County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed by Planning Department)

1. **Project Title:** CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Project

2. **County File Number:** PLN2021-00056

3. **Lead Agency Name and Address:** San Mateo County Planning and Building Department, 455 County Center, 2nd Floor, Redwood City, CA 94063

4. **Contact Person and Phone Number:** Melissa Ross, Planning Services Manager, San Mateo County Planning and Building Department, mross@smcgov.org

5. **Project Location:** 1200 Pescadero Creek Road (Existing Fire Station site); Pescadero Creek Road, Cloverdale Road, and Butano Cut Off (pipeline); 350-360 Butano Cut Off (Pescadero Middle/High School property)

6. **Assessor's Parcel Number and Size of Parcel:** 086-150-050 (Existing Fire Station Site) 1.287 acres; 087-053-010 (Pescadero High School and New Fire Station site) 350-360 Butano Cut Off, 28.61 acres

7. **Project Sponsor's Name and Address:** San Mateo County Planning and Building Department, 455 County Center, 2nd Floor, Redwood City, CA 94063

8. **Name of Person Undertaking the Project or Receiving the Project Approval (if different from Project Sponsor):** Same as Project Sponsor

9. **General Plan Designation:** Institutional and Agriculture

10. **Zoning:** Existing Fire Station (086-160-050): PAD/CD (Planned Agricultural District/Coastal Development); New Fire Station site and School (087-053-010): RM-CZ/CD (Resource Management-Coastal Zone/Coastal Development); Pipeline: right-of-way in the Coastal Zone

11. **Description of the Project:** Local Coastal Program amendment for CSA-11 Water Service Extension and Pescadero Fire Station Project and subsequent entitlements to include: (1) Construction of a replacement Pescadero Fire Station (Station 59) to be located on La Honda-Pescadero Unified School District property currently developed with the Pescadero Middle/High School at 350-360 Butano Cut Off, (2) Partial demolition of existing Station 59 located at 1200 Pescadero Creek Road, and (3) CSA-11 water service extension to serve the

future fire station and existing Pescadero Middle/High School, both located at 350-360 Butano Cut Off. See Project Description section below for additional details.

12. **Surrounding Land Uses and Setting:** The project would include a six inch-diameter water pipeline that would run primarily along roadway shoulders in a rural portion of San Mateo County, to Pescadero High School. Surrounding land uses are primarily agricultural (orchards and row crops), with scattered residences and the high school at the pipeline terminus. The fire station site is an open field covered with ruderal vegetation. The existing fire station is on a fully developed site surrounded by undeveloped open space, just west of the community of Pescadero.

13. **Other Public Agencies Whose Approval is Required:** San Mateo Local Agency Formation Commission (LAFCo) (CSA-11 Sphere of Influence amendment and Service Area Annexation); California Coastal Commission (Local Coastal Program amendment certification; Coastal Development Permit (appeals jurisdiction)); California State Water Board, grant approval for water supply improvements; County of San Mateo approval of the Local Coastal Program amendments and subsequent Coastal Development Permits for the fire station sites and CSA-11 extension. The pipeline Project would not require a Stormwater Pollution Prevention Plan (SWPPP) from the Regional Water Quality Control Board, but the contractor would be required to submit a plan to control water pollution effectively during construction. The fire station project would require a SWPPP. La Honda-Pescadero Unified School District approval of lease of fire station site to County of San Mateo.

14. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?:** Solano Archaeological Services **(**SAS) emailed a letter and a map depicting the CSA-11 project area to the Native American Heritage Commission (NAHC) on December 3, 2020 on behalf of the County. The letter requested a Sacred Land File (SLF) search of the project area, and a list of Native American community representatives who should be contacted about the Project under AB-52. On December 11, 2020, Ms. Sarah Fonseca, Cultural Resources Analyst for the NAHC, replied in an emailed letter that the Sacred Lands File search was completed with negative results. Ms. Fonseca also provided a list of local Native American contacts. On December 14, 2020, SAS mailed letters to the following Native American representatives identified by the NAHC:

    - Irenne Zwierlein, Chair - Amah Mutsun Tribal Band of Mission San Juan Bautista
    - Tony Cerda, Chair - Costanoan Rumsen Carmel Tribe
    - Kanyon Sayers-Roods, MLD Contact - Indian Canyon Mutsun Band of Costanoan Indians
    - Ann Marie Sayers, Chair - Indian Canyon Mutsun Band of Costanoan Indians
    - Charlene Mijmeh, Chair - Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
    - Monica Arellano - Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
    - Andrew Galvan - Ohlone Indian Tribe

No responses were received to the letters mailed to the above-listed contacts. On January 6, 2021, SAS called each of the individuals listed by the NAHC and left phone messages. An additional attempt was made via email to each of the contacts on January 27, 2021, and a final email contact attempt reiterating that the Project was subject to AB-52 was made on February 2, 2021. On March 2, 2021, an email response was received from Kanyon Sayers-Roods of the Canyon Mutsun Band of Costanoan Indians recommending that a Native American Monitor and Archaeologist be present to observe earth moving activities at both projects. Native American and archaeologist monitoring are included in the Cultural Resources mitigation measures in this Initial Study. As of March 23, 2021, no other responses have been received. If substantive additional comments or information are provided at a later date, SAS may prepare an addendum to this report. Outreach also was performed by the County in 2018-2019 for the test well at the high school.

PROJECT DESCRIPTION

The project analyzed by this Initial Study includes the following components, all proposed by San Mateo County:

- Local Coastal Program text and map amendment to facilitate CSA-11 water service extension to the Pescadero Middle/High School and new fire station.

- A new water supply pipeline extending from the existing CSA-11 water line east of the intersection of Pescadero Creek Road and Stage Road in the Town of Pescadero to the Pescadero Middle/High School (to be funded by the State Water Board) to serve the existing school and new fire station. Connections along the pipeline extension are prohibited.

- A new County fire station on an undeveloped portion of La Honda-Pescadero Unified School District owned parcel adjacent to Pescadero Middle/High School.

- Partial demolition and remodel of the existing fire station located at 1200 Pescadero Creek Road. The existing CSA-11 connection to the existing fire station at 1200 Pescadero Creek Road will be retained.

- Sphere of Influence amendment and annexation by CSA 11 of the Pescadero Middle/High School and new fire station property, subject to approval by the San Mateo Local Agency Formation Commission

The regional and site-specific locations of these projects are shown on Figures 1 and 2. Although considered together in this document, the projects are independent and would require independent review and approval by the County. The projects are described in detail below.

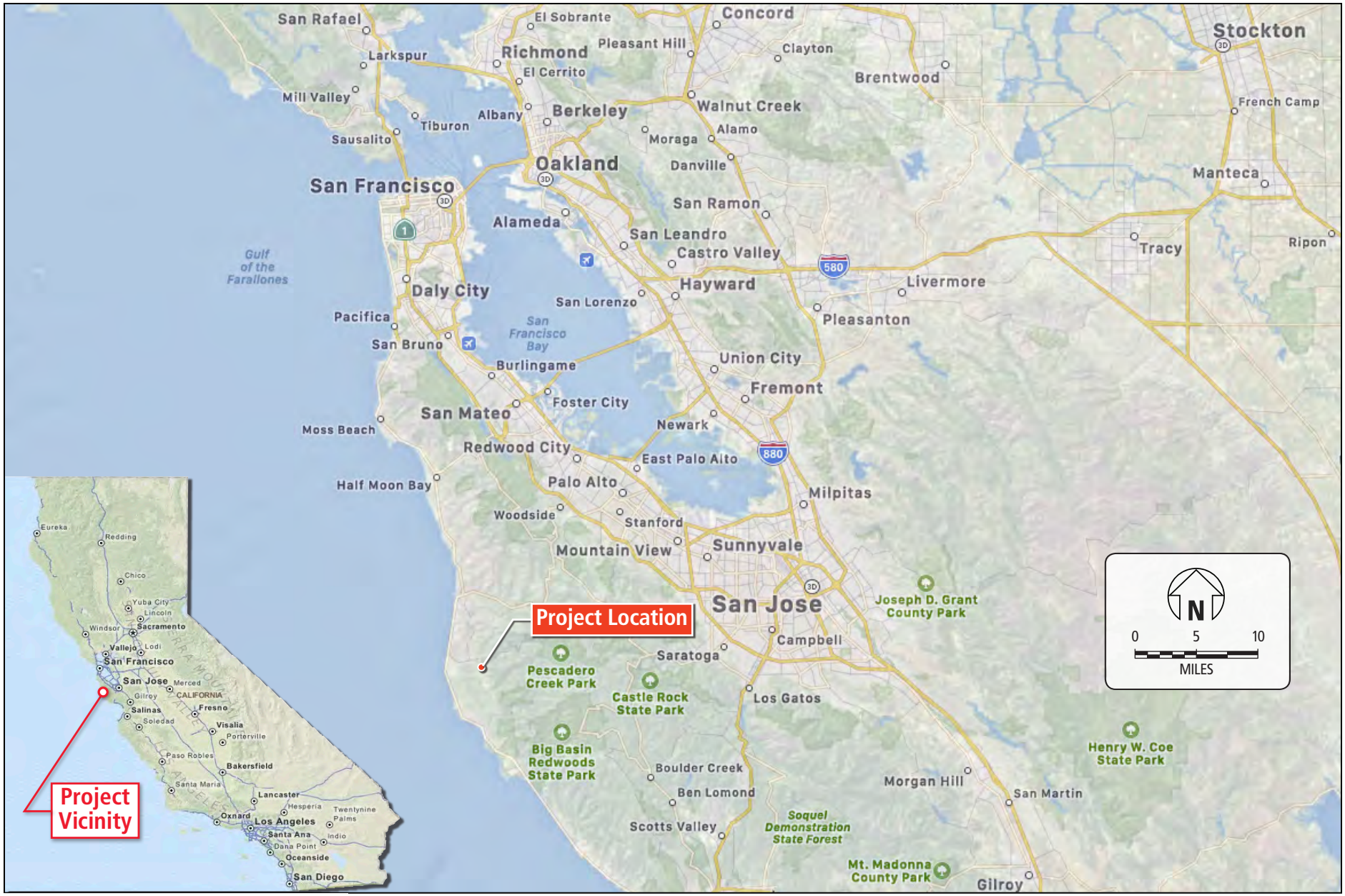

Figure 1
Project Location

Source: TomTom Maps and Grassetti Environmental

Figure 2
Project Site

Source: Google Maps and Grassetti Environmental

1. LOCAL COASTAL PROGRAM AMENDMENT

Project Objectives/Required Approvals

Amendments to the San Mateo County Local Coastal Program (LCP) are proposed to facilitate potable water service to the existing Pescadero Middle/High School and new Fire Station #59 located at 350-360 Butano Cut Off, and partial demolition and remodel of the existing fire station at 1200 Pescadero Creek Road. Additional background and details can be found in the Project Description Sections 2-4, below. The following LCP policies and table are proposed for amendment or addition.

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1. LCP PUBLIC WORKS COMPONENT (AMENDED POLICY)

   2.37 Monitoring

   Require the managing entity of the water system to monitor water consumption by use**, groundwater level trends and sustainability,** and revise the estimated buildout capacity limits and the reservations for the priority uses annually on the basis of this monitoring.

2. LCP PUBLIC WORKS COMPONENT (AMENDED POLICY)

   2.39 Service Area Boundary

   Limit water connections to uses within the boundary of the rural service center and to the fire protection facilit~~y~~**ies and public schools** serving the rural service center ~~on July 28, 1993~~.

3. LCP PUBLIC WORKS COMPONENT (NEW POLICY)

   2.60 Pescadero Fire Station

   No provision of this Local Coastal Program shall be interpreted in such a manner as to prohibit, or effectively prohibit, the construction and use of a fire protection facility and related uses at 350-360 Butano Cut Off in the Town of Pescadero, subject to conditions of a permit under Policy 5.6(b)(6) that achieves maximum compliance with Local Coastal Plan policies.

4. LCP PUBLIC WORKS COMPONENT (AMENDED TABLE)

TABLE 2.16

ESTIMATE OF WATER CONSUMPTION DEMAND AT LAND USE PLAN BUILDOUT FOR THE TOWN OF PESCADERO

	Existing	Proposed	Total	Demand GPD[5]
Dwelling Units	125[1]	125[3]	250	61,250–97,000
Commercial Outlets	20[2]	20[4]	40	9,800–15,520
Fire Station[6]	1	1	1	~~1,000~~ **390**
Public School[7]	**1**	**1**	**1**	**835**
TOTAL				~~**72,050 – 113,520**~~ **72,275 – 113,745**

NOTES:

1. In the special census done for Pescadero in 1977, there were 100 households and 143 dwelling units in the census area. For the purpose of projecting water connections, it is assumed that when safe water is available, approximately 25 of the abandoned dwellings will be rehabilitated or repaired.

2. Count of retail outlets.

3. All lots infilled, all residential areas fully developed at densities shown.

4. Assumes slightly higher ratio of acreage to commercial outlets than exists, since best sites are already developed.

5. Assumes average consumption per connection at 245 to 388 gpd.

   Basis: Per capita consumption of 70 gpd is low compared to Midcoast per capita consumption of 90 gpd; 70 gpd is considered sufficient in Pescadero providing water conservation is practiced and/or public domestic supply is supplemented by water from existing private wells for non-potable uses such as lawn watering or car washings. Household size at buildout is assumed to be 3.5 persons. (3.5) (70) = 245 gpd. It is also assumed that each commercial outlet will consume as much water as one residence, with stores and similar establishments with low water needs balancing restaurants with greater water needs.

6. **County Fire Station 59 average daily (CSA-11) potable water use is estimated at 326 gpd for the replacement station located at 350-360 Butano Cut Off (data based on actual use for the fire station facility at 1200 Pescadero Creek Road). Total GPD demand in this Table includes the fire station at Butano Cut Off and removal of the barracks and continued emergency staffing of the apparatus bay at 1200 Pescadero Creek Road of 8 days per year at 8 gpd. Source: Todd Groundwater, Town of Pescadero (CSA-11) Water Supply Yield and Sustainability Study, Final, March 31, 2021**

7. **Pescadero Middle/High School located at 350-360 Butano Cut Off anticipated average daily potable water use is 835 gpd. Source: Todd Groundwater, Town of Pescadero (CSA-11) Water Supply Yield and Sustainability Study, Final, March 31, 2021**

5. LCP LAND USE MAPS (AMENDMENT)

For consistency with land use designations for public facilities, a land use designation change is included in the project changing the LCP Land Use Designation from “Agriculture” to “Institutional” for the portion of the parcel proposed for the replacement fire station. Two LCP maps are proposed for amendment: Land Use (Pescadero) and Land Use (South Coast). The land use designation change is consistent with the County’s General Plan which already identifies the existing fire station and school parcel as Institutional.

Reasonably foreseeable impacts relating to the proposed amendments are narrow in scope and relate only to pipeline, new fire station, and decommission/remodel of the existing fire station.

Approval of the amendment requires review by Advisory Committees, Planning Commission, approval by the County Board of Supervisors, and certification by the California Coastal Commission.

3. WATER SUPPLY SYSTEM

Background/Project Objectives/Required Approvals

The Pescadero Middle/High School (school) water system (Water System CA4100513) provides treated potable water to approximately 192 students and staff. The school is located approximately one mile from the unincorporated Town of Pescadero (Pescadero) which is served by the County of San Mateo’s (County) Service Area 11 (CSA-11). The school’s potable water was historically provided from an on-site groundwater well (Well #1) with subsequent pH adjustment. The school’s water storage and distribution system includes a 10,000-gallon horizontal cylindrical steel tank, a 1,000-gallon steel pressure tank, a separate domestic and fire booster pump system, and distribution pipes.

The school’s only water source (Well #1) has had four exceedances (between 2015 and 2017) of the nitrate and coliform maximum contaminant level (MCL) standards. A citation (Citation No. 02_17_17C_018) was issued by the State Water Resources Control Board on May 10, 2017, specifically based on a nitrate exceedance in April 2017, requiring the school to bring the water system up to regulatory drinking water standards. Since that time, in the absence of a safe drinking water source, students at the school have been supplied bottled water.

There is a consensus, among the local District office for the State Water Board’s Division of Drinking Water (DDW), San Mateo County, and the school officials, that the challenge of a viable water supply source for the school can be addressed by connecting the school to the existing CSA-11 water supply system. The current well (Well #1) could then be used for non-potable water use. The County also is planning to construct a replacement fire station adjacent to the school on La Honda-Pescadero Unified School District (District) property. Both the new fire station and the school would be connected to CSA-11 by this project. The proposed project would involve a new 6-inch water line to connect the school to the existing CSA-11 system.

