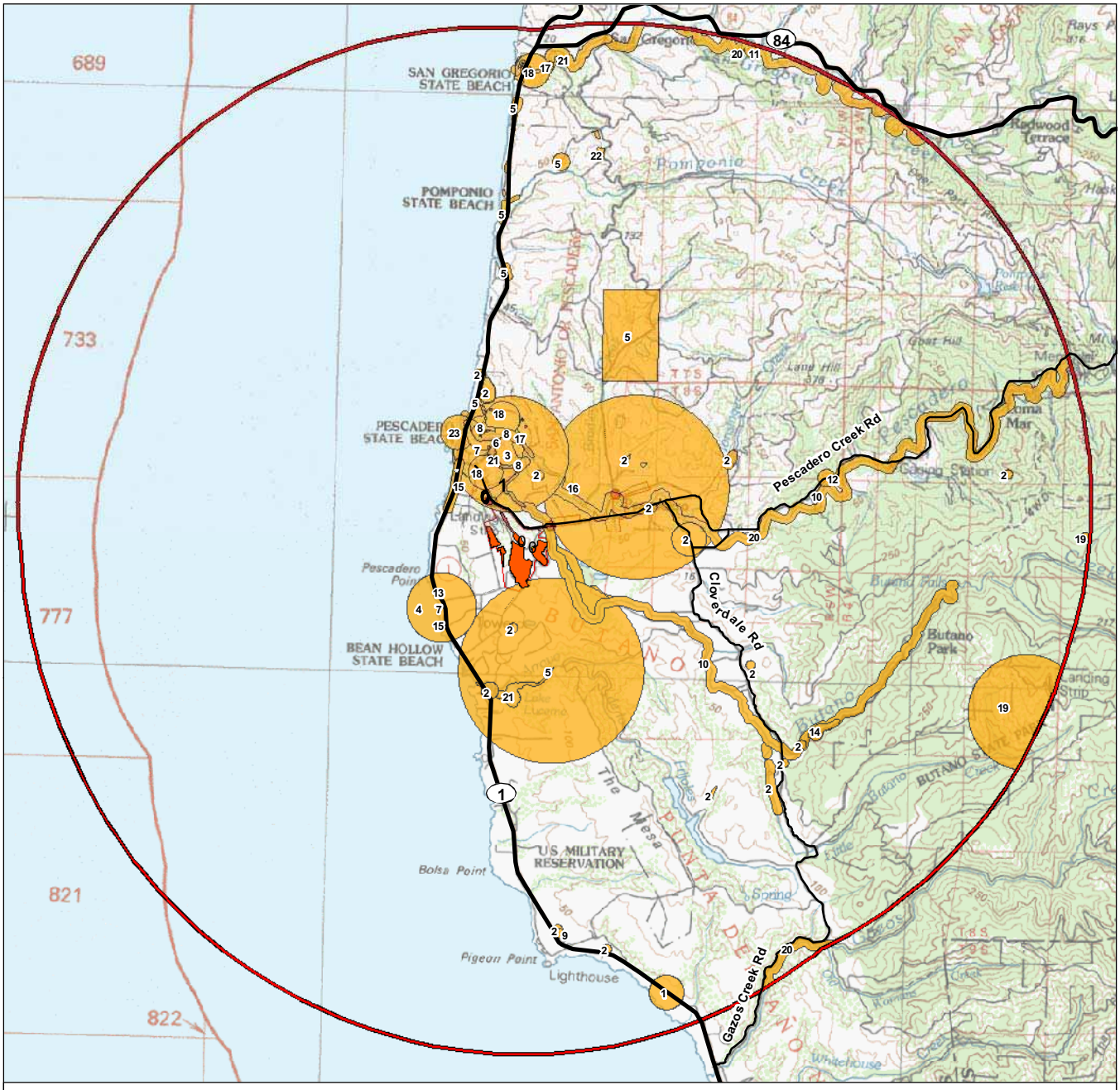
ENVIRONMENTAL SETTING

Habitat Types

The study area occurs within the Central Coast (CCo) geographic subdivision, which is a sub-region of the Central Western California (CW) subdivision that is contained within the larger California floristic province (CA-FP). The CCo geographic subdivision is variable in width and typically supports only truly coastal communities including Coastal-sage scrub habitat, salt marshes, and coastal prairie (Hickman, 1993). Habitat types observed during the field surveys are summarized in **Table 3-2** and illustrated in **Figure 3-3**. Habitat types and wildlife observed in the vicinity of the study area are described in detail below.

TABLE 3-2. STUDY AREA HABITAT TYPES

Habitat Type	Acreage
Terrestrial	
Ruderal/Disturbed	12.43
Annual Grassland	5.73
Mixed Riparian	0.06
Total	**18.22**
Source: AES, 2009.	



SPECIAL STATUS SPECIES

1 - Blasdale's bent grass
2 - California red-legged frog
3 - Choris' popcorn-flower
4 - coast yellow leptosiphon
5 - coastal marsh milk-vetch
6 - great blue heron
7 - marsh microseris
8 - mimic tryonia (=California brackishwater snail)
9 - monarch butterfly
10 - N. Central Coast Calif. Roach/Stickleback /Steelhead Stream
11 - North Central Coast Steelhead/Sculpin Stream
12 - pallid bat
13 - perennial goldfields
14 - Point Reyes meadowfoam
15 - rose leptosiphon
16 - round-leaved filaree
17 - Sacramento-San Joaquin Coastal Lagoon
18 - saltmarsh common yellowthroat
19 - Santa Cruz Mountains manzanita
20 - steelhead - Central California Coast ESU
21 - tidewater goby
22 - Valley Needlegrass Grassland
23 - western snowy plover

Special Status Species Area
5 - Mile Radius
Survey Area

NORTH

Feet
0 4,500 9,000

SOURCE: "Palo Alto, CA" USGS 100K Topographic Quadrangle, Mt. Diablo Baseline and Meridian; California Natural Diversity Database, 2008; AES, 2009

Figure 3-2
CNDDB 5-Mile Radius Map

SOURCE: HydroScience Engineers, 2008; AES, 2009

Figure 3-3
Habitat Types

Ruderal/Developed

Ruderal/developed habitat occurs along the existing paved and unpaved roadways within the study area, within any areas that have been developed or that have had the vegetation removed or modified and in regions that have existing structures associated with them. Several of the ruderal/developed areas within the study area are completely void of vegetation. Others have landscape plantings, lawns, and gardens, while others are composed of limited amounts of non-native, weedy plant species. Several of the plant species observed within the ruderal/developed habitat within the study area include: sweet fennel (*Foeniculum vulgare*), cut-leaf plantain (*Plantago coronopus*), prickly lettuce (*Lactuca serriola*), bristly oxtongue (*Picris echioides*), shortpod mustard (*Hirschfeldia incana*), birdsfoot trefoil (*Lotus corniculatus*), rabbitfoot clover (*Trifolium arvense*), and prostrate knotweed (*Polygonum arenastrum*). Ruderal/disturbed is not a classified community in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986) or similar series in the MCV classification system (**Figure 3-4**, **Photo 1**) (Sawyer and Keeler-Wolf, 1995).

Annual Grassland

The annual grassland habitat within the study area occurs in the proposed leach field location. Trees are largely absent in this community, though a few low-growing shrub species were observed. These species include: California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), and coyote bush (*Baccharis pilularis*). The dominant species within this community are grasses and forbs including: slender wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), velvet grass (*Holcus lanatus*), rat-tail vulpia (*Vulpia myuros*), perennial cat's-ear (*Hypochaeris radicata*), English plantain (*Plantago lanceolata*), sheep sorrel (*Rumex acetosella*), Mediterranean lineseed (*Bellardia trixago*), and Queen Anne's lace (*Daucus carota*). The annual grassland habitat type within the study area most closely corresponds to element #42200 Non-native Grassland in the Holland vegetation classification system (Holland, 1986) and to the California Annual Grassland Series in the MCV classification system (**Figure 3-4**, **Photo 2**) (Sawyer and Keeler-Wolf, 1995).

Mixed Riparian

A small region in the western portion of the study area, along Pescadero Creek Road where Butano Creek passes under Pescadero Creek Road, was classified as mixed riparian habitat. This habitat type surrounds the intermittent drainage identified within the study area. Dominant plant species include: red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), twin berry (*Lonicera involucrata*), red elderberry, poison oak, water parsley (*Oenanthe sarmentosa*), creek dogwood (*Cornus sericea*), soft rush (*Juncus effusus*), California blackberry, hedge nettle (*Stachys ajugoides* var. *rigida*), hairy willow herb (*Epilobium ciliatum*), blue wild rye (*Elymus glaucus*), common large monkeyflower (*Mimulus guttatus*), and stinging nettle (*Urtica dioica* var. *holosericea*). The mixed riparian habitat type within the study area most closely corresponds to element #61230 Central Coast Arroyo Willow Riparian Forest in the Holland vegetation classification system (Holland, 1986) and to the Arroyo Willow Series in the MCV classification system (**Figure 3-4**, **Photo 3**) (Sawyer and Keeler-Wolf, 1995).

PHOTO 1: Ruderal/Developed habitat along service roadway, looking northwest toward the coast.

PHOTO 2: Annual Grassland habitat within the southern region of the study area, looking northeast.

PHOTO 3: Mixed Riparian habitat adjacent to Pescadero Creek Road, looking northwest.

PHOTO 4: Perennial Drainage (Butano Creek) along Pescadero Creek Road, looking northeast.

Source: AES, 2009

Figure 3-4
Site Photos

Wildlife and Plant Species Observed

Animals observed during field surveys included Western scrub jay (*Aphelocoma californica*), mourning dove (*Zenaida macroura*), and red fox (*Vulpes vulpes*). A comprehensive list of all plant species observed within the study area is included as **Appendix A**.

Trees

There are no trees present within the project footprint.

Special-Status Species

For the purposes of this study, special-status has been defined to include those species that are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as species of concern by the U.S. Fish and Wildlife Service (USFWS), or as species of special concern to the California Department of Fish and Game (CDFG); or
- Plants or animals that meet the definitions of rare or endangered under CEQA.

The potential for each of the regionally occurring special-status species to occur on the study area was evaluated based on the results of the field surveys, review of applicable literature, and review of previously reported CNDDB occurrences. The distribution and habitat types for each special-status species and the potential for each species to occur on the study area are included in **Appendix A**. Special-status species that have no potential to occur on the study area are not discussed further in this report. The study area provides suitable habitat for the following special-status species.

Special-Status Plants

Round-leaved Filaree *(California macrophylla* syn. *Erodium macrophyllum)*
Federal Status – None
State Status – None
Other – CNPS 1B

Round-leaved filaree is an annual/biennial in the Geraniaceae family. It occurs in cismontane woodland and Valley and foothill grassland habitats at elevations that range from 15 to 1,200 meters above msl. This species has an affinity for clay soil types. The bloom period for round-leaved filaree occurs from March through May. The known range of this species includes Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Lake, Lassen, Los Angeles, Merced, Monterey, Napa, Riverside, Santa Barbara, San Benito, Santa Clara, Santa Cruz Island, San Diego, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Ventura, and Yolo counties. It also occurs from Baja California, Mexico, to Oregon (CNPS, 2008).

There is only one CNDDB documented occurrence of round-leaved filaree within five miles of the study area. This occurrence is located approximately 0.5 miles northeast of the study area (CDFG, 2003). The annual grassland within the study area is suitable habitat for this species. Round-leaved filaree was not observed within the study area during the field surveys, which were conducted within the appropriate bloom period.

Special-Status Amphibians

California Red-legged Frog *(Rana aurora draytonii)*
Federal Status – Threatened
State Status – Species of Concern
Other – None

California red-legged frog (CRLF) is primarily an aquatic species, though it may use adjacent upland habitat during the non-breeding season. Suitable aquatic habitats consist of low-gradient freshwater bodies, including ponds, marshes, lagoons, seeps, springs, and backwaters within streams and creeks. While CRLF can occur in ephemeral, intermittent, or perennial streams, populations generally cannot be maintained in ephemeral features in which surface water disappears before metamorphosis (July to September). Adults seek waters with dense shoreline vegetation such as willows and cattails. The breeding season is from November to March. During the non-breeding season, CRLF may use upland habitat, up to 100 meters (300 feet) from water that provides shade, moisture, and cooler temperatures, such as spaces under boulders, organic debris and mammal burrows, to aestivate (USFWS, 2002). This species is known to occur at elevations that range from zero to 1,500 meters above msl. CRLF has been extirpated from approximately 70 percent of its historic range. Most of the existing populations of CRLF occur in coastal drainages of central California, from Marin County, California, south to northern Baja California, Mexico (USFWS, 2002). CRLF have been documented within 46 counties throughout California, but now remain in only 238 streams within 31 counties (USFWS, 2006).

The USFWS designated eight recovery units in the "Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*)" (USFWS, 2002). The study area is located within the "Central Coast" Recovery Unit Boundary. Within this Recovery Unit Boundary are designated Core Recovery Areas, which are the focus of recovery actions. One of the criteria for de-listing this species is protecting or managing all suitable CRLF habitats within these Core Recovery Areas. The project site is located within the South San Francisco Bay Core Recovery Area. The Pescadero Marsh is known to have more than 350 adult CRLF (USFWS, 2002). The USFWS has also designated 34 critical habitat units for this species. The study area does not fall within designated critical habitat for this species. Pescadero Creek was proposed for designated critical habitat as Unit SNM-2B, but was ultimately excluded from formal designation. The nearest designated critical habitat unit is located approximately 10.5 miles south of the study area, which is SNM-2C, the Ano Nuevo State Preserve (USFWS, 2006).

There are 17 CNDDB documented occurrence of this species within five miles of the study area. The nearest occurrence is located approximately 0.5 miles north of the study area. Butano Creek, Pescadero Creek, the Unnamed Perennial Creek, Pescadero Marsh, and the intermittent drainage west of Pescadero Creek Road are suitable breeding habitat for this species (**Figure 3-3**). CRLF may also utilize

upland areas that surround these features for aestivation. CRLF were not observed within the study area during the field surveys.

Special-Status Birds

Salt Marsh Common Yellowthroat *(Geothlypis trichas sinuosa)*
Federal Status – None
State Status – Species of Concern
Other – None

The salt marsh yellowthroat is one of three subspecies of common yellowthroat that reside and breed in California. The salt marsh common yellowthroat is the smallest in size of these subspecies. This subspecies is endemic to the Greater Bay Area, though it may migrate as far south as San Diego County. Salt marsh common yellowthroat is known to breed as far north as the Tomales Bay, east as the Carquinez Strait, and into the coastal regions of Santa Cruz County. The nesting season for salt marsh yellowthroats extends from March through July. This subspecies forages in fresh and saltwater marshes, coastal swales, riparian thickets, and disturbed or weedy habitats that are adjacent to swamps or tidally influenced zones. It requires woody swamp, brackish marsh, or freshwater marsh habitats for breeding.

There are three CNDDB documented occurrence of this species within five miles of the study area. The nearest occurrence is located approximately 0.5 mile northwest of the study area. The Pescadero Marsh is suitable breeding habitat for this species. Salt marsh common yellowthroat may also utilize the annual grassland and mixed riparian habitats in the study area for foraging. This species was not observed within the study area during the field surveys.

Special-Status Mammals

Pallid Bat *(Antrozous pallidus)*
Federal Status – None
State Status – Species of Concern
Other – None

Pallid bat occurs from British Columbia to Texas south to Baja California and central Mexico. In California, pallid bats occur throughout the state except in the high Sierra Nevada Range from Shasta County to Kern County. This species is highly social and will make local movements to hibernation sites. The pallid bat is most commonly found in low desert shrublands, juniper woodlands and grasslands, and occasionally in cottonwood-riparian zones. This species has three different roosts: the day roost is usually in a warm horizontal opening such as in attics, rock cracks and crevices, and caves; the night roost is usually in the open, near foliage or on buildings; and the hibernation roost, which is often in rock crevices.

There is one CNDDB documented occurrence of this species within five miles of the study area. This occurrence is located approximately three miles northeast of the study area. The two bridges within the project site are suitable roosting habitat for this species. Pallid bat may also forage throughout the other habitats on-site. This species was not observed within the study area during the field surveys.

Wetlands and Other Waters of the U.S.

Section 301 of the Federal Water Pollution Control Act and Amendments of 1972 ("Clean Water Act" (CWA)) prohibits the discharge of pollutants, including dredged or fill material, into waters of the U.S. without a Section 404 permit from USACE (33 U.S.C. 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act of 1899 prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from the USACE (33 U.S.C. 403). State Water Quality Certification may be required by the Regional Water Quality Control Board before other permits are issued. If a Proposed Project will result in the alteration of a California lake or streambed, CDFG requires notification prior to commencement, and may require a Lake or Streambed Alteration Agreement.

Waters of the U.S. are defined as:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands; or
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use degradation of which could affect interstate or foreign commerce including any such waters (40 CFR 230.3).

Wetlands are defined as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (40 CFR 230.41). Wetlands that meet these criteria during only a portion of the growing season are classified as seasonal wetlands.

The informal wetland delineation consisted of mapping potential wetlands and other waters of the U.S. within the study area. The study area was assessed for aquatic features (e.g., wetlands, swales, vernal pools, drainages). Three perennial drainages (Pescadero Creek, Butano Creek, and an Unnamed Creek) and an intermittent drainage were mapped within the study area. All of the aquatic features mapped within the study area have the potential to be considered jurisdictional waters of the U.S. Jurisdictional waters of the U.S., including wetlands, would be subject to USACE regulation under Section 404 of the CWA. In addition, the riparian habitat within the study area is likely to be subject to CDFG regulation under Section 1600 – 1616 of the California Fish and Game Code.

IMPACT DISCUSSION

Question A

Round-leaved Filaree

Round-leaved was not observed within the study area during the field surveys, which were conducted within the appropriate bloom period. ***No impact*** to this species would occur from construction and/or operation of the Proposed Project.

Marsh Microseris

Marsh microseris was not observed within the study area during the field surveys, which were conducted within the appropriate bloom period. ***No impact*** to this species would occur from construction and/or operation of the Proposed Project.

California Red-legged Frog

As previously discussed, Pescadero Marsh, the intermittent drainage, and Butano and Pescadero Creeks provide suitable breeding habitat for CRLF. Upland habitats adjacent to these aquatic features are suitable aestivation habitat for this species. In addition, the study area is within USFWS designated critical habitat for this species. This species was not observed within the study area during the field surveys.

The Proposed Project will eliminate the existing use of septic systems and leach fields which are adversely impacting water quality in the area. All construction work associated with the Proposed Project pipelines, including the various stream crossings will be confined to existing roadway areas, existing bridges, and/or infrastructure. Lift stations along the pipeline route are within the existing roadway areas and will not impact riparian habitat. All construction impacts will be temporary and there are no long term impacts anticipated from the operation of the Proposed Project. If surface water discharge is required for implementation of the Proposed Project, it would be a regulated activity under the required NPDES permit. The stipulations of the NPDES permit would include, but are not limited to discharge prohibitions, treated effluent limitations and discharge specifications, receiving water limitations, temperature regulation, and monitoring and reporting requirements. Implementation of **Mitigation Measure BR-1** would ensure that CRLF, its habitat, and/or water quality would not be affected by construction of the Proposed Project. After mitigation, impacts to CRLF would be considered ***less than significant***.

Salt Marsh Common Yellowthroat and Migratory Nesting Birds

As previously discussed, Pescadero Marsh is suitable breeding habitat for this salt marsh common yellowthroat and this species may also utilize the annual grassland, mixed riparian the study area as foraging habitat. This species was not observed within the study area during the field surveys. These habitats would also be suitable for migratory nesting birds.

Construction of the Proposed Project has the potential to impact this species and migratory nesting birds if development activities occur during the nesting season (March through July). Activities associated with the Proposed Project (e.g., ground disturbance, infrastructure development, etc.) could impact salt marsh common yellowthroat and other species of migratory nesting birds if their nests are located within the development areas. Likewise, increased human activity and traffic, elevated noise levels, and operation of machinery could also impact salt marsh common yellowthroat and other nesting migratory birds if their nests are located within the vicinity of the development areas. Disturbance of this nature that occurs within 500 feet of an active nest could cause nest abandonment or premature fledging of the young. **Mitigation Measure BR-2** would reduce potential impacts to salt marsh common yellowthroat and other species of nesting migratory birds to a ***less than significant*** level.

Pallid Bat

The two bridges within the study area are suitable roosting habitat for this species (**Figure 3-3**). Pallid bat may also forage throughout the other habitats within the study area. This species was not observed within the study area during the field surveys. Construction of the Proposed Project has the potential to impact this species, should it be roosting within the development areas. **Mitigation Measure BR-3** would reduce potential impacts to pallid bat to ***less than significant*** level.

Question B

As shown on **Figure 3-3**, mixed riparian habitat was observed at the site of potential discharge of treated wastewater. The disposal pipeline would be constructed within the gravel roadway leading from the wastewater treatment plant to the County's corporation yard located adjacent to Pescadero Creek Road. The pipeline would continue through the corporation yard and discharge into an existing culvert under Pescadero Creek Road. No construction or removal of established vegetation would be necessary to construct the pipeline and outfall. Situating the project components on previously disturbed areas avoids constructing within the mixed riparian habitats. No impacts to this habitat would occur, and implementation of **Mitigation Measure BR-4** would ensure that the mixed riparian habitat would be completely avoided and no vegetation removal would be required. After mitigation, impacts would be considered ***less than significant***.

Two sensitive communities occur within five miles of the study area; Valley Needlegrass Grassland and Sacramento-San Joaquin Coastal Lagoon (CDFG, 2003). The project site is located outside of the known range of these two sensitive communities. The Pescadero Marsh Natural Preserve is not within the boundaries of the proposed project. Needlegrass species (*Nassella* sp.) are native, perennial bunchgrasses and are the dominant species that compose the Valley needlegrass grassland sensitive community type. Needlegrass was not observed within the study area during the field surveys. ***No impact*** would occur.

Question C

As previously discussed, potentially jurisdictional wetlands and other waters identified within the study area include: three perennial drainages (Butano Creek, Pescadero Creek, and an Unnamed Creek) and one intermittent drainage west of Pescadero Creek Road (**Figure 3-3**). As shown on **Figure 3-3**, construction of the sanitary sewer lines would intersect the perennial drainages. However, the pipelines would be installed within the roadway right-of-ways and construction would avoid impacting the drainages. The pipelines would be installed along the crossing similar to the existing potable water lines. Implementation of **Mitigation Measure BR-5** ensures that the drainage features identified within the study area would be avoided. The SFBRWQCB concurred with the County's declaration of the public health threat and passed a resolution requiring the County to develop a wastewater improvement project. The Proposed Project was conceived in response to the SFBRWQCB's resolution and is designed to improve water quality in the region by reducing surface and groundwater contamination (refer to **Hydrology and Water Quality** for further discussion). After mitigation, impacts on potentially jurisdictional waters of the U.S. would be considered ***less than significant***.

Question D

The Proposed Project would not interfere with the movement of any native resident or migratory fish, or wildlife species. The Proposed Project also would not interfere with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The Proposed Project would improve water quality in the region by reducing surface and groundwater contamination. ***No impact*** would occur.

Question E

The Proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. ***No impact*** would occur.

Question F

The project site is not located within critical habitat for the red-legged frog and outside the Pescadero salt marsh. Therefore, the Proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. ***No impact*** would occur.

MITIGATION MEASURES

BR-1 a. A CRLF sensitivity training program shall be established to educate construction personnel about the potential presence of this species within construction areas. This program will be designed to educate construction personnel about the precautionary measures required for the construction of the Proposed Project and will outline necessary safety protocols for working in the vicinity of CRLF habitat. The program will also address the issues of minimizing dust and construction debris from entering aquatic habitats and the importance of not harming or removing the existing riparian vegetation. In addition, the program will emphasize the importance of the required BMPs associated with the Proposed Project and the importance of maintaining existing water quality standards. The program will outline a specific plan of action to be followed in the event of an unexpected accident or emergency relating to construction activities associated with the CRLF habitats within the study area. Prior to the onset of construction activities in the vicinity of habitat for this species, all construction personnel that will be working in these areas shall attend the CRLF sensitivity training session.

b. A qualified biologist shall conduct a pre-construction CRLF survey 14 days prior to the onset of construction activities within all suitable CRLF habitats within the study area. If no CRLF are detected, construction activities may commence. If CRLF are observed during the pre-construction survey, the USFWS shall be notified immediately. Any and all construction activities shall not commence until the CRLF is no longer present at the specific site.

c. A qualified biologist shall be present during construction activities within the vicinity of CRLF habitats. If CRLF are observed within the study area during construction activities, construction activities shall be suspended and USFWS shall be contacted immediately. Construction shall not commence until the CRLF is no longer present at the specific site.

d. All construction activities adjacent to CRLF habitat shall be conducted during the dry season, concurrently with the non-breeding season (approximately May through October). This will ensure that water quality is maintained and sedimentation issues are avoided to the maximum extent feasible. The construction time period shall be as short as possible for each specific crossing or site

BR-2 a. If construction activities are scheduled to begin during the nesting season (March through September), a qualified biologist shall conduct a pre-construction bird survey for salt marsh common yellowthroat and other migratory bird nests within 500 feet of any proposed construction activity. The pre-construction bird surveys shall occur no more than 14 days prior to the scheduled onset of construction activities. If construction is delayed or halted for more than 14 days, another pre-construction bird survey for salt marsh common yellowthroat and migratory bird nests shall be conducted. If no nesting birds are detected during the pre-construction survey(s), no further mitigation or surveys are required.

b. If active salt marsh common yellowthroat nests are identified within 500 feet of the construction areas during the surveys, CDFG shall be contacted. Through consultation with CDFG, an appropriate course of action, acceptable setbacks to mitigate both physical and noise-associated disturbances, and a suitable monitoring plan shall be determined. Avoidance setbacks shall be established around all active nest locations via stakes and high visibility fencing. The setbacks shall be completely avoided during the duration of construction activities and the fencing shall remain in-tact. The fencing may be removed when a qualified biologist confirms that the nest(s) is no longer occupied and all fledglings have left.

c. If migratory bird species (i.e., non-special-status) are observed within 500 feet of the construction areas during the surveys, appropriate avoidance setbacks shall be established by a qualified biologist to mitigate both physical and noise-associated disturbances. The size and scale of nesting bird avoidance setbacks is dependent upon the species of nesting bird observed and the habitat that the nest occurs in. Avoidance setbacks shall be established around all active nest locations via stakes and high visibility fencing. The fencing may be removed when a qualified biologist confirms that the nest(s) is no longer occupied and all fledglings have left.