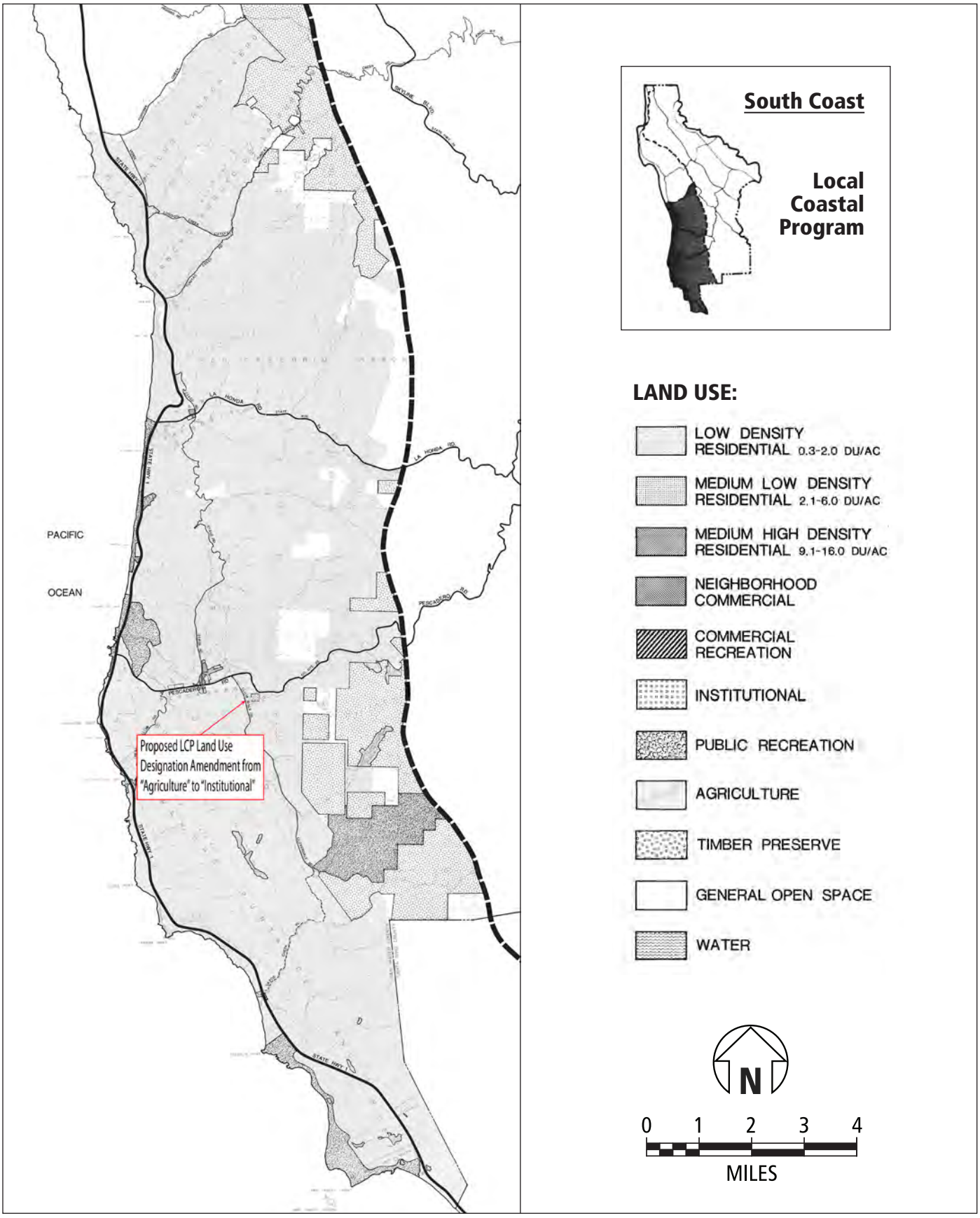

Figure 4
Proposed LCP Revisions - South Coast

Source: San Mateo County Dept. of Environmental Land Management

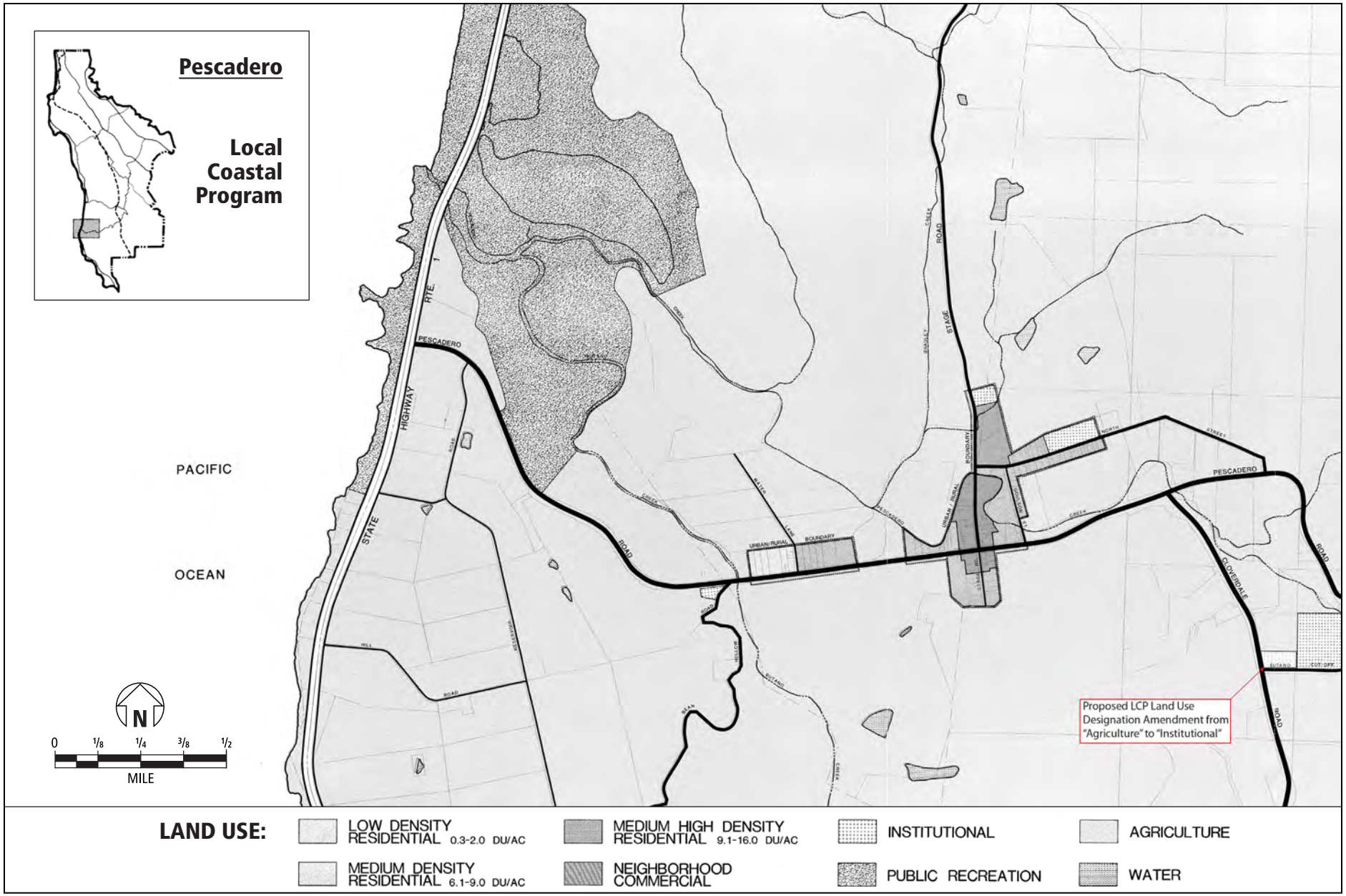

Figure 4
Proposed LCP Revisions - Pescadero

Source: San Mateo County Dept. of Environmental Land Management

The current CSA 11 service area does not include the school and the service area will need to be expanded to permit CSA 11 to serve the school. In order to expand the service area boundary of CSA-11 to include the District property, the County needs to amend certain policies of the County's Local Coastal Program (LCP). Before submitting the LCP amendments to the California Coastal Commission for certification, the County's Planning Commission and Board of Supervisors must approve the proposed LCP amendments. Following approval by the Planning Commission and Board of Supervisors, the County will submit the LCP amendments to the Coastal Commission for certification. The County will also need to transmit, after approval by the Board of Supervisors, a resolution of annexation application and Sphere of Influence amendment to the San Mateo Local Agency Formation Commission (LAFCo). LAFCo must review and approve Sphere of Influence amendment and annexation of the District property into the CSA-11 service area. Finally, entitlements, including LAFCo annexation, Coastal Development Permit (CDP), and building permits, must then be approved before construction can commence.

Project Location and Existing Conditions

This project is located in Pescadero, California, within an unincorporated portion of the County, on the San Francisco Peninsula (See Figures 1 and 2). The Pacific Ocean is about two miles to the west. Pescadero is flanked on the west by the Pacific Ocean and on the east by the Southern Coast Range. The area can be accessed by California State Route 1 and Pescadero Creek Road, Cloverdale Road, and Butano Cutoff. The proposed water main alignment would be entirely within the public right-of-way (ROW) of Pescadero Creek Road, Cloverdale Road, and Butano Cutoff, which are all County built and maintained roads. Traffic along these three roads is generally light but includes vehicular, bicycle, and pedestrian traffic. Bike lanes are marked on both sides of Pescadero Creek Road and Cloverdale Road. The area around Pescadero is rural with multiple agricultural fields and ranching.

Proposed Improvements

Proposed Pipeline Alignment

The existing pipeline along Pescadero Creek Road lies in the unpaved shoulder of the northern west-bound lane. In general, the new water main would be similarly installed in the unpaved roadway shoulders of Pescadero Road, Cloverdale Road, and Butano Cutoff. The proposed pipeline alignment is shown on Figure 2 (blue line). In addition to minimizing pavement restoration costs, installing the water main in this location allows for the best opportunity to provide safer traffic control during pipeline maintenance activities. This also keeps water main appurtenances (i.e. vaults and buried valves) out of the travelled way creating a safer environment for cyclists and keeping vehicle loads off water main appurtenances.

There are some portions of the alignment where it would not be feasible to install the pipeline in the

unpaved roadway shoulder. In these cases, the water main would be installed near the center of one lane or along the fog line. The final pipeline alignment would be designed to maximize operational safety and access for the County staff.

The pipeline would cross the ditch at Butano Cutoff and Cloverdale above the existing box culvert (bringing it to ground level) with a protective feature to prevent disturbance of pipeline. This would allow for repair and maintenance.

Proposed Pipeline Characteristics and Construction

The new 6-inch PVC water pipeline would tie into the existing 6-inch PVC water main at the fire hydrant furthest east from the Town of Pescadero along Pescadero Creek Road. The new water pipeline would be approximately 1.2 miles in length and would parallel Pescadero Creek Road, Cloverdale Road, and Butano Cutoff, connecting CSA-11 potable water service to Pescadero High School and the replacement fire station. Typical installation would involve placing the pipeline in a 4-foot by 4-foot by 2-foot trench with a sand bedding and 2.5 feet of structural backfill cover. Where the line is under pavement, two inches of asphalt cover would be placed over six inches of base. The pipeline would maintain the required horizontal separations of five feet from storm drain, gas, telephone, electric, and communication lines, and 10 feet from sanitary sewer lines. Vertical separations of two feet where crossing other utility lines would be maintained.

Construction Equipment and Activities

The project would be constructed primarily by open trenching. At Butano Cutoff and Cloverdale Road, the pipeline would cross a drainage ditch above the existing box culvert. Construction staging is proposed to occur at a graveled site on Pescadero Creek Road immediately west of its intersection with Cloverdale Road.

Traffic Control and Access

The pipeline alignment is located in Pescadero Creek Road, Cloverdale Road, and Butano Cutoff. Several private driveways also cross the proposed water main alignment. Contractor activities impacting traffic include material deliveries, off-haul of trench spoils, contractor personnel parking, and equipment staging and storage. A traffic control plan will be developed for approval by the County's Road Services Division, and will be implemented during various parts of construction. Coordination with the County's Road Services Division and an encroachment permit will be required.

Construction Schedule and Phasing

Construction of the water supply intertie would be conducted in a single phase over an approximately 6 to 9-month construction period, beginning Fall of 2022 or Spring of 2023.

4. PROPOSED NEW FIRE STATION

Background/Project Objectives/Required Approvals

The existing Pescadero Fire Station #59 is proposed for replacement at the Pescadero Middle/High School site. A replacement fire station would be constructed at the school property and the barracks at the existing fire station site would be demolished. The apparatus bay building at the current site will be retained for support use during emergencies, particularly during times Pescadero Creek Road is flooded at the Butano Creek bridge. The existing barracks are in a floodplain and are threatened annually with interior flooding. In the past, high water has caused mold and plumbing backups at the facility. Additionally, seasonal flooding of the adjacent Butano Creek denies the fire personnel direct access to the Pescadero community.

This project would require approval by the San Mateo County Board of Supervisors, as well as by the California State Coastal Commission.

Project Location and Existing Conditions

The proposed new fire station would be located on an approximately 1.65-acre site that is a part of the 28.61-acre property housing the Pescadero Middle/High School (see Figure 5). The property is owned by the Pescadero-La Honda Unified School District and would be leased to San Mateo County. Surrounding land uses include the Middle/High School parking lot and agricultural fields.

Proposed Improvements

Under the proposed project, the new fire station would be constructed and then the existing fire station barracks would be removed. The proposed new fire station would be an approximately 12,560-sq. ft building housing living space and equipment space (See Figure 6). The building would be two stories, with a maximum height of about 34 feet. It would be of modern design, with a standing-seam metal roof (See Figure 6).

The fire station would include the following:

- Living quarters for up to 12 firefighters
- Fire Department Operations and Command Center
- Offices, physical training room, conference room, restrooms, etc.
- Apparatus bay for 4 firefighting vehicles with space for 1 smaller vehicle
- Site parking for 12 staff vehicles and 12 public vehicles; parking area to accommodate a 55’ firefighting vehicle turning radius.
- Fueling station with 500-gallon diesel and 250-gallon unleaded fuel tanks.
- Enclosures: 1 oil, 1 trash, 1 recycling
- Propane tank: 1 tank of 1,000-gallons

- Emergency generator (with integral fuel “day tank” and piping to onsite tank).
- New septic system with an approximately 9750 sq. ft. septic leach field
- Water line extension of CSA-11 (See Section C, below)
- Two fire suppression water tanks (to be supplied by non-potable well water at the school (Well #1))
- Abandonment of 2019 domestic well
- Drainage systems with three stormwater drainage detention basins and landscaping
- Earthwork of approximately 1,000 cu/yds export

Traffic Improvements

Minor striping along Butano Cut Off at the station may be installed to assure safe access from/to the fire station and eliminate potential conflicts with any queued vehicles accessing the adjacent high school at drop-off and pick-up times.

Grading and Stormwater Control

Although the site is flat, grading will be necessary to remove topsoil, dig footings, and install infrastructure; the project civil engineers believe the overall import/export would balance out nearly to zero.

Septic System Leach Field

Sanitary sewage from the proposed fire station would be treated by a septic system. An approximately 15,000 sq. ft. shallow leach field is proposed on open land adjacent to the fire station site. A percolation/design recommendation study been conducted of the adequacy of the proposed fire station leach field site, which determined that the field would be adequate (BKF 2018). A detailed leach field study would be completed as part of the detailed project design.

Water Supply

Potable and domestic water for the Fire Station would be from the new CSA-11 pipeline. Water tanks for fire flow requirements and truck washing would be filled with well water from the school’s well supply (Well #1).

Construction Staging

Construction staging would occur on site, with minor equipment staging at the existing site (e.g. preparation to move equipment for reuse).

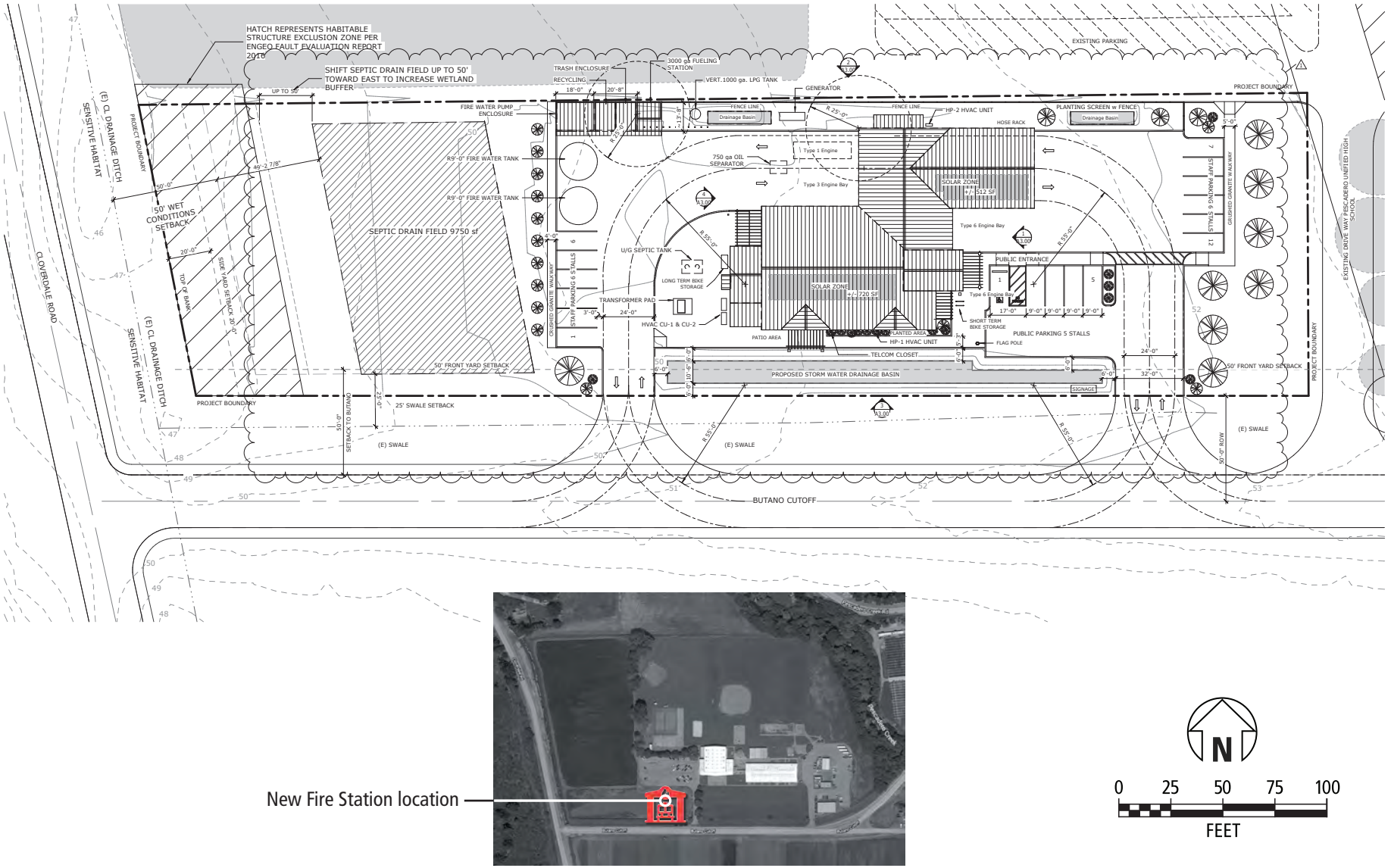

Figure 5
Proposed New Fire Station Site Plan

Source: Dreyfuss + Blackford Architects, Inc.

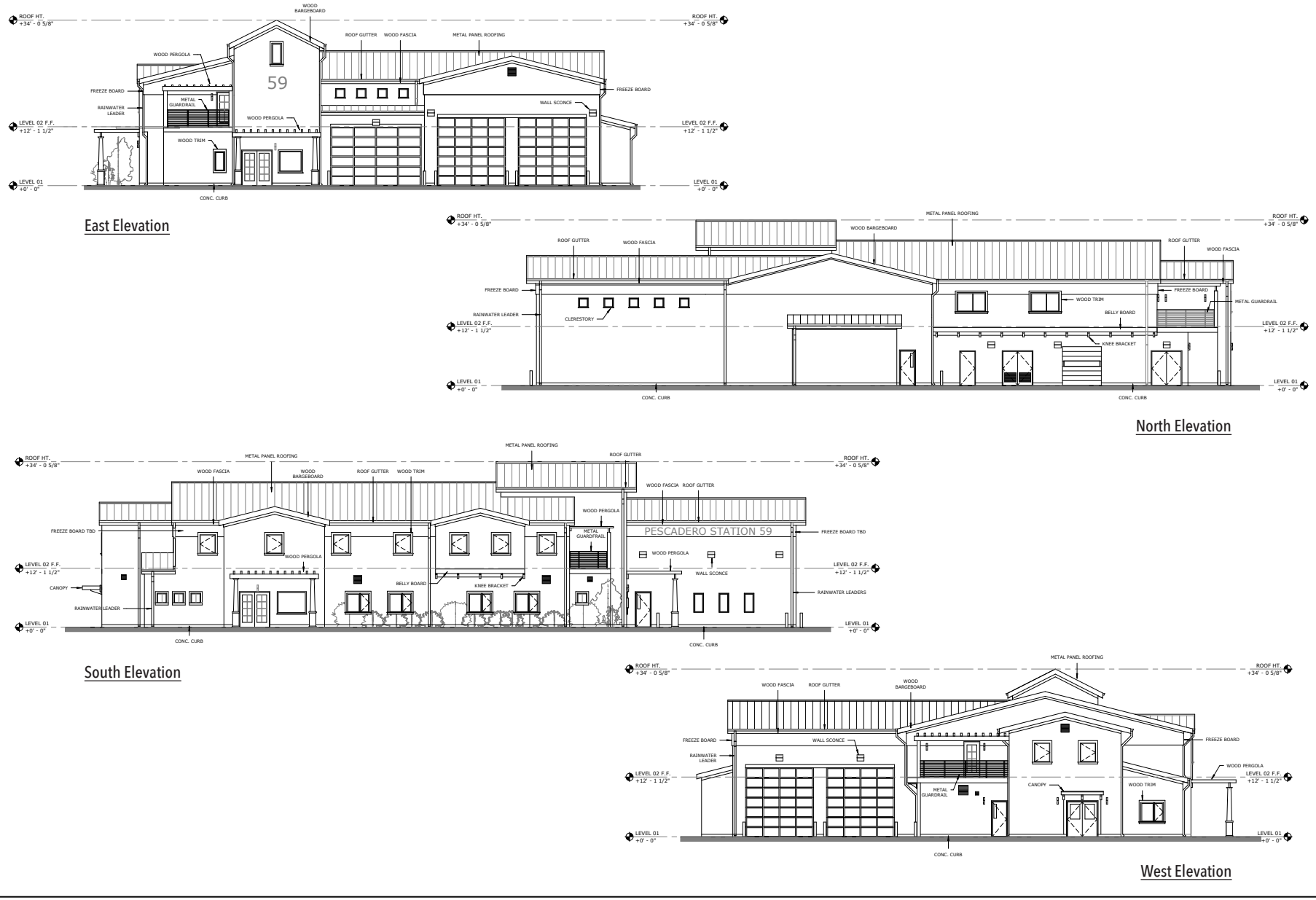

Figure 6
Proposed Fire Station Building Elevations

Source: Dreyfuss + Blackford Architects, Inc.

Construction Schedule and Phasing

Construction duration for replacement fire station would be 16 months, tentatively beginning Fall 2022 and completed in June 2024. Fire station construction may overlap with the water pipeline extension construction.

Construction Equipment and Activities

Construction Equipment and Staging

Construction equipment would not be determined precisely until a General Contractor is selected, but in general it would include medium-size backhoes, grading equipment, forklifts, and dump trucks; small cranes for roofing and rooftop equipment; welding equipment and high-voltage generators; compressors; office trailers; heavy-duty pickup trucks; and trailers. Most construction staging would occur on-site, with minor equipment at the existing site.

Construction Workers

The average number of construction workers would be 10-12 per day, plus a General Contractor superintendent and project manager(s). There will be 6-8 workers on site per day during the grading and underground phase (2 months), rising to an average of 12-14 per day during concrete, framing, and interior buildout (about 12 months) with some days over 20; the equipment and closeout phase would vary more widely, from 5-25 for the final months.

Proposed New Fire Station Operations

On a typical day there would be 6-8 firefighters at a time at the facility, and under "surge" conditions (such as fire season) when as many as 12 or 13 will be on-site.
Post-COVID-19, it is possible that other activities may occur at the facility (in addition to fire-fighting activities/facilities). Firefighter training, Sheriff's Office small office, a training/community room for meetings, and a small medical treatment room for walk-in medical emergencies also would be housed at the facility.

Water tanks for fire flow requirements would be filled with well water from the school's well supply (Well #1) for non-potable uses (irrigation, truck washing, etc.). Connection of the fire station (and school) to CSA-11 is only to meet domestic demands.

Fire trucks would be washed at the new station- an average of three apparatus will be washed per week. Light apparatus maintenance would take place at the new fire station. More intensive annual maintenance takes place off site.

Typical station responses would be as follows (based on 2019 data)

- Average Number of Dispatches per Day: 1
- Maximum Number of Dispatches Per Day: 7
- Minimum Number of Dispatches Per Day: 1

There would be no restrictions for siren use around the High School. Fire apparatus operators would utilize the siren as needed.

5. PROPOSED DECOMMISSIONING AND RE-USE OF EXISTING FIRE STATION FACILITY

As shown on Figure 7, the existing fire station at 1200 Pescadero Creek Road would be decommissioned. The project includes following actions on existing fire station site once replacement station is operational:

1. Demolition of barracks to serve as (gravel) station parking and emergency staging
2. Retention of existing small fuel pump outbuilding and existing small generator building; demolition of all other outbuildings
3. Retention of existing apparatus bay building and remodel to include 1 restroom and 1 sleeping/ready room for fire personnel
4. Retention of existing on-site well to be utilized for irrigation and fire suppression
5. Proposed retention of existing CSA-11 service for domestic water purposes (toilet, shower, and sink) within the apparatus bay building (if possible based on Water Budget Analysis conclusions)
6. Evaluation of existing septic system to include: adequate size/location of septic tank/pumps, and minor repair to leach field located partially uphill on APN 086-160-060, as necessary
7. Existing fuel tanks would remain in service (proposed)

This demolition would involve approximately 3 months of work. Materials would be dispersed between recycling (metals, glass), mulching/composting (wood and fibers), hazmat disposal (if needed), and dumps. All County guidelines for waste diversion will be met or exceeded.

6. PERMITS AND APPROVALS

Water Pipeline Permits and Approvals

The water pipeline project would require the following permits and approvals:

- County of San Mateo approval of project
- San Mateo Local Agency Formation Commission Sphere of Influence amendment and annexation for CSA-11
- Regional Water Quality Control Board approval of NPDES Permits
- State Water Resources Control Board Division of Drinking Water amendment of CSA-11 Domestic Water Supply Permit
- County approval of Local Coastal Program Amendment (California Coastal Commission certification)
- Coastal Development Permit and Grading Permit for construction (appealable to the California Coastal Commission)
- Department of Public Works Encroachment Permit

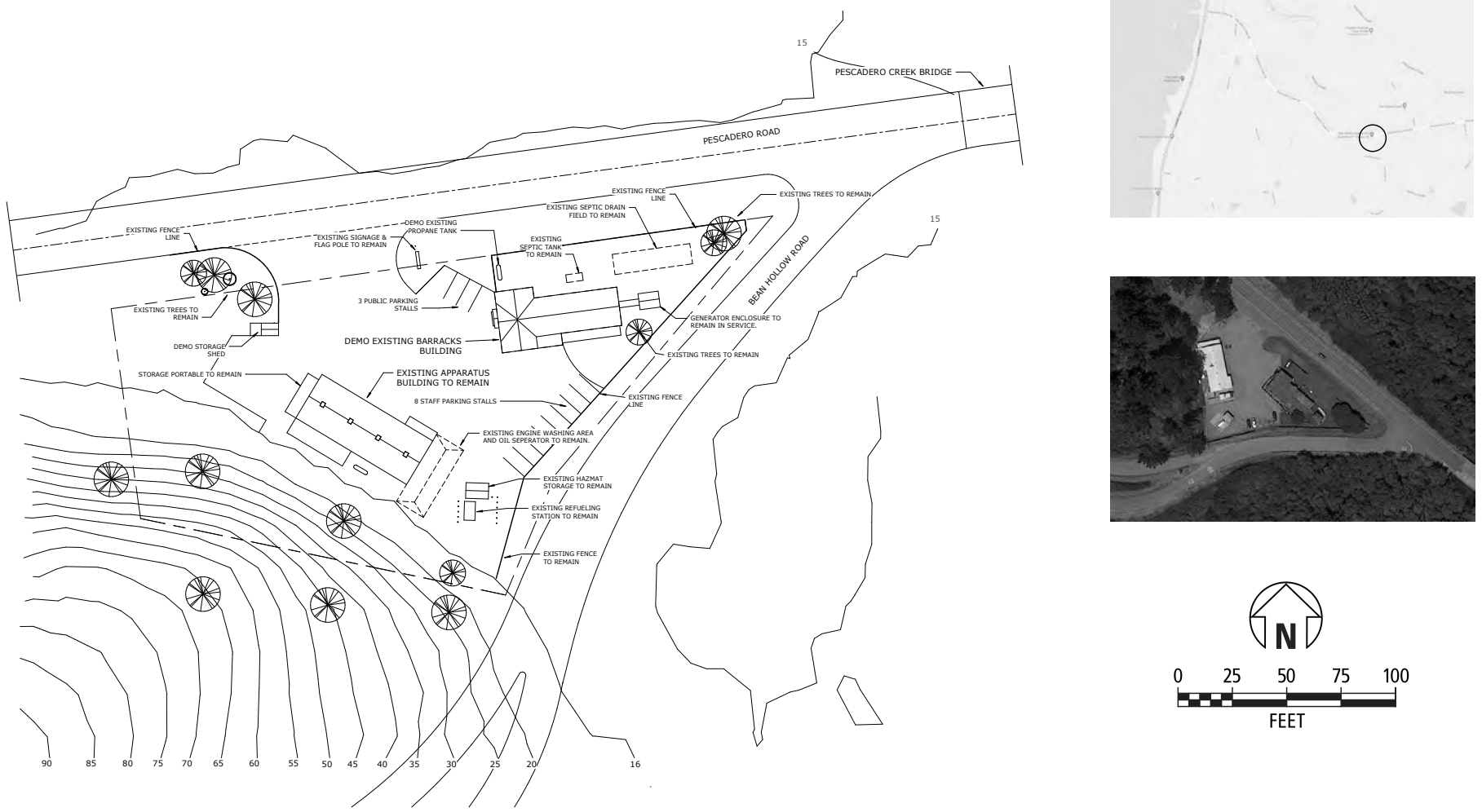

Figure 7
Existing Fire Station Site Plan

Source: Dreyfuss + Blackford Architects, Inc.

Fire Station Permits and Approvals

The fire station project would require the following permits and approvals:

- County of San Mateo Approval of Project
- Local Coastal Program Amendment (California Coastal Commission certification)
- Coastal Development Permit and Grading Permit for construction (appealable to the California Coastal Commission)
- Regional Water Quality Control Board approval of NPDES Permits
- Onsite Wastewater Treatment System Permit, Aboveground and Underground Storage Tank Permits from County Environmental Health Services
- Bay Area Air Quality Management District (BAAQMD) Permit to Operate for the new diesel generator.
- Building Permits for construction and demolition of the fire stations (issued by Planning & Building Department)
- Department of Public Works Encroachment Permit
- Lease agreement with the Pescadero-La Honda Unified school district to allow for building on school property

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or “Significant Unless Mitigated” as indicated by the checklist on the following pages.

	Aesthetics		Energy		Public Services
X	Agricultural and Forest Resources	X	Hazards and Hazardous Materials		Recreation
	Air Quality		Hydrology/Water Quality	X	Transportation
X	Biological Resources		Land Use/Planning		Tribal Cultural Resources
	Climate Change		Mineral Resources		Utilities/Service Systems
X	Cultural Resources	X	Noise		Wildfire
X	Geology/Soils		Population/Housing	X	Mandatory Findings of Significance

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other California Environmental Quality Act (CEQA) process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. Sources used or individuals contacted should be cited in the discussion.

1.	**AESTHETICS**. Except as provided in Public Resources Code Section 21099, would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
1.a.	Have a substantial adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?			X	

Discussion:

Both Pescadero Creek Road and Cloverdale Road are within designated San Mateo County Scenic Corridors. The existing visual character of the area is rural/agricultural, with occasional rural residences. The existing high school is the only large, institutional structure in the project area, and is surrounded by open fields and agricultural land uses. The proposed fire station site is a fallow field with sparse ruderal vegetation (See Figure 8).

FIGURE 8: View of Fire Station Site Looking Northwest on Butano Cut Off

Pipeline. The proposed pipeline would have minor visual effects during construction. Vehicles and materials would be visible at the laydown area along Pescadero Creek Road, and construction activities would be visible to passing motorists during the construction period. These impacts would be less than significant and temporary in nature. There would be no long-term aesthetic impacts associated with the pipeline.

New Fire Station. The proposed new Fire Station would be visible from Butano Cut Off Road as a visual expansion of the high school campus development. It may be visible in distant views from Cloverdale Road, which is a County Scenic Corridor. It would be consistent in scale with the adjacent existing high school buildings, and of "Modern Mission" design, in keeping with the local architectural vernacular. The site would be converted from an open field to a developed, landscaped fire station complex. This impact would be less than significant.

Existing Fire Station. The removal of the barracks building would slightly reduce the developed appearance of the existing fire station site in views from Bean Hollow and Pescadero Creek Roads, however the overall site appearance would not be substantively changed.

Source: San Mateo County General Plan, Scenic Corridors Map (https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/GP_Scenic_Corridor.pdf)

1.b.	Substantially damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X

Discussion: Neither the pipeline nor the new or proposed fire station sites would be visible from a State Scenic Highway. Highway 1 is the nearest such highway, and is over a mile west of the sites. Additionally, neither project would remove any large trees or affect any rock outcroppings or historic buildings. Therefore, no impact would occur.

Source: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways; Project Plans

1.c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings, such as significant change in topography or ground surface relief features, and/or development on a ridgeline? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	

Discussion: Please see response to question 1.a, above. None of the projects would alter site topography, affect any historic buildings, or block or alter views of ridgelines. Both would be in low-lying agricultural and rural development areas. The pipeline would be subsurface, so would have no effect. The fire station would be visually consistent with the adjacent school. Therefore, neither would have a significant effect on the area's visual character, views, topography, or ridgelines.

Source: Google Maps

1.d.	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?			X	

Discussion:

Pipeline. The pipeline project would not involve any new lighting. No impact would occur.

New Fire Station. The new fire station would have security lighting and also emit light from nighttime use by resident firefighters. Exterior lighting would be shielded and similar to that at the existing adjacent high school and Dark Sky compatible fixtures will be used. There are no sensitive receptors or sensitive habitats/species that could be affected by project lighting near the site. Therefore this impact would be less than significant.

Existing Fire Station. The elimination of the barracks building and reduction in use of the existing fire station would slightly reduce lighting associated with that facility. No impact would occur.

Source: Project plans.

1.e.	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?			X	

Discussion: See discussions in Items 1a and 1b, above. The sites would be within County Scenic Corridors, but would not adversely affect the aesthetics of the corridors.

Source: San Mateo County General Plan, Scenic Corridors Map (https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/GP_Scenic_Corridor.pdf)

1.f.	If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?				X

Discussion:

None of the project sites are located in a Design Review District. General design criteria for the Pescadero/Rural Areas are identified in the zoning regulations, and GP/LCP, and will be reviewed as part of the subsequent CDP. No impact would occur.

Source: https://gis.smcgov.org/Html5Viewer/?viewer=raster

1.g.	Visually intrude into an area having natural scenic qualities?			X	

Discussion:

Pipeline. As described above, the pipeline would have minor aesthetic impacts during construction and no post-construction aesthetic impacts. Therefore it would not affect any natural scenic qualities.

New Fire Station. As described above, the fire station would convert an open field adjacent to the High School to a developed institutional building. It would detract slightly from the natural scenic qualities of the area, but, because of its limited size (about 1.75 acres in total) and location adjacent to the existing developed school, this impact would be less than significant.

Existing Fire Station. There would be no new development at the existing fire station site, so no visual intrusion to natural scenic qualities would occur.

Source: Site visit, Google Earth, Project Plans

2. AGRICULTURAL AND FOREST RESOURCES. 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
2.a.	For lands outside the Coastal Zone, convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X

Discussion: All project sites are within the Coastal Zone, therefore this question is not applicable.

Source: https://gis.smcgov.org/Html5Viewer/?viewer=raster

2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X

Discussion:

Pipeline. The proposed pipeline would be buried along roadway shoulders and not affect agricultural lands. The proposed pipeline laydown area is adjacent to a roadway and is a graveled, non-agricultural property. No impact would occur.

New Fire Station. The fire station site is an open field that has been used for agriculture in the past. It is currently not in agricultural use, not under Williamson Act contract, or within an open space easement.

Existing Fire Station. The existing fire station site is fully developed as a fire station facility, and no new development is proposed. No impact would occur from removal of the barracks building.

Both projects would be permissible under existing zoning, with Coastal Development Permits.

Source: https://gis.smcgov.org/Html5Viewer/?viewer=raster

2.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 or conversion of forestland to non-forest use?		X		

Discussion: According to the Department of Conservation Farmland Mapping and Monitoring Program California Important Farmland Finder (2018 Interactive GIS), the project areas are classified into two categories: Prime Farmland and Other Land.

Pipeline. No impact. Road right-of-way is mapped "Other Land."

New Fire Station. If the project area were to be irrigated, the land would be designated as Prime Farmland, which is defined as: *Irrigated land with the best combination of physical and chemical features able to sustain long term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.*

The project area has been fallow since 2013, this exceeds the four year requirement prior to the 2018 map year. Though the project area may be of a quality to sustain high yield irrigated crops, the project area has not been in agricultural use for at least eight years, as opposed to the adjacent field to the north of the site consistently used for irrigated agriculture. However, the conversion of soils for fire station use is a potentially significant impact that would be reduced to a less-than-significant level by implementation of Mitigation Measure AG-1, below. The project would have no impact on the adjacent land to continue agricultural operations.

Existing Fire Station. No impact. Entire parcel is mapped as "Other Land."

Mitigation Measures

Mitigation AG-1*:* Prior to issuance of the building permit for construction of the fire station, the County shall submit evidence to the Coastal Commission for review and approval indicating that an agricultural easement burdening off-site agricultural property has been granted in perpetuity to the County or other qualifying entity, along with adequate funding to compensate for reasonable administrative costs incurred by the easement holder. The property provided as mitigation shall meet the following criteria:

- The easement shall provide agricultural conservation acreage at a ratio of 2:1 for the loss of agricultural land associated with the approved project (i.e. at least 3.5 acres shall be provided to offset the 1.75 acres of the fire station site).
- The property shall be acquired by the County and placed under an agricultural easement; or the County shall enter into an agreement to newly encumber lands owned by another entity.
- The property shall be located within the Coastal Zone, within reasonable proximity to the project site.

- The property shall be on land of a similar quality as the project site (i.e., Prime Agricultural Lands).

Source: Project Plans, https://maps.conservation.ca.gov/DLRP/CIFF/.

2.d.	For lands within the Coastal Zone, convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?		X		

Discussion:

Pipeline. Although the pipeline alignment runs through Class I and II soils, the pipeline would be within roadway shoulders or under roadway pavement. No impact to agricultural lands would occur.

New Fire Station. The fire station site is mapped as Class I Agricultural Soils. Even though the site is small (about 1.75 acres) and part of the high school campus parcel, and is separated from other agricultural soils by the high school campus and parking lot and Butano Cutoff Road, the loss of the Class 1 soils would be a potentially significant impact. This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure AG-1, above.

Existing Fire Station. The existing fire station is fully developed and contains no agricultural lands. No impact would occur.

Source:
https://gis.smcgov.org/Html5Viewer/Index.html?configBase=https://gis.smcgov.org/Geocortex/Essentials/REST/sites/publicplanning/viewers/HTML52110/virtualdirectory/Resources/Config/Default

2.e.	Result in damage to soil capability or loss of agricultural land?			X	

Discussion: See discussions under Items 2a-d, above. The pipeline project would not have any potential to adversely affect agricultural lands. The new fire station project would result in a less-than-significant loss of such lands. The existing fire station would not affect agricultural lands.

Source:
https://gis.smcgov.org/Html5Viewer/Index.html?configBase=https://gis.smcgov.org/Geocortex/Essentials/REST/sites/publicplanning/viewers/HTML52110/virtualdirectory/Resources/Config/Default

2.f.	Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X

Note to reader: This question seeks to address the economic impact of converting forestland to a non-timber harvesting use.				

Discussion: There are no forest or timber lands on or near either the pipeline or the new or existing fire station sites. Therefore no impact to any such lands would occur.

Source: Site visit; San Mateo County General Plan

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
3.a.	Conflict with or obstruct implementation of the applicable air quality plan?				X

Discussion: The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) currently focus much of their air pollutant control efforts on five major air pollutants: ozone, nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), and particulate matter (PM). These are the most prevalent air pollutants emitted nationwide and statewide, and they are known to be harmful to human health when their ambient levels exceed certain concentrations. Consequently, federal and state ambient air quality standards have been set for each of these pollutants (known as "criteria air pollutants") at levels protective of human health, with an added margin of safety to afford additional protection to the young, the old and the infirm (i.e., sensitive receptors), who are more susceptible to their adverse health effects.

Ozone and suspended particulate matter (i.e., two types of the latter - particulate matter less than ten microns in diameter [PM_{10}], and particulate matter less than 2.5 microns in diameter [$PM_{2.5}$]) are of particular concern in the Bay Area, which is currently designated "nonattainment" for state and national ozone ambient air quality standards, for the state PM_{10} standards, and for state and national $PM_{2.5}$ standards; it is "attainment" or "unclassified" with respect to all the other major air pollutants.

Many other chemical compounds emitted into the air, termed toxic air contaminants (TACs), are regulated to limit their adverse impacts to human health and welfare. In California and in the Bay Area, the majority of the estimated carcinogenic/chronic health risks from TAC exposures have been attributed to relatively few TACs, the most important being particulate matter from diesel-fueled engines (DPM), which, according to the CARB, is responsible for about 70% of the cumulative cancer risk in California from all airborne TAC exposures.

The air quality analysis addressing this Initial Study's checklist items was performed using the methodologies and significance thresholds of the Bay Area Air Quality Management District (BAAQMD), as recommended in *CEQA Air Quality Guidelines* (May 2017). The air pollutant impacts

evaluated in the Items "a" and "b" discussions below are from precursors to ozone formation (i.e., reactive organic compounds [ROG] and nitrogen oxides [NO_x]) and small-diameter particulate matter (i.e., PM_{10} and $PM_{2.5}$).