BR-3 a. A qualified wildlife biologist shall conduct pre-construction surveys for pallid bat in the vicinity of the two bridges and around the vicinity of existing buildings and structures within the project site no more than 14 days prior to commencement of construction activities. If no pallid bats or evidence of pallid bats are observed during these surveys, no additional mitigation is required.

b. Should pallid bat or active roosts be detected beneath the bridges or within the vicinity of the structures during the pre-construction survey, CDFG shall be contacted to determine the

appropriate course of action. This may include, but is not limited to the installation of exclusionary netting (e.g., mist netting) around occupied habitats while the bats are away from their roosts. The netted habitats shall be monitored frequently at appropriate times to assure that all the bats have left the roosts and that no bats return for the duration of construction activities. When construction activities are completed, the exclusionary netting shall be removed.

BR-4 a. The Proposed Project shall avoid impacts to the mixed riparian habitat. Setbacks of not less than 25 feet shall be established around the mixed riparian habitat during construction. Avoidance setbacks shall be established by a qualified biologist with stakes and silt fencing prior to the onset of construction activities. The fencing may be removed when construction activities are complete. No trees will be removed by the Proposed Project.

b. Appropriate BMPs shall be employed to further reduce the potential for impacts to mixed riparian habitat associated with sedimentation and/or pollutants.

c. All construction activities within the vicinity of mixed riparian habitat shall be conducted during the dry season (March through October). This will ensure that water quality is maintained and sedimentation issues are avoided to the maximum extent feasible. The construction time at each site near a riparian area shall be as short as possible.

BR-5 a. The Proposed Project shall completely avoid the perennial drainages adjacent to the site during construction. Setbacks of not less than 25 feet shall be established around the perennial drainages. Avoidance setbacks shall be established by a qualified biologist with stakes and silt fencing prior to the onset of construction activities. The fencing may be removed when construction activities are complete.

b. Appropriate BMPs shall be employed to further reduce the potential for impacts to the perennial drainages associated with sedimentation and/or pollutants.

c. All construction activities within the vicinity of the perennial drainages shall be conducted during the dry season (March through October). This will ensure that water quality is maintained and sedimentation issues are avoided to the maximum extent feasible.

CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

SETTING

Human occupation of the greater Bay Area and Central Coast dates back several thousand years, although archaeological evidence of occupation prior to about 4,000 years before present (B.P.) is limited (Levy, 1978; Moratto, 1984; Jones, 1992). Extensive settlements supporting a large population occurred throughout the region during the late prehistoric period. Archaeological resources documented along the San Mateo County coast include shell mounds (located immediately adjacent to the confluence of seasonal and permanent drainages and the shore), village sites, and cemeteries. Smaller ephemeral campsites and limited-activity areas are also known to exist in the region. Summaries of the archaeological background of the region are presented in Heizer (1953), Levy (1978), Moratto (1984), Jones (1992), and Simons (1992).

At the time of Euro American contact, the San Mateo coast was occupied by Costanoan-speaking people (also known as Ohlone). Primary ethnographic sources for the Costanoan include: Kroeber (1925 and 1932), Heizer 1953, Jones (1992), Levy (1978), Milliken (1995), Powers (1976), and Simons (1992).

Historic-period cultural resources known to exist along the San Mateo County coast include refuse scatters, standing and ruined buildings (houses, commercial buildings, etc.), infrastructure (roads, bridges, ditches, reservoirs, etc.), and agricultural/ranching features (e.g. farmsteads, barns, etc.). Summaries of San Mateo County history can be found in Gudde (1998) and Hoover et al. (1990).

ANALYSIS METHODS

Records Search

Prior to the field survey, a records search was conducted by staff at the Northwest Information Center (NWIC) of the California Historical Resources Information System, on May 21, 2008 (NWIC File No. 07-1559). The NWIC, housed at Sonoma State University in Rohnert Park, California, is an affiliate of the

State of California Office of Historic Preservation as the official state repository of archaeological and historic records and reports for a sixteen-county area that includes San Mateo County.

The records search and literature review were done to: (1) determine whether known cultural resources had been recorded within or adjacent to the study area and to determine if the parcel was subject to surveys in the past; (2) assess the likelihood of unrecorded cultural resources based on archaeological, ethnographic, and historical documents and literature; and (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

Included in the review were the *California Inventory of Historical Resources* (California Office of Historic Preservation, 1976), the California Office of Historic Preservation's *Five Views: An Ethnic Historic Site Survey for California* (1988), *California Historical Landmarks* (1990), *California Points of Historical Interest* (1992), and the *Historic Properties Directory Listing for San Mateo County* (2008). The *Historic Properties Directory* includes the *National Register of Historic Places*, the *California Register of Historical Resources*, and the most recent listings (through February, 2008) of the *California Historical Landmarks and California Points of Historical Interest*.

The records search revealed that no prehistoric cultural resources have been recorded within or immediately adjacent to the project area. However, the records search did identify five previously recorded prehistoric archaeological resources within 0.5 miles of the project site. Each of these sites (P-246, P-247, P-2075, P-2188, and P-2189) represents coastal shell middens containing habitation detritus such as chert and obsidian debitage and lithic tools, fire-affected rock, and faunal remains. One of these sites, P-247, also contains a historic-period component consisting of the remains of a farmstead with a surface scatter of artifacts, a building foundation, as well as rock and wood piles.

In addition to the archaeological resources, the records search also identified a collection of historic-period buildings within the town of Pescadero that are listed within the Historic Properties Directory (2008). These include the Methodist Episcopal Church of Pescadero (P-222), St. Anthony's Church (P-223), and the First Congregational Church of Pescadero (P-224). These and other historic-period buildings and structures that contribute to the historical character of the town of Pescadero are located adjacent to a portion of the project collection system.

The records search also identified one previous cultural resources study within the current project area. In 2003, LSA Associates (Pulcheon, 2003) conducted a cultural resources study as part of the requirements to drill a new well for drinking water and fire protection. The study considered an approximately 2-acre area that is adjacent to the proposed WWTP site. No cultural resources were identified.

Given the environmental setting, it was anticipated that prehistoric archaeological material, ranging from isolates and lithic scatters to intact midden deposits, might be encountered. It was also considered possible that outlying historic-period deposits related to homesteads and ranching activity might be present.

Site indicators for the presence of prehistoric sites in this area may include, but are not limited to: ground depressions; darkened soil areas indicative of middens; fire scorched and/or cracked rock; modified obsidian, chert, or other vitreous materials; and grinding stones including manos and metates. Historic

era artifacts may include, but are not limited to, metal objects including nails; containers or miscellaneous hardware; glass fragments; ceramic or stoneware objects or fragments; milled or split lumber; trenches; feature or structure remains such as buildings or building foundations; and trash dumps.

Native American Consultation

On May 20, 2008, the State of California Native American Heritage Commission (NAHC) was asked to review the Sacred Lands file for information on Native American cultural resources on the project site. On May 22, 2008, the NAHC responded stating they had no knowledge of Native American cultural resources within the project site. NAHC provided a list of individuals and groups with whom to further consult. AES sent letters on May 22, 2008. Follow-up phone calls were placed on June 4, 2008. A log of consultation efforts is provided in **Appendix B**.

Field Survey

An M.A.-level archaeologist examined the entire project area on May 29 and May 30, 2008. The study included a pedestrian survey using 10- to 15-meter-wide linear transects within the entire study area that contain the WWTP site, lift stations, outfall locations, and leach fields. A linear survey was conducted of the collection system that included Pescadero Creek Road, North Road, and Stage Road. Surface visibility ranged from good in areas of bare soil to poor in areas of dense vegetation. The ground surface was examined for archaeological remains, while rodent burrow backdirt piles and road cuts were examined for indicators of buried archaeological deposits. Additionally, cut banks from seasonal drainages and eroded slopes were examined for soil profiles Indicative of buried archaeological deposits.

As a result of the records search, literature review, Native American consultation, and field survey, no paleontological or cultural resources were identified within the study area.

IMPACT DISCUSSION

Questions A-D

No cultural or paleontological resources have been identified within the project area. Given the overall sensitivity for archaeological and historical resources in the general area, there is a remote possibility that unidentified buried deposits may be present within the project area. Prehistoric archaeological deposits may include large quantities of shell and/or faunal bones, flaked-stone artifacts such as obsidian and chert projectile points, tools, and waste flakes; grinding and mashing implements (e.g. slabs and handstones, mortars and pestles); and darkened midden soils. Subsurface historic period deposits may consist of fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g. wells, privy pits, dumps). With the implementation of **Mitigation Measure CR-1**, impacts are considered to be ***less than significant***.

MITIGATION MEASURES

CR-1 In the event of the unanticipated discovery of buried or concealed historical resources or fossilized remains, project activities shall cease in the area of the find, and a qualified

archaeologist/paleontologist shall be consulted to determine the extent and significance of the resource and to develop any necessary mitigation measures. If human remains are inadvertently discovered, work shall cease immediately and the San Mateo County Coroner shall be notified in accordance with California law. A professional archaeologist or paleontologist, as appropriate, shall subsequently be consulted to assist in the development of appropriate treatment.

GEOLOGY & SOILS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known Fault?	☐	☐	☒	☐
b) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving strong seismic ground shaking?	☐	☒	☐	☐
c) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
d) Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving landslides?	☐	☐	☒	☐
e) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
f) 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?	☐	☐	☒	☐
g) 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?	☐	☐	☒	☐
h) 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?	☐	☐	☐	☒

SETTING

Topography

The topography of the community of Pescadero is relatively flat, ranging from 10 to 30 feet above mean sea level (msl). The wastewater conveyance system would run through the community of Pescadero averaging around 30 feet above msl. The WWTP site is located on a hill approximately 210 feet above msl. West of the proposed WWTP site, the hills rise in elevation to approximately 285 feet above msl at

its peak then decrease to approximately 80 feet as they approach the coastline. The proposed sites selected for the leach fields range in elevation from 210 feet to approximately 90 feet.

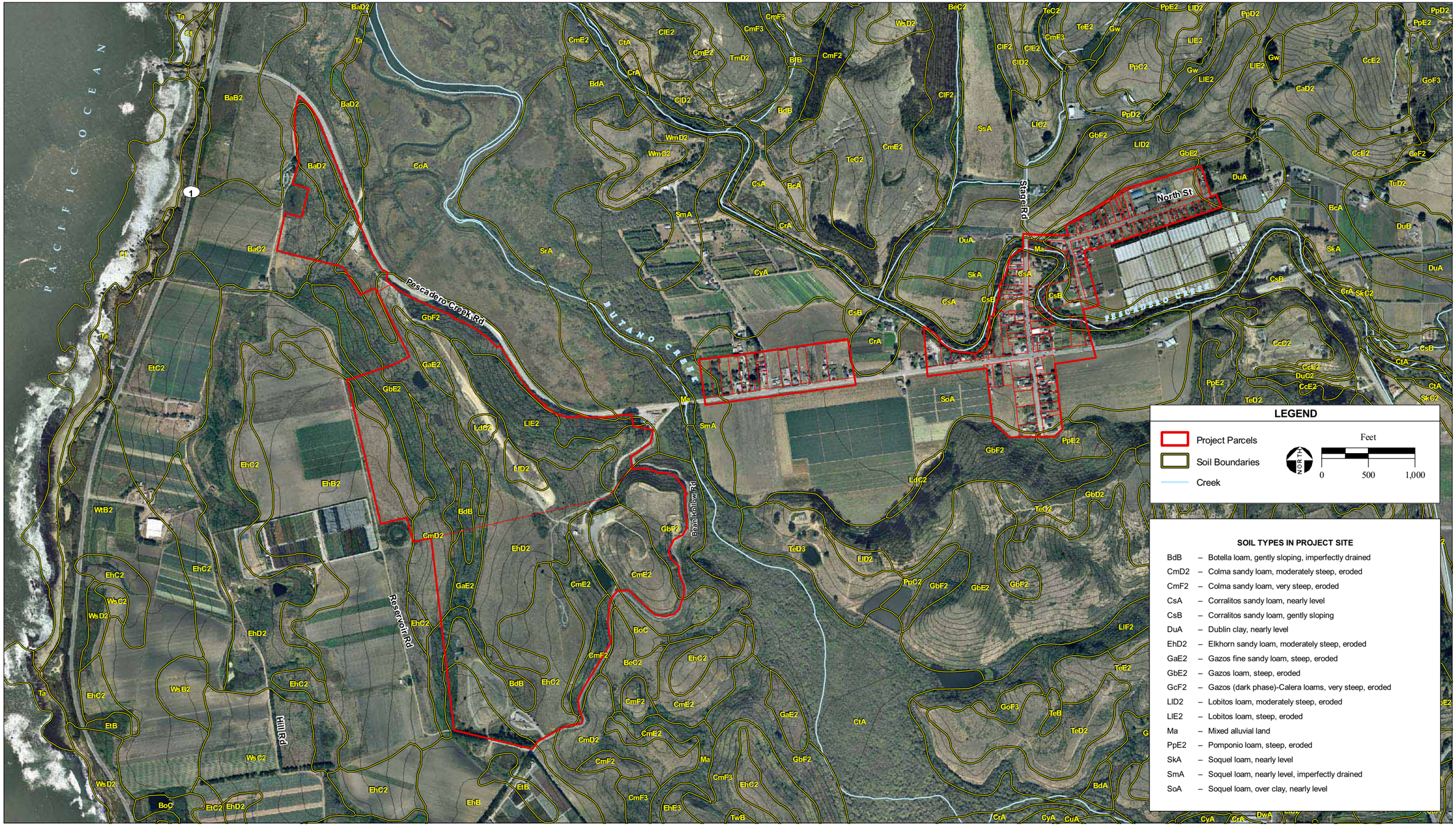
Soils

Soils Surveys

A soil survey for the project site is available online through the Natural Resource Conservation Service (NRCS). Shown in **Figure 3-5**, this survey identifies soil units within the project footprint and provides a summary of major physical characteristics for each unit. A summary of the soil characteristics for the major map units found on the project site is provided in **Table 3-3**.

TABLE 3-3. PROJECT SITE SOILS

Map Unit Name	Map Unit Symbols	Soil Properties
Soquel loam, 0 to 2 percent slopes	SkA, SmA, SoA, SrA	Highly expansive, Hydrologic Groups C and D, low to moderate erosion potential.
Elkhorn sandy loam, 5 to 21 percent slopes	EhC2, EhD2	Moderately expansive, Hydrologic Group B, low to moderate erosion potential.
Gazos fine sandy loam and Gazos loam, 20 to 75 percent slopes	GaE2, GbE2, GbF2	Low to moderately expansive, Hydrologic Groups B and C, low to moderate erosion potential.
Lobitos fine sandy loam and Lobitos loam, 5 to 41 percent slopes	LdC2, LfD2, LlE2	Moderately expansive, Hydrologic Group C, low to moderate erosion potential.
Colma sandy loam, 11 to 75 percent slopes	CmD2, CmE2, CmF2	Not considered expansive, Hydrologic Group B, low to moderate erosion potential.
Corralitos loamy sand and Corralitos sandy loam, 0 to 5 percent slopes	CrA, CsA, CsB	Not considered expansive, Hydrologic Group A, low to moderate erosion potential.
Coquille loam, 0 to 1 percent slopes	CoA	Not considered expansive, Hydrologic Group D, low to moderate erosion potential.
Mixed alluvial land, 0 to 5 percent	Ma	Not considered expansive, Hydrologic Group B, low to moderate erosion potential.
Botella, loam, 3 to 15 percent slopes	BdB, BoC	Moderately expansive, Hydrologic Group C, low to moderate erosion potential.
Dublin Clay, 0 to 2 percent slopes	DuA	Highly expansive, Hydrologic Group D, low to moderate erosion potential.
Baywood sandy loam, 3 to 21 percent	BaC2, BaD2	Not considered expansive, Hydrologic Group A, low to moderate erosion potential.
Pomponio loam, 20 to 40 percent slopes	PpE2	Highly expansive, Hydrologic Group D, low to moderate erosion potential.
Source: NRCS, 2008.		



SOURCE: USDA Soil Survey Geographic (SSURGO) database for San Mateo Area, California; HydroScience Engineering, 2008; AES, 2009

Figure 3-5
Soils Map

Expansive Soils

The potential for soils to demonstrate expansive properties is primarily dependent upon clay content. Clay particles can swell by absorbing large amounts of water relative to their volume, such as during periods of heavy rains, and the ground can rise several inches. Conversely, when these particles dry out, they shrink. As shown in **Table 3-3**, a majority of the soil map units located on the project site are considered low to highly expansive.

Soil Erosion

Soil erosion is the removal and transportation of the soil materials from the ground surface resulting in deposition in a remote location. Mechanisms of soil erosion include natural phenomenon such as stormwater runoff and wind, as well as human activities, such as changes in drainage patterns and removal of vegetation. Factors that influence soil erosion include physical properties of the soil, topography (slope), annual rainfall, and peak intensity. As shown in **Table 3-3**, soil map units located on the project site have low to moderate potentials for sheet and rill erosion.

Seismicity

Active Faults

Traces of the potentially active San Gregorio fault cross through the proposed pathway for the wastewater conveyance system (**Figure 3-6**). In accordance with California Geological Survey (CGS) definitions, a potentially active fault is considered to have shown signs of activity up to the beginning of the Quaternary Period (1.8 million years ago) (USGS and CGS, 2006). Two traces cross the project site along Pescadero Creek Road, west of Stage Road. The most western trace has shown activity within the last 15,000 years (classified as Holocene, Late Pleistocene) and crosses Pescadero Creek Road approximately 660 feet west of Bean Hollow Road. This trace passes within 800 feet of the proposed site for the WWTP. The other trace of the San Gregorio fault has shown signs of activity within the last 130,000 years ago (classified as Late Quaternary) and crosses Pescadero Creek Road approximately 500 feet west of Stage Road.

Surface Rupture

Surface ruptures occur when movement along both sides of a fault, which are located deep underground, produces enough energy to cause a fracture on the surface. Although traces of the San Gregorio fault cross through the project site, these traces are not identified as an Alquist-Priolo Earthquake Fault Zone or a Seismic Hazard Zone as defined by the Seismic Hazards Mapping Act.

Seismic Shaking Intensity: the Modified Mercalli Intensity Scale

Shaking intensity at a particular site can vary depending upon the overall event magnitude, distance to the fault epicenter, focus of earthquake energy, and type of geologic material. The Modified Mercalli intensity (MMI) scale is commonly used to measure earthquake intensity effects due to ground shaking. The MMI values for intensity range from I (earthquake not felt) to XII (damage nearly total) (**Table 3-4**). MMI's ranging from IV to X could cause moderate to significant structural damage. The damage level represents the estimated overall level of damage that will occur for various MMI intensity levels (CGS, 2006b). The CGS creates models of seismic hazard based on the physical and mechanical properties of

SOURCE: USGS Earthquake Hazards Program, 2007; AES 2009

Figure 3-6
Active Faults

the Earth's crust. Based on these models, the CGS determines the peak horizontal ground acceleration, the fastest measured change in speed for a particle at ground level. When there is an earthquake, the forces caused by the shaking are measured as percent *g*, where *g* represents the acceleration due to gravity, or 9.8 meters/second^2 (CGS, 2006). According to the map of Seismic Shaking Hazards in California (CGS, 2006), the project area is located in an area of peak ground acceleration of moderate to severe hazard (0.479 peak ground acceleration). This correlates to a MMI rating between VIII and IX.

TABLE 3-4. MODIFIED MERCALLI INTENSITY SCALE

Intensity Value	Intensity Description	Average Peak Acceleration
I.	Not felt except by a very few persons under especially favorable circumstances.	< 0.0015g
II.	Felt only by a few persons at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	< 0.0015g
III.	Felt quite noticeably indoors, especially on upper floors of buildings, but many persons do not recognize it as an earthquake. Standing cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.	< 0.0015g
IV.	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motorcars rocked noticeably.	0.015g-0.02g
V.	Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.	0.03g-0.04g
VI.	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.	0.06g-0.07g
VII.	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.	0.10g-0.15g
VIII.	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving cars disturbed.	0.25g-0.30g
IX.	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.50g-0.55g
X.	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 0.60g
XI.	Few, if any, masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 0.60g
XII.	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 0.60g

Note: [a] *g* is gravity = 9.8 meters per second squared.
Source: Bolt, 1988.

Liquefaction

Soils comprised of sands and inland fill in areas with high groundwater tables or rainfall are subject to liquefaction during intense seismic shaking events. During such events, the water saturated soils exhibit characteristics similar to liquids causing various types of damage including the shifting of building foundations and associated structural damage, cracking and shifting of roadway surfaces, and alteration of topography. The Association of Bay Area Governments (ABAG) has identified the project area as having very low, low, and high susceptibilities to liquefaction during strong seismic events (**Figure 3-7**) (ABAG, 2008). The areas of high susceptibility represent historical deposits of sands from Pescadero Creek and major tributaries. The upland areas represent the areas with very low and low susceptibilities.

Landslides

Areas susceptible to landslides are comprised of weak soils on sloping terrain. Landslides can be induced by weather, such as heavy rains, or strong seismic shaking events. The project site is relatively flat (0 to 2 percent slopes) where the service areas are located and is not conducive to landslides. At the site of the WWTP, the slopes are well vegetated and only increase in elevation approximately 170 feet. Although slight movement of soils on the steepest slopes surrounding the project site could result during periods of high seismic shaking, the WWTP site is not considered susceptible to landslides.

IMPACT DISCUSSION

Questions A

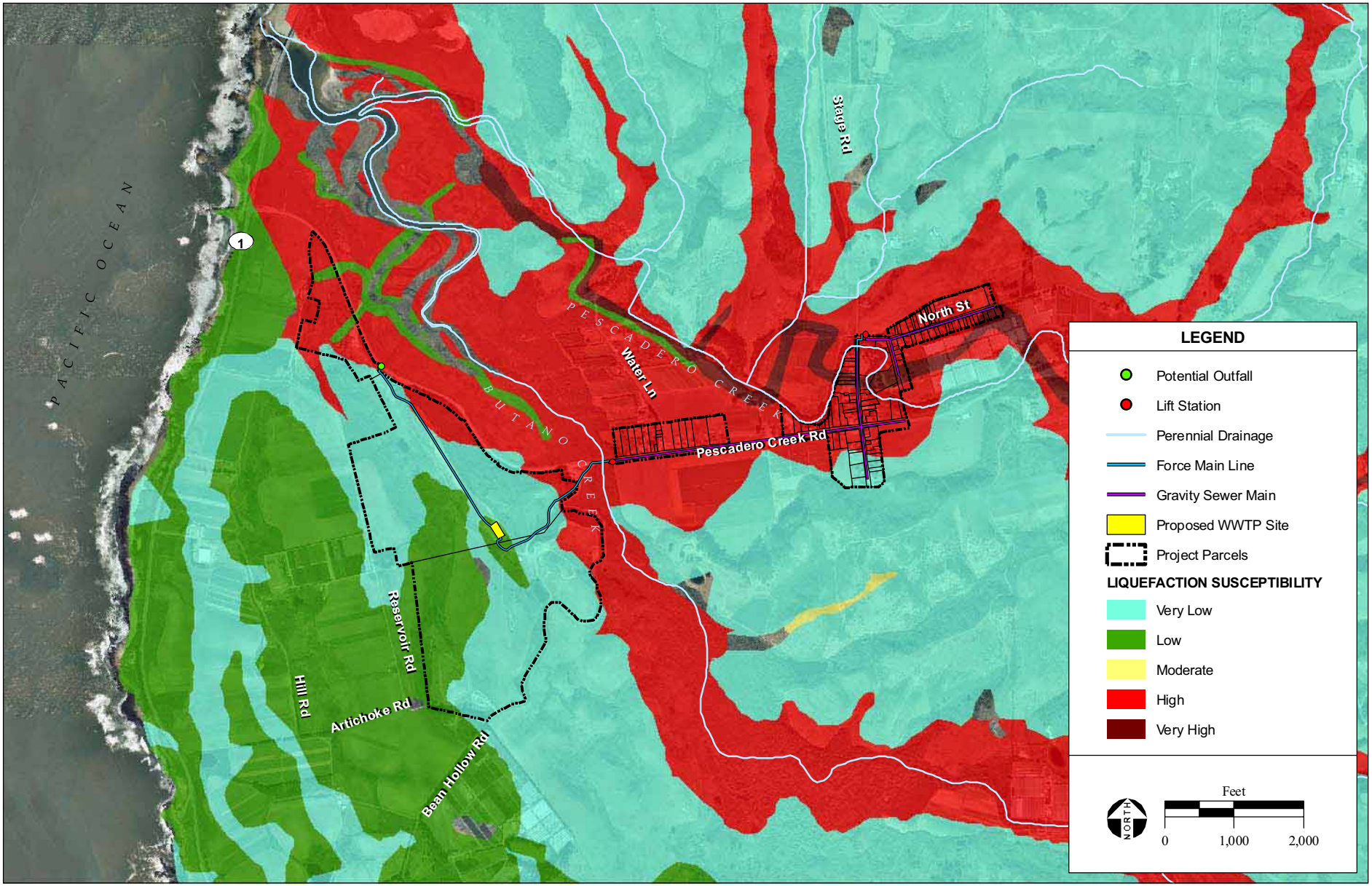
The project site is not located within an Alquist-Priolo Act Earthquake Fault Zone. Although two fault traces pass through the project site, no new habitable structures would be developed along the fault traces. The proposed project would not expose people or habitable structures to adverse effects associated with the potential for surface rupture. Impacts associated with surface rupture of a fault zone are considered to be ***less than significant***.