According to the *Guidelines*, any Project would have a significant potential for obstructing air quality plan implementation or making a cumulatively considerable contribution to a regional air quality problem if its pollutant emissions would exceed any of the thresholds presented in Table AQ-1 during construction or operation. Thus, the significance criteria established by the BAAQMD may be relied upon to make the following determinations.

Table AQ-1: CEQA Air Quality Significance Thresholds for Criteria Air Pollutant Emissions

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82*	82	15
$PM_{2.5}$	54*	54	10
Fugitive Dust	BAAQMD Best Management Practices (BMPs)	Not Applicable	
Greenhouse Gases			
CO_2e	None	• 1,100 MT of CO_2e per year, OR • 4.6 MT CO_2e per service population per year (residents + employees)	
Project-Level Health Risk/Hazard/PM2.5 Thresholds			
Excess Cancer Risk	10 per one million		
Chronic or Acute Hazard Index	1.0		
Incremental annual average $PM_{2.5}$	0.3 µg/m^3		
Cumulative Health Risk/Hazard/PM2.5 Thresholds (total contribution from all sources within the Project site Zone of Influence)			
Excess Cancer Risk	100 per one million		
Chronic Hazard Index	10.0		
Annual Average $PM_{2.5}$	0.8 µg/m^3		

Notes:
*PM_{10} and $PM_{2.5}$ thresholds for construction apply only to exhaust emissions and do not include the fugitive dust component.
CO_2e = CO_2 equivalent
µg/m^3 = micrograms per cubic meter
MT = metric ton

In the Bay Area, including Pescadero, the applicable regional air quality plan is the BAAQMD's *2017 Clean Air Plan: Spare the Air, Cool the Climate* (*2017 Plan*), which focuses on two closely-related goals: protecting public health from air pollutant/TAC exposures and protecting the climate (the latter addressed in Climate Change, Section 8, below). The *2017 Plan* defines an integrated, multipollutant control strategy to reduce emissions of particulate matter, TACs, ozone precursors and greenhouse gases (GHG) based on four key priorities:

- Reduce emissions of criteria air pollutants and TACs from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon and fluorinated gases.
- Decrease demand for fossil fuels (i.e., gasoline, diesel and natural gas).
- Decarbonize the energy system.

The purpose of the Project is to provide a new water source for the existing high school and to replace an existing fire station. Once these infrastructure/public safety improvements are installed, the Project would have no net new operational air pollutant emissions. Thus, it would not add to the Bay Area's regional emission inventories nor impede the Bay Area-wide maintenance/attainment of established air quality standards nor cause exceedance of TAC health risk guidelines at local sensitive receptors.

Since compliance with BAAQMD-approved CEQA thresholds of significance for major air pollutant emissions is another condition for determining Project consistency with the *2017 Plan*, the Project would meet all BAAQMD CEQA ozone precursor and particulate emission thresholds (as addressed in the Item "b" discussion below). Thus, Project would not conflict with the regional air quality plan.

Source: BAAQMD, *2017 Clean Air Plan: Spare the Air, Cool the Climate*

3.b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?			X	

Discussion: Construction of the water supply pipeline would occur in a single phase over 6 – 9 months, beginning in the first half of 2022. Construction of replacement fire station would occur over 16 months, beginning late 2021 to mid – 2022. Fire station construction may overlap with the water pipeline construction. Demolition of the old fire station barracks would occur after the new fire station is operational.

Construction would generate temporary emissions of criteria pollutants in construction equipment exhaust and of fugitive dust from equipment and material movement. The *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to the CEQA significance thresholds. The California Emissions Estimator Model (CalEEMod, Version 22.4.0) was used for this purpose.

Table AQ-2 provides the estimated pollutant emissions from construction equipment, material delivery/haul trucks, and worker commute vehicles associated with each project component. The estimates are for worst-case daily average emissions during the sub-phases of project construction when equipment use is the most intense (i.e., during water pipeline trench excavation and pipe installation, and during the fire station foundation preparation and building erection). These worst-case average daily construction period emissions are compared to the CEQA significance thresholds, either separately by component or combined (since there could be substantial overlap during construction) as shown below. In either case, daily emissions of each regulated air pollutant from Project construction activities would be below the CEQA significance thresholds, a less-than-significant impact.

Table AQ-2: Construction Criteria Pollutant Emissions – Year 2023 (Average Pounds per Work Day)

Project Phase	ROG	NOx	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Water Pipeline Construction (3 months/65 work days for major excavation/pipe installation phases)	1.88	15.58	0.61	0.56
Fire Station Construction (2 months/44 work days for major site preparation/building foundation phases)	1.88	15.58	0.61	0.56
Significance Thresholds	**54**	**54**	**82**	**54**
Significant Impact?	**No**	**No**	**No**	**No**

Even though air pollutants in equipment/vehicular exhaust would not exceed CEQA thresholds, fugitive dust resulting from earth movement and equipment/vehicular travel over unpaved ground during Project construction could lead to local violations of ambient particulate standards unless adequate dust suppression measures are implemented.

The BAAQMD *CEQA Air Quality Guidelines* require the following basic Best Management Practices (BMP) to control fugitive dust; these measures will be included in all construction contracts for the proposed projects.

The construction contractor shall reduce construction-related air pollutant emissions by implementing BAAQMD basic fugitive dust control measures, including:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved surfaces shall be limited to 15 miles per hour.
- Paving shall be restored as soon as possible after construction/repair is complete.
- A publicly visible sign shall be posted at each active worksite with the telephone number and person to contact at the County Planning Department regarding dust complaints. This person

shall respond and take corrective action with 48 hours. The BAAQMD's phone number shall also be included to ensure compliance with applicable regulations.

Source: CalEEMod *User's Guide* (Version 2016.3.2, November 2017); and *Appendix D – Default Data Tables* http://www.caleemod.com/

3.c.	Expose sensitive receptors to substantial pollutant concentrations, as defined by the Bay Area Air Quality Management District?			X	

Discussion: Cancer risk is the lifetime probability of developing cancer from exposure to carcinogenic substances. The potential for other adverse health impacts related to long-term TAC exposure (e.g., birth defects, neurological damage, asthma, bronchitis, genetic damage, etc.) and/or from short-term exposure (e.g., eye watering, respiratory irritation, throat pain, headaches, etc.) are evaluated using a hazard index (HI), which is defined as the ratio of a project's incremental TAC concentration at a sensitive receptor to an accepted reference exposure level (REL) as determined by the California Office of Environmental Health Hazard Assessment (OEHHA). If the HI is greater than 1.0, then the impact is considered to be significant for CEQA purposes.

Ambient DPM produced by construction equipment could substantially affect sensitive receptors within 1,000 feet of the locus of construction activity if such emissions were strong enough and lasted long enough. For the latter, the CEQA significance thresholds for TACs are based on assumptions of exposure duration of a year or longer (i.e., 70 years for cancer risk; a year for chronic non-cancer health impacts or for PM2.5 levels).

Pipeline – Construction. Installation of the new water supply pipeline and its connection with the existing County distribution network would occur in a single phase over 6 – 9 months; the pipeline route would follow Pescadero Creek Road and Cloverdale Road from its connection point to the existing County water line to the Pescadero school, a length of about 1.2 miles (about 6,300 feet). Since the locus of Project pipeline construction activity (including the DPM-emitting construction equipment) would move along the pipeline corridor over the 3 months required for trenching and pipe installation, no individual local sensitive receptor would be close (i.e., within 1000 feet) to this active locus for more than about a week. Thus, the DPM exposure period for any local residential receptors would be very short in comparison to the exposure times needed to threaten adverse health impacts. Thus, Project-related TAC health risks would be substantially below the CEQA health- risk significance thresholds for Project pipeline construction emissions, a less-than-significant impact.

New Fire Station – Construction. Construction of the replacement fire station would occur over a total of 16 months. But work on the most DPM-emitting, equipment-intensive stages (i.e., station foundation preparation and building erection) would take place over a much shorter period (i.e., about 2 months). The closest residential receptors to the fire station site are within 1000 feet north along Cloverdale Road; the closest school receptors are within a few hundred feet to the east and northeast of the site. Thus, local TAC exposure from fire station construction would be short in comparison to the exposure times needed to pose adverse health impacts. Thus, Project-related

TAC health risks would be substantially below the CEQA health- risk significance thresholds for fire station construction emissions, a less-than-significant impact.

New Fire Station – Operation (Emergency Generator). Project plans call for the installation of a diesel-powered generator (of as yet undetermined horsepower rating and other design specifications) that would be available to supply electric power in the event of disruption of power from external sources. Any diesel engine emits DPM, which could pose a substantial potential health risk to those living nearby depending on the size of the engine, the DPM concentration in the exhaust, the hours of operation over time, and/or its proximity to residential areas or other sensitive receptors. But in the Bay Area, all standby emergency diesel generators greater than 25 brake horsepower rating must apply for and operate under the conditions specified in a BAAQMD permit. Typically, such a permit limits the DPM content of the engine exhaust to 0.15 grams of DPM per brake horsepower, requires that the operator demonstrate through modeling that the same health risk criteria that apply to CEQA project-level TAC impacts be met for receptors near the proposed permitted source, and limits non-emergency operation of the diesel generator to a maximum of 50 hours per year for the purposes of maintenance and testing. The Project diesel-powered generator could not be installed or operated on the Project site unless it met these BAAQMD permit conditions. Further, operation of the generator for maintenance testing purposes could be limited to weekday evening and/or weekend hours when school is not in session. Thus, the incremental health risk from generator DPM emissions would pose a less than significant impact to nearby residents and Pescadero school students.

Existing Fire Station - Demolition. Demolition of the existing fire station would result in dust and construction equipment emissions during demolition activities. There are no residential or other sensitive receptors near the site, so no potentially significant impact would occur.

Source: BAAQMD, *CEQA Air Quality Guidelines* (May 2017).

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

Discussion: CEQA odor criteria typically applies to odor sources with the potential to frequently expose substantial populations to objectionable odors over extended periods of time. But for the Project pipeline construction, the odor-emitting construction equipment would move along the pipeline corridor over the 3 months required for trenching and pipe installation, and no individual local sensitive receptor would be close to this active locus for more than about a week. For the proposed new fire station, major construction activity would occur over a short time (i.e., 2 months) in the Summer months when the Pescadero schools would not be in session. Demolition of the existing fire station barracks would generate small amounts of construction equipment odors, and there are no sensitive receptors near that site. Thus, odor impacts would be less than significant.

Source: BAAQMD, *CEQA Air Quality Guidelines* (May 2017).

4.	**BIOLOGICAL RESOURCES**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
4.a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service or National Marine Fisheries Service?		X		

Discussion:

Pipeline and New Fire Station Sites - A biological resources assessment of both the pipeline alignment and proposed new fires station site was conducted by Vollmar Natural Lands Consulting (VNLC) in January 2021, and is included as Attachment A to this IS. That evaluation identified the following species as having the potential to occur within the reaches of Pescadero and Butano Creeks (and associated riparian habitat) as well as coast scrub within the project area:

- Foothill yellow-legged frog (*Rana boylii*; Federally threatened and California Department of Fish and Wildlife (CDFW) Species of Special Concern),
- California red-legged frog (*Rana draytonii;* Federally threatened and CDFW Species of Special Concern),
- Santa Cruz black salamander (*Aneides niger;* CDFW Species of Special Concern),
- San Francisco gartersnake (*Thamnophis sirtalis tetrataenia;* Federally endangered, State endangered, and CDFW Fully Protected),
- Western pond turtle (*Actinemys marmorata;* CDFW Species of Special Concern),
- Bank swallow (*Riparia riparia*; State threatened),
- Long-eared owl (*Asio otus*; CDFW Species of Special Concern),
- Burrowing owl (*Athene cunicularia;* CDFW Species of Special Concern),
- Salt marsh common yellow throat (*Geothlypis trichas sinuosa;* CDFW Species of Special Concern),
- Steelhead (*Oncorhynchus mykiss irideus* pop. 8*; Federally threatened*),
- Tidewater goby (*Eucyclogobius newberryi; Federally endangered*),
- Pallid bat (*Antrozous pallidus;* CDFW Species of Special Concern and WBWG: High),
- Townsend's big-eared bat (*Corynorhinus townsendii;* CDFW Species of Special Concern and WBWG: High),
- Hoary bat (*Lasiurus cinereus;* WBWG: Medium), harlequin lotus (*Hosackia gracilis,* CNPS Rare Plant Rank 4.2), and
- Other migratory birds

Project activities could potentially have indirect impacts to these species and their habitats. Implementation of mitigation measures identified in the Biological Habitat Evaluation Report (Mitigation Measures BIO-1 through 14, below) would bring project impacts to a less-than-significant level.

Tricolored blackbird (*Agelaius tricolor*; State threatened, CDFW Species of Special Concern), black swift (*Cypseloides niger*; CDFW Species of Special Concern), American peregrine falcon (*Falco peregrinus anatum*; CDFW Fully Protected), have potential to occur within the Project Area for foraging only (no nesting). There are no direct or indirect impacts are anticipated as a result of project activities; therefore, no avoidance, minimization, or mitigation measures are recommended in the Biological Habitat Evaluation Report. This project would have less than significant impacts on these species.

Existing Fire Station. The existing fire station site is fully developed and includes no sensitive habitats.

Mitigation Measures

Foothill Yellow-Legged Frog

Mitigation BIO-1*:* Initial ground-disturbing activities shall be avoided between November 1 and March 31 to avoid the time period when amphibians and reptiles are most likely to be moving through the Project Area.

Mitigation BIO 2*:* Temporary exclusion fencing shall be installed around the limits of work areas and access routes to ensure special-status amphibians, reptiles, and mammals cannot enter the work area. Installation of exclusion fencing shall occur under the supervision of a designated biologist and immediately following a clearance survey of the area. The exclusion fencing shall have a minimum aboveground height of 30 inches, and the bottom of the fence should be keyed in at least 4 inches deep and backfilled with soil to prevent wildlife from passing under the fencing. Exclusion fencing shall be installed to prevent species entry into active work areas and to mark the limits of construction disturbance at equipment staging areas, site access routes, construction equipment and personnel parking areas, debris storage areas, and any other areas that may be disturbed.

Mitigation BIO-3: Plastic monofilament netting (erosion control matting), loosely woven netting, or similar material in any form shall not be used at the project site because amphibians and reptiles can become entangled and trapped in them. Any such material found on-site shall be immediately removed by the construction personnel. Materials utilizing fixed weaves (strands cannot move), polypropylene, polymer, or other synthetic materials shall not be used.

Mitigation BIO-4: No more than twenty-four (24) hours prior to the date of initial ground disturbance, a pre-construction survey for foothill yellow-legged frog and other sensitive amphibians and reptiles shall be conducted by a designated biologist at the project site.

The survey shall consist of walking the project limits and within the project site to ascertain the possible presence of special-status amphibians and reptiles. The designated biologist shall investigate all potential areas that could be used by the species for feeding, sheltering,

movement, and other essential behaviors. If any foothill yellow-legged frogs are found, the designated biologist shall follow the procedures specified in Measure 5.

Mitigation BIO-5: Each encounter with the foothill yellow-legged frog shall be treated on a case-by-case basis in coordination with the USFWS, but the general procedure is as follows: (1) the animal shall not be disturbed if it is not in danger; or (2) the animal shall be moved to a secure location if it is in any danger. These procedures are further described below:

- When a foothill yellow-legged frog is encountered in the project area, all activities which have the potential to result in the harassment, injury, or death of the individual shall be immediately halted. The designated biologist will then assess the situation in order to select a course of action that will avoid or minimize adverse effects to the animal. To the maximum extent possible, contact with the animal shall be avoided and the applicant shall allow it to move out of the potentially hazardous situation to a secure location on its own volition. This procedure shall apply to situations where a foothill yellow-legged frog is encountered while it is moving to another location and is actively dispersing. It does not apply to animals that are uncovered or otherwise exposed or in areas where the individual is not expected to move on its own and may be in danger (e.g., within the fenced construction perimeter).
- Foothill yellow-legged frogs that are in danger (e.g., animals that are uncovered or otherwise exposed or in areas within the fenced construction perimeter where the individual is not expected to move on its own) shall be relocated and released by the designated biologist outside the construction area within the same habitat. Prior to the initial ground disturbance, the designated biologist shall obtain approval of the relocation protocol from the USFWS and CDFW in the event that a foothill yellow-legged frog is encountered and needs to be moved away from the project site. Foothill yellow-legged frog shall be released in appropriate habitat nearby within the watershed. The designated biologist shall limit the duration of the handling and captivity of the foothill yellow-legged frog to the minimum amount of time necessary to complete the task. The applicant shall immediately notify the USFWS and CDFW once the foothill yellow-legged frog is relocated and the site is secure.

Mitigation BIO-6*:* Uneaten human food and other refuse attracts crows, ravens, coyotes, raccoons, and other predators of amphibians, reptiles, and other wildlife. A litter control program shall be instituted at the project site. All workers shall ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed garbage containers. The garbage containers shall be removed from the project site at the end of each working day.

California Red-Legged Frog

Mitigation Measures BIO-1 through BIO-6 also would apply to this species. In addition, the following measures would apply:

Mitigation BIO-7: A USFWS-approved biologist(s) shall be onsite until all initial habitat disturbances have ceased. The qualifications of the biologist(s) shall be submitted to USFWS for review and written approval at least thirty (30) days prior to the date earthmoving is initiated at the project site.

Mitigation BIO-8: To the maximum extent practicable, outdoor construction activities shall not occur during rain events or within 24-hours following a rain event. Prior to outdoor construction activities resuming, a designated biologist will inspect the Project Area and all equipment/materials for the presence of amphibians and reptiles.

Bank Swallow

Mitigation BIO-9*:* If construction activities will commence anytime during the nesting/breeding season of native bird species potentially nesting in the Study Area (typically February through August in the project region), a pre-construction survey for nesting birds shall be conducted by a qualified biologist within two weeks of the commencement of construction activities.

If active nests are found in areas that could be directly affected or are within 250 feet (for passerines) or 500 feet (for raptors) of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zone and types of construction activities restricted within it shall be determined through coordination with the CDFW, considering factors such as the following:

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;
- Distance and amount of vegetation or other screening between the construction site and the nest; and
- Sensitivity of individual nesting species and behaviors of the nesting birds.

Steelhead, Central California Coast DPS

Mitigation BIO-10: The County shall ensure that the following stormwater BMPs are implemented to protect water quality entering Pescadero and Butano Creeks:

- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matric) until vegetation is established.
- Prevent sediment from migrating offsite and protect from storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.

- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Tidewater Goby

Mitigation BIO-10, above, would also apply to this species.

San Francisco Gartersnake

See **Mitigations BIO-1-8** above. **Mitigation BIO- 5**, relocation protocol, will remain the same for San Francisco gartersnake.

Santa Cruz Black Salamander

Mitigations BIO-1-3, and **BIO-6**, above, also would apply to this species

Long-eared Owl

Mitigation BIO-9, above, also would apply to this species.

Burrowing Owl

Mitigation BIO-11: If construction activities commence during the burrowing owl nesting season (February 1 – August 31), a qualified biologist shall conduct preconstruction surveys covering all areas of suitable habitat within 250 feet of the proposed activity. The survey will last a minimum of 3 hours, and will either begin 1 hour before sunrise and continue until 2 hours after sunrise or begin 2 hours before sunset and continue until 1 hour after sunset. If no owls are detected during a first survey, a second survey will be conducted. If owls are detected during the first survey, a second survey is not needed. All owls observed will be counted and their locations will be mapped, and the following measure will be implemented:

If evidence of nesting burrowing owls is found, a 250-foot-wide no-disturbance buffer zone shall be established around each occupied nest and shall be delineated in the field by the biologist, using a suitable low-impact medium. Construction may proceed outside the no-disturbance buffer zones.

Salt Marsh Common Yellowthroat

Mitigation BIO-9, above, also would apply to this species.

Pallid Bat, Townsend's Big-Eared Bat, and Hoary Bat

Mitigation BIO-12: A qualified biologist shall conduct a roosting bat habitat evaluation prior to the commencement of construction activities. The evaluation shall determine if any trees proposed for removal or that are located near the work sites provide potential bat roosting habitat. If suitable roost trees or an active roost are confirmed, then a site-specific bat protection plan shall be developed by a qualified biologist to prevent disturbance of an active maternity or hibernation roost.

Western Pond Turtle

Mitigations BIO-1-3 and **BIO-6**, above also would apply to this species.

Other Migratory and Nesting Birds

Mitigation BIO-9, above also would apply to these species.

Special-Status Plant Species

Mitigation BIO-13: Appropriately-timed focused plant surveys shall be conducted during the harlequin lotus's flowering period (March - June) to detect presence of these species within the project's impact zone.

Mitigation BIO-14: If this species is determined to be present within the project impact zone (where vegetation removal is needed), then potentially impacted populations shall be transplanted to an appropriate adjacent habitat where impacts are not anticipated. The transplanting effort shall be approved by the CDFW prior to implementation.

Source: Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021.

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

Discussion: A formal wetlands delineation using US Army Corps of Engineers and California Coastal Commission protocols has been conducted for the project site and is included as Attachment B to this IS (Vollmar Natural Lands Consulting, May 2021). Pescadero Creek and Butano Creek would be considered "jurisdictional waters" by the Army Corps of Engineers (ACOE). The riparian habitat associated with these streams would be considered jurisdictional by CDFW up to the top of bank, or edge of riparian dripline, whichever is further. In addition, because the Project Area is within the Coastal Zone, potentially jurisdictional features need to only contain one wetland parameter (e.g., hydric vegetation), compared to presence of all three wetland parameters typically needed for areas outside of the California Coastal Commission's jurisdiction.

Pipeline. In the southwest corner of Pescadero High School, the pipeline is proposed to be located beneath Cloverdale Road, where a ditch conveys surface water to Pescadero Creek. This ditch is a jurisdictional wetland feature. There are also several culverts located along Pescadero Creek Road and Cloverdale Road that drain upland sheetflow to these streams.

No trees or large shrubs would be removed. In addition, location of the pipeline beneath the roadway would avoid either direct or indirect adverse impacts to habitat and aquatic resources associated with Pescadero Creek and Butano Creek. In combination with the SWPPP (see Geology discussion) this would reduce any impacts to off-site wetlands to less than significant.

New Fire Station. The proposed development footprint of the new fire station is located on a disced field. At the time of the site visit (both on December 7, 2020 and May 7, 2021), there were no indications of direct-surface water connection from the agricultural features to the emergent channel feature to the west; these features are separated by an at-grade, unpaved roadway. Overall, there were no hydric indicators (vegetation, soils, and hydrology) present for these agricultural features. The CDFW has been consulted and concurs with this conclusion (Schweitzer, pers. com.).

Therefore, the new fire station site is considered an upland feature that would likely not be subject to federal, state, or county jurisdiction. In addition, the proposed fire station leach field is a sufficient distance from the drainage swale area to assure that untreated wastewater from the fire station would not enter the drainage or Pescadero Creek. Similarly, the site's distance from any drainage features in combination with the SWPPP (see Geology discussion) would reduce any impacts to off-site wetlands to less than significant.

Existing Fire Station. No wetland features or habitats were mapped on the existing developed fire station site (Vollmar Natural Lands Consulting, May 2021). Therefore no impacts to riparian or wetland habitats would occur.

Sources: Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021; Delineation of Potential Jurisdictional Waters, CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects. Vollmar Natural Lands Consulting, May 19, 2021

4.c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		

Discussion: See discussion in 4.b, above.

Source: Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021.

4.d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X

Discussion: See discussion of special-status fish and wildlife in 4.a, above. The projects would not affect migration routes of any species because the pipeline would be underground and the fire station site is not in a migratory pathway. In addition, fish migration would not be impeded by the project assuming fisheries mitigation measures identified above are implemented.

Source: Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021.

4.e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or				X

	ordinance (including the County Heritage and Significant Tree Ordinances)?				
Discussion: No trees are anticipated to be removed as a result of project activities. As a result, this project would have no impact on local policies or ordinances protecting biological resources. **Source:** Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021.					
4.f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?		X		
Discussion: A portion of the site is within designated critical habitat for California red-legged frog; specifically, the existing Fire Station No. 59 site. Critical habitat for this species also covers a majority of the surrounding land. Critical habitat for tidewater goby is located approximately 0.5-mile downstream (northwest) of the project area, and critical habitat for marbled murrelet is located approximately 1.3 miles to the east. Finally, both Butano and Pescadero Creeks are designated critical habitat for steelhead (Central California Coast DPS). Implementation of the mitigation measures for these species would reduce the potential for indirect impacts to these species to a less-than-significant level; see discussion in 4.a, above. **Source:** Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021.					
4.g.	Be located inside or within 200 feet of a marine or wildlife reserve?				X
Discussion: The Project Area is not within 200 feet of a marine or wildlife reserve. The projects would have no impact on marine or wildlife reserves. **Source:** Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021.					
4.h.	Result in loss of oak woodlands or other non-timber woodlands?				X
Discussion: There are no oak woodlands located within the project area. There would be no impacts to oak woodlands. There are riparian woodlands (non-timber woodlands) within the Project Area that could potentially be indirectly impacted as a result of project activities. See discussion 4.b. **Source:** Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021.					

5. **CULTURAL RESOURCES**. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
5.a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?			X	

Discussion: A cultural resources assessment was conducted for the pipeline and fire station sites (SAS 2021). That study included a records search through the Northwest Information Center (NWIC) of the California Historical Resources Information System at Sonoma State University as well as a field survey of the sites.

The record search results (NWIC File No. 20-1076) provided to SAS on January 6, 2021 indicated that no previously documented cultural resources were identified directly in the project area. However, a total of 39 prehistoric and historic-era sites and features have been documented within the half-mile search area. With the exception of a single prehistoric habitation site east of Pescadero Creek and about 1,500 ft. east of Cloverdale Road, all of the previously documented resources consist of historic-era buildings in and near the old town of Pescadero. As described below, the field surveys did not identify any evidence of historic or prehistoric resources on the sites.

Pipeline. The proposed water main trenching runs from the main driveway entrance to the Pescadero High School, west long the north side of Butano Cutoff, north along the east side of Cloverdale Road, cutting across to the west of Cloverdale Road then west along the west side Pescadero Creek Road. The alignment then cuts across the roadway again and terminates at a designated point near the main business district of Pescadero. The surveyed alignment was along a roadside easement and crossed drainage ditches and residential properties/farms.

No historic-era or prehistoric cultural materials were identified along the pipeline route.

New Fire Station. On January 20, 2021, SAS archaeologists conducted an intensive pedestrian survey of the entire project area using parallel transects spaced no greater 20 meters apart in the open field on the north side of Butano Cutoff. (fire station site) The remainder of the project area consisted primarily of a linear corridor within or immediately adjacent to Butano Cutoff, Cloverdale Road, and Pescadero Creek Road. When possible, eroded areas and other occurrences of mineral soil such as rodent burrows were examined closely for any indications of surface or near-surface cultural remains. Where ground surface visibility existed in the open field on Cloverdale Road and Butano Cutoff, the SAS survey did not identify any historic-era or prehistoric cultural resources.

Existing Fire Station. The existing fire station site is fully developed and has been graded for construction of that facility. The building to be removed is of modern design and does not appear to have any historic properties. Therefore removal of the existing barracks would not affect any historical resource.

Source: Solano Archaeological Services (SAS), Cultural Resources Technical Memorandum, Pescadero County Service Area 11 Project, San Mateo County, California. February 3, 2021. https://www.smcgov.org/media/127981/download?inline=

5.b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?		X		

Discussion: As described in Item 5a, above, a records search and intensive site survey found no evidence of archaeological resources. In addition, the Native American Heritage Commission's Sacred Lands File search indicated that no properties possessing cultural significance to the Native American community are known to be located within or in the vicinity of the project area, and none of the NAHC-listed representatives contacted by SAS provided any information on the project area. However, it is possible that unknown cultural resources may be encountered during project construction. Mitigation Measures CULT-1, below, would reduce this impact to ***less than significant***.

Mitigation CULT-1. To reduce potential impacts on presently undocumented early Native American cultural resources, a qualified professional archaeologist and a Native American monitor shall be present on-site during all subsurface ground-disturbing activities at the site of the proposed new fire station. If prehistoric remains (e.g., structure traces, stone artifacts, bone and/or shell concentrations) are encountered during subsurface construction and/or demolition activities, ground disturbances in the vicinity of the find shall cease until the monitor can determine the nature and potential significance of the remains and recommend mitigation. Mitigation can include, but shall not be restricted to, no action, additional documentary research, testing, and contiguous block unit excavation and resource documentation in accordance with CEQA standards.

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, excavation in the vicinity of the burial shall immediately cease and the primary construction contractor and/or archaeological/Native American monitor shall notify the County. The County or their designated representative shall notify the county coroner who is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner's findings, the County, the archaeologist/Native American monitor, and the NAHC-designated most likely descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting on notification of a discovery of Native American human remains are identified in PRC Section 5097.9.

Source: Solano Archaeological Services (SAS), Cultural Resources Technical Memorandum, Pescadero County Service Area 11 Project, San Mateo County, California. February 3, 2021. https://www.smcgov.org/media/127981/download?inline=

5.c.	Disturb any human remains, including those interred outside of formal cemeteries?		X		

Discussion: As described in Item 5a, above, a records search and intensive site survey found no evidence of archaeological resources. However, it is possible that unknown human remains may be encountered during construction of the pipeline or new fire station projects. Mitigation Measure CULT-2, below, would reduce this impact to ***less than significant***.

> **Mitigation CULT-2.** If human remains or any associated funerary artifacts are discovered during construction, all work must cease within the immediate vicinity of the discovery. In accordance with the California Health and Safety Code (Section 7050.5), the San Mateo County Sheriff/Coroner shall be contacted immediately. If the Coroner determines the remains to be Native American, the Coroner will notify the Native American Heritage Commission, which will in turn appoint a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the Applicant and a qualified archaeologist to determine the proper treatment of the human remains and any associated funerary objects. Construction activities will not resume until either the human remains are exhumed, or the remains are avoided via Project construction design change.

Source: Solano Archaeological Services (SAS), Cultural Resources Technical Memorandum, Pescadero County Service Area 11 Project, San Mateo County, California. February 3, 2021. https://www.smcgov.org/media/127981/download?inline=

6.	**ENERGY**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
6.a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	

Discussion:

Pipeline. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy. Water would be supplied to the School largely by existing system pressure – only pipeline construction would require additional energy expenditure and there would be no on-going expenditure of energy for pipeline operation. The school's well, near the administrative buildings, will remain and continued to be used for irrigation and other non-potable uses. The well drilled within the fire station lease area would be abandoned.

New Fire Station. The existing fire station nearer Pescadero would be decommissioned and the new fire station would be constructed adjacent to the existing school with minimal net energy

increase from operation of the Project fire station. The new fire station building would comply with State of California energy conservation regulations and San Mateo County General Plan energy conservation/efficiency policies (see Item 6.b discussion below).

Existing Fire Station. The existing fire station barracks would be demolished, but the apparatus bay will remain; a bathroom may be added to the apparatus bay. Minimal use of energy would occur for demolition and partial reuse of the facility.

Source: Project plans.

6.b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.			X	

Discussion: The State Building Standards Commission adopted updates to the California Green Building Standards Code (CALGreen), which went into effect in January 2011. CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, and site irrigation conservation. CALGreen provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen also requires building commissioning, which is a process for verifying that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency. CALGreen provides the minimum standard that buildings need to meet in order to be certified for occupancy, but does not prevent a local jurisdiction from adopting more stringent requirements. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) reduce energy and water consumption.

The *San Mateo County General Plan – Chapter 17 – Energy and Climate Change Element* contains the following goals and policies regarding energy efficiency:

Goal 2: Maximize energy efficiency in new and existing development.

- **Policy 2.5: Continue implementation of green building standards that exceed state energy efficiency standards.**
    - Implementing Strategy 2.5A: Continue to require the participation of new development and significant remodels in green certification programs or standards that reduce energy use, such as the Leadership in Energy and Environmental Design (LEED) program, GreenPoint Rated, or CALGreen.
    - Implementing Strategy 2.5B: Consider options to expand the requirements or applicability of the Green Building Ordinance to achieve higher levels of energy efficiency.

The new fire station would be built in accordance with California's CALGreen standards and, thus, would be in accord with *San Mateo County General Plan* energy efficiency goals and policies.

Source: Project plans.

7. **GEOLOGY AND SOILS**. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
7.a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving the following, or create a situation that results in:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? *Note: Refer to Division of Mines and Geology Special Publication 42 and the County Geotechnical Hazards Synthesis Map.*			X	

Discussion: Both the pipeline and the fire station sites are partially within mapped fault hazard zone of the San Gregorio Fault, with mapped faults a short distance to the south and west of the sites. Damage could occur to one or both facilities in the event of a major earthquake in the region, including possible fault rupture damage.

Based on GHD's review of the USGS Quaternary Fault and Fold Database, the San Gregorio fault zone crosses through the proposed project alignment and exits in an Alquist-Priolo Earthquake Fault Zone. The next nearest active fault is the San Andreas Fault Zone and the Monte Vista-Shannon Fault Zone located approximately 11.2 miles east and 12.4 miles east, respectfully. The proposed project is an underground utility and is not expected to contain standing structures. Therefore, according to the Alquist-Priolo Earthquake Fault Zoning Act, Section 2621.6 2(a) the project is exempt from the Special Studies Zones requirements.

A fault evaluation study was conducted of the fire station site (ENGEO 2016). That study included cutting and evaluating two long trenches on the site to determine whether the site is crossed by a fault. The study concluded that no faults cross the site. It also identified two areas on the western and eastern sides of the site where construction of habitable structures should be avoided.

Pipeline. Given its proximity to several fault traces of the San Gregorio fault zone, it is possible that the pipeline could be damaged and service disrupted due to fault rupture. This damage would be repairable in a relatively short period of time, therefore this impact is considered less than significant.

New Fire Station. The fire station could be damaged or destroyed if unmapped faults on the site were to rupture. However, fault trenching across the entire site did not encounter evidence of past faulting on the site. Therefore this impact would be considered less than significant.

Existing Fire Station. Removal of the existing barracks would have no effect with respect to fault hazards.

Sources:
https://gis.smcgov.org/Html5Viewer/Index.html?configBase=https://gis.smcgov.org/Geocortex/Essentials/REST/sites/publicplanning/viewers/HTML52110/virtualdirectory/Resources/Config/Default; ENGEO, Fault Evaluation Report, Proposed Fire Station (Apn 087-053-010), 360 Butano Cutoff, Pescadero, California. July 21, 2016.

ii. Strong seismic ground shaking?		X		

Discussion: Both projects could be exposed to extreme ground shaking from a major earthquake on the nearby faults.

Pipeline. The pipeline could be damaged and service disrupted due to seismic shaking-induced ground settlement, including liquefaction. This impact would be reduced to a less-than-significant level by implementation of Mitigation Measure GEO-1, below. (See Item 7.c, below)

New Fire Station. The fire station also could be damaged and service disrupted due to seismic shaking-induced ground settlement. In addition, fire equipment may be damaged and unsecured objects may topple and pose a hazard to residents of the station. If extensive station damage were to occur, it is possible that equipment and personnel may not be able to respond to other earthquake-related effects requiring their services. This potentially significant impact would be reduced to a less-than-significant level with implementation of design recommendation in the project geotechnical report, as required in Mitigation Measure GEO-2.

> **Mitigation GEO-1:** The pipeline shall be designed and constructed in accordance with design parameters and recommendations included in the geotechnical investigation prepared for the pipeline project (GHD 2021)
>
> **Mitigation GEO-2*:*** The fire station foundation and site preparation shall include all recommendations of a preliminary geotechnical/geologic hazards report, which shall be prepared prior to project approval and include assessments of, and recommendations for, soil settlement, liquefaction, differential settlement, expansive soils, and other geologic hazards.

Existing Fire Station. Removal of the existing fire station barracks would have no effect with respect to seismic shaking.

Source:
https://gis.smcgov.org/Html5Viewer/Index.html?configBase=https://gis.smcgov.org/Geocortex/Essentials/REST/sites/publicplanning/viewers/HTML52110/virtualdirectory/Resources/Config/Default; GHD, Geotechnical Investigation Report, Pescadero High School Water System Improvement Project. January 21, 2021.

iii. Seismic-related ground failure, including liquefaction and differential settling?		X		

Discussion: The project area, both pipeline and fire station sites, is in low and moderate liquefaction zones. Liquefaction hazards can be limited to less-than-significant levels by appropriate foundation (fire station) and pipeline design. Mitigation Measures GEO-1 and GEO-2, above, would ensure that the fire station design accounts for liquefaction risks.

Source: County of San Mateo, Earthquake Liquefaction Map, Entire San Andreas Fault.

iv. Landslides?				X

Discussion: None of the sites are mapped as in a landslide hazard zone. Both the pipeline and new fire station sites are on generally level ground distant from potentially unstable hillsides. No landslide impacts are expected.

Source:
https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8

v. Coastal cliff/bluff instability or erosion? *Note to reader: This question is looking at instability under current conditions. Future, potential instability is looked at in Section 7 (Climate Change).*				X

Discussion: Both the pipeline and both fire station project sites are over a mile inland from the coast and therefore neither would be subject to cliff erosion. No impact would occur.

Source: Google Maps

7.b.	Result in substantial soil erosion or the loss of topsoil?			X	

Discussion: The project sites are located in a generally semi-rural area that is comprised of typically flat terrain with nearby rolling hills. Soil conditions in the area are mainly derived from sedimentary alluvial deposits and are expected to contain fine grained native sand, silt, and clay. Minor rock and stone may exist within the nearby hilly terrain. Also, it is expected that near-surface engineer- compacted fill may be encountered near the roadways, which was placed there during roadway construction. Groundwater levels are expected to be shallow, approximately 8.0 feet below the surface, according to the California Department of Water Resources, Water Data Library.

During construction, both the pipeline and new fire station project sites would be subject to minor soil erosion during construction, however, because both project sites are on generally level lands, this erosion would not be significant. Removal of the existing barracks at the existing fire station would temporarily expose soils on that level site. The new fire station would involve about 3,000 cubic yards of cut and 930 cubic yards of fill. Cut and fill for pipeline trenching has not been estimated but cut material would be replaced in the trench after the pipeline is laid down, so cut-and fill would be approximately balanced on that project. No cut or fill is proposed at the existing fire station site.

Each of the projects would be subject to erosion-control requirements of the Regional Water Quality Control Board, including construction Stormwater Pollution Prevention Plans. Post-construction, erosion would be minimal as the sites would be developed (fire station), or revegetated and/or compacted (pipeline). Therefore this impact would be less than significant.

Source: Project Plans., GHD Final Engineering Report, Pescadero High School, February 2021. https://planning.smcgov.org/sites/planning.smcgov.org/files/2-17-2021%20CSA-11%20Final%20Engineering%20Report%202-9-2021%20(GHD).pdf

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

Discussion: See responses to items 7a and 7b, above. Implementation of Mitigation Measures GEO-1 and GEO-2, above, would reduce the impacts of geologic instabilities to the projects to a less-than-significant level.

Source: Project Plans., GHD Final Engineering Report, Pescadero High School, February 2021. https://planning.smcgov.org/sites/planning.smcgov.org/files/2-17-2021%20CSA-11%20Final%20Engineering%20Report%202-9-2021%20(GHD).pdf GHD, Geotechnical Investigation Report, Pescadero High School Water System Improvement Project. January 21, 2021.