Questions B

The project components could be subjected to adverse effects from seismic shaking during an earthquake. USGS models of seismic hazard predict a 10 percent chance in a 50-year period of ground shaking of 0.479g. This level of ground shaking is represented by MMI VIII. This combination of factors places restrictions on reinforced concrete masonry construction. The recommended structure type is steel, with a moment resisting frame, for which a pre-engineered metal building would qualify. With the implementation of **Mitigation Measure GS-1**, impacts from the development of the Proposed Project related to seismic shaking would be ***less than significant***.

Questions C-D, F-G

The project site contains various soil map units that have the potential to experience topsoil liquefaction during periods of strong seismic shaking and water saturation and are classified as moderately expansive. The soil map units underlying the wastewater treatment plant are not susceptible to liquefaction and are not considered expansive. Development of the wastewater treatment plant would result in substantial adverse effects including the risk of loss, injury, or death involving seismic-related



SOURCE: ABAG Earthquake Program, 2004; HydroScience, Engineers, 2008; AES, 2009

Figure 3-7

Susceptibility to Liquefaction

ground failure, including liquefaction, and expansive soils. Impacts associated with liquefaction and expansive soils are considered to be ***less than significant***.

Question E

Soils underlying the project site have a low to moderate potential for erosion (NRCS, 2008). The greatest chance of impacts from erosion occurs during grading and construction activities. Erosion control measures are an integral component of the Stormwater Pollution Prevention Plan (SWPPP) required under the Clean Water Act's National Pollution Distribution Elimination System (NPDES) permit required for construction sites disturbing over one-acre of soil. With a total disturbance area greater than one acre, the WWTP Owner/Operator will be required to apply for coverage under NPDES permitting system. To comply with the State's NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit), a Notice of Intent will be filed with the San Francisco Bay Water Quality Control Board (SFBRWQCB) and a SWPPP will be prepared prior to construction. A copy of the SWPPP must be current and remain on the project site. The SFBRWQCB requires that all construction sites have adequate control measures to prevent the discharge of sediment and other pollutants to streams or rivers. With the incorporation of the provisions of the NPDES and the SFBRWQCB requirements and **Mitigation Measure GS-2**, impacts from the construction of the Proposed Project on soil erosion would be ***less than significant***.

Question H

The Proposed Project does not include development of septic facilities or alternative wastewater treatment options. The Proposed Project would remove existing septic systems and would comply with the County Environmental Health Services Department guidelines for the removal and disposal of septic tank systems. ***No impact*** to soils would occur.

MITIGATION MEASURES

GS-1 The components of the Proposed Project would be constructed in accordance with the provisions of the CBC. Division VI, Chapter 16 of the CBC outlines the seismic requirements for new construction. The WWTP building shall be a pre-engineered metal building to meet the seismic requirements for Site Class C under the CBC.

GS-2 Erosion control measures shall be required prior to and throughout the rainy season. Erosion and water quality control measures identified in the SWPPP could include but not be limited to the following:

1. Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.

2. Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.

3. A spill prevention and countermeasure plan shall be developed that will identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on-site. The plan will also require the proper storage, handling, use, and disposal of petroleum products.

4. Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction.

5. Surface water runoff shall be controlled by directing flowing water away from critical areas and by reducing runoff velocity. Diversion structures such as terraces, dikes, and ditches shall collect and direct runoff water around vulnerable areas to prepared drainage outlets. Surface roughening, berms, check dams, hay bales, or similar devices shall be used to reduce runoff velocity and erosion.

6. Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. Store, cover, and isolate construction materials, including topsoil and chemicals, to prevent runoff losses and contamination of groundwater.

7. Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events. All removed topsoil shall be reused during construction to the extent feasible. For the pipelines, soils would be used to backfill the installation of the waste collection and treated waste disposal pipelines. For the wastewater treatment plant, excavated soils would be used to level the building pad. Unused topsoil, if any, shall be broadly redistributed to the surrounding ruderal/developed areas in such a manner that topography and vegetation cover would not be adversely impacted.

8. Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff.

9. Disturbed areas will be re-vegetated after completion of construction activities.

10. All necessary permits and approvals shall be obtained.

11. Provide sanitary facilities for construction workers.

HAZARDS & HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 handles hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working within the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

SETTING

A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as: “a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (2) pose a substantial present or

potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed" (CCR, Title 22, Section 66260.10).

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the CEQA requirements in providing information about the location of hazardous materials release sites (DTSC, 2007). A regulatory agency database search was conducted for the project area to identify sites that store, treat, and/or generate hazardous materials, sites with open environmental cases with ongoing monitoring and/or remedial activities, sites that have had a documented release of hazardous materials, and sites that have existing contamination. The project site and adjacent parcels were not listed on the Cortese List. The nearest documented site is approximately 4.5 miles south at the Pigeon Point Light Station.

IMPACT DISCUSSION

Questions A and B

During grading and construction it is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, and hydraulic fluid, would be brought and stored at the proposed WWTP location. Accidental release could pose both a hazard to construction employees as well as the environment. Chemicals used on-site at the WWTP in association with operation of the Proposed Project would include various chemicals used in a chlorine disinfection process. With the implementation of **Mitigation Measures HM-1** through **HM-3**, impacts associated with hazardous materials handing during construction are considered to be ***less than significant***.

Question C

The closest school facility is the Pescadero Continuation High School located approximately 1 mile east of the WWTP site, while a portion of the sewer conveyance system shall pass the school within the existing roadway. The Proposed Project would not result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a one-quarter mile of an existing or proposed school. ***No impact*** would occur.

Question D

The project site is not listed on the Cortese list (compiled pursuant to Government Code Section 65962.5). ***No impact*** would occur.

Questions E and F

The nearest airport to the Proposed Project is the Half Moon Bay Airport located approximately 15 miles north of the project area. The project area is not located within an area covered by an airport land use plan. There are no private airstrips in the project vicinity. ***No impact*** would occur.

Question G

During construction of the Proposed Project it is expected that project-related construction traffic would occur along the roadways within which the public right-of-way lays. The construction of the sewer conveyance systems would create an increase in construction traffic, as discussed in the traffic section below, however it is not anticipated to be substantial and therefore would not prevent the implementation of an emergency response plan. Impacts are considered to be ***less than significant***.

Question H

Equipment used during grading and construction activities may create sparks, which could ignite dry grass on the project site. During construction, the use of power tools and acetylene torches may also increase the risk of fire hazard. This risk, similar to that found at other construction sites, is considered potentially significant. **Mitigation Measures HM-4** through **HM-5** included below will reduce potentially significant impacts associated with fire hazards created during construction to ***less than significant***.

MITIGATION MEASURES

HM-1 To reduce the potential for accidental releases, fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment tanks and shall not otherwise be stored on site.

HM-2 Personnel shall follow written Standard Operating Procedures (SOPs) for filling and servicing construction equipment and vehicles. The SOPs, which are designed to reduce the potential for incidents involving the hazardous materials, shall include the following:

a) Refueling shall be conducted only with approved pumps, hoses, and nozzles;

b) Catch pans shall be placed under equipment to catch potential spills during servicing;

c) All disconnected hoses shall be placed in containers to collect residual fuel from the hose;

d) Vehicle engines shall be shut down during refueling;

e) No smoking, open flames, or welding shall be allowed in refueling or service areas;

f) Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill;

g) Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents;

h) Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with local, State, and Federal regulations;

i) All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas shall be inspected monthly. Results of inspections shall be recorded in a logbook that would be maintained on site; and

j) The amount of hazardous materials used in project construction and operation shall be consistently kept at the lowest volumes needed.

HM-3 If suspected soil contamination is encountered during excavation and grading activities, all work shall be halted and a qualified individual, in consultation with the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), shall determine the appropriate course of action.

HM-4 During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak.

HM-5 Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.

HYDROLOGY & WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

SETTING

Surface Water

The project site is located adjacent to both Pescadero and Butano creeks within the Pescadero and Butano watersheds (**Figure 2-2**) (San Mateo County, 1986). The two watersheds drain 81 square miles of the Santa Cruz Mountains to the east and the coastal valleys surrounding the community of Pescadero. Pescadero Creek flows through the area from the east, crossing under Stage Road through the center of town. Butano Creek flows from the south side of town crossing Pescadero Creek Road. Butano Creek flows approximately two miles north through the Pescadero Marsh before its confluence with Pescadero Creek, which then discharges into the Pacific Ocean.

Both Pescadero and Butano creeks are listed on California's list of impaired water bodies, in accordance with the Clean Water Act, Section 303(d). Both creeks are listed as impaired based on sedimentation from non-point sources, mainly upstream sources from the Santa Cruz Mountains and development activities within the coastal valleys. Sediments are carried downstream resulting in the sedimentation of the Pescadero Marsh.

Drainage and Flooding

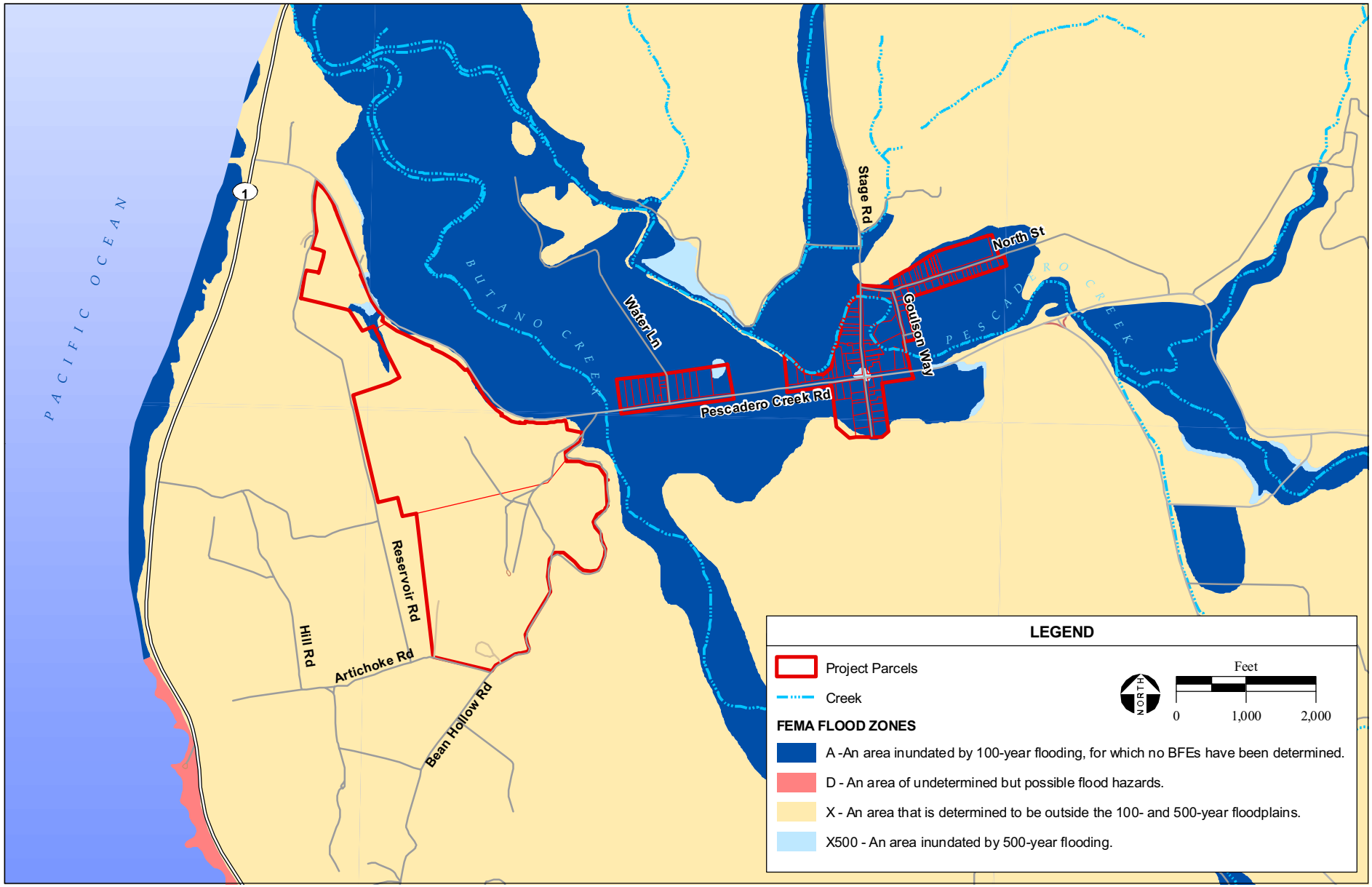
The project area drains towards Butano Creek, Pescadero Creek, and an Unnamed Perennial Creeks. Refer to the discussion under biological resources regarding further discussion of this drainage. A majority of the soils on the project site range from high to slow infiltration rates and corresponding low to moderate runoff potential when saturated. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the area proposed for the wastewater conveyance system is within the 100-year floodplain with a typical base flood elevation of 15 feet (FEMA, 2008). The proposed site for the WWTP is located within Flood Zone C, which is used to designate areas of minimal flooding (**Figure 3-8**).

The Local Coastal Program (1998) identifies the following objectives for development within floodplains.

9.9 Regulation of Development in Floodplains

a. Channelization, dams, or other stream alterations shall incorporate the best mitigation measures feasible and be limited to: (1) necessary water supply projects, (2) flood control projects where no other methods for protecting existing development or providing public safety exists, or (3) developments to enhance fish and wildlife habitat.

b. Development located within flood hazard areas shall employ the standards, limitations and controls contained in Chapter 35.5 of the San Mateo County Ordinance Code, Sections 8131, 8132 and 8133 of Chapter 2 and Section 8309 of Chapter 4, Division VII (Building Regulations), and applicable Subdivision Regulations.



SOURCE: FEMA Q3 Flood Data, 1996; HydroScience, Engineers, 2008; AES 2009

Figure 3-8

FEMA Flood Types

Groundwater

The project site is located within the Pescadero Valley groundwater basin (County of San Mateo, 1986). Groundwater recharge in the project area occurs generally through infiltration from the Butano and Pescadero creeks. Data from monitoring of five wells in Pescadero indicate steady groundwater levels over the last 10 years (DWR, 2008). Groundwater levels ranged from 2 to 18 feet below ground surface level.

With high groundwater levels and the use of septic systems to dispose of wastewater, high nitrate levels are commonly identified in the groundwater wells within the community. For a majority of the community, potable water is supplied from a remote well established by the County in 1980. Several residents outside of the service area of the County well rely on local groundwater as the main potable water source. In 2004, the County declared that the use of septic tanks, in conjunction with the high groundwater table and inadequate soil qualities, created a public health threat. The SFBRWQCB concurred with the declaration of the public health threat, passing a resolution requiring the County to develop a wastewater improvement project.

IMPACT DISCUSSION

Questions A and F

Implementation of the proposed project would remove septic systems as the method of wastewater disposal for the community of Pescadero, resulting in a beneficial impact to water quality standards and objectives for the region. The Proposed Project would reduce the adverse water quality impacts from the existing septic systems in the community of Pescadero and would result in long-term groundwater quality improvements. As shown in **Table 3-5**, implementation of the Proposed Project would reduce current sewer loading into regional groundwater by approximately 16,700 pounds per year (lbs/yr) and by approximately 51,000 lb/yr at full buildout of approximately 291 parcels (HSE, 2008).

TABLE 3-5. ESTIMATE OF CURRENT AND FUTURE SEWER LOADING TO GROUNDWATER

Scenario[1]	Without Project [2,3] (lbs/year)	With Project (lbs/year) [2,4]	Net Difference (lbs/year)
Current	17,400	700	16,700
Buildout	53,200	2,200	51,000

Notes: 1. Based on the projected flows identified in HSE, 2008.
2. Assumes that the BOD and TSS are both 250 mg/L in the influent and 10 mg/L in the effluent.
3. Assumes 95% of the current influent BOD/TSS loadings make it to the subsurface.
4. Assumes that 100% of the effluent loadings from the project would make it into the groundwater basin.
Source: HSE, 2008.

Construction equipment and materials have the potential to leak, thereby discharging pollutants into stormwater. Construction site pollutants include particulate matter, sediment, oils and greases, concrete, paints, and adhesives. Discharge of these pollutants could result in contamination of area drainages and tributaries to the Butano and Pescadero creeks, causing an exceedance of water quality objectives. Because grading and earth moving activities associated with the components of the Proposed Project have the potential to result in soil erosion, siltation, and contamination of stormwater, this is considered a potentially significant impact.

As discussed under **Soils and Geology** above, the Proposed Project would be required to comply with the State's NPDES General Permit and the County shall file a Notice of Intent with the SFBRWQCB and prepare a SWPPP prior to construction. A copy of the SWPPP must be current and remain on the project site. As required by **Mitigation Measure HDY-1**, the SWPPP shall identify the best management practices (BMPs) that will be used to reduce the potential for surface water contamination from construction activities to a ***less-than-significant*** level.

Question B

The proposed WWTP would result in an increase of approximately 0.18 acres of impermeable surfaces at the WWTP site. Runoff would continue to drain to the Unnamed Perennial Creek where recharge would occur as it does currently. There would not be a net deficit in aquifer volume or a lowering of the local groundwater table level as a result of the Proposed Project. ***A less than significant impact*** would occur.

Question C, D, and E

The existing drainage pattern of the site or area would remain the same and there would not be a substantial increase in the surface area that would result in substantial erosion or siltation on- or off-site. Anticipated runoff from the proposed WWTP and parking areas would continue to drain to the Unnamed Perennial Creek. Impacts are considered to be ***less than significant***.

Questions G, H, and I

The Proposed Project does not involve construction of any habitable structures within the floodplain as designated by the FEMA Firm maps and would not impede or redirect flood flows nor would it expose people or structures to a significant risk of loss, injury, or death involving flooding. Pipelines would be placed underground and would not increase flood plain elevations. ***No impact*** would occur.

Question J

The project is not located in a tsunami warning area nor is it within an area with the potential for seiches, or mudflow. Therefore, ***no impacts*** from the inundation by tsunami, mudflow, or seiche would occur.

MITIGATION MEASURES

HYD-1 Implement Mitigation Measure GS-2.

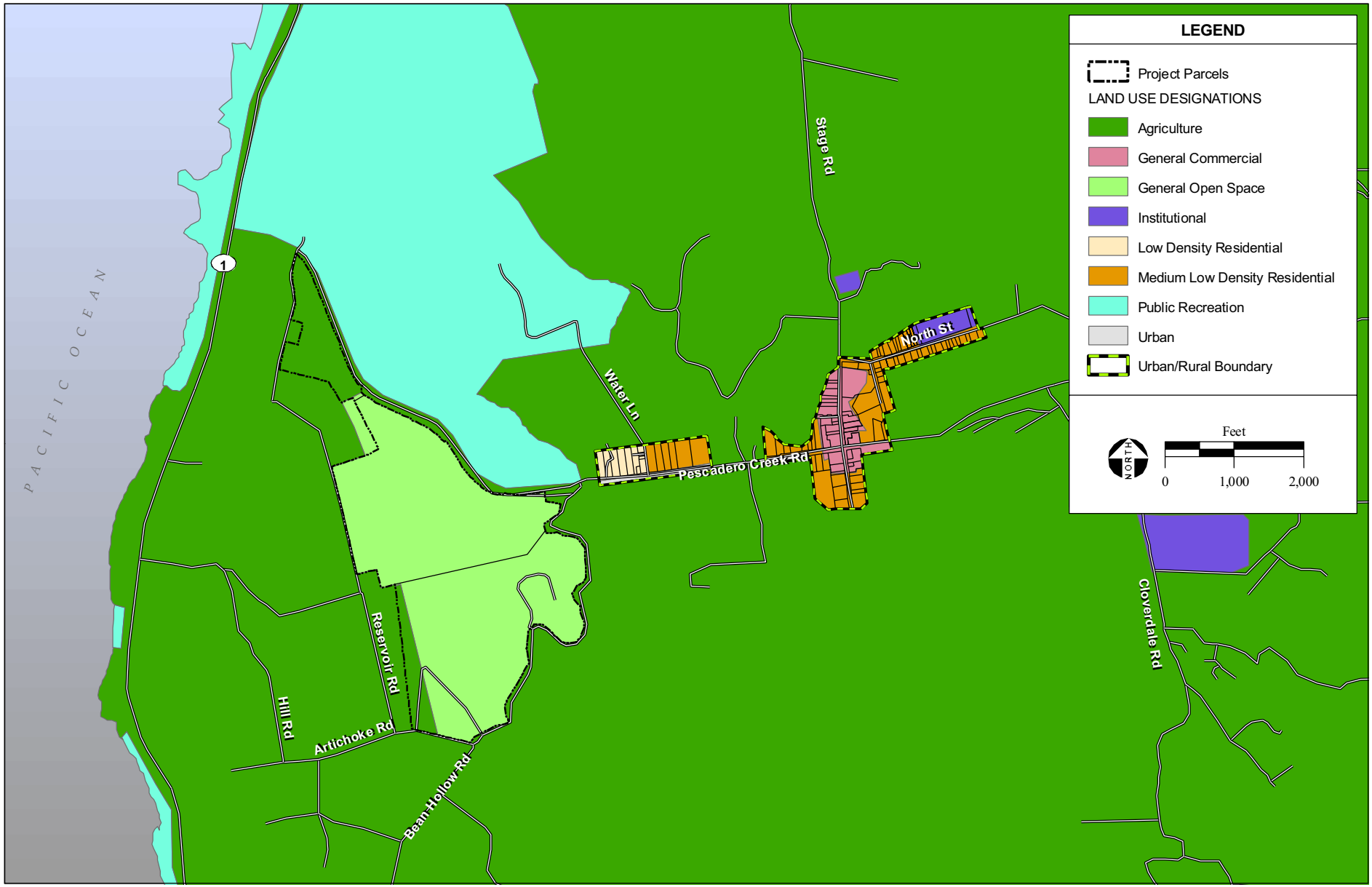
LAND USE & PLANNING	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

SETTING

Land uses within the project area consist of commercial, residential, and agricultural uses. The Corporation Yard and Pescadero Marsh are located northwest of the WWTP site. The proposed WWTP site is currently used as a County stockpile area. Land uses immediately adjacent to the Proposed Project consist of single-family residential, agricultural, and commercial uses along Pescadero Creek Road, Stage Road, and North Street. Agricultural activities dominate land uses south of Pescadero Creek Road (**Figure 2-2**). The San Mateo County General Plan designates the proposed WWTP site as General Open Space, which is applied to "Lands in very low density residential use, in use for the managed production of resources, hazardous for development, or owned by private parties specifically for watershed or other resource protection" (San Mateo County, 1986). The western portion of the proposed sewer conveyance system would be located on lands designated as Low Density Residential and Medium-Low Density Residential. The eastern portion of the proposed sewer conveyance system would be located on lands designated as Medium-Low Density Residential and General Commercial (**Figure 3-9**). Surrounding land uses within Pescadero are designated as a mixture of Medium-Low Density Residential, Agriculture, and Institutional.

The County's General Plan objectives that are applicable to the Proposed Project are listed below:

9.4 Land Use Objectives for Rural Lands. Protect and enhance the resources of the Rural Lands in order to: (1) protect and conserve vegetation, water, fish and wildlife resources, productive soil resources for agriculture and forestry, and other resources vital to the sustenance of the local economy; (2) carefully manage and enhance the use, production, conservation or extraction of soils, timber, minerals and other natural resources; (3) protect and enhance the unique scenic quality and pastoral character of the rural lands; (4) provide a diversity of



SOURCE: San Mateo County Planning Dept., 1983; HydroScience, Engineers, 2008; AES, 2009

Figure 3-9

San Mateo County Land Use Designations

outdoor recreational opportunities for existing and future County residents; (5) protect the public health and safety by minimizing the location of new development in potentially hazardous areas and directing infrastructure improvements to areas that will benefit the greatest number of rural residents and visitors; (6) minimize the amount of environmental damage caused by construction of major and minor roads or other infrastructure improvements; and (7) promote local employment opportunities and enhance creative enterprise by encouraging visitor-serving facilities, ancillary and accessory uses vital to resource production operations, and adaptive reuse of existing non-residential structures consistent with protection of surrounding resources.

San Mateo County's Local Coastal Program (1998) designates the project site as within a Rural Service Center, which is applied to "small rural communities having a combination of land uses which provide services to rural areas." Objective 1.12 Land Uses and Development Densities in Rural Service Centers requires, "the infilling and use of existing rural service centers to: (1) provide commercial facilities which support agriculture and recreation and (2) meet housing needs which are generated by local employment." Additional Local Coastal Program policies that are applicable to the Proposed Project are listed below:

IMPACT DISCUSSION

Question A

The proposed community sewer collection system and WWTP would be developed within existing paved and disturbed roadways within the community of Pescadero. The proposed WWTP site would be located on undeveloped lands that are used as a stockpile area by the County. The Proposed Project would not physically divide an established community. ***No impact*** would occur.