7.d.	Be located on expansive soil, as defined in Table 18-1-B of Uniform Building Code, creating substantial direct or indirect risks to life or property?		X		

Discussion: Based on the GHD field exploration and laboratory analysis along the pipeline alignment, including the fire station site frontage, the subsurface materials generally consist of varying layers of medium dense to very dense sand and medium stiff to hard clay. Typically, the near surface soils consist of low to medium plastic material with fine-grained gravel particles, underlain by medium to highly plastic clay. Clays can exhibit high shrink-swell potential that may damage foundations and infrastructure. However, these impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures GEO-1 and GEO-2, above. Removal of the existing fire station barracks building would have no affect with respect to expansive soils.

Source: GHD, Geotechnical Investigation Report, Pescadero High School Water System Improvement Project. January 21, 2021.

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

Discussion:

Pipeline. The pipeline would not generate any wastewater and therefore have no impacts with respect to septic systems.

New Fire Station. The proposed fire station would include a septic system with an approximately 15,000 sq. ft. leach field to be located immediately west of the fire station facility. This location has been evaluated with respect to leach field location requirements (distance from property lines, buildings, wells and water courses, and avoidance of flood hazards), and found to be suitable (ENGEO June 2018). A percolation test of the proposed leachfield site showed a percolation rate of 7.4 inches per hour in the upper sandy soils on the site, which is considered excellent for a leachfield. The lower soils (below about 5 feet below the surface) are high-plastic clays with much lower percolation rates. The septic treatment is proposed to be vial a shallow system, which would also ensure that it is not affected by high groundwater, meeting the 5-foot vertical clearance required by the Health Code. This would assure that impacts of the system on soil capabilities would be less than significant.

Existing Fire Station. Removal of the barracks building would reduce septic system use at that site. No impact would occur.

Source: ENGEO, Well and Leachfield Placement Study, Revised June 11, 2018; BKF Engineers, Memo from Dale Leda, Project Manager, to Laurence Miller, San Mateo County, November 16, 2018.

7.f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

Discussion: Paleontological resources—or fossils—are the remains of ancient plants and animals that can provide scientifically significant information about the history of life on Earth. Paleontological "sensitivity" is defined as the potential for a geologic unit to produce scientifically significant fossils. This sensitivity is determined by rock type, past history of the rock unit in producing significant fossils, and fossil localities that are recorded from that unit. Paleontological sensitivity is assigned based on fossil data collected from the entire geologic unit, not just at a specific site. Paleontological resources are considered to be non-renewable because they are the remains of prehistoric animal and plant life. Impacts to paleontological resources are identified from high to zero depending on the resource sensitivity of impacted formations.

To determine if the proposed project has any potential to impact significant paleontological resources or unique geologic features, a review of various archival sources was conducted to identify previous finds and documented paleontologically and geologically sensitive landforms within or near the project area. These sources included, but were not necessarily limited to the University of California Museum of Paleontology (UCMP) database, California Department of Conservation geologic map sheets, and information available through the University of California Berkeley Natural History Museums.

The underlying geology of the project area and vicinity consists largely of Middle Miocene marine formations made up of highly erodible, interbedded sandstones, mudstones, limestones, and sediments derived from these rock types (Natural Resources Conservation Service 2021). The presence of the San Andreas Fault in the area created the San Gregorio strike-slip fault, which is the

cause of significant uplifting and rock deformation in the area. Further deformation of the region was caused by lower sea levels and exposure to weathering during the last ice age 10,000 to 70,000 years ago. Currently, erosional weathering and strike-slip fault motion dominate the geomorphology (UC Santa Cruz 2019). These tectonic processes led to the exposure of fossil-bearing rock strata in and near the project area.

A review of the UCMP database indicated that while several specimens of quaternary gastropods have been found in Pescadero, no paleontological specimens appear to have been recorded directly within or immediately adjacent to the project area. A large number of paleontological samples, however, have been documented in the surrounding area in a range of geologic settings and formations. For example, cretaceous invertebrates such as Anthoza (anemones and corals), and Cephalopoda (squid, octopus, cuttlefish, etc.) (UCMP 2021) and various tertiary species have been found in the nearby Butano Creek and Pescadero Creek channels. Finds have been made at Mussel Rock (about 6.5 miles north of Pescadero) consisting of two plant fossils (Pinopsida - a class of conifer) (USDA 2021), at Purisma Creek approximately 12 miles northeast of the project area (Tertiary bivalves and gastropods), and Pigeon Point, about 5 miles south of Pescadero where dozens of examples of quaternary gastropods have been recorded. Specimens of quaternary gastropods have also been noted in Lobitos which is located about nine miles north of Pescadero, and on Hoffman Creek, about 5 miles east of the project area. Therefore, construction of the new fire station and water pipeline, and removal of the existing barracks would not have an adverse effect on paleontological resources.

Sources: UCMP (University of California Museum of Paleontology) 2021
https://ucmp.berkeley.edu/cnidaria/anthozoa.html

University of California Santa Cruz 2019 https://eps.ucsc.edu/

USDA (U.S. Department of Agriculture) 2021
https://plants.usda.gov/java/ClassificationServlet?source=display&classid=Pinopsida

NRCS (Natural Resources Conservation Service) 2021
https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

8. CLIMATE CHANGE. Would the project:					
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
8.a.	Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?			X	

Discussion: Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse. The accumulation of GHGs has been implicated as the driving force for global

climate change. The primary GHGs are carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O), ozone, and water vapor. While the presence of the primary GHGs in the atmosphere are naturally occurring, they are also emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere.

There is international scientific consensus that human-caused increases in GHGs have and would continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. California passed the California Global Warming Solutions Act of 2006 (Assembly Bill No. 32; California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), which requires California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that statewide GHG emissions will be reduced to 1990 levels by 2020.

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine-county San Francisco Bay Area Air Basin. As part of that role, the BAAQMD has prepared CEQA Air Quality Guidelines (May 2017) that provide CEQA thresholds of significance for operational GHG emissions from land use projects (i.e., 1,100 metric tons of CO2e per year1, which is also considered the definition of a cumulatively considerable contribution to the global GHG burden and, therefore, of a significant cumulative impact), but has not defined thresholds for project construction GHG emissions. The Guidelines methodology and thresholds of significance have been used in this Initial Study's analysis of potential GHG impacts associated with the Project.

Discussion: The CalEEMod model (Version 2020.4.0) was used to quantify GHG emissions associated with Project construction activities. For the water pipeline, the estimated construction GHG emissions would be 119.4 metric tons of CO2e. For the fire station, the estimated construction GHG emissions would be 80.8 metric tons of CO2e.

A small amount of additional emissions would occur during demolition of the existing fire station barracks building; this would occur after completion of the new fire station. There is no BAAQMD CEQA significance threshold for GHG emitted from construction activities. However, there would be no or minimal net new operational GHG emissions after project construction is complete (i.e., the new firehouse would replace existing facilities of the same type, and the pipeline would not generate emissions after construction). Thus, Project GHG emissions would be less than significant.

Source: CalEEMod model (Version 2016.3.2)

8.b.	Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the			X	

[1] CO2e, or carbon dioxide equivalent, is a standard unit for measuring GHG emissions impact. Each different GHG is expressed in terms of the amount of CO2 that would create the same amount of global warming.

	purpose of reducing the emissions of greenhouse gases?				
Discussion: Since the project would not contribute any permanent net new operational GHG, it would be consistent with the GHG reduction targets adopted by the State of California. The project would not conflict with any plan, policy or regulation adopted for the purpose of reducing GHG emissions nor conflict with any BAAQMD or State policies to reduce GHG emissions. Therefore it would have a less-than-significant impact. **Source:** BAAQMD CEQA Air Quality Guidelines, May 2017.					
8.c.	Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?				X
Discussion: There is no forest land on any of the project sites. No impact would occur. **Source:** Google Maps, site visit.					
8.d.	Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?				X
Discussion: The proposed pipeline and the new and existing fire station sites are on level ground well inland and neither would be susceptible to cliff erosion/retreat hazards. **Source:** Google Maps					
8.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?				X
Discussion: The proposed pipeline and fire station would be on level ground well inland from the coast, and neither would be susceptible to sea level rise hazards. **Source:** Google Maps					
8.f.	Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: ***Pipeline.*** The proposed pipeline would be subsurface and therefore would not affect flood flows.					

New Fire Station. The proposed new fire station would be outside of the 100-year flood plain.

Existing Fire Station. Removal of the existing barracks would not place any new structures in a floodway.

Source: Project Plans; Pescadero Floodway Map (https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Pescadero%20floodway%20map.pdf)

8.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?				X

Discussion:

Pipeline. The proposed pipeline would be subsurface and therefore would not affect flood flows.

New Fire Station. The proposed fire station would be outside of the 100-year flood plain, so no impact to flood flows would occur.

Existing Fire Station. Removal of the existing barracks would not place any new structures in a floodway.

Source: Project Plans; Pescadero Floodway Map (https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Pescadero%20floodway%20map.pdf)

9.	**HAZARDS AND HAZARDOUS MATERIALS**. Would the project:	***Potentially Significant Impacts***	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
9.a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material)?			X	

Discussion: Both the water pipeline and fire station would be beneficial to the public with respect to responding to hazardous materials spills or other incidents associated with such materials. Both would involve small quantities of fuels solvents, and other hazardous materials during construction. Neither involve transporting, use or disposal of large quantities of hazardous materials, however the fire station does include fuel tanks and a fire truck fueling station.

Pipeline. No transport, storage, or use of hazardous materials would occur.

New Fire Station. The fire station would involve use of paints, solvents, and other construction materials during construction. These would be handled only by professionals and typically stored off-site until needed in construction. This impact would be less than significant.

During project operations, the fire station would have a fueling station and also store oils and chemicals associated with light vehicle maintenance. Heavy maintenance would be done off-site. The fueling station would include containment facilities for any fuel spills, and all storage of fuels would be in conformance with all state, local, and federal regulations governing fuel storage. Additionally, the firefighters on-site would be trained to respond to fuel spills and associated hazards. Other hazardous materials stored at the new fire station would be fire suppression foam, and normal daily cleaning supplies. These would be properly stored, handled by trained staff, and not pose a hazard to the community or students and staff at the adjacent school. Therefore this impact would be less than significant.

Existing Fire Station. Removal of the existing barracks building would not involve routine transport of any hazardous materials.

Source: Project Plans

9.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?		X (fire station)	X (pipeline)	

Discussion:

Pipeline. The proposed pipeline would be carrying water, so any upset would not pose a hazard to the public other than a disruption of water supplies. No impact would occur.

New Fire Station. The proposed new fire station does not include any components that would pose a "reasonably foreseeable" significant hazard to the public. Hazards associated with fuel storage and use are addressed above in response to Items 9a.

Existing Fire Station. Removal of the existing fire station barracks could release lead-based paints (LBP) and/or asbestos containing materials (ACM). Mitigation Measure HAZ-1 would reduce this impact to a less-than-significant level.

> **Mitigation HAZ-1:** Prior to demolition of the existing fire station barracks, the structures shall be surveyed for potential hazardous materials including but not limited to ACM and LBP. Any such materials encountered shall be removed by a hazardous materials removal firm with staff trained and equipped for such removal activities. Any removed hazardous materials shall be disposed of in a State-approved Class III Hazardous Waste Disposal Facility.

Source: Project Plans

9.c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within			X	

	one-quarter mile of an existing or proposed school?				

Discussion: A portion of the pipeline would serve Pescadero Middle/High School and the proposed new fire station would be adjacent to the Middle/High School campus. Neither project would emit or handle hazardous substances, wastes, or acutely hazardous materials other than those associated with the fueling station.

Pipeline. Small quantities of construction-related materials would be used in the construction of the pipeline near and on the school campus. These would not pose a hazard to the school. This impact would be less than significant.

New Fire Station. The fire station would handle and store hazardous materials at the fueling station, which are addressed in response to Items 9a and b, above.

Existing Fire Station. Removal of the existing fire station barracks and reuse of the apparatus bay building would not result in the operational emissions of hazardous materials.

Source: Project Plans

9.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?				X

Discussion: None of the sites are listed pursuant to Government Code Section 65962.5 (Cortese List) and there are no such listed sites in or near Pescadero. Therefore no impact would occur.

Source:
https://www.envirostor.dtsc.ca.gov/public/search?CMD=search&city=Pescadero&zip=&county=San+Mateo&case_number=&business_name=&FEDERAL_SUPERFUND=True&STATE_RESPONSE=True&VOLUNTARY_CLEANUP=True&SCHOOL_CLEANUP=True&CORRECTIVE_ACTION=True&tiered_permit=True&evaluation=True&operating=True&post_closure=True&non_operating=True&inspections=True

9.e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?				X

Discussion: There are no airports within two miles of Pescadero. The nearest airport is at Half Moon Bay, nearly 15 miles north of the project sites. Therefore there would be no impacts from any of the projects.

Source: Google Maps					
9.f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
Discussion: Both the pipeline and replacement fire station projects would enhance emergency response, and neither would conflict with any emergency response plan. Removal of the barracks at the existing fire station would not reduce emergency response because the apparatus bays may be re-used and the existing emergency response services would be relocated to the new fire station. **Source:** Project Plans					
9.g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X
Discussion: The projects would enhance wildfire response abilities, providing enhanced water supply and fire protection services. No adverse impact would occur. **Source:** Project Plans					
9.h.	Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: ***Pipeline.*** The pipeline project does not include any housing. No impact would occur. ***New Fire Station***. The proposed fire station would include housing for up to 12 firefighters. However, the station would be outside of the mapped 100-year flood plain, so no impact would occur. ***Existing Fire Station.*** Housing at the existing fire station barracks would be removed and replaced at the new fire station; no net impact on housing would occur. **Source:** Pescadero Floodway Map (https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Pescadero%20floodway%20map.pdf)					
9.i.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?				X

Discussion:

Pipeline. Although there has been periodic flooding along Cloverdale Road associated with the Cloverdale Road Ditch, the proposed pipeline would be subsurface and therefore would not affect flood flows.

New Fire Station. The proposed fire station would be outside of the 100-year flood plain, so no impact would occur.

Existing Fire Station. Removal of the existing barracks would not place any new structures in a floodway.

Source: Project Plans; Pescadero Floodway Map (https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Pescadero%20floodway%20map.pdf); WRECO, Cloverdale Road Ditch Hydraulic and Hydrologic Analysis, March 14, 2017.

9.j.	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?				X

Discussion: The project sites are not in areas mapped by the County as subject to dam failure inundation. Also see responses to Items 9h and I, above. No impacts would occur.

Source: https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Dam_Failure_Inundation.pdf

9.k.	Inundation by seiche, tsunami, or mudflow?				X

Discussion:

Neither the pipeline nor the proposed new fire station sites would be subject to inundation from tsunamis. The existing fire station is subject to tsunami hazards, but the project would remove housing from that facility, reducing exposure. The pipeline and new fire station sites are on level ground and distant from any slopes where mudflows may occur. Seiches occur in enclosed basins; no such basins occur near the sites. No impacts would occur.

Source: https://www.conservation.ca.gov/cgs/Documents/Publications/Tsunami-Maps/Tsunami_Inundation_SanGregorio_Quad_SanMateo.pdf

10. HYDROLOGY AND WATER QUALITY. Would the project:					
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
10.a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?			X	

Discussion: The current water supply for Pescadero High School is in violation of water quality standards. The project is intended to alleviate this condition by connecting the school to CSA-11 water supplies, which comply with those standards.

Both the pipeline and fire station involve earthwork that could result in off-site sedimentation, which could adversely affect water quality, however both would include construction Stormwater Pollution Prevention Plans that would assure that this impact would be less than significant.

Fire Station. The proposed fire station would involve truck fueling, light maintenance of vehicles, and truck washing. Truck fueling, maintenance, and washing would be conducted in contained areas. The fire apparatus parking, service, and wash areas would drain internally and runoff would be directed to a 750-gallon oil/water separator. Collected oils, greases, and other contaminants would be hauled to an appropriate disposal site. Spilled hazardous materials also would be collected and could be separated out for disposal in this system. Non-contaminated water, including wash water, would be directed first to an on-site underground septic collection tank and then directed to the septic system and drain field adjacent to the fire station.

The fire station includes a septic system for treatment of domestic wastewater and vehicle wash-water. A preliminary design study (including a percolation test) indicates that the proposed septic system site would be suitable to serve the project. The final septic system design has been reviewed for adequacy by the San Mateo County Environmental Health Services prior to project approval.

Source: Project Preliminary Grading, Drainage and Utility Plan; BKF Engineers, Memo from Dale Leda, Project Manager, to Laurence Miller, San Mateo County, November 16, 2018.

10.b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?		X		

Discussion: A groundwater supply study was prepared for CSA-11 (Todd Groundwater, June 2019). That study indicated that the CSA-11 supply is overdrawn on an annualized basis, but would be adequate for about 90 years, with a decline of about 0.5 feet/year, depending on the climate and weather during that period. However, it is possible that the rate of groundwater level decline may increase in the future, if rates of recharge to the Butano Ridge aquifer decrease and/or nearby pumping by other groundwater users increases. In addition, as the climate warms, the combination of potential decreased rainfall (and associated decreased groundwater recharge) and increased air temperature (and associated increased evapotranspiration and possible increased outdoor water use) may result in less groundwater supply and greater demand. CSA 11 water supply sustainability can be partially managed through operational actions, such as future lowering the pump in Well No. 3, or by developing additional local water supply sources (groundwater and/or surface water). It is also possible that the water table decline may stabilize or equilibrate, as a cone of depression may have developed or may continue to develop around the CSA 11 wells to the degree that causes increased local hydraulic gradients and associated increased groundwater inflow from adjacent areas of the aquifer. The 2019 Todd report also recommended that CSA 11 limit future expansion of the service area boundary and associated increased water demand, at least until an alternative water source is identified and developed.

School Water Supply

Supplying CSA-11 water to the high school for potable use (non-potable uses would continue to be supplied by the school's well), and supplying the new fire station would slightly increase the demand on CSA-11's water supply. A follow-up study was prepared that audited existing water connections, and assessed long term water supply yield, sustainability, and water quality impacts with the proposed connections to the high school and new fire station (Todd Groundwater, March, 2021). That study found total system-wide water use during calendar years 2015-2019 averaged 19,442 gallons per day (gpd) as measured by customer meters at the 101 active connections. The study then assessed irrigation use of CSA-11 water and found that a strict prohibition on landscape irrigation probably would not be sufficient by itself to eliminate the long-term water-level declines noted in the earlier study. Water loss by leakage in the system also was assessed.

Non-potable water use at Pescadero Middle/High School is presently supplied by an on-site well, and its production is metered. During 2014-2016, the amount of water produced averaged 736 gpd. School staff confirmed that in 2019 water use was "about 25,000 gallons per month", or 822 gpd (LaGow, 2020). This rate is within 12 percent of the 2014-2016 average. The maximum monthly use during 2014-2016 was 35,500 gal/mo (1,168 gpd), or 1.42 times greater than average use during 2014-2016. This reflects recent but pre-Covid-19 use, which is the appropriate basis for long-term planning.

Groundwater produced by the school well reportedly has elevated nitrate concentrations that exceed State Maximum Contaminant Limits (MCLs) for drinking water. About three years ago, the school

began purchasing bottled water for drinking. Detailed records for a 6-month period in 2017-2018 indicated a fairly steady consumption averaging 13.1 gpd (over all days of the month during the school year) (LaGow, 2020). This represents less than 0.07 percent of total water use by existing CSA-11 customers.

Non-potable uses at the school could continue to be supplied by the school's well after potable uses have been switched to the CSA-11 system. These include infrequent water use for storage tank cleaning, pressure tank maintenance, bus washing, initial irrigation for establishing turf, and filling fire trucks. During 2012-2016 those uses corresponded to an average daily use of 123 gpd (LaGow, 2017). Landscaping on the front side of the school is not irrigated. The playing field behind the school building is flood irrigated once in spring by pumping out of Pescadero Creek. The baseball infield was formerly irrigated but is no longer (LaGow, 2020). Although toilet flushing is a non-potable use, it could be expensive to separate the toilet supply from the rest of the building supply. That use is conservatively included in the demand that would be switched to the CSA-11 supply. In 2019 there were about 165 students and 33 staff. Men's bathroom urinals are flushless.