Question B

The proposed community sewer collection system and WWTP would be consistent with the County's General Plan objective 9.4 as the Proposed Project would protect groundwater resources in the region and through proposed mitigation, would lessen the environmental impacts associated with construction of the proposed sewer collection and treatment system. Therefore, the Proposed Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. ***No impact*** would occur.

Question C

There are no applicable habitat conservation plans or natural community conservation plans for the project area. ***No impact*** would occur.

MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒

SETTING

The San Mateo County General Plan identifies 13 mineral resources found in the County, approximately six of which have the potential for utilization. These include gemstones, oil and gas, mineral water, saline, stone (crushed or broken), and limestone and shell (San Mateo County, 1986). The mapped mineral resources near the community of Pescadero include gemstones and crushed or broken stones (San Mateo County, 1986). There are no mapped mineral resources in the vicinity of the project site.

IMPACT DISCUSSION

Questions A and B

Construction of the Proposed Project would consist of grading and trenching activities within previously disturbed areas. The Proposed Project would not result in the loss of the availability of a known mineral resource that would be of local or regional value. ***No impacts*** to mineral resources would occur.

NOISE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

SETTING

Noise is often described as unwanted sound and thus is a subjective reaction to the physical phenomenon of sound. Sound is variation in air pressure that the ear can detect. The threshold of hearing is considered to be zero decibels (dB), and the range of sounds in normal human experience is 0 to 140 dB. To compensate for the fact that the ear is not as sensitive at some frequencies and sound pressure levels as at others, a number of frequency weighting scales have been developed. The "A" weighting scale, denoted as dBA, is most commonly used for environmental noise assessment, as sound pressure levels measured using an A-weighting filter correlate well with community response to noise sources such as traffic.

The ambient or background noise level is defined as the existing range of noise levels from all sources near and distant from a particular area. Ambient noise in the vicinity of the project site is mainly a result of traffic along Highway 1 and Pescadaro Creek Road.

Some land uses are considered more sensitive to ambient noise levels than others, sensitivity being a function of noise exposure (in term of both exposure duration and insulation from noise) and the types of activities involved. Residential, school, and hospital land uses are generally more sensitive to noise than commercial and industrial land uses. Sensitive receptors in the vicinity of the project area consist of residences and schools. The nearest sensitive receptor to the project site is located approximately 1,580 feet northeast of the proposed WWTP near Pescadero Road. The nearest school is Pescadero Continuation High School 1.55 miles east of the proposed WWTP facility on North Street.

Proposed lift stations would be located at the crossing of Butano Creek along Pescadero Creek Road and east of the intersection of North Street and Stage Road (**Figure 2-3**). Lift stations have the potential to increase the ambient noise level. The nearest sensitive receptor to the lift station is a residence 200 feet west of the proposed lift station at North Street and Stage Road.

The proposed gravity sewer main and forced sewer main would be installed within an existing right of way. Construction of the sewer mains could occur as close as 25 feet to sensitive receptors located along Pescadero Creek Road, Stage Road, and North Street.

County of San Mateo Noise Policies

The San Mateo County General Plan (1986) established the following applicable goals and objectives regarding noise levels:

General Policies

Policy 4.24 (b) Location of Structures. Locate and design future structures to minimize the impacts of noise, light, glare and odors on adjacent properties and roads.

Manmade Hazards Policies – Noise Policies

Goals and Objectives

16.1 Strive Toward A Livable Noise Environment. Strive toward an environment for all residents of San Mateo County which is free from unnecessary, annoying, and injurious noise.

16.2 Reduce Noise Impacts through Noise/Land Use Compatibility and Noise Mitigation. Reduce noise impacts within San Mateo County through measures which promote noise/land use compatibility and noise mitigation.

16.3 Promote Protection of Noise Sensitive Land Uses and Noise Reduction in Quiet Areas and Noise Impact Areas. Promote measures which: (1) protect noise sensitive land uses, (2) preserve and protect existing quiet areas, especially those which contain noise sensitive land uses, and (3) promote noise compatibility in Noise Impact Areas.

16.4 Noise Reduction Priority. Give priority to reducing noise at the source rather than at the receiver, recognizing that it is less expensive and more equitable to build noise mitigation into the source than providing for it along the path and at the receiver.

16.5 Noise Reduction Along the Path and at the Receiver. Promote noise reduction along the path and at the receiver through techniques which can be incorporated into the design and construction of new and existing development, including, but not limited to, site planning, noise barriers, architectural design, and construction techniques.

Regulation of Development

16.11 Regulate Distribution of Land Uses. Regulate the distribution of land uses to attain noise compatibility. Measures may include preference toward locating: (1) noise sensitive land uses within quiet areas, removed from Noise Impact Areas, and (2) noise generating land uses separate from noise sensitive land uses.

16.15 Architectural Design Noise Control. Promote measures which incorporate architectural techniques into the design of new buildings, particularly buildings within Noise Impact Areas. Architectural design techniques may include: (1) grouping noise sensitive rooms together separated from noise sources, (2) placing windows, vents and other openings away from noise sources, and (3) avoidance of structural features which direct noise toward interior spaces.

16.16 Construction Techniques Noise Control. Promote measures which incorporate noise control into the construction of existing and new buildings, including, but not limited to, use of dense noise insulating building materials.

The County's General Plan (1986) does not provide quantitative thresholds or standards for land uses; however; the California General Plan Guidelines, 2003, provides normally acceptable noise guidelines of 60 community noise equivalence level (CNEL) at residences and 65 CNEL at recreation and open spaces (General Plan Guidelines, 2003).

IMPACT DISCUSSION

Questions A-D

Construction

Construction of the proposed community sewer collection and treatment system has the potential to create a minimal short-term source of noise to nearby sensitive receptors; however, the distance to the nearest sensitive receptor is approximately 1,380 feet and thus construction noise would attenuate below nuisance levels at that distance. **Mitigation Measures N-1**, **N-2**, and **N-3** would reduce any short-term construction noise impacts below policy levels cited within the California General Plan Guidelines, dated 2003.

Equipment required for grading, trench, building, and paving of the wastewater treatment facility, lift stations, and sewer mains generally would not result in significant levels of groundborne vibration or groundborne noise levels, nor would the project create a substantial increase in ambient noise levels. Impacts are therefore considered to be ***less than significant*** with mitigation.

Operation

The WWTP equipment would be located away from sensitive receptors. As described in **Section 2.0**, the proposed lift stations would be enclosed in concrete structures designed to attenuate noise from lift stations to levels below the current ambient noise level (rural ambient noise level is generally defined as 45 dBA). Operation of the Proposed Project would not introduce any new significant sources of noise. ***No impacts*** would occur.

Questions E and F

The Proposed Project is not located in the vicinity of a public airport or private airstrip. ***No impacts*** would occur.

MITIGATION MEASURES

N-1 Engine-powered construction equipment shall be fitted with adequate mufflers and enclosures as supplied by the manufacturer, and shall be maintained in good condition.

N-2 All powered equipment will comply with applicable local, State, and Federal regulations, and all such equipment shall be fitted with adequate mufflers according to the manufacturer's specifications to minimize construction noise effects.

N-3 Construction activities shall only occur between the hours of 7:00 am and 6:00 pm.

POPULATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SETTING

The community of Pescadero is located within unincorporated San Mateo County and has an estimated population of approximately 755 people (HSE, 2008). The County's Local Coastal Program identifies approximately 115 individual parcels located within the boundary of CSA-11. At full build out it is anticipated that the number of parcels in Pescadero would increase to approximately 291 (HSE, 2008).

IMPACT DISCUSSION

Question A

In accordance with Section 2.46(b) of the Local Coastal Plan, capacity of the proposed wastewater conveyance system and WWTP would be designed to accommodate projected wastewater generation rates for the planned full build out of CSA-11 (San Mateo County, 1998). ***No impact*** would occur.

Questions B and C

Implementation of the Proposed Project would not displace existing housing or people. ***No impacts*** would occur.

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 time or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☐	☒
b) Police Protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

SETTING

Fire Protection/Emergency Medical Service

The San Mateo County Fire Department, through contract with the California Department of Forestry and Fire Protection (CalFire) provides fire protection and emergency medical services to the project area. Station 59, located at 1200 Pescadero Road, is equipped with one Type I and one Type III engine. Six firefighter personnel are on duty at the station during the summer months, with three firefighter personnel during the winter (Rounds, 2008)

Law Enforcement

The San Mateo County Sheriff's Department provides law enforcement and safety services to the project area. The nearest Sheriff's substation is located at 500 California Street in Moss Beach, approximately 23.5 miles north. The Coastside Patrol Unit is staffed with 27 Deputy Sheriff's, 4 Sergeants, and a Lieutenant (San Mateo County Sheriff's Department, 2008).

Schools

The La Honda-Pescadero Unified School District (School District) provides public education in the project area. The School District is comprised of two elementary schools, one middle school, and one high school. The local elementary school, Pescadero Elementary School, is located at 620 North Street, adjacent to the collection system alignment within North Street. Pescadero Middle School is located at

360 Butano Cutoff Road, and Pescadero High School is located at 350 Butano Cutoff Road (approximately 0.5 miles southeast of the nearest Proposed Project collection system alignment).

IMPACT DISCUSSION

Questions A – E

Development of the Proposed Project would not alter or restrict public service routes, or increase the potential demand for public services in the community of Pescadero. The new community wastewater collection and disposal system would be built within public right-of-ways along existing roadways and the proposed WWTP would be constructed away from sensitive receptors (**Figure 2-4**). ***No impacts*** would occur.

RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

SETTING

South San Mateo County has four parks near the community of Pescadero these are, Heritage Grove, Memorial Park, Pescadero Creek, and Sam McDonald (San Mateo County, 2008b). Pescadero Creek Park is located within the community of Pescadero and includes hiking, biking, and equestrian trails as well as trail camp sites (San Mateo County 2008b). The park is open Monday through Friday 8:00 a.m. to sunset.

IMPACT DISCUSSION

Questions A and B

The Proposed Project would not result in population growth that would increase the use of regional parks and other recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. ***No impact*** would occur.

TRANSPORTATION/TRAFFIC	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase on either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐

Affected Roadways

Pescadero Creek Road begins at Highway 1 approximately 1.1 miles west of the project site and extends east past the project site until it intersects with La Honda Road approximately 12 mile east of the project site. Pescadero Creek Road is an east west oriented two-lane divided paved major rural arterial.

Stage Road is a north/south oriented rural two-lane divided paved collector that intersects Pescadero Creek Road approximately 1 mile east of the project site.

North Street intersects with Stage Road approximately 0.25 miles north of Pescadero Road. North Street is an east west two-lane paved rural collector road.

Site Access is provided by an unpaved access road, originating at Pescadero Road, which currently serves the San Mateo County storage yard. Additional access is provided from the southeast on an unpaved access road originating from Bean Hollow Road. Both access roads are anticipated to be improved.

IMPACT DISCUSSION

Questions A and B

Construction

Project implementation would temporarily increase traffic volumes along Pescadero Creek Road, Stage Road, and North Street. The increase in traffic would be minimal and over a short duration of time. Traffic would primarily increase from construction worker trips and the delivery of construction equipment and materials to and from the project site. The expected increase in traffic would take place between the hours of 7:00 A.M. and 6:00 P.M. for approximately 12 to 18 months. The estimated increase in trips along Pescadero Creek Road, Stage Road, and North Street would be less than 26 one-way trips per day, based on 10 construction workers and 3 material delivery trips. This is not a substantial increase and would not cause an exceedance of any level of service standard or cause inadequate emergency access. Construction parking would be minimal and would be achieved through a construction staging area on the project site; therefore, construction of the project would not result in inadequate parking. Construction traffic impacts are considered to be ***less than significant.***

Operation

Approximately 3 part-time employees would account for an estimated 9 trips per day. The trips would include employee trips to and from the WWTP and routine maintenance trips. Operational activities are expected to create less vehicle trips per day than during the construction of the project; therefore, no exceedance of an applicable level of service standard or inadequate emergency access would occur. Adequate parking for the WWTP would be provided on-site. This impact is considered ***less than significant***.

Question C

The Proposed Project is not near an airport. The implementation of the Proposed Project would have ***no impact*** on air traffic patterns.

Question D

The Proposed Project would not change the design of existing roadways and does not include any operational features that would impact traffic or increase hazards. ***No impact*** would occur.

Question E

The Proposed Project would not introduce any uses that would generate long-term changes in traffic. Construction of the Proposed Project would temporarily increase traffic along haul routes, including Highway 1, Pescadero Creek Road, Stage Road, and North Road. Primary impacts from construction-related trucks deliveries would include short-term and intermittent lessening of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles. Highway 1 is a two-lane principal arterial with sufficient roadway capacity to accommodate the temporary increase in traffic resulting from the Proposed Project. Therefore, construction-related traffic impacts along this roadway, including those to public transit and pedestrian circulation, would be considered less than significant. However, given width constraints and existing conditions along Pescadero Creek Road, North

Road, and Stage Roads, the increase in traffic associated with the construction of the Proposed Project could impact private and public traffic flow, resulting in delayed access to residences and local businesses. Additionally, emergency access along Pescadero Creek Road, Stage Road, and North Road may be impeded. This is considered a potentially significant impact. Implementation of **Mitigation Measures T-1** through **T-4**, a ***less than significant*** impact would occur.

Question F

Construction parking would be limited to nearby streets and maintenance roads or within a staging area designated for construction equipment and worker parking. The Proposed Project includes adequate parking spaces that would accommodate wastewater treatment facility works and maintenance personnel. There would be sufficient parking for both construction and operation of the Proposed Project. ***No impact*** would occur.

MITIGATION MEASURES

TT-1 The County shall notify public transportation providers, including affected school districts, at least one month prior to commencement of construction to minimize construction-related traffic delays along Pescadero Creek Road, Stage Road, and North Road. The dates and times of bus routes shall be identified, and construction-related truck trips along affected roads will be minimized or avoided during these times to the greatest extent feasible.

TT-2 Emergency service providers such as the San Mateo County Sheriff's Department, the San Mateo County Fire Department, California Highway Patrol will be notified at least one month prior to commencement of construction. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service providers at all times.

TT-3 The County shall notify all potentially impacted private residents located along Pescadero Creek Road, Stage Road, North Road, and Goulson Way at least one month prior to commencement of construction. The written notification shall include the construction schedule and a telephone number for receiving questions and complaints. Access to private residents shall be maintained at all times.

TT-4 Construction traffic shall comply with the California Vehicle Code (CVC) sections related to vehicle weight and width.

UTILITIES & SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste.	☐	☐	☐	☒

SETTING

Water Suppliers and Supply

The community of Pescadero is served by County Service Area Number 11 (CSA-11), which provides well water for the Community of Pescadero pumped from a facility to the west. CSA-11 provides available service to 115 parcels within the community of Pescadero. On average, the system had an average daily water usage of approximately 26,000 gallons per day (gpd) in 2006 (HSE, 2008). Some residences within Pescadero obtain potable water from private wells.

Solid Waste Collection and Disposal

Solid waste collection is not currently contractually provided within the community of Pescadero; however, private contracts can be made with Allied Waste of San Mateo County (County of San Mateo, 2008). The Pescadero Transfer Station provides waste disposal services to the community as well as recycling

facilities. This facility, located at Artichoke and Bean Hollow Roads collects waste from both private individuals and operational waste haulers.

The closest active landfill to the project is located in Half Moon Bay, approximately 18 miles to the north. Ox Mountain landfill is a designated as a Class III Municipal solid waste facility, currently accepting all types of solid waste. Ox Mountain prohibits the disposal of hazardous materials. The landfill is owned and operated by a private company with permits and contracts with the County.

The solid byproduct of the wastewater treatment process, known as sludge, is expected to be hauled to a regional third party treatment facility from the proposed WWTP. The appropriate treatment facility in the vicinity is located at the East Bay Municipal Utility District (EBMUD) Main WWTP in Oakland. The EBMUD WWTP is located approximately 55 miles to the northeast.

IMPACT DISCUSSION

Questions A, C, E

The community of Pescadero currently does not have a centralized community wastewater treatment collection or treatment systems. As the Proposed Project would create a new wastewater collection and treatment system, no impact would occur regarding the existing capacity of local wastewater treatment. However, a ***beneficial impact*** would occur, with a decrease in the potential for localized groundwater contamination from individual septic systems and an overall increase in water quality in the region. The design of the WWTP would have the capacity to meet the current projected peak day wastewater flow of 60,400 gpd and allow for expansion of facilities to meet CSA-11 full build-out of 184,200 peak day gpd (HSE, 2008).

During the operational phase, the on-site wastewater treatment at the Proposed Project facilities would follow requirements of the San Francisco Bay Regional Water Quality Control Board (SFRWQCB). Wastewater quality from the Proposed Project will meet the standards of SFRWQCB, with anticipated influent concentrations of Biochemical Oxygen Demand (BOD) of 200-30 milligrams/liter and Total Suspended Solids (TSS) of 200-300 milligrams/liter (HSE, 2008).

Stormwater runoff from construction and operation are discussed above under **Hydrology and Water Quality**. The Proposed Project would not require construction of new stormwater facilities or expansion of existing facilities. A ***less than significant*** impact would occur.

Question B

The Proposed Project consists of the construction of a new wastewater treatment facility, creating impacts during the construction phase of the project. Associated impacts are discussed throughout this section.

Question D

The Proposed Project would not impact water supply facilities or significantly increase use of potable water within the community of Pescadero. A ***less than significant*** impact would as there is currently

sufficient potable water supply to meet the existing and projected needs of the community of Pescadero (HSE, 2008).

Question F, G

The impact to local landfills would be minimal as the Proposed Project would generate only a minor amount of waste during construction and operation. This waste would be disposed of at the local Pescadero Transfer Station, which currently provides significant capacity for transfer and meeting all appropriate standards regarding solid waste. The regional sludge treatment facility is located at the EBMUD Main WWTP in Oakland. The transport of the sludge material from the Proposed Project to the EBMUD Main WWTP would occur through scheduled trips by appropriate waste haulers. A **less than significant** impact would occur.

MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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 probably future projects)?	☐	☒	☐	☐
c) Does the project have environment effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Questions A, C

As discussed in the previous sections, the Proposed Project would not degrade the quality of the environment, substantially reduce habitats or species, or eliminate important examples of the major cultural periods of the State. On the contrary, the Proposed Project would reduce the adverse water quality impacts from the existing septic systems in the community of Pescadero and would result in long-term groundwater quality improvements. As shown in **Table 3-5**, it is estimated that implementation of the Proposed Project would reduce current sewer loading into regional groundwater by approximately 16,700 pounds per year (lbs/yr) and by approximately 51,000 lb/yr at full buildout of approximately 291 parcels (HSE, 2008). The effluent produced from the proposed WWTP would meet all Title 22 requirements and would be suitable for all approved recycled uses under Title 22. Thus, the Proposed Project would reduce the amount of sewer loading into local groundwater and it would also substantially improve the quality of effluent to be discharged into proposed leach fields. The Proposed Project would not contribute environmental effects that have substantial adverse effects on human beings. This would be a ***less than significant impact***.

Question B

Cumulative impacts and indirect effects for each resource area have been considered within the analysis of each resource area. When appropriate, mitigation measures have been provided to reduce all potential impacts to a ***less than significant*** level.

MITIGATION MEASURES

See Mitigation Measures **AQ-1**, **BR-1** through **BR-5**, **CR-1**, **GS-1** and **GS-2**, **HM-1** through **HM-5**, **HYD-1**, **N-1** through **N-3**, and **TT-1** through **TT-4**.

SECTION 4.0

SIGNIFICANCE DETERMINATION

4.0 SIGNIFICANCE DETERMINATION

On the basis of the environmental evaluation presented in **Section 3.0**:

☐ 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 to the project design and project-specific mitigation measures described in **Section 3.0** have been agreed to by the project proponent. A NEGATIVE DECLARATION is recommended to be adopted.

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

Signature	Date
Printed Name	County of San Mateo Lead Agency

SECTION 5.0

LIST OF PREPARERS

5.0 LIST OF PREPARERS

County of San Mateo – Lead Agency

James C. Porter, Director of Public Works

Karen Pachmayer, Principal Civil Engineer

Hydroscience Engineers, Inc.

George Harris, Principal-in-Charge

Curtis Lam, Principal

Donald Brown, Grade V Wastewater Treatment Plant Operator

Analytical Environmental Services

David Zweig, Principal

Doug Edwards, Project Manager

Krystel Bell, Deputy Project Manager

Ryan Lee, CEQA Specialist

Trent Wilson, Senior Technical Analyst

Erin Quinn, Technical Analyst

David Sawyer, Technical Analyst

Mike Taggart, Senior Archaeologist

Damon Haydu, Archaeologist

Kristie Haydu, Botanist

Charlotte Marks, Biologist

Dana Hirschberg, Senior Graphics Specialist

Glenn Mayfield, Graphics Specialist

SECTION 6.0

REFERENCES

6.0 REFERENCES

Association of Bay Area Governments (ABAG), 2008. Geographic Information Systems: Liquefaction Susceptibility Map. Available online at: http://gis.abag.ca.gov/. Accessed December 30, 2008.

Bay Area Air Quality Management District (BAAQMD), 2008. "Ambient Air Quality Standards and Bay area Attainment Status". Available online at: http://www.baaqmd.gov/pln/air_quality/ambient_air_quality.htm. Accessed June 3, 2008.

U.S. Geological Survey and California Geologic Survey (USGS and CGS), 2006. Quaternary fault and fold database for the United States. Available online at http//earthquakes.usgs.gov/regional/qfaults/. Accessed June 3, 2008.

California Department of Fish and Game. 2003. RareFind 3, Version 3.0.5, California Natural Diversity Database. Sacramento, California.

California Department of Water Resources (WDR), 2008. Groundwater Level Data: Map Interface. Available online at: http://wdl.water.ca.gov/gw/map/index.cfm. Accessed January 5, 2009.

California Environmental Protection Agency (Cal/EPA), 2008. Department of Toxic Substances Control EnviroStor Database. Copyright 2007, DTSC. Available online at: http://www.envirostor.dtsc.ca.gov/public/. Accessed on June 4, 2008.

California General Plan Guidelines, 2003. *State of California General Plan Guidelines, 2003*. Governor's Office of Planning and Research.

California Geological Survey (CGS). 2006. Probabilistic Seismic Hazards Mapping Ground Motion Page. Available online at: http://www.conservation.ca.gov/CGS/Pages/Index.aspx. Accessed June 3, 2008.

California Native Plant Society. 2008. Online Inventory of Rare and Endangered Vascular Plants of California. Sacramento, California. v7-08b 4-02-08. Available online at: http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi/BrowseAZ?name=quad.

California Office of Historic Preservation (OHP). 1976. *California Inventory of Historic Resources*. State of California, Department of Parks and Recreation, Sacramento.

OHP, 1988. *Five Views: An Ethnic Historic Site Survey for California*. State of California, Department of Parks and Recreation, Sacramento.

OHP, 1990. *California Historical Landmarks*. State of California, Department of Parks and Recreation, Sacramento.

OHP, 1992. *California Points of Historical Interest*. State of California, Department of Parks and Recreation, Sacramento.

OHP, 2008. *Historic Properties Directory*, Listing by City through March 2008. State of California, Office of Historic Preservation, Sacramento.

Gudde, Erwin G. 1998. *California Place Names: The Origin and Etymology of Current Geographical Names*. University of California Press. Berkeley, California.

Heizer, R. F. 1949. *The Archaeology of Central California I: The Early Horizon*. California Anthropological Records 12:1-84. University of California, Berkeley.

Hickman, J.C. (ed.). 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, California.

Holland, Robert. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California*. The Resource Agency Department of Fish and Game. October 1986.

Hoover, Mildred Brooke, Hero Eugene Rensch, Ethel Grace Rensch, William N. Abeloe. 1990 *Historic Spots in California*. Revised by Douglas E. Kyle. Stanford University Press, Stanford, California.

Jones, Terry. 1992. Settlement Trends Along the California Coast. In, *Essays on the Prehistory of Maritime California*, edited by Terry Jones. Center for Archaeological Research at Davis Publication No. 10. Davis, California.

Kroeber, A., 1925. *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C.

Levy, Richard A. 1978. Costanoan. In *California*, edited by Robert F. Heizer, pp. 485-499. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Mayer, Kenneth and Laudenslayer, W. 1988. *A Guide to Wildlife Habitats of California*. California Department of Forestry and Fire Protection. Sacramento, California.

Milliken, Randall. 1995. *A Time of Little Choice.* Ballena Press, Menlo Park.

Moratto, Michael J. 1984. *California Archaeology*. Academic Press, Orlando.

National Marine Fisheries Service, 1999. Designated Critical Habitat; Central California Coast and Southern Oregon/Northern California Coast Coho Salmon.

National Marine Fisheries Service, 2005. Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California; Final Rule.

National Park Service (compiler). 2008. *National Register of Historic Places Index of Listed Properties* (computer listing for February, 2008). United States Department of the Interior, Washington, D.C. On file, North Central Information Center, California Historical Resources Information System, California State University, Sacramento.

Natural Resources Conservation Service (NRCS), 2008. *United State Department of Agriculture, Natural Resources Conservation Service: Web Soil Survey (WSS).* Available online at: http://websoilsurvey.nrcs.usda.gov/app/.