The total new demand placed on the CSA-11 system by connecting the school would average about 835 gpd, which corresponds to an increase of 4.3 percent in systemwide demand. This estimate is conservatively high because it uses the higher of the two estimates of average monthly use and includes some infrequent non-potable uses that in the future likely could continue to be supplied by the well (historically on the order of 120 gpd).

Fire Station Water Supply

The current fire station is served by a well and by the CSA-11 distribution system. The well supplies the "apparatus bay" building, which houses an office, toilet, sink, clothes washer and three fire trucks. The fire station well appears to be in good working order. The limitation on yield appears to be the well itself. The storage tank provides sufficient capacity to supply one-time demands of up to 2,350 gallons, but the well might need to operate for two days to replenish that volume. Water use for the toilet, sink, and clothes washer is 20-25 gallons per day according to the station captain (Cunningham, 2020). The barracks building is already connected to the CSA-11 distribution system (since at least 2012), and water use is metered. This use includes washing of fire trucks. During non-emergency periods, fire trucks are filled with water from the CSA-11 system, but typically from an off-site hydrant. That use is not metered but is estimated to be less than 5,000 gallons per year (equivalent to less than 14 gpd). However, a single major fire event can use more than 10,000 gallons (Gregg, 2020). Average annual use of CSA-11 water at the fire station has been fairly steady at 326 gpd since 2012. The maximum bimonthly use recorded during that period was 836 gpd, or 2.56 times greater than average annual use. One of the leading sites under consideration for the new station is next to Pescadero Middle/High School. Potable uses would be served by the municipal distribution system extension to the school (same as potable uses at the existing station). The number of staff at the new facility is expected to be the same as at the existing fire station. Those uses are supplied by the CSA-11 system at present. Thus, CSA-11 water use at the new station is expected to be the same or slightly less than current CSA-11 water use at the existing station.

After the move, the existing fire station would be staffed only during emergencies, or an estimated 5-8 days per year (Mintier, 2020). A conservatively high estimate of average monthly use in the future would be the current daily use at the barracks (326 gpd) multiplied by 8 days per year and divided by

365 days, which is 8.0 gpd. This assumes future emergency staffing would have as many people on-site as current routine staffing. If the emergency staff are in addition to the normal staff at the new fire station, this use would be an increase of 0.04 percent in total annual system demand.

Water Supply System Operational Impacts

The maximum measured water use over a bimonthly measurement period for the entire system during 2015-2019 was 24,164 gpd during June-July 2016. This is 1.24 times the average use during 2015-2019 (19,442 gpd). The average and maximum water use amounts are equivalent to flows of 13.5 gallons per minute (gpm) and 16.8 gpm, respectively. Well No. 1 pumps at a rate of 60-70 gpm. To keep up with average demand, Well No. 1 pumps approximately 5.0 hours/day into the storage tanks. During the maximum month, it needed to pump approximately 6.2 hours/day. To supply the additional maximum-month demands from the middle/high school (1,168 gpd), the well would need to operate an additional 17 minutes per day. To supply the future water demand at the existing fire station when it is staffed during an emergency (326 gpd), the well would need to operate an additional 5 minutes per day. New CSA-11 Well No. 3 has a sustainable pumping rate greater than 100 gpm. Therefore, the daily operating times required to meet the aforementioned demands will be less than the operating times for Well No. 1.

Well No. 1 or Well No. 3 could easily supply the average and maximum demands associated with the middle/high school and fire station simply by operating a few additional minutes per day. Total well operating time for either well would remain less than 7 hours per day (even less for Well No. 3), which is comfortably sustainable. Under peak demand periods, wells can operate up to 24 hours per day without adverse effect, although 12 hours per day is often used as a target long-term duty cycle.

The storage tanks provide sufficient buffer to accommodate maximum day and peak hour demands. Tank No. 1 has a capacity of 140,000 gallons, which can supply average demand for 7 days. Tank No. 2 is slightly larger and can supply average demand for 8.5 days (some of its contents are designated for emergency use only) (Todd Groundwater, 2019). Maximum day demand for municipal water systems in California is commonly on the order of 2.0 times average day demand (West Yost & Associates, 2014; Black & Veatch, 2018). The maximum day demand factor is probably smaller in Pescadero because the factor correlates with the amount of irrigation, which is a small percentage of total use in Pescadero. Conservatively assuming a maximum day demand factor of 2.0, the additional water needed on the maximum day could be obtained by temporarily using one-seventh of the storage capacity of Tank No. 1 or by running the supply well by an additional 3-4 hours. Peak hour demands involve smaller volumes of water that are easily absorbed by tank storage. Thus, between the storage capacity of the tanks and the additional operating time available for the wells, the system can easily supply maximum day and peak-hour demands.

Long-Term Water Supply and Demand Impacts

The effect of connecting Pescadero Middle/High School and the proposed replacement fire station to the CSA-11 water distribution system depends on how much they would increase existing overdraft. The steady long-term decline in water levels at the CSA-11 wells since 1992 shows that pumping has consistently exceeded recharge. Some of the pumping is supplied by recharge, and the remainder is overdraft.

Linear extrapolations of the recent Well No. 1 water level trend and increased decline rates for increased pumping scenarios were developed to estimate potential future water levels

and dates associated with reaching critical depths such as depths to the well pump intakes. If the existing 2015-2019 trend of 0.5 ft/yr of water level decline continues, the water level will drop below the top of the Well No. 1 well screen around 2039 and would reach the pump intake at around 2115. It would not reach the top of the well screen and pump intake in Well No. 3 until approximately 2115 and 2120, respectively. Adding the demand from the school and fire station would shorten those time frames for Well No. 3 to about 2094 and 2099, respectively.

These results are sensitive to the estimate of sustainable yield because a small percent change in the yield estimate creates a much larger percent change in the overdraft estimate. For example, if the current estimate of yield is increased or decreased by 10 percent, the projected water-level trends for current demand (without the school and fire station) are shown as the blue dot-dashed line and dashed magenta line, respectively. This range of uncertainty is larger than the effect of adding the school and fire station.

The above analysis is for static water levels. Based on the measured specific capacity and likely pumping rate (100 gpm) of Well No. 3, pumping water levels are 24 feet lower than static water levels. This means that the pump in Well No. 3 could break suction 35 years sooner than shown on the figure, or in approximately 2064 for the scenario with the school and fire station. Breaking suction occurs when the water level in the falls to the depth of the pump intake, at which point air becomes entrained in the pumped water, and water production rates decrease. The pump in Well No. 1 would start to break suction around 2057. It would no longer be serviceable as a backup well after that date because the pump was already lowered to near the bottom of the well and cannot be lowered farther.

If the pump in Well No. 3 started to break suction, it could be lowered, as was done in Well No. 1. It is presently four feet below the top of the screen, and the screen extends for another 96 feet. If that option is pursued, the limiting factor for water level decline could be the risk of sea water intrusion or depletion of flow in Butano Creek if water levels declined 70 feet from their current elevation. At that point, however, static and pumping levels would be below the top of the screen, which could decrease well output and cause air entrainment in the well water that would potentially damage the pump.

Groundwater Quality Impacts

There has been no historical correlation between groundwater levels and water quality at the CSA-11 well field. Todd Engineers (2002) found no relationship between water levels and water quality in Wells 1 and 2. Water quality data for the CSA-11 wells since 2004 indicate that although a few of the variables such as turbidity and barium have occasional high values, none of the parameters exhibit an increasing or decreasing trend over time. Nitrate might be an exception, with a possible decreasing trend since 2004. Overall, water quality does not appear to be dependent on groundwater levels. Therefore, connecting the middle/high school and fire station to the CSA-11 system is not expected to affect the quality of water delivered to customers.

The water quality of Well No. 1 meets all drinking water standards. Of the constituents shown in the figure, sixteen are regulated under primary (health-based) drinking water standards and three under secondary (aesthetic) drinking water standards. All but one of the measured concentrations were less than half of the primary or secondary maximum contaminant level (MCL), including nitrate at 5-

26 percent of the primary MCL. Total dissolved solids (TDS) was the exception at 63-72 percent of the long-term secondary MCL (500 mg/L).

Future Development Impacts to Water Supply

Table 2.16 of the 2013 Local Coastal Program (LCP) lists estimated annual water demands for existing and proposed land development categories in Pescadero. Buildout demand equals the sum of the existing and proposed water demands. The table shows revisions made for this study based on actual water use during 2015-2019. The LCP estimates for existing conditions were high in terms of number of connections and water use per connection. The actual number of residential connections is 90. If there are 3.5 residents per household, per-capita use is 48 gpcd. Commercial use is similarly smaller than the LCP estimate with respect to number of connections and water use per connection. For the third category, the LCP recognized that there is one fire station, but metered use of CSA-11 water at the station has been only one-third the LCP estimate. Overall actual water use during 2015-2019 has averaged 19,442 gpd, or only 34-53 percent of the LCP estimate.

Estimated total water use with the additional connections plus the middle/high school (a demand that was not anticipated in the LCP) is 48,544 gpd, or 43-68 percent of the LCP estimate. It is 29,102 gpd greater than existing total water demand.

If the additional future water demand were supplied by the existing CSA-11 wells, water level declines would accelerate rapidly. Water levels would decline to the Well No. 3 pump intake by 2044 and to the top of the screen by 2047. New water supplies would be needed to support the growth envisioned in the LCP.

Climate Change Effects on Water Supply

The California Department of Water Resources has developed statewide grids of climate change factors representing anticipated precipitation and reference evapotranspiration (ETo) conditions in 2030 and 2070. That grid, applied to the project area, estimates that that rainfall (and hence groundwater recharge) are expected to be greater under 2070 climate conditions, which at least partly offsets the effect of increased ET on water supply. Thus, the warmer but wetter climate expected by 2070 would not likely cause a large net increase or decrease in net water consumption.

Conclusions of Significance

As detailed above, the proposed fire station and high school demands would incrementally affect CSA-11 water supply and demand. Although there would be an adequate water supply for CSA-11 for the next 20-30 years, wells would continue to decline. Eventually, new water supplies would be necessary, with or without the proposed projects. This impact is considered potentially significant, but would be reduced to a less-than-significant level with implementation of Mitigation Measures HYDRO-1 and HYDRO-2, below.

Mitigation Measures

> **Mitigation HYDRO-1:** County Service Area-11 (County of San Mateo Department of Public Works) shall conduct monthly water level measurement of Well #1 and Well #3 to monitor ongoing aquifer capacity.
>
> **Mitigation HYDRO-2:** County Service Area-11 (County of San Mateo Department of Public Works) shall evaluate groundwater level trends. Should the water level drop below 6 feet

above the top of the well screen in Well #3 during static conditions, CSA-11 shall manage water supply sustainability through operational actions such as lowering the pump, or by developing other local groundwater or surface water supply sources.

Sources: Daniel Craig and Amber Ritchie, Todd Groundwater, Memorandum to Mark Chow, County of San Mateo. June 12, 2019 https://www.smcgov.org/media/127966/download?inline=;
Todd Groundwater, Town of Pescadero (CSA-11) Water Supply Yield and Sustainability Study, Final, March 31, 2021. https://www.smcgov.org/media/127971/download?inline=

10.c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
	i. Result in substantial erosion or siltation on- or off-site;			X	

Discussion: None of the projects would alter any drainage patterns such that increased erosion or siltation would occur. The fire station would include stormwater retention/infiltration basins to limit peak flows from the site to existing levels or lower. Therefore this impact would be less than significant.

Source: Project Preliminary Grading, Drainage and Utility Plan

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

Discussion:

Pipeline. The pipeline project would not increase impervious surfaces and therefore would not increase runoff from the site.

New Fire Station. The fire station could increase the overall quantity of site stormwater runoff because much of the site (33,8781 sq. ft.) would be covered with impervious surfaces. However the project would collect much of the runoff and direct it to three on-site stormwater retention/infiltration basins, which would be sized to limit peak runoff from the site to no greater than existing conditions. Additionally, runoff collected from the apparatus parking and washing areas would be collected, cleaned via an oil-water separator, and directed to the project septic system. Therefore, additional off-site surface runoff would be minimal, and this impact would be less than significant.

Existing Fire Station. The amount of impervious surfaces at the existing fire station would be reduced by removal of the barracks building and converting that site to a gravel parking area. Therefore runoff from that site would be reduced.

Source: Project Preliminary Grading, Drainage and Utility Plan

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	

Discussion:

Pipeline. The pipeline project would not increase impervious surfaces and therefore would not increase runoff from the site.

New Fire Station. See Item 10.cii, above. The fire station could increase overall site stormwater runoff because much of the site (33,8781 sq. ft.) would be covered with impervious surfaces. However the project would collect much of the runoff and direct it to three on-site stormwater retention/infiltration basins, which would be sized to limit peak runoff from the site to no greater than existing conditions. Additionally, runoff collected from the apparatus parking and washing areas would be collected, cleaned via an oil-water separator, and directed to the project septic system. Therefore additional off-site surface runoff would be minimal, and this impact would be less than significant.

Existing Fire Station. The amount of impervious surfaces at the existing fire station would be reduced by removal of the barracks building and converting that site to a gravel parking area. Therefore runoff from that site would be reduced.

Source: Project Preliminary Grading, Drainage and Utility Plan

iv. Impede or redirect flood flows?				X

Pipeline. The proposed pipeline would be subsurface and therefore would not affect flood flows.

New Fire Station. The proposed fire station would be outside of the 100-year flood plain, so no impact to flood flows would occur.

Existing Fire Station. Removal of the existing barracks would not place any new structures in a floodway.

Source: Project Plans; Pescadero Floodway Map (https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Pescadero%20floodway%20map.pdf)

10.d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

Discussion: See items 10.c.iv and 9k, above. Neither the new fire station nor pipeline project would risk release of pollutants due to project inundation from these causes. The removal of the barracks building at the existing fire station would reduce potential pollution impacts from that structure in a tsunami event.

Source: Project Plans; Pescadero Floodway Map (https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Pescadero%20floodway%20map.pdf); https://www.conservation.ca.gov/cgs/Documents/Publications/Tsunami-Maps/Tsunami_Inundation_SanGregorio_Quad_SanMateo.pdf				
10.e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	
Discussion: As described in Item 10.b, above, none of the projects would adversely affect a water quality control plan or sustainable groundwater management plan. Both projects would slightly increase demand for water from the CSA-11 system, however this increased demand would not substantially affect the long-term sustainability of that system. **Source:** Daniel Craig and Amber Ritchie, Todd Groundwater, Memorandum to Mark Chow, County of San Mateo. June 12, 2019. https://www.smcgov.org/media/127966/download?inline=; Todd Groundwater, Town of Pescadero (CSA-11) Water Supply Yield and Sustainability, Draft, January 22, 2021. https://www.smcgov.org/media/127971/download?inline=				
10.f. Significantly degrade surface or ground-water water quality?			X	
Discussion: See response to Items 10a and 10d.iii, above. The projects would have a less-than-significant adverse effect on surface or groundwater quality. **Source:** Project Preliminary Grading, Drainage and Utility Plan; add septic study				
10.g. Result in increased impervious surfaces and associated increased runoff?			X	
Discussion: See responses to Items 10d.ii and iii, above. The projects would have a less-than-significant adverse effect on increased runoff. **Source:** Project Preliminary Grading, Drainage and Utility Plan				

11. LAND USE AND PLANNING. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
11.a. Physically divide an established community?				X
Discussion:				

Pipeline. The pipeline would be a small-diameter subsurface pipe along existing roadways. Therefore it would have no potential to divide a community.

New Fire Station. The fire station would be adjacent to an existing high school surrounded by agricultural lands distant from the main town of Pescadero. Therefore it would have no potential to divide a community.

Existing Fire Station. Removal of the existing barracks building would not have any potential to divide a community.

Source: Project Plans; Google Maps

11.b.	Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

Discussion: As described in this Initial Study, none of the projects would have a significant unmitigable impact on the environment. Therefore they would not have the potential to conflict with environmental plans or policies.

Source: Initial Study Evaluation

11.c.	Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?			X	

Discussion:

Pipeline. The pipeline would be designed to serve only the high school and fire station's domestic water needs. No additional hookups would be permitted. The proposed annexation area for CSA 11 is only inclusive of the high school and new fire station property. In addition, the area's general plan and zoning designations are for agricultural uses, which substantially limits the area's development potential. Therefore the pipeline would not encourage additional development in the school/fire-station area, or elsewhere along the pipeline route. Non-potable fire station water would be supplied by high school's existing well.

New and Existing Fire Station Projects. The relocation of the fire station from the existing site on Pescadero Road to this site would improve the operations of the station in adverse conditions, but would not provide new or expanded fire services that would induce growth to the region.

Source: San Mateo County General Plan and Zoning Ordinance

12. MINERAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
12.a. Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?				X
Discussion: None of the projects would occur on mapped mineral resources lands. Therefore no impact to mineral resources would occur. **Source:** https://maps.conservation.ca.gov/mineralresources/				
12.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?				X
Discussion: None of the projects would occur on mapped mineral resources lands. Therefore no impact to mineral resources would occur. **Source:** https://maps.conservation.ca.gov/mineralresources/				

13. NOISE. Would the project result in:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
13.a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X (fire station)	X (pipeline)	
Discussion: **Background.** Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The more powerful the pressure variations, the louder the sound perceived by a listener. The decibel (dB) is the standard measure of loudness relative to the human threshold of perception. Noise is a sound or series of sounds that are intrusive, objectionable				

or disruptive to daily life. Many factors influence how a sound is perceived and whether it is considered disturbing to a listener; these include the physical characteristics of sound (e.g., loudness, pitch, duration, etc.) and other factors relating to the situation of the listener (e.g., the time of day when it occurs, the acuity of a listener's hearing, the activity of the listener during exposure, etc.). Environmental noise has many documented undesirable effects on human health and welfare, either psychological (e.g., annoyance and speech interference) or physiological (e.g., hearing impairment and sleep disturbance).

Just as vibrating objects radiate sound through the air, if they are in contact with the ground, they also radiate mechanical energy through the ground. If such an object is massive enough and/or close enough to an observer, the ground vibrations can be perceptible and, if the vibrations are strong enough, they can cause annoyance to the observer and, if still stronger, damage to buildings. Annoyance and structural damage correlate strongly with the velocity produced by the vibration source at receptor locations. The vibration metric most commonly used to correlate vibration levels with human annoyance and structural damage is the vibration decibel (VdB).

Regulatory Setting

The San Mateo County General Plan contains the following noise control goals, objectives and definitions

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 (i.e., defined as areas experiencing noise levels of 60 dB CNEL2 or greater).*

Noise emissions within the County of San Mateo are also regulated by the County Code, Chapter 4.88 – Noise Control:

330 - Exterior noise standards.