Powers, Stephen. 1877. Tribes of California. Washington D.C.: U.S. Department of the Interior, Geographical and Geological Survey of the Rocky Mountain Region*, Contributions to North American Ethnology, III.* (Reprinted 1976 as *Tribes of California.* Berkeley and Los Angeles: University of California Press.)

Pulcheon, A. 2003. *A Cultural Resources Study for the Pescadero Water Supply Project, County Service Area 11, Near Pescadero, San Mateo County, California*. Report on file, Northwest Information Center, Sonoma State University, Rohnert Park.

Rounds, Chris. 2008. Phone conversation with Station Chief of San Mateo County Fire Department Station 59. December 30, 2008.

San Mateo County, 1986. *General Plan 1986 Policies*. Department of Environmental Management November 1998. Available online at: < http://www.sforoundtable.org/P&B/pb_general_plan.html Accessed December 2008.

San Mateo County, 1998. *Local Coastal Plan*. June 1998. Available online at: < http://www.sforoundtable.org/P&B/pb_general_plan.html>. Accessed December, 2008.

San Mateo County, 2008a. Phone conversation with San Mateo County Health System. December 30, 2008.

San Mateo County, 2008b. San Mateo County Department of Parks and Recreation – Pescadero Creek Park. Available online at <http://www.co.sanmateo.ca.us/smc/department/home/0,2151,5556687_10575168,00.html>. Accessed December 2009.

San Mateo County Sheriff's Department. 2008. Available online at http://www.co.sanmateo.ca.us/smc/department/home/0,,14095463_14132044_59222338,00.html Accessed December 30, 2008.

Sawyer, John and Keeler-Wolf, T. 1995. A Manual of California Vegetation. California Native Plant Society. Sacramento, California.

Simons, Dwight. 1992. Prehistoric Marine Mammal Exploitation in the San Francisco Bay Area. In, *Essays on the Prehistory of Maritime California*, edited by Terry Jones. Center for Archaeological Research at Davis Publication No. 10. Davis, California.

United States Army Corp of Engineers. 1995. Wetland Training Institute, Inc. Field Guide for Wetland Delineation. Glenwood, New Mexico.

United States Department of Agriculture, Natural Resources Conservation Service, 2008. Soil Data Mart. Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California. Available Online at: http://soildatamart.nrcs.usda.gov/Survey.aspx?County=CA081. Accessed on June 4, 2008.

United States Department of the Interior, Geological Survey, 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.

United States Department of the Interior, Geological Survey, 1991. "Pigeon Point, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

United States Department of the Interior, Geological Survey, 1997. "San Gregorio, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

United States Federal Emergency Management Agency (FEMA), 2008. Map Service Center: FEMA Issued Flood Maps. Available online at: http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1&userType=G. Accessed January 5, 2009.

United States Fish and Wildlife Service, 1995. Recovery Plan for the San Francisco Giant Garter Snake (*Thamnophis sirtalis tetrataenia*). Sacramento, California.

United States Fish and Wildlife Service, 2005. Recovery Plan for the Tidewater Goby (*Thamnophis sirtalis tetrataenia*). Sacramento, California.

United States Fish and Wildlife Service, 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). Sacramento, California.

United States Fish and Wildlife Service, 2006. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Red-legged Frog and Special Rule Exemption Associated With Final Listing for Existing Routine Ranch Activities; Final Rule. Sacramento, California.

United States Fish and Wildlife Service, 2008. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Tidewater Goby (*Eucyclogobius newberryi*); Final Rule.

United States Fish and Wildlife Service. 2008. Sacramento Fish and Wildlife Office, Endangered and Threatened Species List. Available online at: http://www.fws.gov/sacramento/es/spp_lists/auto_list.cfm.

U.S. Fish and Wildlife Service. 2008. Personal Communication between Lucy Triffleman, Senior Wildlife Biologist and Kristie Haydu, AES Botanist regarding San Francisco garter snake issues associated with the Proposed Project.

Western Regional Climate Center (WRCC), 2007. Available online at: http://www.wrcc.dri.edu/. Accessed on June 4, 2008.

APPENDICES

APPENDIX A

BIOLOGICAL RESOURCES DATABASE SEARCHES AND SPECIAL STATUS SPECIES TABLE

PESCADERO COMMUNITY SEWER PROJECT

REGIONALLY OCCURRING SPECIAL-STATUS SPECIES TABLE

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
PLANTS					
Agrostis blasdalei Blasdale's bent grass	--/--/1B	Known to occur in Mendocino, Marin, Santa Cruz, San Mateo, and Sonoma counties.	Occurs in coastal bluff scrub, coastal dunes, and coastal prairie. Elevations; 5-150 meters.	May-July	**No.** Suitable habitat for this species does not occur within the project site.
Amsinckia lunaris bent-flowered fiddleneck	--/--/1B	Known to occur in Alameda, Contra Costa, Colusa, Lake, Marin, Napa, San Benito, Santa Clara, Santa Cruz, San Mateo, and Yolo counties.	Coastal bluff scrub, Cismontane woodland, and Valley and foothill grassland. Elevations; 3-500 meters.	March-June	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Anomobryum julaceum slender silver moss	--/--/2	Known to occur in Butte, Contra Costa, Humboldt, Los Angeles, Mariposa, Santa Barbara, Santa Cruz, Shasta, and Sonoma counties. Also occurs in Oregon and elsewhere.	Occurs in broadleaf upland forest, lower montane coniferous forest, and North Coast coniferous forest (damp rock and soil on outcrops, usually on roadcuts). Elevations; 100-1000 meters.	All Year	**No.** Suitable habitat for this species does not occur within the project site. The project site is outside of the known elevational range of this species.
Arctostaphylos andersonii Santa Cruz manzanita	--/--/1B	Known to occur in Santa Clara, Santa Cruz, and San Mateo counties.	Occurs in broadleaf upland forest, chaparral, and north coast coniferous forest. Elevations; 60 -730 meters.	November - April	**No.** Suitable habitat for this species does not occur within the project site.
Arctostaphylos glutinosa Schreiber's manzanita	--/--/1B	Known to occur in Santa Cruz County.	Occurs in closed-cone coniferous forest and chaparral (diatomaceous shale). Elevations; 170-685 meters.	November-April	**No.** Suitable habitat for this species does not occur within the project site. The project site is outside of the known elevational range of this species.
Arctostaphylos regismontana Kings Mountain manzanita	--/--/1B	Known to occur in Santa Clara, Santa Cruz and, San Mateo counties.	Occurs in broadleaf upland forest, chaparral, and north coast coniferous forest (granitic or sandstone soils). Elevations; 305-730 meters.	January-April	**No.** Suitable habitat for this species does not occur within the project site. The project site is outside of the known elevational range of this species.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Astragalus pycnostachyus var. *pycnostachyus* coastal marsh milk-vetch	--/--/1B	Known to occur in Humboldt, Mendocino, Marin, and San Mateo counties.	Occurs in coastal dunes (mesic), coastal scrub, and marshes and swamps (coastal salt, streamsides). Elevations; 0-30 meters.	April - October	**Yes**. The coastal scrub, marsh, and intermittent drainage within the project site are suitable habitat for this species.
California macrophylla round-leaved filaree	--/--/1B	Known to occur in Alameda, Butte (*?), Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Lake, Lassen, Los Angeles, Merced, Monterey, Napa, Riverside, Santa Barbara, San Benito, Santa Clara, Santa Cruz Isl., San Diego, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Ventura, and Yolo counties. Also occurs in Baja California and Oregon.	Occurs in cismontane woodland and Valley and foothill grassland (clay soils). Elevations; 15-1200 meters.	March - May	**Yes.** The annual grassland within the project site is suitable habitat for this species.
Callitropsis abramsiana Santa Cruz cypress	FE/CE/1B	Known to occur in Santa Cruz and San Mateo counties.	Occurs in closed-cone coniferous forest, chaparral, and lower montane coniferous forest (sandstone or granitic). Elevations; 280-800 meters.	Evergreen	**No.** Suitable habitat for this species does not occur within the project site. The project site is outside of the known elevational range of this species.
Cirsium andrewsii Franciscan thistle	--/--/1B	Known to occur in Contra Costa, Marin, San Francisco, San Mateo, and Sonoma (though may be extirpated/uncertain) counties.	Occurs in broadleaf upland forest, coastal scrub, coastal prairie, and coastal scrub (mesic, serpentinite). Elevations; 0-150 meters.	March-July	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Collinsia multicolor San Francisco collinsia	--/--/1B	Known to occur in Monterey, Santa Clara, Santa Cruz, San Francisco, and San Mateo counties.	Occurs in closed-cone coniferous forest and coastal scrub (serpentinite). Elevations; 30-250 meters.	March-May	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Dirca occidentalis western leatherwood	--/--/1B	Known to occur in Alameda, Contra Costa, Marin, Santa Clara, San Mateo, and Sonoma counties.	Occurs in broadleaf upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, and riparian woodlands (mesic). Elevations; 50-395 meters.	January-March (April)	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Eriophyllum latilobum San Mateo woolly sunflower	FE/CE/1B	Known to occur in San Mateo County.	Occurs in cismontane woodland (serpentine soils, roadcuts). Elevations ; 45-150 meters.	May-June	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Erysimum ammophilum coast wallflower	--/--/1B	Known to occur in Monterey, Santa Barbara, Santa Cruz, San Diego, San Mateo counties, and Santa Rosa Island.	Occurs in maritime chaparral, coastal dunes, and coastal scrub (sandy openings). Elevations; 0-60 meters.	February-June	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Fritillaria liliaceae fragrant fritillary	--/--/1B	Known to occur in Alameda, Contra Costa, Monterey, Marin, San Benito, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma counties.	Occurs in cismontane woodland, coastal prairie, coastal scrub, and Valley and foothill grassland (often serpentine). Elevations; 3-410 meters.	February-April	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Grindelia hirsutula var. *maritima* San Francisco gumplant	--/--/1B	Known to occur in Monterey (?), Marin, Santa Cruz (?), San Francisco, San Luis Obispo, San Mateo counties.	Occurs in coastal bluff scrub, coastal scrub, and Valley and foothill grassland (sandy or serpentine soils). Elevations; 15-400 meters.	June-September	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Horkelia cuneata ssp. *sericea* Kellogg's horkelia	--/--/1B	Known to occur in Alameda*, Monterey, Marin*, Santa Barbara, Santa Cruz, San Francisco*, San Luis Obispo, and San Mateo counties.	Occurs in closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub (sandy or gravelly soils, openings). Elevations; 10-200 meters.	April-September	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Horkelia marinensis Point Reyes horkelia	--/--/2	Known to occur in Mendocino, Marin, Santa Cruz, San Mateo, and Sonoma counties.	Occurs in coastal dunes, coastal prairie, and coastal scrub (sandy). Elevations; 5-350 meters.	May-September	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Lasthenia californica ssp. *macrantha* perennial goldfields	--/--/1B	Known to occur in Mendocino, Marin, San Luis Obispo, San Mateo, and Sonoma counties.	Occurs in coastal bluff scrub, coastal dunes, and coastal scrub. Elevations; 5-520 meters.	January-November	**Yes.** The coastal scrub is suitable habitat for this species.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Leptosiphon croceus coast yellow leptosiphon	--/--/1B	Known to occur in Monterey, Marin (*), and San Mateo counties.	Occurs in coastal bluff scrub and coastal prairie. Elevations; 10-150 meters.	April-May	**No.** Suitable habitat for this species does not occur within the project site. The annual grassland habitat on-site is dominated by non-native annual grasses and forbs.
Leptosiphon rosaceus rose leptosiphon	--/--/1B	Known to occur in Marin, San Francisco (*), San Mateo, and Sonoma (*) counties.	Occurs in coastal bluff scrub. Elevations; 0-100 meters.	April-July	**No.** Suitable habitat for this species does not occur within the project site.
Limnanthes douglasii ssp. *sulphurea* Point Reyes meadowfoam	--/CE/1B	Known to occur in Marin and San Mateo counties.	Occurs in coastal prairie, meadows and seeps (mesic), marshes and swamps (freshwater), and vernal pools. Elevations; 1-140 meters.	March-May	**Yes.** The aquatic features and the marsh are suitable habitats for this species.
Malacothamnus arcuatus arcuate bush mallow	--/--/1B	Known to occur in Santa Clara, Santa Cruz, and San Mateo counties.	Occurs in chaparral and cismontane woodland. Elevations; 15-355 meters.	April-September	**No.** Suitable habitat for this species does not occur within the project site.
Microseris paludosa marsh microseris	--/--/1B	Known to occur in Mendocino, Monterey, Marin, San Benito, Santa Cruz, San Francisco (*), San Luis Obispo, San Mateo (*), and Sonoma counties.	Occurs in closed-cone coniferous forest, cismontane woodland, coastal scrub, and Valley and foothill grassland. Elevations; 5-300 meters.	April-June (July)	**Yes.** The coastal scrub and annual grassland within the project site are suitable habitats for this species.
Mielichhoferia elongata elongate copper-moss	--/--/2	Known to occur in Fresno, Humboldt, Lake, Mariposa, Marin, Nevada, Placer, Santa Cruz, Trinity, and Tulare counties. Also occurs in Oregon and elsewhere.	Occurs in cismontane woodland (metamorphic rock, vernally mesic). Elevations; 500-1300 meters.	All year	**No.** Suitable habitat for this species does not occur within the project site. The project site is outside of the known elevational range of this species.
Pinus radiata Monterey pine	--/--/1B	Known to occur in Monterey, Santa Cruz, San Luis Obispo, and San Mateo counties. Also occurs in Baja California and Isla Guadalupe.	Occurs in closed-cone coniferous forest and cismontane woodland. Elevations; 25-185 meters.	All year	**No.** Suitable habitat for this species does not occur within the project site.
Plagiobothrys chorisianus var. *chorisianus* Choris' popcorn flower	--/--/1B	Known to occur in Alameda (*?), Santa Cruz, San Francisco, and San Mateo counties.	Occurs in chaparral, coastal prairie, and coastal scrub (mesic). Elevations; 15-160 meters.	March-June	**Yes.** The coastal scrub within the project site is suitable habitat for this species.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Plagiobothrys diffusus San Francisco popcorn-flower	--/CE/1B	Known to occur in Alameda, Santa Cruz, San Francisco* and San Mateo counties.	Occurs in coastal praire and Valley and foothill grassland. Elevations; 60-360 meters.	March-June	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Rosa pinetorum pine rose	--/--/1B	Known to occur in Monterey and Santa Cruz counties.	Occurs in closed-cone coniferous forest. Elevations; 2-300 meters.	May-July	**No.** Suitable habitat for this species does not occur within the project site.
Sidalcea hickmanii ssp. *viridis* Marin checkerbloom	--/--/1B	Known to occur in Lake (?), Marin, Napa, and Sonoma counties.	Occurs in chaparral (serpentinite). Elevations; 50-430 meters.	May - June	**No.** Suitable habitat for this species does not occur within the site.
Silene verecunda ssp. *verecunda* San Francisco campion	--/--/1B	Known to occur in Santa Cruz, San Francisco, San Mateo, and Sutter counties.	Occurs in coastal bluff scrub, chaparral, coastal prairie, coastal scrub, and Valley and foothill grassland/sandy. Elevations; 30-645 meters.	March-June (August)	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Stebbinsoseris decipiens Santa Cruz microseris	--/--/1B	Known to occur in Monterey, Marin, Santa Cruz, San Francisco, San Luis Obispo, and San Mateo counties.	Occurs in broadleaf upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and Valley and foothill grassland/open areas, serpentinite. Elevations; 10-500 meters.	April-May	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Trifolium buckwestorum Santa Cruz clover	--/--/1B	Known to occur in Mendocino, Monterey, Santa Cruz, and Sonoma counties.	Occurs in broadleaf upland forest, cismontane woodland, and coastal prairie (gravelly). Elevations; 105 to 610 meters.	April - October	**No.** Suitable habitat for this species does not occur within the site. The project site is outside the elevational range of this species.
ANIMALS					
Invertebrates					
Haliotis cracherodii black abalone	FC/--/--	Known from Cabo San Lucas, Baja California Sur, Mexico, and north to Mendocino County.	Occurs on hard substrates in the intertidal and subtidal zones. Wedges into crevices, cracks, and holes of intertidal rocks during low tide. Prefers areas of moderate to high surf.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Haliotes sorenseni white abalone	FE/--/--	Known to occur from Point Conception in Santa Barbara County California to Punta Eugenia in Baja California.	Occurs on hard substrates in the intertidal and subtidal zones. Requires relief rock or boulders. Juveniles seek cover in deep, rocky crevices and under boulders. Subtidal depths range from 20-60 meters.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Fish					
Eucyclogobius newberryii tidewater goby	FE/CSC/--	Known to occur in coastal lagoons throughout California from Del Norte County to San Diego County.	Generally found in brackish to freshwater shallow lagoons and slow-moving lower stream reaches. Habitat is fairly still, but not stagnant and they will avoid open areas with strong currents and/or wave action. Marshy habitats where they can avoid backwater flood flows.	Consult Agency	**Yes.** Butano Creek, Pescadero Creek, the marsh, and the intermittent drainage within the site are suitable habitat for this species. Butano and Pescadero Creeks are both USFWS designated critical habitat.
Hypomesus transpacificus delta smelt	FT/CT/--	Known to occur almost exclusively in the Sacramento-San Joaquin estuary, from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties. May also occur in the San Francisco Bay.	Estuarine waters. Majority of life-span is spent within the freshwater outskirts of the mixing zone (saltwater-freshwater interface) within the Delta.	Consult Agency	**No.** The project site is located outside the known range of this species.
Oncorhynchus kisutch irideus Coho salmon Central California Coast ESU	FE/CE/--	Known to spawn in short coastal drainages and lower sections of larger drainages from Punta Gorda in northern California south to the San Lorenzo River in central California, and includes tributaries to the San Francisco Bay.	Occurs in streams with pool and riffle complexes. Breeding requires cold water and gravelly streambeds.	Consult Agency	**Yes.** Butano Creek, Pescadero Creek, and associated tributaries are suitable habitat for this species and are USFWS designated critical habitat.
Oncorhynchus mykiss irideus steelhead Central California Coast ESU	FT/--/--	Known to spawn in drainages from the Russian River basin, Sonoma and Mendocino Counties, to Soquel Creek, Santa Cruz County (including the San Francisco Bay basin, but not the Sacramento and San Joaquin Rivers or their tributaries).	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks. Spawning: streams with pool and riffle complexes. For successful breeding, requires cold water and gravelly streambed.	Consult Agency	**Yes.** Butano Creek, Pescadero Creek, and associated tributaries are suitable habitat for this species and are USFWS designated critical habitat.
Oncorhynchus mykiss steelhead Central Valley ESU	FT/--/--	Spawn in the Sacramento and San Joaquin rivers and tributaries before migrating to the Delta and Bay Area.	In the Bay, requires shelter in dense marine vegetation (i.e., eelgrass) as juveniles, and a constant supply of larger fish such as herring as adults.	Consult Agency	**No.** The project site is outside the known range of this species.
Amphibians					
Rana boylii foothill yellow-legged frog	--/CSC/--	Known to occur in the coast Ranges from the Oregon border south to the Transverse Mountains in Los Angeles County, throughout most of northern California west of the Cascade crest, and along the western portion of the Sierra south to Kern County, with a few isolated populations in the Central Valley.	Occurs in shallow flowing streams with some cobble in a variety of habitats including woodlands, riparian forest, coastal scrub, chaparral, and wet meadows. Rarely encountered far from permanent water sources. Elevations; 0-1830 m.	March-June	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Rana aurora draytonii California red-legged frog	FT/CSC/--	Known to occur along the Coast from Mendocino County to Baja California, and inland through the northern Sacramento Valley into the foothills of the Sierra Nevada mountains, south to eastern Tulare County, and possibly eastern Kern County. Currently accepted range excludes the Central Valley.	Occurs in permanent and temporary pools of streams, marshes, and ponds with dense grassy and/or shrubby vegetation. Elevations; 0-1160 meters.	November-June	**Yes.** Butano Creek, Pescadero Creek, the intermittent drainage, and the marsh within the project site are suitable habitats for this species.
Reptiles					
Actinemys marmorata western pond turtle	--/CSC/--	In California, primarily north of the San Francisco Bay area and west of the Sierra Nevada Range.	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks. Elevations range from 0 to approximately 1,525 meters.	March-October	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Caretta caretta loggerhead turtle	FT/--/--	Circumglobal species. Occurs throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans. In the eastern Pacific range extends north to Alaska and South to Chile. Occasional sightings occur along the coast of Oregon and Washington. Most juvenile sightings are reported along the California coast. The west coast of Mexico and the Baja Peninsula are critical juvenile habitats.	Nests on ocean beaches. Prefers high-energy, narrow, and steeply sloped coarse-grained beaches. Juveniles develop within the oceanic zone until 7-12 years of age, then migrate to nearshore coastal areas within the neritic zone.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Chelonia mydas green turtle	FT/--/--	Globally distributed and generally found in tropical and subtropical waters along continental coasts and islands between 30° North and 30° South. In the eastern North Pacific, occurs from Baja California to southern Alaska.	Nests on oceanic beaches, feeds in benthic grounds in coastal areas, and frequents convergence zones in the open ocean.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Dermochelys coriacea leatherback turtle	FE/--/--	Nesting grounds occur globally. Sightings have occurred along the entire continental coast of the United States.	Mainly a pelagic species, but will also forage in coastal waters. Tolerant of colder water temperatures. Mating occurs in waters adjacent to nesting beaches and along migratory corridors.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Lepidochelys olivaceae olive ridley sea turtle	FT/--/--	Globally distributed in the tropical regions of the South Atlantic, Pacific, and Indian Oceans. In the Eastern Pacific, they occur from Southern California to Northern Chile	Mainly a pelagic turtle, but has been known to inhabit coastal areas, including bays and estuaries. Migrate annually from pelagic areas to coastal breeding and nesting grounds.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Thamnophis sirtalis tetrataenia San Francisco garter snake	FE/CE/--	Known to occur slightly north of the San Francisco-San Mateo County line near Merced Lake south along the base of the Santa Cruz Mountains to Waddell Creek.	Requires open grassy uplands and/or a grassland/shrubland matrix for breeding and shallow freshwater marshlands with adequate emergent vegetation.	March-July	**Yes.** The annual grassland, coastal scrub, and the marsh within the project site are suitable habitats for this species.
Birds					
Agelaius tricolor tricolored blackbird	--/CSC/--	Restricted to the Central Valley and surrounding foothills, throughout coastal and some inland localities in southern California, and scattered sites in Oregon, western Nevada, central Washington, and western coastal Baja California.	Nests in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near fresh water.	All Year	**No.** The nearest documented occurrence of this species is located greater than five miles from the project site.
Brachyramphus marmoratus marbled murrelet	FT/CE/--	Known to occur year-round in marine subtidal and pelagic habitats from the Oregon border to Point Sal, Santa Barbara County Breeding individuals in California largely concentrated on coastal waters off Del Norte and Humboldt counties (about 75% of the population), and in lesser numbers off San Mateo and Santa Cruz cos. (about 14%).	Partial to coastlines with stands of mature redwood and Douglas-fir; uses these trees for nesting and probably roosting. In summer, forages close to shore (within 500 m) in shallow water, usually less than 30 m deep. In nonbreeding season, often forages farther from shore.	May-August	**No.** Suitable habitat for this species does not occur within the project site.
Charadrius alexandrinus nivosus western snowy plover	FT/CSC/--	Occurs along the California coast and inland near the Salton Sea, Mono Lake, and alkali lakes.	Most breeding occurs on dune-backed beaches, barrier beaches, and salt-evaporation ponds; Can inhabit inland salt ponds and lakes. Require sandy, gravely, or friable soil substrates for nesting. Winter habitat is primarily coastal: beaches, tidal flats, lagoon margins, and salt-evaporation ponds. Inland some birds regularly winter at agricultural waste-water ponds in San Joaquin Valley, and at desert saline lakes (particularly Salton Sea) in southern California.	April-August	**No.** Suitable nesting habitat for this species does not occur within the project site.
Cypseloides niger black swift	--/CSC/--	Breeds in the central and southern Sierra, the coastal cliffs and mountains of San Mateo, Santa Cruz, and Monterey counties, the San Gabriel, San Bernardino, and San Jacinto mountains of southern California, and within a small region of the Cascade Range.	Steep cliffs or ocean bluffs with ledges, cavities or cracks for nesting along ocean shore, inland deep canyons and often behind waterfalls. Forages in a wide variety of habitats including forests, canyons, valleys, and plains. Breeding elevations range from 0-2285 meters.	May-July	**No.** Suitable nesting habitat for this species does not occur within the project site.
Diomedea albatrus short-tailed albatross	FE/--/--	Infrequent visitor along the coast of California. Only breeds on two remote islands of Japan, in the western Pacific.	Requires remote islands for breeding habitat. Nests in open treeless areas, with low or no vegetation. Requires nutrient-rich areas of ocean upwelling for foraging habitat.	All Year	**No.** Suitable nesting habitat for this species does not occur within the project site.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Geothlypis trichas sinuosa salt marsh common yellowthroat	--/CSC/--	Breeding range bounded by Tomales Bay on the north, Carquinez Strait on the east, and Santa Cruz county to south, with occurrences in the Bay Area during migration and winter.	Salt marshes. Nests just above ground or over water, in thick herbaceous vegetation, often at base of shrub or sapling, sometimes higher in weeds or shrubs up to about 1 meter.	March-July	**Yes.** The marsh within the project site is suitable habitat for this species.
Laterallus jamaicensis coturniculus California black rail	--/CT/--	In coastal California during breeding season, presently found at Bodega Bay, Tomales Bay, Bolinas Lagoon, San Francisco Bay estuary, and Morro Bay. Overwhelming majority of birds in n. San Francisco Bay (San Pablo Bay) at relatively few sites. Occurs irregularly south to nw. Baja California. Inland in small numbers in Salton Trough and on lower Colorado River from Bill Williams River (historically) to Laguna Dam	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation. Uses sites with shallower water than other North American rails. Most breeding areas vegetated by fine-stemmed emergent plants, rushes, grasses, or sedges. Sites used in coastal California characterized by taller vegetation, greater coverage and height of alkali heath (*Frankenia grandifolia*),	All Year	**No.** Suitable nesting habitat for this species does not occur within the project site.
Pelecanus occidentalis californicus California brown pelican	FE/CE/FP	Estuarine, marine subtidal, and marine pelagic waters along the California coast.	Nests on coastal islands of small to moderate size, which afford immunity from attack by ground dwelling predators. Usually rests on water or inaccessible rocks (either offshore or on mainland), but also uses mudflats, sandy beaches, wharfs, and jetties	March-August	**No.** Suitable nesting habitat for this species does not occur within the project site.
Riparia riparia bank swallow	--/CT/--	In California, primarily nests from Siskyou, Shasta and Lassen Counties, south along the Sacramento River to Yolo County. Also nests locally across much of state.	Found primarily in riparian and other lowland habitats west of the deserts during the spring-fall period . In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes.	April-July	**No.** Suitable nesting habitat for this species does not occur within the project site.
Sternula antillarum browni California least tern	FE/CE/FP	Breeding colonies are located along the coast from southern California to San Francisco Bay.	Occur along marine and estuarine shores where small fish are abundant. Nest in loose colonies on the ground relatively free of human or predatory disturbance.	April-May	**No.** Suitable nesting habitat for this species does not occur within the project site.
Mammals					
Antrozous pallidus pallid bat	--/CSC/--	Locally common species at low elevations. It occurs throughout California except for the high Sierra Nevada from Shasta to Kern cos., and the northwestern corner of the state from Del Norte and western Siskiyou cos. to northern Mendocino Co.	Habitats occupied include grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests, generally below 2,000 meters. The species is most common in open, dry habitats with rocky areas for roosting. Roosts also include cliffs, abandoned buildings, bird boxes, and under bridges.	All Year	**Yes.** This species has the potential to forage and roost within the habitat types on-site.

Scientific Name **Common name**	**Status Federal/ State/CNPS or Other**	**Distribution**	**Habitat Requirements**	**Period of Identification**	**Potential to Occur Within the Site**
Arctocephalus townsendi Guadalupe fur seal	FT/--/--	Only known breeding colony is located on Guadalupe Island, off the Mexican coast. Increasing numbers have been observed on the Channel Islands and along the central coast of California.	Tend to stay near shore and breed in caves and rocky sites on Guadalupe Island rather than on open beaches. Foraging individuals have been sited as far south as Tapachula near the Mexico / Guatemala border, as far north as the Point Reyes National Seashore in California, and in the Gulf of California.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Balaenoptera borealis sei whale	FE/--/--	Inhabits all oceans and adjoining seas except in polar regions, feeding in cold water during the summer and migrating to warm tropical and subtropical waters during the winter. In the western North Pacific, sei whales are common in the southwest Bering Sea to the Gulf of Alaska, and offshore in a broad arc between about 40° North and 55° North across the Pacific.	Open ocean.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Balaenoptera musculus blue whale	FE/--/--	Occurs in all oceans, primarily along the edge of the continental shelf or along ice fronts. Major populations are found in the North Pacific, North Atlantic and southern hemisphere.	Open ocean.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Balaenoptera physalus finback whale	FE/--/--	Distributed worldwide, with three major distinct populations: the North Atlantic, North Pacific, and southern oceans.	Open ocean.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Eubalaena glacialis right whale	FE/--/--	Infrequent sightings along the eastern North Pacific, with the majority of these occurring in the Bering Sea and adjacent areas of the Aleutian Islands. Sightings have been reported as far south as central Baja California in the eastern North Pacific, as far south as Hawaii in the central North Pacific, and as far north as the sub-Arctic waters of the Bering Sea and Sea of Okhotsk in the summer.	Open ocean.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.
Eumetopias jubatus Stellar sea-lion	FT/--/--	Found throughout the North Pacific Rim from Japan to central California. Breeding occurs along the North Pacific Rim from Ano Nuevo Island in central California to the Kuril Islands North of Japan, with the greatest concentration of rookeries in the Gulf of Alaska and Aleutian Islands.	Tend to remain off shore or haul out in unpopulated areas. Rookeries and haul out sites are typically located on rocky shoreline and wave-cut platforms, occasionally on gravel shore. Rookeries are almost exclusively located on offshore islands and reefs. Can be seen near shore and out to the edge of the continental shelf and beyond.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.

Scientific Name Common name	Status Federal/ State/CNPS or Other	Distribution	Habitat Requirements	Period of Identification	Potential to Occur Within the Site
Physeter catodon sperm whale	FE/--/--	Occurs in all oceans worldwide. Frequently found close to the edge of pack ice in both hemispheres and common along the equator, especially in the Pacific. Found year-round in California waters with peak abundance from April to June and August through November.	Open ocean.	Consult Agency	**No.** Suitable habitat for this species does not occur within the project site.

STATUS CODES

FEDERAL: U.S. Fish and Wildlife Service and Marine Fisheries Service
FE Listed as Endangered by the Federal Government
FT Listed as Threatened by the Federal Government
FC Candidate for Listing by the Federal Government

STATE: California Department of Fish and Game
CE Listed as Endangered by the State of California
CT Listed as Threatened by the State of California
CSC California Species of Special Concern
FP California Fully Protected Species

CNPS: California Native Plant Society
List 1B Plants rare, threatened, or endangered in California and elsewhere
List 2 Plants rare, threatened, or endangered in California, but more common elsewhere.

() Months in parentheses are uncommon.
* May be extirpated from this county.
? Occurrence within county uncertain.

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	***Actinemys marmorata*** western pond turtle	ARAAD02030			G3G4	S3	SC
2	***Agelaius tricolor*** tricolored blackbird	ABPBXB0020			G2G3	S2	SC
3	***Agrostis blasdalei*** Blasdale's bent grass	PMPOA04060			G2	S2.2	1B.2
4	***Amsinckia lunaris*** bent-flowered fiddleneck	PDBOR01070			G2	S2.2	1B.2
5	***Antrozous pallidus*** pallid bat	AMACC10010			G5	S3	SC
6	***Arctostaphylos andersonii*** Anderson's manzanita	PDERI04030			G2	S2?	1B.2
7	***Arctostaphylos glutinosa*** Schreiber's manzanita	PDERI040G0			G2	S2.1	1B.2
8	***Ardea herodias*** great blue heron	ABNGA04010			G5	S4	
9	***Astragalus pycnostachyus var. pycnostachyus*** coastal marsh milk-vetch	PDFAB0F7B2			G2T2	S2.2	1B.2
10	***California macrophylla*** round-leaved filaree	PDGER01070			G3	S3.1	1B.1
11	***Callitropsis abramsiana*** Santa Cruz cypress	PGCUP04080	Endangered	Endangered	G1	S1.1	1B.2
12	***Charadrius alexandrinus nivosus*** western snowy plover	ABNNB03031	Threatened		G4T3	S2	SC
13	***Cicindela hirticollis gravida*** sandy beach tiger beetle	IICOL02101			G5T2	S1	
14	***Cirsium andrewsii*** Franciscan thistle	PDAST2E050			G2	S2.2	1B.2
15	***Coastal Brackish Marsh***	CTT52200CA			G2	S2.1	
16	***Collinsia multicolor*** San Francisco collinsia	PDSCR0H0B0			G2	S2.2	1B.2
17	***Cypseloides niger*** black swift	ABNUA01010			G4	S2	SC
18	***Danaus plexippus*** monarch butterfly	IILEPP2010			G5	S3	
19	***Dirca occidentalis*** western leatherwood	PDTHY03010			G2G3	S2S3	1B.2
20	***Eriophyllum latilobum*** San Mateo woolly sunflower	PDAST3N060	Endangered	Endangered	G1	S1.1	1B.1
21	***Erysimum ammophilum*** sand-loving wallflower	PDBRA16010			G2	S2.2	1B.2
22	***Eucyclogobius newberryi*** tidewater goby	AFCQN04010	Endangered		G3	S2S3	SC
23	***Eumetopias jubatus*** Steller (=northern) sea-lion	AMAJC03010	Threatened		G3	S2	
24	***Fritillaria agrestis*** stinkbells	PMLIL0V010			G3	S3.2	4.2

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
25	***Geothlypis trichas sinuosa*** saltmarsh common yellowthroat	ABPBX1201A			G5T2	S2	SC
26	***Horkelia cuneata ssp. sericea*** Kellogg's horkelia	PDROS0W043			G4T1	S1.1	1B.1
27	***Horkelia marinensis*** Point Reyes horkelia	PDROS0W0B0			G2	S2.2	1B.2
28	***Lasiurus cinereus*** hoary bat	AMACC05030			G5	S4?	
29	***Lasthenia californica ssp. macrantha*** perennial goldfields	PDAST5L0C5			G3T2	S2.2	1B.2
30	***Laterallus jamaicensis coturniculus*** California black rail	ABNME03041		Threatened	G4T1	S1	
31	***Leptosiphon croceus*** coast yellow leptosiphon	PDPLM09170			G1	S1.1	1B.1
32	***Leptosiphon rosaceus*** rose leptosiphon	PDPLM09180			G1	S1.1	1B.1
33	***Limnanthes douglasii ssp. sulphurea*** Point Reyes meadowfoam	PDLIM02038		Endangered	G4T1	S1.2	1B.2
34	***Malacothamnus arcuatus*** arcuate bush-mallow	PDMAL0Q0E0			G2Q	S2.2	1B.2
35	***Microseris paludosa*** marsh microseris	PDAST6E0D0			G2	S2.2	1B.2
36	***Mielichhoferia elongata*** elongate copper moss	NBMUS4Q022			G4?	S2.2	2.2
37	***Monterey Pine Forest***	CTT83130CA			G1	S1.1	
38	***N. Central Coast Calif. Roach/Stickleback/Steelhead Stream***	CARA2633CA			G?	SNR	
39	***North Central Coast Short-Run Coho Stream***	CARA2632CA			G?	SNR	
40	***North Central Coast Steelhead/Sculpin Stream***	CARA2637CA			G?	SNR	
41	***Northern Interior Cypress Forest***	CTT83220CA			G2	S2.2	
42	***Oncorhynchus kisutch*** coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	G4	S2?	
43	***Oncorhynchus mykiss irideus*** steelhead - central California coast ESU	AFCHA0209G	Threatened		G5T2Q	S2	
44	***Pinus radiata*** Monterey pine	PGPIN040V0			G1	S1.1	1B.1
45	***Plagiobothrys chorisianus var. chorisianus*** Choris' popcorn-flower	PDBOR0V061			G3T2Q	S2.2	1B.2
46	***Plagiobothrys diffusus*** San Francisco popcorn-flower	PDBOR0V080		Endangered	G1Q	S1.1	1B.1
47	***Rana boylii*** foothill yellow-legged frog	AAABH01050			G3	S2S3	SC
48	***Rana draytonii*** California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
49	***Riparia riparia*** bank swallow	ABPAU08010		Threatened	G5	S2S3	
50	***Rosa pinetorum*** pine rose	PDROS1J0W0			G2Q	S2.2	1B.2

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
51	***Sacramento-San Joaquin Coastal Lagoon***	CALA1360CA			G?	SNR	
52	***Silene verecunda ssp. verecunda*** San Francisco campion	PDCAR0U213			G5T2	S2.2	1B.2
53	***Stebbinsoseris decipiens*** Santa Cruz microseris	PDAST6E050			G2	S2.2	1B.2
54	***Thamnophis sirtalis tetrataenia*** San Francisco garter snake	ARADB3613B	Endangered	Endangered	G5T2	S2	
55	***Trifolium buckwestiorum*** Santa Cruz clover	PDFAB402W0			G1	S1.1	1B.1
56	***Tryonia imitator*** mimic tryonia (=California brackishwater snail)	IMGASJ7040			G2G3	S2S3	
57	***Valley Needlegrass Grassland***	CTT42110CA			G1	S3.1	

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 081230100658

Database Last Updated: September 11, 2008

Quad Lists

Listed Species

Invertebrates

Haliotes sorenseni
- white abalone (E) (NMFS)

Fish

Eucyclogobius newberryi
- critical habitat, tidewater goby (X)
- tidewater goby (E)

Hypomesus transpacificus
- delta smelt (T)

Oncorhynchus kisutch
- coho salmon - central CA coast (E) (NMFS)
- Critical habitat, coho salmon - central CA coast (X) (NMFS)

Oncorhynchus mykiss
- Central California Coastal steelhead (T) (NMFS)
- Central Valley steelhead (T) (NMFS)
- Critical habitat, Central California coastal steelhead (X) (NMFS)

Amphibians

Rana aurora draytonii
- California red-legged frog (T)

Reptiles

Caretta caretta
- loggerhead turtle (T) (NMFS)

Chelonia mydas (incl. agassizi)
- green turtle (T) (NMFS)

Dermochelys coriacea
- leatherback turtle (E) (NMFS)

Lepidochelys olivacea
- olive (=Pacific) ridley sea turtle (T) (NMFS)

Thamnophis sirtalis tetrataenia
- San Francisco garter snake (E)

Birds

Brachyramphus marmoratus
- marbled murrelet (T)

Charadrius alexandrinus nivosus
western snowy plover (T)

Diomedea albatrus
short-tailed albatross (E)

Pelecanus occidentalis californicus
California brown pelican (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Mammals

Arctocephalus townsendi
Guadalupe fur seal (T) (NMFS)

Balaenoptera borealis
sei whale (E) (NMFS)

Balaenoptera musculus
blue whale (E) (NMFS)

Balaenoptera physalus
finback (=fin) whale (E) (NMFS)

Eubalaena (=Balaena) glacialis
right whale (E) (NMFS)

Eumetopias jubatus
Steller (=northern) sea-lion (T) (NMFS)

Physeter catodon (=macrocephalus)
sperm whale (E) (NMFS)

Proposed Species

Amphibians

Rana aurora draytonii
Critical habitat, California red-legged frog (PX)

Candidate Species

Invertebrates

Haliotes cracherodii
black abalone (C) (NMFS)

Quads Containing Listed, Proposed or Candidate Species:

PIGEON POINT (409B)
SAN GREGORIO (429C)

County Lists

San Mateo County

Listed Species

Invertebrates

Euphydryas editha bayensis
bay checkerspot butterfly (T)
Critical habitat, bay checkerspot butterfly (X)

Haliotes sorenseni
white abalone (E) (NMFS)

Icaricia icarioides missionensis
mission blue butterfly (E)

Incisalia mossii bayensis
San Bruno elfin butterfly (E)

Speyeria callippe callippe
callippe silverspot butterfly (E)

Speyeria zerene myrtleae
Myrtle's silverspot butterfly (E)

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)

Eucyclogobius newberryi
critical habitat, tidewater goby (X)
tidewater goby (E)

Oncorhynchus kisutch
coho salmon - central CA coast (E) (NMFS)
Critical habitat, coho salmon - central CA coast (X) (NMFS)

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana aurora draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

Caretta caretta

loggerhead turtle (T) (NMFS)

Chelonia mydas (incl. agassizi)
green turtle (T) (NMFS)

Dermochelys coriacea
leatherback turtle (E) (NMFS)

Lepidochelys olivacea
olive (=Pacific) ridley sea turtle (T) (NMFS)

Thamnophis sirtalis tetrataenia
San Francisco garter snake (E)

Birds

Brachyramphus marmoratus
Critical habitat, marbled murrelet (X)
marbled murrelet (T)

Charadrius alexandrinus nivosus
Critical habitat, western snowy plover (X)
western snowy plover (T)

Diomedea albatrus
short-tailed albatross (E)

Pelecanus occidentalis californicus
California brown pelican (E)

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Mammals

Arctocephalus townsendi
Guadalupe fur seal (T) (NMFS)

Balaenoptera borealis
sei whale (E) (NMFS)

Balaenoptera musculus
blue whale (E) (NMFS)

Balaenoptera physalus
finback (=fin) whale (E) (NMFS)

Enhydra lutris nereis
southern sea otter (T)

Eubalaena (=Balaena) glacialis
right whale (E) (NMFS)

Eumetopias jubatus
Steller (=northern) sea-lion (T) (NMFS)

Megaptera novaeangliae
humpback whale (E) (NMFS)

Physeter catodon (=macrocephalus)
sperm whale (E) (NMFS)

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Plants

Acanthomintha duttonii
San Mateo thornmint (E)

Cirsium fontinale var. fontinale
fountain thistle (E)

Cupressus abramsiana
Santa Cruz cypress (E)

Eriophyllum latilobum
San Mateo woolly sunflower (E)

Hesperolinon congestum
Marin dwarf-flax (=western flax) (T)

Lessingia germanorum
San Francisco lessingia (E)

Pentachaeta bellidiflora
white-rayed pentachaeta (E)

Potentilla hickmanii
Hickman's potentilla (=cinquefoil) (E)

Proposed Species

Amphibians

Rana aurora draytonii

Critical habitat, California red-legged frog (PX)

Candidate Species

Invertebrates

Haliotes cracherodii

black abalone (C) (NMFS)

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be March 30, 2009.

Inventory of Rare and Endangered Plants

v7-08d 10-05-08

Status: search results - Tue, Dec. 30, 2008 09:18 c

{QUADS_123} =~ m/409B|429C|429D|409A|40 Search

Tip: `Lathyrus Astragalus` returns species from both genera.[all tips and help.]
[search history]

Your Quad Selection: Pigeon Point (409B) 3712224, San Gregorio (429C) 3712234, La Honda (429D) 3712233, Franklin Point (409A) 3712223, Ano Nuevo (409D) 3712213

Hits 1 to 34 of 34
Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.
ADD checked items to Plant Press | check all | check none
Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
	☐	1	**Agrostis blasdalei**	Blasdale's bent grass	Poaceae	List 1B.2
	☐	1	**Amsinckia lunaris**	bent-flowered fiddleneck	Boraginaceae	List 1B.2
	☐	1	**Anomobryum julaceum**	slender silver moss	Bryaceae	List 2.2
	☐	1	**Arctostaphylos andersonii**	Anderson's manzanita	Ericaceae	List 1B.2
	☐	1	**Arctostaphylos glutinosa**	Schreiber's manzanita	Ericaceae	List 1B.2
	☐	1	**Arctostaphylos regismontana**	Kings Mountain manzanita	Ericaceae	List 1B.2
	☐	1	**Astragalus pycnostachyus var. pycnostachyus**	coastal marsh milk-vetch	Fabaceae	List 1B.2
	☐	1	**California macrophylla**	round-leaved filaree	Geraniaceae	List 1B.1
	☐	1	**Callitropsis abramsiana**	Santa Cruz cypress	Cupressaceae	List 1B.2
	☐	1	**Cirsium andrewsii**	Franciscan thistle	Asteraceae	List 1B.2
	☐	1	**Collinsia multicolor**	San Francisco collinsia	Scrophulariaceae	List 1B.2
	☐	1	**Corethrogyne leucophylla**	branching beach aster	Asteraceae	List 3.2
	☐	1	**Dirca occidentalis**	western leatherwood	Thymelaeaceae	List 1B.2
	☐	1	**Eriophyllum latilobum**	San Mateo woolly sunflower	Asteraceae	List 1B.1
	☐	1	**Erysimum ammophilum**	sand-loving wallflower	Brassicaceae	List 1B.2

		1	**Fritillaria liliacea**	fragrant fritillary	Liliaceae	List 1B.2
		1	**Grindelia hirsutula var. maritima**	San Francisco gumplant	Asteraceae	List 1B.2
		1	**Horkelia cuneata ssp. sericea**	Kellogg's horkelia	Rosaceae	List 1B.1
		1	**Horkelia marinensis**	Point Reyes horkelia	Rosaceae	List 1B.2
		1	**Lasthenia californica ssp. macrantha**	perennial goldfields	Asteraceae	List 1B.2
		1	**Leptosiphon croceus**	coast yellow leptosiphon	Polemoniaceae	List 1B.1
		1	**Leptosiphon rosaceus**	rose leptosiphon	Polemoniaceae	List 1B.1
		1	**Limnanthes douglasii ssp. sulphurea**	Point Reyes meadowfoam	Limnanthaceae	List 1B.2
		1	**Malacothamnus arcuatus**	arcuate bush-mallow	Malvaceae	List 1B.2
		1	**Microseris paludosa**	marsh microseris	Asteraceae	List 1B.2
		1	**Mielichhoferia elongata**	elongate copper moss	Bryaceae	List 2.2
		1	**Pinus radiata**	Monterey pine	Pinaceae	List 1B.1
		1	**Plagiobothrys chorisianus var. chorisianus**	Choris' popcorn-flower	Boraginaceae	List 1B.2
		1	**Plagiobothrys diffusus**	San Francisco popcorn-flower	Boraginaceae	List 1B.1
		1	**Rosa pinetorum**	pine rose	Rosaceae	List 1B.2
		1	**Sidalcea hickmanii ssp. viridis**	Marin checkerbloom	Malvaceae	List 1B.3
		1	**Silene verecunda ssp. verecunda**	San Francisco campion	Caryophyllaceae	List 1B.2
		1	**Stebbinsoseris decipiens**	Santa Cruz microseris	Asteraceae	List 1B.2
		1	**Trifolium buckwestiorum**	Santa Cruz clover	Fabaceae	List 1B.1

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press | check all | check none

Selections will appear in a new window.

No more hits.

PLANT SPECIES OBSERVED ONSITE

Pescadero Community Sewer Project

May 29 and 30, 2008

(*) Asterisk indicates a non-native sp.

Scientific Name	Common Name
AIZOACEAE	**FIG-MARIGOLD FAMILY**
*Carpobrotus chilensis**	Sea fig
ANACARDIACEAE	**SUMAC FAMILY**
Toxicodendron diversilobum	Poison oak
APIACEAE	**CARROT FAMILY**
*Daucus carota**	Queen Anne's lace
*Foeniculum vulgare**	Sweet fennel
Heracleum lanatum	Cow parsnip
Oenanthe sarmentosa	Water parsley
Sanicula laciniata	Coast sanicle
ASTERACEAE	**SUNFLOWER FAMILY**
Achillea millefolium	Common yarrow
Anaphalis margaritacea	Pearly everlasting
Artemisia californica	California sagebrush
Artemisia douglasiana	Mugwort
Aster chilensis New Name- *Symphyotrichum chilense*	Common California aster
Baccharis pilularis	Coyote bush
*Cirsium vulgare**	Bull thistle
*Cotula coronopifolia**	Brassbuttons
Eriophyllum staechadifolium	Seaside woolly sunflower
Euthamia occidentalis	Western fragrant goldenrod
*Filago gallica** New name- *Logfia gallica*	Herba impia
Gnaphalium palustre	Western marsh cudweed
Gnaphalium purpureum New name- *Gamochaeta purpurea*	Purple cudweed
Grindelia sp.	Gumplant
Helenium puberulum	Sneezeweed
Hemizonia sp.	tarweed
*Hypochaeris radicata**	Perennial cat's-ear
*Lactuca serriola**	Prickly lettuce
*Leucanthemum vulgare**	Ox-eye daisy
*Picris echioides**	Bristly oxtongue
*Silybum marianum**	Milk thistle
*Sonchus asper**	Prickly sowthistle
*Sonchus oleraceus**	Common sowthistle
BLECHNACEAE	**DEER FERN FAMILY**
Woodwardia fimbriata	Giant chain fern
BORAGINACEAE	**BORAGE FAMILY**
*Myosotis discolor**	Forget-me-not
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica rapa**	Field mustard

PLANT SPECIES OBSERVED ONSITE

Pescadero Community Sewer Project

May 29 and 30, 2008

(*) Asterisk indicates a non-native sp.

*Hirschfeldia incana**	Shortpod mustard
*Raphanus sativus**	Purple wild radish
CAPRIFOLIACEAE	**HONEYSUCKEL FAMILY**
Lonicera involucrata	Twin berry
Sambucus racemosa	Red elderberry
CARYOPHYLLACEAE	**PINK FAMILY**
*Spergularia rubra**	Purple sandspurry
CONVOLVULACEAE	**MORNING-GLORY FAMILY**
*Convolvulus arvensis**	Morning glory
CORNACEAE	**DOGWOOD FAMILY**
Cornus sericea	Creek dogwood
CUCURBITACEAE	**GOURD FAMILY**
Marah fabaceus	Wild cucumber
CUPRESSACEAE	**CYPRESS FAMILY**
Cupressus macrocarpa New Name- *Callitropsis macrocarpa*	Monterey cypress
CYPERACEAE	**SEDGE FAMILY**
Carex sp.	Sedge
Cyperus eragrostis	Tall flatsedge
Scirpus microcarpus	Panicled bulrush
Scirpus sp.	Bulrush
DIPSACEAE	**TEASEL FAMILY**
*Dipsacus fullonum**	Teasel
DRYOPTERIDACEAE	**WOOD FERN FAMILY**
Polystichum munitum	Western sword fern
EQUISETACEAE	**HORSETAIL FAMILY**
Equisetum arvense	Field horsetail
ERICACEAE	**HEATH FAMILY**
Gaultheria shallon	Salal
EUPHORBIACEAE	**SPURGE FAMILY**
Euphorbia crenulata	Chinese caps
FABACEAE	**LEGUME FAMILY**
Astragalus nuttallii var. *nuttallii*	Ocean bluff milk vetch
Astragalus sp.	Milk vetch
*Cytisus scoparius**	Scotch broom
*Lathyrus latifolius**	Perennial sweetpea
*Lotus corniculatus**	Birdsfoot trefoil
Lupinus arboreus	Yellow bush lupine
Lupinus latifolius var. *dudleyi*	Canyon lupine
*Medicago polymorpha**	Bur clover
*Melilotus indica**	Sweetclover
*Melilotus officinalis**	Yellow sweetclover
*Trifolium arvense**	Rabbitfoot clover
*Trifolium campestre**	Hop clover
*Trifolium repens**	White clover

PLANT SPECIES OBSERVED ONSITE

Pescadero Community Sewer Project

May 29 and 30, 2008

(*) Asterisk indicates a non-native sp.

Vicia gigantea	Giant vetch
*Vicia tetrasperma**	Four seeded vetch
*Vicia villosa**	Winter vetch
GERANIACEAE	**GERANIUM FAMILY**
*Erodium botrys**	Filaree
*Geranium dissectum**	Cut-leaved geranium
Geranium sp.	Geranium
HYDROPHYLLACEAE	**WATERLEAF FAMILY**
Phacelia sp.	Phacelia
IRIDACEAE	**IRIS FAMILY**
Iris sp.	Iris
JUNCACEAE	**RUSH FAMILY**
Juncus effusus	Soft rush
Juncus mexicanus	Mexican rush
Juncus patens	Spreading rush
JUNCAGINACEAE	**ARROW-GRASS FAMILY**
Lilaea scilloides	Flowering quillwort
LAMIACEAE	**MINT FAMILY**
*Mentha pulegium**	Pennyroyal
Satureja douglasii	Yerba buena
Stachys ajugoides var. *rigida*	Hedge nettle
LILIACEAE	**LILY FAMILY**
Chlorogalum pomeridianum	Soap plant
LINACEAE	**FLAX FAMILY**
*Linum bienne**	Narrow-leaved flax
LYTHRACEAE	**LOOSESTRIFE FAMILY**
*Lythrum hyssopifolia**	Hyssop loosestrife
MYRICACEAE	**WAX MYRTLE FAMILY**
Myrica californica	Wax myrtle
MYRTACEAE	**MYRTLE FAMILY**
Eucalyptus sp.	Eucalyptus
ONAGRACEAE	**EVENING PRIMROSE FAMILY**
Epilobium ciliatum	Hairy willow-herb
PAPAVERACEAE	**POPPY FAMILY**
Eschscholzia californica	California poppy
PINACEAE	**PINE FAMILY**
Pinus sp.	Pine
PLANTAGINACEAE	**PLANTAIN FAMILY**
*Plantago coronopus**	Cut-leaf plantain
*Plantago lanceolata**	English plantain
*Plantago major**	Broad-leaf plantain
POACEAE	**GRASS FAMILY**
*Aira caryophyllea**	Hairgrass
*Avena barbata**	Slender wild oat

PLANT SPECIES OBSERVED ONSITE

Pescadero Community Sewer Project

May 29 and 30, 2008

(*) Asterisk indicates a non-native sp.

*Briza maxima**	Big quaking grass
*Briza minor**	Little quaking grass
*Bromus diandrus**	Ripgut brome
*Bromus hordeaceus**	Soft brome
*Cortaderia jubata**	Pampas grass
*Cynodon dactylon**	Bermuda grass
Elymus glaucus	Blue wild-rye
*Holcus lanatus**	Velvet grass
Hordeum brachyantherum	Meadow barley
*Hordeum marinum**	Mediterranean barley
*Lolium multiflorum**	Ryegrass
Nassella pulchra	Purple needle grass
*Phalaris aquatica**	Harding grass
*Phalaris canariensis**	Common canary grass
*Polypogon monspeliensis**	Annual rabbit-foot grass
*Vulpia myuros**	Rat-tail vulpia
POLEMONIACEAE	**PHLOX FAMILY**
Navarretia squarrosa	Skunkweed
POLYGONACEAE	**BUCKWHEAT FAMILY**
*Polygonum arenastrum**	Prostrate knotweed
Polygonum sp.	Smartweed
*Rumex acetosella**	Sheep sorrel
*Rumex crispus**	Curly dock
Rumex salicifolius	Willow dock
PRIMULACEAE	**PRIMROSE FAMILY**
*Anagallis arvensis**	Scarlet pimpernel
PTERIDACEAE	**BRAKE FAMILY**
Pentagramma triangularis	Goldenback fern
RHAMNACEAE	**BUCKTHORN FAMILY**
Ceanothus thyrsiflorus	Blue blosson
Rhamnus californica ssp. *californica*	California coffeeberry
ROSACEAE	**ROSE FAMILY**
Fragaria vesca	Wood strawberry
Heteromeles arbutifolia	Toyon
Holodiscus discolor	Ocean spray
Rosa sp.	Rose
Rubus parviflorus	Thimbleberry
Rubus ursinus	California blackberry
RUBIACEAE	**MADDER FAMILY**
*Sherardia arvensis**	Field madder
SALICACEAE	**WILLOW FAMILY**
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willow
SOLANACEAE	**NIGHTSHADE FAMILY**
Solanum umbelliferum	Blue witch

PLANT SPECIES OBSERVED ONSITE

Pescadero Community Sewer Project

May 29 and 30, 2008

(*) Asterisk indicates a non-native sp.

SCROPHULARIACEAE	**FIGWORT FAMILY**
*Bellardia trixago**	Mediterranean lineseed
Mimulus aurantiacus	Bush monkey flower
Mimulus guttatus	Common monkey flower
*Parentucellia viscosa**	Yellow glandweed
Scrophularia californica	California figwort
TYPHACEAE	**CATTAIL FAMILY**
Typha angustifolia	Narrow-leaf cattail
Typha latifolia	Broad-leaf cattail
URTICACEAE	**NETTLE FAMILY**
Urtica dioica var. *holosericea*	Stinging nettle
VERBENACEAE	**VERVAIN FAMILY**
Verbena lasiostachys var. *scabrida*	Robust vervain

APPENDIX B

NATIVE AMERICAN CONSULTATION

APPENDIX B

Cultural Resources Study Records Search and Native American Consultation

ANALYTICAL ENVIRONMENTAL SERVICES

May 20, 2008

Debbie Pilas-Treadway
Native American Heritage Commission
915 Capitol Mall, Rm. 364
Sacramento, CA 95814

RE: Pescadero; AES Project No. 207529

Dear Ms. Pilas-Treadway;

Analytical Environmental Services (AES) is conducting a cultural resources study in support of the above referenced project. We would like to request a check of the Sacred Lands files for the project area, and a list of appropriate Native American contacts for consultation.

The project site is located in Section 10 and unsectioned land of Rancho Butano, T8S, R5W; San Mateo County, as shown on the attached San Gregorio and Pigeon Point CA 7.5 minute USGS quadrangles. The project consists of three wastewater treatment locations.

If you have any questions, please feel free to contact me directly. Thank you for your assistance in this matter. Results may be faxed to the number below.

Sincerely,

Damon Haydu
AES Archaeologist

enc.

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390
Web Site www.nahc.ca.gov

May 22, 2008

Damon Haydu
Anayltical Environmental Services
1801 7th Street, Suite 100
Sacramento, CA 95814

Sent by Fax: 916-447-1665
Number of Pages: 2

RE: Proposed Pescadero Project, AES No. 207529, San Mateo County

Dear Mr. Haydu:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,

Debbie Pilas-Treadway
Environmental Specialist III

Native American Contacts
San Mateo County
May 21, 2008

Jakki Kehl
720 North 2nd Street
Patterson , CA 95363
jakki@bigvalley.net
(209) 892-2436
(209) 892-2435 - Fax
Ohlone/Costanoan

The Ohlone Indian Tribe
Andrew Galvan
PO Box 3152
Fremont , CA 94539
chochenyo@AOL.com
(510) 882-0527 - Cell
(510) 687-9393 - Fax
Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Amah/MutsunTribal Band
Irene Zwierlein, Chairperson
789 Canada Road
Woodside , CA 94062
amah_mutsun@yahoo.com
(650) 851-7747 - Home
(650) 851-7489 - Fax
Ohlone/Costanoan

Trina Marine Ruano Family
Ramona Garibay, Representative
16010 Halmar Lane
Lathrop , CA 95330
Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister , CA 95024
ams@garlic.com
831-637-4238
Ohlone/Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
PO Box 360791
Milpitas , CA 95036
muwekma@muwekma.org
408-434-1668
408-434-1673
Ohlone / Costanoan

This list is current only as of the date of this document.

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

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Pescadero, AES # 207529, San Mateo County.

Consultation Log
Pescadero Community Sewer Project
207529

Organization / Individual	Contact	Letter	Phone Calls	Results
Native American Heritage Commission	Debbie Pilas-Treadway	5/20/2008	N/A	Response received 5/22/2008 indicating Sacred Land File was negative; provided a list of six individuals/organizations to consult with.
Muwekma Ohlone Indian Tribe of the SF Bay Area	Rosemary Cambra	5/22/2008	6/4/2008	Left message.
The Ohlone Indian Tribe	Andrew Galvan	5/22/2008	6/4/2008	Mr. Galvan stated that he is not aware of any specific sites in the area. He recommended language in the document related to inadvertant discoveries during construction, which have been incorporated.
Trina Marine Ruano Family	Ramona Garibay	5/22/2008	N/A	No written response. No phone number provided.
	Jakki Kehl	5/22/2008	6/4/2008	Phone number no longer in service.
Indian Canyon Mutsun Band of Costanoan	Ann Marie Sayers	5/22/2008	6/4/2008	Ms. Sayers stated that she is not aware of any specific sites in the area; she recommended monitoring of earth moving in areas in proximity to Butano or Pescadero Creeks.
Amah/Mutsun Tribal Band	Irene Zwierlein	5/22/2008	6/4/2008	Left message for Mrs. Zwierlein with Mr. Zwierlein.

ANALYTICAL ENVIRONMENTAL SERVICES

May 22, 2008

Rosemary Cambra
Muwekma Ohlone Indian Tribe of the SF Bay Area
P.O. Box 360791
Milpitas, CA 95063

RE: Cultural Resource Inventory for the Pescadero WWTP Project

Dear Ms. Cambra;

Analytical Environmental Services (AES) is conducting a cultural resources inventory in compliance with the California Environmental Quality Act for the above referenced project. The Native American Heritage Commission provided AES with your name and address as a means gathering information on cultural resources potentially located within or near the project area. In bringing this project to your attention we would like to request any information you may have regarding the prehistoric, ethnographic, and traditional cultural uses of the project area.

The project site is located in Section 10 and unsectioned land of Rancho Butano, T8S, R5W; San Mateo County, as shown on the attached San Gregorio and Pigeon Point CA 7.5 minute USGS quadrangles. The project consists of three wastewater treatment locations.

If you can provide any information, have questions or concerns, or need more information, please feel free to contact me directly. I can be reached at 916-447-3479 x 25 or by email at dhaydu@analyticalcorp.com. I look forward to receiving your information and appreciate your attention to this matter.

Sincerely,

Damon Haydu
AES Archaeologist

enc.

ANALYTICAL ENVIRONMENTAL SERVICES

May 22, 2008

Andrew Galvan
The Ohlone Indian Tribe
P.O. Box 3152
Fremont, CA 94539

RE: Cultural Resource Inventory for the Pescadero WWTP Project

Dear Mr. Galvan;

Analytical Environmental Services (AES) is conducting a cultural resources inventory in compliance with the California Environmental Quality Act for the above referenced project. The Native American Heritage Commission provided AES with your name and address as a means gathering information on cultural resources potentially located within or near the project area. In bringing this project to your attention we would like to request any information you may have regarding the prehistoric, ethnographic, and traditional cultural uses of the project area.

The project site is located in Section 10 and unsectioned land of Rancho Butano, T8S, R5W; San Mateo County, as shown on the attached San Gregorio and Pigeon Point CA 7.5 minute USGS quadrangles. The project consists of three wastewater treatment locations.

If you can provide any information, have questions or concerns, or need more information, please feel free to contact me directly. I can be reached at 916-447-3479 x 25 or by email at dhaydu@analyticalcorp.com. I look forward to receiving your information and appreciate your attention to this matter.

Sincerely,

Damon Haydu
AES Archaeologist

enc.

ANALYTICAL ENVIRONMENTAL SERVICES

May 22, 2008

Ramona Garibay
Trina Marine Ruano Family
16010 Halmar lane
Lathrop, CA 95330

RE: Cultural Resource Inventory for the Pescadero WWTP Project

Dear Ms. Garibay;

Analytical Environmental Services (AES) is conducting a cultural resources inventory in compliance with the California Environmental Quality Act for the above referenced project. The Native American Heritage Commission provided AES with your name and address as a means gathering information on cultural resources potentially located within or near the project area. In bringing this project to your attention we would like to request any information you may have regarding the prehistoric, ethnographic, and traditional cultural uses of the project area.

The project site is located in Section 10 and unsectioned land of Rancho Butano, T8S, R5W; San Mateo County, as shown on the attached San Gregorio and Pigeon Point CA 7.5 minute USGS quadrangles. The project consists of three wastewater treatment locations.

If you can provide any information, have questions or concerns, or need more information, please feel free to contact me directly. I can be reached at 916-447-3479 x 25 or by email at dhaydu@analyticalcorp.com. I look forward to receiving your information and appreciate your attention to this matter.

Sincerely,

Damon Haydu
AES Archaeologist

enc.

ANALYTICAL ENVIRONMENTAL SERVICES

May 22, 2008

Jakki Kehl
720 North 2nd Street
Patterson, CA 95363

RE: Cultural Resource Inventory for the Pescadero WWTP Project

Dear Jakki Kehl;

Analytical Environmental Services (AES) is conducting a cultural resources inventory in compliance with the California Environmental Quality Act for the above referenced project. The Native American Heritage Commission provided AES with your name and address as a means gathering information on cultural resources potentially located within or near the project area. In bringing this project to your attention we would like to request any information you may have regarding the prehistoric, ethnographic, and traditional cultural uses of the project area.

The project site is located in Section 10 and unsectioned land of Rancho Butano, T8S, R5W; San Mateo County, as shown on the attached San Gregorio and Pigeon Point CA 7.5 minute USGS quadrangles. The project consists of three wastewater treatment locations.

If you can provide any information, have questions or concerns, or need more information, please feel free to contact me directly. I can be reached at 916-447-3479 x 25 or by email at dhaydu@analyticalcorp.com. I look forward to receiving your information and appreciate your attention to this matter.

Sincerely,

Damon Haydu
AES Archaeologist

enc.

ANALYTICAL ENVIRONMENTAL SERVICES

May 22, 2008

Ann Marie Sayers
Indian Canyon Mutsun Band of Costanoan
P.O. Box 28
Hollister, CA 95024

RE: Cultural Resource Inventory for the Pescadero WWTP Project

Dear Ms. Sayers;

Analytical Environmental Services (AES) is conducting a cultural resources inventory in compliance with the California Environmental Quality Act for the above referenced project. The Native American Heritage Commission provided AES with your name and address as a means gathering information on cultural resources potentially located within or near the project area. In bringing this project to your attention we would like to request any information you may have regarding the prehistoric, ethnographic, and traditional cultural uses of the project area.

The project site is located in Section 10 and unsectioned land of Rancho Butano, T8S, R5W; San Mateo County, as shown on the attached San Gregorio and Pigeon Point CA 7.5 minute USGS quadrangles. The project consists of three wastewater treatment locations.

If you can provide any information, have questions or concerns, or need more information, please feel free to contact me directly. I can be reached at 916-447-3479 x 25 or by email at dhaydu@analyticalcorp.com. I look forward to receiving your information and appreciate your attention to this matter.

Sincerely,

Damon Haydu
AES Archaeologist

enc.

ANALYTICAL ENVIRONMENTAL SERVICES

May 22, 2008

Irene Zwierlein
Amah/Mutsun Tribal Band
789 Canada Road
Woodside, CA 94062

RE: Cultural Resource Inventory for the Pescadero WWTP Project

Dear Ms. Zwierlein;

Analytical Environmental Services (AES) is conducting a cultural resources inventory in compliance with the California Environmental Quality Act for the above referenced project. The Native American Heritage Commission provided AES with your name and address as a means gathering information on cultural resources potentially located within or near the project area. In bringing this project to your attention we would like to request any information you may have regarding the prehistoric, ethnographic, and traditional cultural uses of the project area.

The project site is located in Section 10 and unsectioned land of Rancho Butano, T8S, R5W; San Mateo County, as shown on the attached San Gregorio and Pigeon Point CA 7.5 minute USGS quadrangles. The project consists of three wastewater treatment locations.

If you can provide any information, have questions or concerns, or need more information, please feel free to contact me directly. I can be reached at 916-447-3479 x 25 or by email at dhaydu@analyticalcorp.com. I look forward to receiving your information and appreciate your attention to this matter.

Sincerely,

Damon Haydu
AES Archaeologist

enc.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1303 Maurice Avenue
Rohnert Park, California 94928-3609
Tel: 707.664.0880 • Fax: 707.664.0890
E-mail: leigh.jordan@sonoma.edu

CULTURAL/HISTORICAL RESOURCE CONSULTANT RECORDS SEARCH REQUEST FORM

Regular Rates ☑ ***Rapid Response*** ☐

Date: 4/28/2008 NWIC File No. _____

Name: Damon Haydu Phone #: 916-447-3479

Affiliation: Analytical Environmental Services

Address: 1801 7th Street, Suite 100, Sacramento, CA 95811

Project: Pescadero Community Sewer Project

Street Address of Project: Pescadero Creek Road

Quad: San Gregorio & Pigeon Point County: San Mateo

PLEASE INCLUDE THE FOLLOWING INFORMATION FOR THE PROJECT AREA SHOWN ON AN ATTACHED MAP OF THE PROJECT AREA. PLEASE CIRCLE/FILL-IN AS NECESSARY.

Data Base

List of Sites	within the project area	☑ yes / no ☐
	within a 1/2 mile radius	☑ yes / no ☐
List of Studies	within the project area	☑ yes / no ☐
	within a Adjacent mile radius	☑ yes / no ☐
Mapped Sites	within the project area	☑ yes / no ☐
	within a 1/2 mile radius	☑ yes / no ☐
Mapped Studies	within the project area	☑ yes / no ☐
	within a 1/2 mile radius	☑ yes / no ☐
Copies of entire Site Records		☑ yes / no ☐
Copies of entire Study Reports		☑ yes / no ☐
Bibliographic References		☑ yes / no ☐

INVENTORIES

Please check:

within the project area	☑ yes / no ☐
within a _____mile radius	☐ yes / no ☑

Historic Properties Directory, including: ☑ yes / no ☐

- ☑ National Register of Historic Places
- ☑ California Register
- ☑ California Historical Landmarks
- ☑ California Points of Historical Interest

California Inventory of Historic Resources: ☐ yes / no ☑

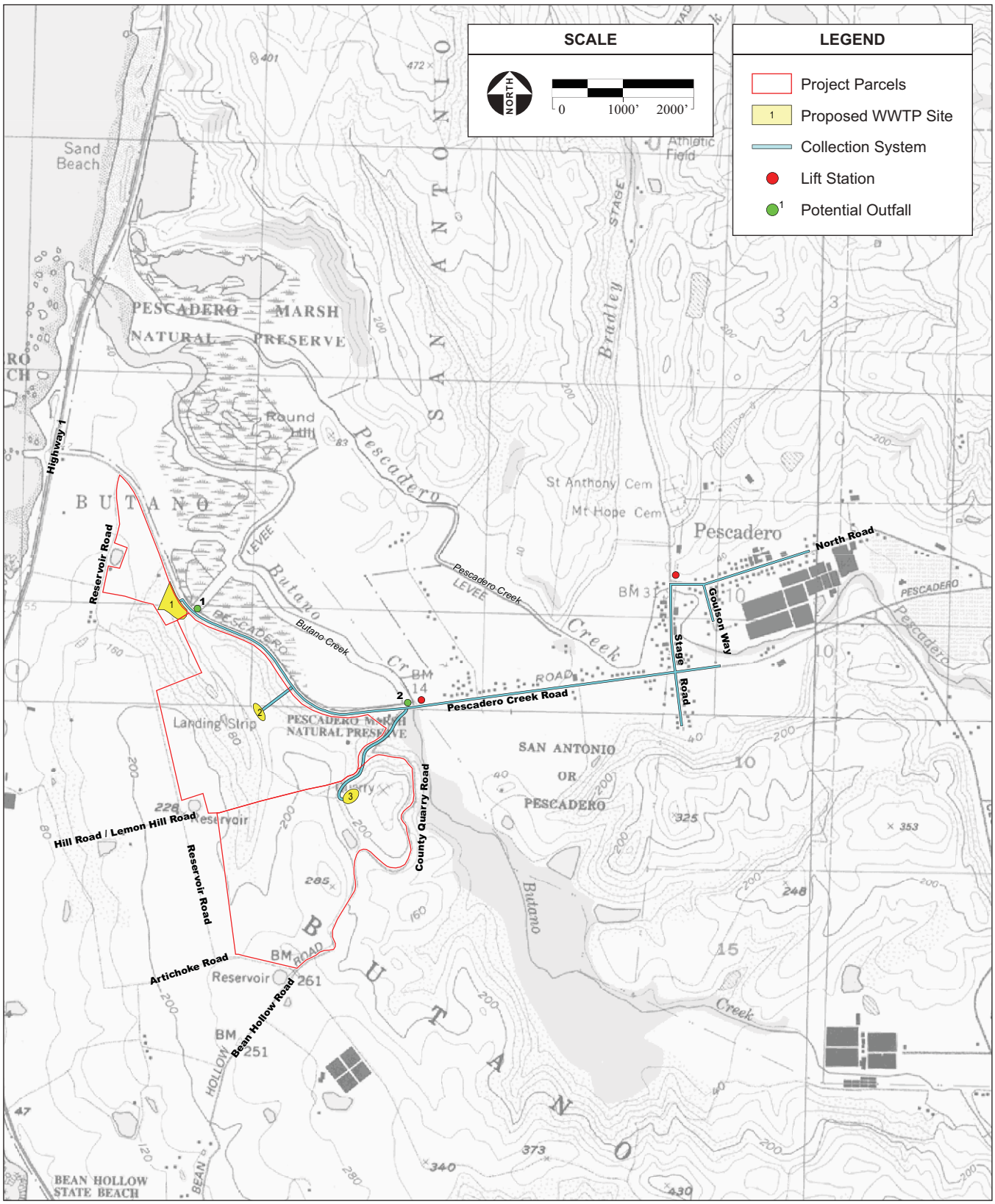
Other Historic Inventories , if applicable ☐ yes / no ☑

.....

Other (e.g., historic maps, GLO Plats, soil survey maps): ☑ yes / no ☐

Please list:

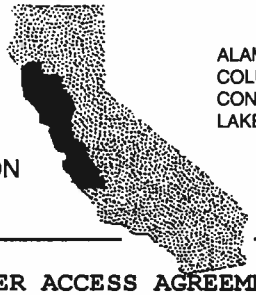
(Disk2/NWIC forms)



SOURCE: "San Gregorio, CA" & "Piegon Point, CA" USGS 7.5 Minute Topographic Quadrangles, Secion 10 & Unsectioned Areas of Butano, T8S, R5W, Mt. Diablo Baseline & Meridian; AES 2008

Figure 3
Topographic Site and Vicinity

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1303 Maurice Avenue
Rohnert Park, California 94928-3609
Tel: 707.664.0880 • Fax: 707.664.0890
E-mail: leigh.jordan@sonoma.edu

INFORMATION CENTER ACCESS AGREEMENT **FILE NO.: 07-1559**

I, the undersigned, have been granted access to historical resources data on file at the Northwest Information Center (NWIC) of the Historical Resources Information System, for the purpose of 1. Project Planning XX or 2. Scientific Research _____ or 3. Other(specify) _____.

I understand that all access fees charged for in-person use or services provided by the Information Center Staff are subject to a one hour minimum charge, thereafter increased by half hour increments, and that payment must be remitted within *thirty days of billing.*

I understand that any confidential information that I access at the NWIC must remain out of the public domain, except in those circumstances which may be required by law. I fully understand the confidential nature of this information and I agree to respect that confidentiality. I will attempt to ensure that specific site locations are not distributed in public documents or made available to unauthorized individuals within my institution or agency. I also understand that prior written consent of the Information Center Coordinator or the State Historic Preservation Officer is required for any exceptions to the above stipulations.

I agree to forward to the Northwest Information Center, no later than 30 days after completion, a final version of any report(s) and/or site record(s) resulting from access to the NWIC database for this project. I also agree to forward to the Northwest Information Center any subsequent reports or records for which I am responsible.

Failure to comply with above agreement is grounds for denial of access to the historical resources data on file at the Northwest Information Center.

***** PLEASE SIGN AND RETURN THIS FORM. SEE ATTACHED INVOICE *****

Damon Haydu **DATE:** _____
Printed Name/Signature of Researcher
Affiliation: Analytical Environmental Services
Address: 1801 7th Street, Suite 100, Sacramento, CA 95814
Phone: 916-447-3479 FAX: _____
Contact person/agency for which work conducted: _____
Telephone: _____ FAX: _____
Project: Pescadero Community Sewer Project
County: San Mateo
Map: San Gregorio, Pigeon Point, La Honda, & Franklin Point 7.5'
COMMENTS:

----------**STAFF USE ONLY**----------

Date request rec'd: Mail 4/30/08 Phone _____ Fax _____ In person _____
Date of response: Mail 5/21/08 Phone 5/21/08 Fax _____ In person _____

CHECK IN: _____ **CHECK OUT:** _____

Staff processing:	2.5	hour(s) @ $150/hour	$ 375.00
In person research:	_____	hour(s) @ $100/hour/person	$ _____
Xerox/Computer Search:	284	page(s) @ $0.15/page	$ 42.60
Labor Charge:	_____	hour(s) @ $40.00/hour	$ _____
Fax @ $1/page			$ _____
Other:			$ _____
		SUBTOTAL	$ _____
Rapid Response surcharge of 50% of total cost:		**SURCHARGE**	$ _____
		TOTAL	**$ 417.60**

Lisa C. Hagel **Invoice** N10979
Information Center Staff

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1303 Maurice Avenue
Rohnert Park, California 94928-3609
Tel: 707.664.0880 • Fax: 707.664.0890
E-mail: leigh.jordan@sonoma.edu

MEMO

Date: 21 May 2008

To: Damon Haydu, Analytical Environmental Services, 1801 7th Street, Suite 100, Sacramento, CA 95811

From: Lisa Hagel

Re: Pescadero Community Sewer Project, NWIC File #:07-1559

San Gregorio, Pigeon Point, La Honda, & Franklin Point 7.5'

Sites in or within 1/2 mile radius of the project area: C-379 includes part of the project area. P-41-222, 223, & 224 are adjacent to the project. P-41-2188, 2189, 2075, 247, & 246 are within ½ mile. Enclosed are copies of the site/resource record forms. The site locations are plotted on your map.

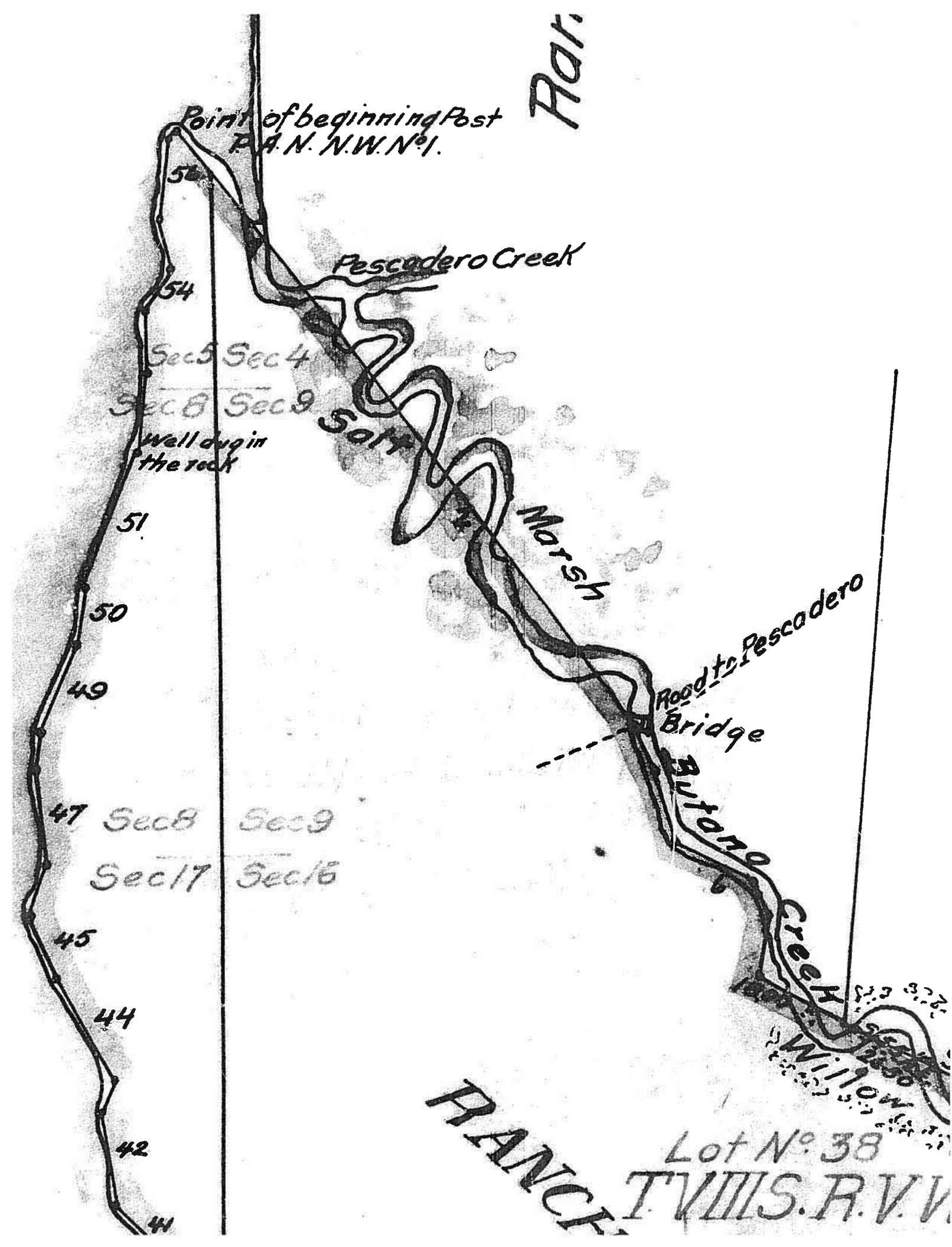
Studies in or near the project area: S-26391 is within the project area. S-3081, 3156, 3096, 3157, 3159, & 21275 are adjacent to the project. S-25605, 26410, & 3055 are nearby. Enclosed are copies of the reports (except for S-26410 – printed out a bibliographic reference for the report). The study locations are plotted on your map.

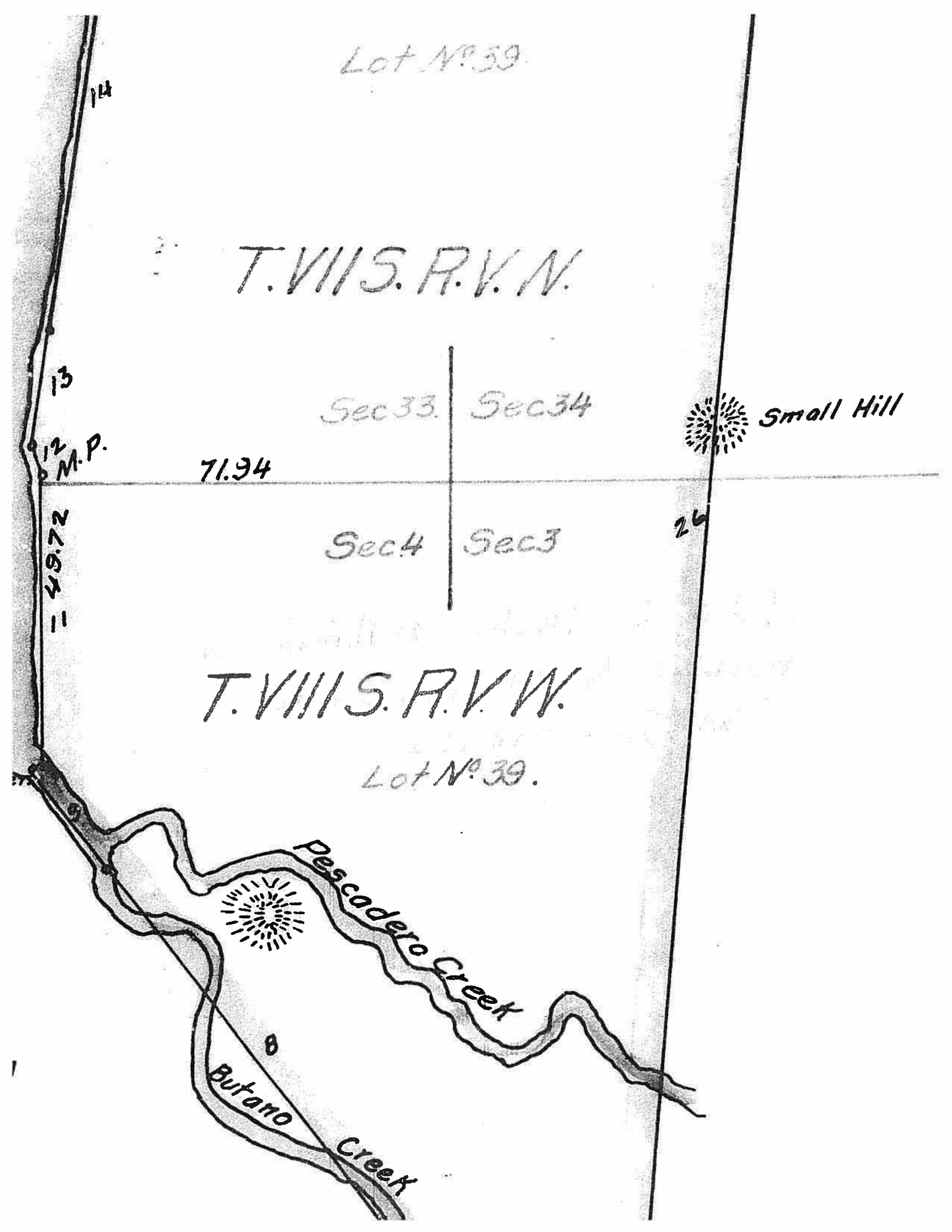
OHP Historic Properties Directory: Copied the indices for Pescadero.

Historic maps (copied the pertinent sections of the maps):
1861 Rancho San Antonio or Pescadero Plat Map
1862 Rancho Butano Plat Map
1865 GLO Plat Map, T8S, R5W
1902 (reprinted 1908) USGS Santa Cruz Quadrangle

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
005276	41-000646	1000 LINDA MAR BLVD	SANCHEZ ADOBE PARK/PRURISTAC/SAN P	PACIFICA	C	1842	FED.FND.PR	629.0-78-HPF-41-01	01/01/78	7L	
							HIST.RES.	NPS-76000525-0000	04/13/76	1S	
							HIST.SURV.	4044-0001-0000	04/13/76	1S	
091163	41-001504	PEDRO POINT	TOBIN STATION-OCEAN SHORE RAILROAD	PACIFICA	U		HIST.RES.	SPHI-SMA-017	05/19/71	7L	
090069	41-001483	572 REINA DEL MAR BLVD		PACIFICA	P	1940	PROJ.REVW.	HUD940602C	07/14/94	6Y	
066542	41-001323	345 ROCKAWAY BEACH AVE	SR 1 FASSLER AVE-WESTPORT	PACIFICA	U		HIST.RES.	DOE-41-88-0001-0000	04/22/88	6Y	
							PROJ.REVW.	FHWA860919A	04/22/88	6Y	
066543	41-001324	365 ROCKAWAY BEACH AVE	SR 1 FASSLER AVE-WESTPORT	PACIFICA	U		HIST.RES.	DOE-41-88-0002-0000	04/22/88	6Y	
							PROJ.REVW.	FHWA860919A	04/22/88	6Y	
090068	41-001482	125 SANTA ROSA AVE		PACIFICA	P	1920	PROJ.REVW.	HUD940602B	07/14/94	6Y	
089665	41-001474	SR 1	PORTOLA EXPEDITION CAMP AT PEDRO C	PACIFICA	C		HIST.RES.	SHL-0024-0000	06/15/32	7L	
005436	41-000806	SWEENEY RIDGE	SAN FRANCISCO BAY DISCOVERY SITE	(VIC) PACIFICA	P	0	HIST.RES.	NPS-68000022-0000	05/23/68	1S	A
							HIST.RES.	SHL-0394-0000	03/08/48	7L	
005280	41-000650	CABRILLO HWY	DICKERMAN BARN/DICKERMAN-STEELE BA	PESCADERO	S	1878	HIST.RES.	NPS-82002259-0000	01/11/82	1S	
							HIST.SURV.	4060-0004-0000	01/11/82	1S	
005317	41-000687	CLOVERDALE RD	ENOS/MUCCI HOUSE	PESCADERO	P	1870	HIST.SURV.	4060-0041-0000		3S	
005338	41-000708	GOULSON ST	BARTLETT WEEKS HOUSE, WEEKS HOUSE	PESCADERO	P	1885	HIST.SURV.	4060-0062-0000		7N	
005296	41-000666	NORTH ST	LINCOLN HIGH SCHOOL	PESCADERO	M	1926	HIST.SURV.	4060-0020-0000		3S	
005302	41-000672	NORTH ST		PESCADERO	P	1880	HIST.SURV.	4060-0026-0000		7N	
005311	41-000681	NORTH ST		PESCADERO	P	1900	HIST.SURV.	4060-0035-0000		7N	
005312	41-000682	NORTH ST		PESCADERO	P	1880	HIST.SURV.	4060-0036-0000		7N	
005313	41-000683	NORTH ST		PESCADERO	P	1870	HIST.SURV.	4060-0037-0000		3S	
005325	41-000695	NORTH ST	GOULSON HOUSE	PESCADERO	P	1860	HIST.SURV.	4060-0049-0000		3S	
005321	41-000691	527 NORTH ST		PESCADERO	P	1900	HIST.SURV.	4060-0045-0000		7N	
005322	41-000692	581 NORTH ST		PESCADERO	P	1920	HIST.SURV.	4060-0046-0000		7N	
005314	41-000684	605 NORTH ST		PESCADERO	P	1890	HIST.SURV.	4060-0038-0000		7N	
005319	41-000689	605 NORTH ST		PESCADERO	P	1920	HIST.SURV.	4060-0043-0000		7N	
005284	41-000654	655 NORTH ST	DRESBOX HOUSE	PESCADERO	P	1938	HIST.SURV.	4060-0008-0000		5S2	
005285	41-000655	665 NORTH ST		PESCADERO	P	1930	HIST.SURV.	4060-0009-0000		5S2	
005288	41-000658	687 NORTH ST	MACHADO HOUSE	PESCADERO	P	1890	HIST.SURV.	4060-0012-0000		7N	
005315	41-000685	703 NORTH ST		PESCADERO	P	1930	HIST.SURV.	4060-0039-0000		7N	
005323	41-000693	706 NORTH ST		PESCADERO	P	1920	HIST.SURV.	4060-0047-0000		7N	
005324	41-000694	714 NORTH ST		PESCADERO	P	1920	HIST.SURV.	4060-0048-0000		7N	
005287	41-000657	737 NORTH ST	WILLIAMS HOUSE	PESCADERO	P	1920	HIST.SURV.	4060-0011-0000		7N	
005286	41-000656	738 NORTH ST	GOMEZ HOUSE	PESCADERO	P	1918	HIST.SURV.	4060-0010-0000		7N	
005318	41-000688	787 NORTH ST	PLUMMER HOUSE	PESCADERO	P	1880	HIST.SURV.	4060-0042-0000		7N	
005320	41-000690	861 NORTH ST	GRISLEY GARAGE	PESCADERO	P	1920	HIST.SURV.	4060-0044-0000		7N	
005307	41-000677	PESCADERO RD	BRADDOCK WEEKS HOME, WEEKS HOUSE	PESCADERO	P	1860	HIST.SURV.	4060-0031-0000		3S	
005316	41-000686	PESCADERO RD	PESCADERO GAS STATION	PESCADERO	P	1940	HIST.SURV.	4060-0040-0000		7R	
005327	41-000697	PESCADERO RD		PESCADERO	P	1920	HIST.SURV.	4060-0051-0000		7N	
005336	41-000706	PESCADERO RD	DUARTE HOUSE	PESCADERO	P	1925	HIST.SURV.	4060-0060-0000		7N	
005339	41-000709	PESCADERO RD		PESCADERO	P	1925	HIST.SURV.	4060-0063-0000		5S2	
005283	41-000653	PESCADERO RD	ADAIR HOUSE	PESCADERO	P	1860	HIST.SURV.	4060-0007-0000		3S	
005329	41-000699	1419 PESCADERO RD		PESCADERO	P	1890	HIST.SURV.	4060-0053-0000		7N	
005310	41-000680	1481 PESCADERO RD		PESCADERO	P	1900	HIST.SURV.	4060-0034-0000		7N	
005330	41-000700	1521 PESCADERO RD		PESCADERO	P	1890	HIST.SURV.	4060-0054-0000		7N	
005331	41-000701	1581 PESCADERO RD		PESCADERO	P	1890	HIST.SURV.	4060-0055-0000		7N	
005332	41-000702	1581 PESCADERO RD		PESCADERO	P	1890	HIST.SURV.	4060-0056-0000		7N	
005333	41-000703	1583 PESCADERO RD		PESCADERO	P	1885	HIST.SURV.	4060-0057-0000		7N	
005334	41-000704	1779 PESCADERO RD		PESCADERO	P	1915	HIST.SURV.	4060-0058-0000		7N	
005335	41-000705	1805 PESCADERO RD	DAVES HOUSE	PESCADERO	P	1918	HIST.SURV.	4060-0059-0000		7N	
005337	41-000707	1913 PESCADERO RD		PESCADERO	P	1925	HIST.SURV.	4060-0061-0000		7N	
005326	41-000696	1946 PESCADERO RD		PESCADERO	P	1905	HIST.SURV.	4060-0050-0000		7N	
005293	41-000663	SAN GREGORIO ST		PESCADERO	P	1880	HIST.SURV.	4060-0017-0000		3S	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
005279	41-000649	SAN GREGORIO ST	FIRST CONGREGATIONAL CHURCH OF PES	PESCADERO	P	1867	HIST.RES.	NPS-80000856-0000	10/31/80	1S	
							HIST.SURV.	4060-0003-0000	10/31/80	1S	
005289	41-000659	SAN GREGORIO ST	CONGREGATIONAL CHURCH PARSONAGE	PESCADERO	P	1895	HIST.RES.	SHL-0949-0000	06/09/82	1CL	
005281	41-000651	108 SAN GREGORIO ST	METHODIST EPISCOPAL CHURCH OF PESC	PESCADERO	P	1890	HIST.SURV.	4060-0013-0000		7N	
							HIST.RES.	NPS-82002260-0000	03/10/82	1S	
005292	41-000662	STAGE RD		PESCADERO	P	1920	HIST.SURV.	4060-0005-0000	01/01/82	1S	
005294	41-000664	STAGE RD	DUARTE HOUSE	PESCADERO	P	1890	HIST.SURV.	4060-0016-0000		7N	
005295	41-000665	STAGE RD	IDES HALL	PESCADERO	P	1878	HIST.SURV.	4060-0018-0000		7N	
005297	41-000667	STAGE RD	NORMS MARKET	PESCADERO	P	1920	HIST.SURV.	4060-0019-0000		7N	
005298	41-000668	STAGE RD	WILLIAMSONS STORE	PESCADERO	P	1925	HIST.SURV.	4060-0021-0000		3S	
005299	41-000669	STAGE RD	KNAPP HOUSE, KNAPP MOORE HOUSE	PESCADERO	P	1870	HIST.SURV.	4060-0022-0000		5S2	
005301	41-000671	STAGE RD	WILLOWSIDE FARM	PESCADERO	P	1900	HIST.SURV.	4060-0023-0000		7N	
005303	41-000673	STAGE RD		PESCADERO	P	1920	HIST.SURV.	4060-0025-0000		3S	
005304	41-000674	STAGE RD	PESCADERO IOOF HALL / ODD FELLOWS	PESCADERO	P	1875	HIST.SURV.	4060-0027-0000		7N	
005306	41-000676	STAGE RD	WOODHAMS HOUSE	PESCADERO	P	1890	HIST.SURV.	4060-0028-0000		7N	
005308	41-000678	STAGE RD		PESCADERO	P	1870	HIST.SURV.	4060-0030-0000		3S	
005309	41-000679	STAGE RD		PESCADERO	P	1870	HIST.SURV.	4060-0032-0000		7N	
005305	41-000675	70 STAGE RD		PESCADERO	P	1890	HIST.SURV.	4060-0033-0000		7N	
005290	41-000660	239 STAGE RD	BANK OF AMERICA	PESCADERO	P	1926	HIST.SURV.	4060-0029-0000		7N	
005300	41-000670	350 STAGE RD	JAMES MCCORMICK HOUSE, MCCORMICK H	PESCADERO	P	1873	HIST.SURV.	4060-0014-0000		3S	
							HIST.SURV.	4060-0024-0000		3S	
091170	41-001510	COAL MINE RIDGE	OLD SPANISH TRAIL	(VIC) PESCADERO	U		HIST.RES.	SPHI-SMA-024	01/31/73	7L	
005341	41-000711	GAZOS CREEK RD	PIGEON POINT SCHOOLHOUSE, PINKHAM	(VIC) PESCADERO	P	1922	HIST.SURV.	4060-0065-0000		5S2	
005345	41-000715	NORTH ST	ST ANTHONY'S CHURCH	(VIC) PESCADERO	P		HIST.SURV.	4060-0069-0000	01/01/83	2S2	
005291	41-000661	SR 1		(VIC) PESCADERO	P	1965	HIST.SURV.	4060-0015-0000		7R	
005328	41-000698	SR 1	COASTWAYS RANCH	(VIC) PESCADERO	P	1915	HIST.SURV.	4060-0052-0000		5S2	
005340	41-000710	SR 1	ANO NUEVO RANCH HOUSE, TAYLOR HOUS	(VIC) PESCADERO	P	1895	HIST.SURV.	4060-0064-0000		7N	
005342	41-000712	SR 1	CLOVERDALE RANCH	(VIC) PESCADERO	C	1870	HIST.SURV.	4060-0066-0000		7N	
005343	41-000713	SR 1	RENSSELAER STEELE HOUSES, CASCADE	(VIC) PESCADERO	P	1862	HIST.SURV.	4060-0067-0000		7N	
005344	41-000714	SR 1	NEW YEARS ISLAND, ANO NUEVO ISLAND	(VIC) PESCADERO	S		HIST.SURV.	4060-0068-0000		7R	
005277	41-000647	SR 1	GREEN OAKS RANCH HOUSE; STEELE BRO	(VIC) PESCADERO	C	1863	HIST.SURV.	4060-0001-0000	05/21/91	7K	
							HIST.RES.	SHL-0906-9999	02/08/77	1CL	
005278	41-000648	SR 1	PIGEON POINT LIGHTHOUSE	(VIC) PESCADERO	F	1871	HIST.RES.	NPS-76000526-0000	11/21/76	1S	A
							HIST.RES.	NPS-77000337-0000	03/08/77	1S	
							HIST.SURV.	4060-0002-0000	01/01/77	1S	
089663	41-001473	SR 1	PORTOLA EXPEDITION CAMP, GAZOS CRE	(VIC) PESCADERO	C		HIST.RES.	SHL-0930-0000	03/31/80	1CL	
005282	41-000652	SR 1	GREEN OAKES RANCH; ISAAC CHAPMAN S	(VIC) PESCADERO	C	1863	HIST.RES.	SHL-0023-0000	06/10/32	7L	
							HIST.SURV.	4060-0006-0000		7N	
							HIST.RES.	SHL-0906-0001	02/08/77	1CL	
091168	41-001508	ALPINE RD	SITE OF MAXIMO MARTINEZ RESIDENCE	PORTOLA VALLEY	U		HIST.RES.	SPHI-SMA-022	04/25/72	7L	
005260	41-000636	3915 ALPINE RD	CASA DE TABLETA/BUELNAS ROADHOUSE/	PORTOLA VALLEY	P	1852	HIST.RES.	NPS-73000447-0000	08/14/73	1S	
							HIST.SURV.	4027-0004-0000	01/01/73	1S	
005263	41-000639	775 PORTOLA RD	PORTOLA VALLEY SCHOOL/PRIMARY SCHO	PORTOLA VALLEY	M	1909	HIST.RES.	SHL-0825-0000	08/07/68	1CL	
							HIST.RES.	NPS-74000557-0000	06/28/74	1S	
							HIST.SURV.	4027-0007-0000	06/28/74	1S	
005262	41-000638	930 PORTOLA RD	OUR LADY OF THE WAYSIDE	PORTOLA VALLEY	P	1912	HIST.RES.	SPHI-SMA-025	01/10/74	7L	
							HIST.RES.	NPS-77000338-0000	11/22/77	1S	
							HIST.SURV.	4027-0006-0000	11/22/77	1S	
091167	41-001507	945 PORTOLA RD	THE VILLAGE OF PORTOLA	PORTOLA VALLEY	U		HIST.RES.	SHL-0909-0000	05/12/77	1CL	
							HIST.RES.	SPHI-SMA-021	04/25/72	7L	
147206		721 3RD ST		REDWOOD CITY	P	1940	HIST.RES.	DOE-41-04-0007-0000	03/01/04	6Y	
153192		170 ALAMEDA DE LAS PULGAS	SEQUOIA DISTRICT HOSPITAL	REDWOOD CITY	P	1948	PROJ.REVW.	HUD040220E	03/01/04	6Y	
							PROJ.REVW.	FCC050328G	04/20/05	6Y	


Point of beginning Post
P.A.N. N.W. No 1.
Pescadero Creek
Sec 5
Sec 4
Sec 8
Sec 9
Well dug in the rock
Marsh
Road to Pescadero Bridge
Butano Creek
Sec 8
Sec 9
Sec 17
Sec 16
54
51
50
49
47
45
44
42
41
Lot No. 38
T. VIII S. R. V. W.
RANCH


Lot No. 59.
14
T. VII S. R. V. W.
13
Sec 33.
Sec 34
Small Hill
12
M. P.
71.94
Sec 4
Sec 3
11
49.72
T. VIII S. R. V. W.
Lot No. 39.
Pescadero Creek
8
Butano
Creek

* Recd. with Sur. Genls. letter of Nov. [illegible]