- *It is unlawful for any person at any location within the unincorporated area of the County to create any noise, or to allow the creation of any noise on property owned, leased, occupied*

[2] CNEL, the Community Noise Equivalent Level, is a 24–hour average sound level with a 5 dB "penalty" added to sound levels occurring in the evening between 7:00 p.m. and 10:00 p.m., and a 10 dB penalty added to sound levels occurring between 10:00 p.m. and 7:00 a.m.

or otherwise controlled by such person which causes the exterior noise level when measured at any single or multiple family residence, school, hospital, church, public library situated in either the incorporated or unincorporated area to exceed the noise level standards as set forth in Table I following:

Table NOI-1 - Receiving Land use: Single or Multiple Family Residence, School, Hospital, Church, or Public Library Properties Noise Level Standards, dB

Category	Cumulative Number of Minutes in any one-hour time period	Daytime 7 A.M.—10 P.M.	Nighttime 10 P.M.—7 A.M.
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	65
5	0	75	70

The County Code contains the following exemption for construction noise (Section 4.88.360):

The following activities shall be exempted from the provisions of this chapter:

- *Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 6:00 P.M. and 7:00 A.M. weekdays, 5:00 P.M. and 9:00 A.M. on Saturdays or at any time on Sundays, Thanksgiving and Christmas.*

Pipeline. Installation of the new water supply pipeline and its connection with the existing County distribution network would occur in a single phase over 6 – 9 months. The pipeline route would follow Pescadero Creek Road and Cloverdale Road from its connection point to the existing County water line to the existing Pescadero school site, a length of about 1.2 miles (about 6300 feet). Since the locus of Project pipeline construction activity (including the major noise-emitting construction equipment) would move along the pipeline corridor over the 3 months required for trenching and pipe installation, no individual local residential sensitive receptor would be close (i.e., within several hundred feet) to this active locus for more than about a week. Thus, Project-related pipeline construction noise impacts would be less than significant.

New Fire Station. The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to estimate the noise levels at various distances from the locus of construction work produced by the project working group (i.e., a dump truck, a backhoe, and a loader) during the 3-month foundation preparation and building erection stages, with results as displayed **Table NOI-2**.

Since the closest existing Pescadero school receptors are within a few hundred feet of the Project construction site's east and north boundaries, noise levels at these school receptors during foundation preparation and building erection could at times exceed the limits imposed by the San Mateo County Code. Thus, to protect existing students/faculty/staff at the existing schools from

substantial Project construction noise intrusions, the following measures shall be implemented to assure that Project incremental temporary construction noise impacts would be less than significant.

Table NOI-2: RCNM Modeled Project Construction Noise Levels

Distance from Area of Construction Activity (feet)	Average Construction Daytime Noise Level L_{eq} (dB)	Maximum Construction Daytime Noise Level Lmax (dB)
25	84	87
50	78	81
100	72	75
200	66	69
400	60	63
800	54	57

Source: Federal Highway Administration, Roadway Construction Noise Model (RCNM).

Mitigation NOI-1. The following Best Management Practices shall be incorporated into the construction documents to be implemented by the Project contractor:

- Limit the major stages of fire station foundation preparation and building erection to the summer months when school is not in session.
- Limit Project construction activity to between 7 a.m. and 6 p.m. on weekdays, to between 9 a.m. and 5 p.m. on Saturdays, and prohibit it on Sundays, Thanksgiving and Christmas to comply with the San Mateo County Code.
- Provide enclosures and noise mufflers for stationary equipment, shrouding or shielding for impact tools, and barriers around particularly noisy activity areas on the site.
- Use quietest type of construction equipment whenever possible, particularly air compressors.
- Provide sound-control devices on equipment no less effective than those provided by the manufacturer.
- Locate stationary equipment, material stockpiles, and vehicle staging areas as far as practicable from sensitive receptors.
- Prohibit unnecessary idling of internal combustion engines.
- Require applicable construction-related vehicles and equipment to use designated truck routes when entering/leaving the site.
- Designate a noise disturbance coordinator at County Planning Department who shall be responsible for responding to complaints about noise during construction. The telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site. Copies of the project purpose, description and construction schedule shall also be distributed to the surrounding residences, schools and library.

Existing Fire Station. There are no nearby sensitive receptors to the existing fire station site, so demolition noise would have a less-than-significant impact.

Source: Federal Highway Administration, Roadway Construction Noise Model (RCNM). https://www.fhwa.dot.gov/ENVIRonment/noise/construction_noise/rcnm/index.cfm

13.b.	Generation of excessive ground-borne vibration or ground-borne noise levels?			X	

Discussion:

There are no standards in the San Mateo General Plan or County Code for avoiding/reducing annoyance or structural damage from vibration impacts. It is most common for government agencies to rely on assessment methodologies, impact standards and vibration-reduction strategies developed by the Federal Transit Administration (FTA) in *Transit Noise and Vibration Impact Assessment* (September 2018). According to the FTA, limiting vibration levels to 94 VdB or less would avoid structural damage to wood and masonry buildings (which are typical of most residential uses), while limiting vibration levels to 80 VdB or less at residential buildings would avoid significant annoyance to the occupants.

The most vibration-intensive piece of construction equipment is a pile driver (which would not be needed for Project construction), which can introduce a substantial potential for annoyance at sensitive receptors within 1000 feet; other types of construction equipment are far less vibration-intensive. Yet all construction equipment has the potential for causing annoyance and/or structural damage if the construction activity is too close to vibration-sensitive receptors.

Pipeline. Since the locus of Project pipeline construction activity (including the major construction equipment with the potential to cause vibration impacts) would move along the pipeline corridor over the 3 months required for trenching and pipe installation, no individual local residential sensitive receptor would be close enough to this active locus (i.e., 100 feet or less) for vibration to be a concern for more than about a few days. Thus, Project-related pipeline construction vibration impacts would be less than significant.

New Fire Station. Since the closest existing Pescadero school receptors come no closer than a few hundred feet of the Project construction site's east and north boundaries, vibration levels at these school receptors during foundation preparation and building erection would not be high enough to threaten substantial annoyance to the school occupants or damage to the school buildings. Thus, Project construction vibration impacts would be less than significant.

Existing Fire Station. There are no nearby sensitive receptors to the existing fire station site, so demolition-related vibration would have a less-than-significant impact.

Source: FTA, *Transit Noise and Vibration Impact Assessment Manual* (September 2018) https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

13.c.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure to people residing or working in the project area to excessive noise levels?				X

Discussion: There are no airports within two miles of Pescadero. The nearest airport is at Half Moon Bay, nearly 15 miles north of the project sites. Therefore there would be no airport noise impacts associated with any of the projects.

Source: Google Maps

14. POPULATION AND HOUSING. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
14.a.	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	

Discussion:

Pipeline. The pipeline would be designed to serve only the high school and fire station's potable water needs. No additional hookups would be permitted. The proposed annexation area for CSA 11 is only inclusive of the high school and new fire station property. In addition, the area's general plan and zoning designations are for agricultural uses, which substantially limits the area's development potential. Therefore the pipeline would not encourage additional development in the school/fire-station area, or elsewhere along the pipeline route. Non-potable fire station water would be supplied by high school's existing well.

New and Existing Fire Stations. The relocation of the fire station from the existing site on Pescadero Creek Road to this site would improve the operations of the station in adverse conditions, but would not provide new or expanded fire services that would induce growth to the region.

Source: San Mateo County General Plan and Zoning Ordinance

14.b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Discussion: The projects would not displace any housing. Existing fire fighter barracks at the current fire station would be demolished and replaced in kind at the new fire station. Therefore no impact would occur.

Source: Project Plans

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

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
15.a.	Fire protection?				X
15.b.	Police protection?				X
15.c.	Schools?				X
15.d.	Parks?				X
15.e.	Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?				X

Discussion: The proposed water supply pipeline and fire station projects would improve operations of the Pescadero High School and Fire Department services. The new fire station also would include a Sherriff's Department radio facility, which would improve police services. No parks or other public facilities would be affected. No adverse impacts to public services would occur from either project.

Source: Project Plans

16. RECREATION. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
16.a.	Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X

Discussion: Neither the pipeline nor either of the fire station projects would generate any new residents or otherwise affect use of recreational facilities. No impact would occur.

Source: Project Plans

16.b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion: Neither the pipeline nor either of the fire station projects would include, affect, or require construction of recreational facilities. No impact would occur.

Source: Project Plans

17. TRANSPORTATION. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
17.a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking?			X	

Discussion: Neither the pipeline nor fire station projects, when operational would alter the circulation system or affect transit, roadway, bicycle, or pedestrian facilities, or parking, so operations would not have the potential to conflict with transportation-related plans and policies.

Pipeline. During construction, one lane of the roadways along the pipeline route may require closure while that section of the pipeline is constructed. Traffic control would be provided by the project contractors, with a traffic control plan to be approved by the County Public Works Department prior to start of construction. In no cases would both lanes be blocked. This would reduce impacts to transit, roadway, bicycle and pedestrian facilities, and roadside parking, to less-than-significant levels, and no plan conflicts would occur.

New and Existing Fire Stations. All construction work on the new fire station and demolition work on the existing fire station would be staged on the site. No roadway blockage would be required. No plan conflicts would occur.

Source:

17.b. Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) *Criteria for Analyzing Transportation Impacts*?				X

Note to reader: Section 15064.3 refers to land use and transportation projects, qualitative analysis, and methodology.				

Discussion: None of the projects would affect vehicle miles traveled compared with existing conditions, therefore neither would have a potential to conflict with Guidelines Section 15064.3 (b) provisions. Some trips associated with the new fire station (employee commutes and responses to service calls) may be increased and other may decrease compare to existing fire station trips, but the overall effect would be minimal. Travel associated with the school would not change.

Source: Project Plans

17.c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X (new fire station)	X (pipeline)	X (existing fire station)

Discussion:

Pipeline. See response to Item a., above. A traffic control plan would be implemented during construction, which would reduce the potential impact of creating traffic hazards to a less-than-significant level.

New Fire Station. The high school has15-18 staff members making daily trips with 2-4 parking on other side of campus in the District Office lot. There are also 150 students on campus, half of whom come by bus. Remaining 75 students probably come in 40 cars with the majority dropping students at the District Office driveway as it is easier to get in and out. Approximately 10 students drive and park in the high school lot. Overall, this would result in about 30 peak hour trips at the school. This level of traffic is unlikely to result in a hazardous condition when combined with the fire station traffic. However, this issue will be reviewed by County Public Works and the Fire Department and Mitigation Traffic-1 will assure no safety hazards.

> ***Mitigation Traffic-1.*** If the County Public Works Department determines that a signal at the fire station driveway is potentially warranted to allow emergency fire truck access or otherwise prevent vehicular conflicts, the school would conduct a more refined traffic count. If the count indicates that a signal is warranted, the County would install it, or, the school would require that all drop offs are at the 360 Butano Cutoff address, which is at the far end of the campus and would be less likely to result in any conflicts with the fire station traffic.

Existing Fire Station. Removal of the existing fire station barracks would have no effect on roadway hazards.

Source: County of San Mateo Fire Department and La Honda Pescadero Union School District, in email response from the County.

17.d.	Result in inadequate emergency access?			X	

Discussion: See discussion under Item 17.c., above. Potential traffic hazards associated with the projects would either be minimal or be reduced to less-than-significant levels by Mitigation Measure Traffic-1, above.

Source: County of San Mateo Fire Department and La Honda Pescadero Union School District, in email response from the County.

18. TRIBAL CULTURAL RESOURCES. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
18.a.	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				X
	i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)				X

Discussion: As described in Section 5, Cultural Resources, there are no CRHR-listed or eligible properties that could be affected by the proposed project.

Solano Archaeological Services (SAS) emailed a letter and a map depicting the CSA-11 project area to the Native American Heritage Commission (NAHC) on December 3, 2020 on behalf of the County. The letter requested a Sacred Land File (SLF) search of the project area, and a list of Native American community representatives who should be contacted about the Project under AB-52. On December 11, 2020, Ms. Sarah Fonseca, Cultural Resources Analyst for the NAHC, replied in an emailed letter that the Sacred Lands File search was completed with negative results. Ms. Fonseca also provided a list of local Native American contacts. On December 14, 2020, SAS mailed letters to the following Native American representatives identified by the NAHC:

- Irenne Zwierlein, Chair - Amah Mutsun Tribal Band of Mission San Juan Bautista
- Tony Cerda, Chair - Costanoan Rumsen Carmel Tribe

• Kanyon Sayers-Roods, MLD Contact - Indian Canyon Mutsun Band of Costanoan Indians

• Ann Marie Sayers, Chair - Indian Canyon Mutsun Band of Costanoan Indians

• Charlene Mijmeh, Chair - Muwekma Ohlone Indian Tribe of the San Francisco Bay Area

• Monica Arellano - Muwekma Ohlone Indian Tribe of the San Francisco Bay Area

• Andrew Galvan - Ohlone Indian Tribe

No responses were received to the letters mailed to the above-listed contacts. On January 6, 2021, SAS called each of the individuals listed by the NAHC and left phone messages. An additional attempt was made via email to each of the contacts on January 27, 2021, and a final email contact attempt reiterating that the Project was subject to AB-52 was made on February 2, 2021. On March 2, 2021, an email response was received from Kanyon Sayers-Roods of the Canyon Mutsun Band of Costanoan Indians recommending that a Native American Monitor and Archaeologist be present to observe earth moving activities at both projects. Native American and archaeologist monitoring are included in the Cultural Resources mitigation measures in this Initial Study (Mitigation CULT-1). As of March 23, 2021, no other responses have been received. If substantive additional comments or information are provided at a later date, SAS may prepare an addendum to this report.

If substantive additional comments or information are provided at a later date, SAS may prepare an addendum to this report.

Source: Solano Archaeological Services (SAS), Cultural Resources Technical Memorandum, Pescadero County Service Area 11 Project, San Mateo County, California. February 3, 2021. https://www.smcgov.org/media/127981/download?inline=
Communication from Canyon Mutsun Band of Costanoan Indians.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1.(In applying the criteria set forth in Subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.)				X

Discussion: As described in Section 5, Cultural Resources, there are no significant cultural resources, including sacred lands, that could be affected by the proposed project. As described in item 18a, above, tribal representatives were contacted regarding their concerns about the project's potential effects to tribal cultural resources and consultation with the Canyon Mutsun Band of Costanoan Indians is ongoing. Therefore the project is considered to have no impact to tribal cultural resources.

Source: Solano Archaeological Services (SAS), Cultural Resources Technical Memorandum, Pescadero County Service Area 11 Project, San Mateo County, California. February 3, 2021. https://www.smcgov.org/media/127981/download?inline=

19. **UTILITIES AND SERVICE SYSTEMS**. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
19.a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?		X (pipeline)	X (new fire station)	X (existing fire station)

Discussion:

Pipeline. The water pipeline itself would be an expansion of the CSA-11 water supply system, and as such, would require LAFCo approval for the annexation and Sphere of Influence amendment for the project property. Environmental effects of the pipeline are addressed in this IS. Potentially significant impacts would be mitigated to a less-than-significant level.

New Fire Station. The new fire station would rely on the water pipeline extension project for domestic water. All other utilities except sewage treatment serving the fire station exist in or adjacent to Butano Cutoff. The fire station would include a septic system to meet its sewage treatment needs. The impact would be less than significant.

Existing Fire Station. The existing fire station is currently served by water and wastewater facilities. The project would reduce demand at that facility by eliminating the existing barracks building. No impact would occur.

Source: Project Plans

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

Discussion: The pipeline and existing fire station would not directly affect project water demand, however, the water use at the high school and new fire station associated with the pipeline would increase demand on the CSA-11 system. Please see response to question 10.b for a detailed discussion of the project's potential effects on long-term water supplies. The project's overall impacts to long-term water supply are considered less than significant.

Source: Daniel Craig and Amber Ritchie, Todd Groundwater, Memorandum to Mark Chow, County of San Mateo. June 12, 2019. https://www.smcgov.org/media/127966/download?inline=; Todd Groundwater, Pescadero (CSA-11) Water Supply Yield and Sustainability Study, March 31, 2021. https://www.smcgov.org/media/127971/download?inline=

19.c.	Result in a determination by the waste-water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
Discussion: The pipeline would not generate wastewater. The new fire station would include its own septic system, so would not affect wastewater providers or systems. The existing fire station's sewage generation would be reduced compared to existing conditions. No impact would occur. **Source:** Project Plans					
19.d.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
Discussion: Small amounts of construction-related solid wastes would be generated by both projects. Removal of the existing fire station barracks also would generate demolition wastes. Project construction and demolition wastes would be recycled, composted, and/or disposed of at applicable regulated waste management facilities. The impact on solid waste facilities and standards would be less than significant. **Source:** Project Plans					
19.e.	Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?			X	
Discussion: None of the projects would generate solid wastes the disposal of which would conflict with any applicable statutes. As described in the Hazardous Materials discussion, above, any potentially hazardous materials associated with demolition of the existing fire station barracks would be removed and/or remediated prior to demolition, and would be disposed of in appropriate regulated Class II or III landfill facilities. **Source:** Project Plans					

20.	**WILDFIRE**. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
20.a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
Discussion: All of project sites are in flat agricultural areas designated by the State as Non-Very High Fire Hazard Severity Zones. The projects would enhance fire response compared to existing conditions. Therefore no impact would occur. **Source:** https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Fire%20Hazard%20Severity%20Zones.pdf					
20.b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
Discussion: The project sites are in flat agricultural areas designated by the State as Non-Very High Fire Hazard Severity Zones. The projects would enhance fire response compared to existing conditions. Therefore no impact would occur. **Source:** https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Fire%20Hazard%20Severity%20Zones.pdf					
20.c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
Discussion: Both project sites are in flat agricultural areas designated by the State as Non-Very High Fire Hazard Severity Zones. In addition, the fire station project would improve fire-fighting response capabilities compared to the existing station. Therefore no adverse impact would occur.					

Source:
https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Fire%20Hazard%20Severity%20Zones.pdf

20.d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

Discussion: See responses to Items 20 a-c, above. No impact would occur.

Source:
https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Fire%20Hazard%20Severity%20Zones.pdf

21. MANDATORY FINDINGS OF SIGNIFICANCE.

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
21.a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		

Discussion: As detailed in the biological resources and cultural resources sections of this IS, the project may have potentially significant impacts to special-status species and as-yet unknown cultural resources. Mitigation measures included in this IS would reduce these potential impacts to less-than-significant levels.

Source: Biological Habitat Evaluation Report for Pescadero High School Water Supply and Fire Station Project in Pescadero, California. Vollmar Natural Lands Consulting, January 2021.

Solano Archaeological Services (SAS), Cultural Resources Technical Memorandum, Pescadero County Service Area 11 Project, San Mateo County, California. February 3, 2021. https://www.smcgov.org/media/127981/download?inline=

21.b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
Discussion: A review of the County's planning applications indicates that no major new projects are proposed in the Pescadero area. The cumulative effects of the fire station and pipeline projects are evaluated in this IS and are not significant because there would be minimal overlap in impacts (mostly minor noise and air quality effects). Cumulative impacts to biological and cultural resources, would be mitigated to a less-than-significant level by the project-specific mitigation measures included in this IS **Source:** https://planning.smcgov.org/major-projects (accessed October 21, 2020)				
21.c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		
Discussion: The effects of the fire station and pipeline projects on human beings are evaluated in the hazards, noise, traffic, and air quality sections this IS, and are either not significant (traffic and air quality) or would be mitigated to a less-than-significant level (hazards and noise). **Source:** Initial Study				

RESPONSIBLE AGENCIES. Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
Bay Area Air Quality Management District	X		Permit to Operate (Diesel Generator at fire station)
Caltrans		X	
City		X	
California Coastal Commission	X		Coastal Development Permit and Grading Permit (both projects appealable to CCC; LCP amendment certification).

AGENCY	YES	NO	TYPE OF APPROVAL
County Airport Land Use Commission (ALUC)		X	
County Environmental Health Department	X		Approval of septic system for fire station
Other: La Honda Pescadero Union High School District			Approval of lease of site for fire station; approval of easement for pipeline.
San Mateo Local Agency Formation Commission (LAFCo)	X		LAFCo approval required for CSA-11 Sphere of Influence amendment and annexation for both projects
National Marine Fisheries Service		X	
Regional Water Quality Control Board	X		SWPPP (fire station only)
San Francisco Bay Conservation and Development Commission (BCDC)		X	
Water District: CSA-11	X		CSA-11 approval for expansion of water system and fire station and high school hookups
State Department of Fish and Wildlife	X		Potential permit if wetlands are to be disturbed; potential approval of transplanting of special-status plants, if present. Approval of bird and bat nest buffers, if needed.
State Department of Public Health		X	
State Water Resources Control Board	X		Approval of funding for pipeline project
U.S. Army Corps of Engineers (CE)	X		Potential permit if wetlands are to be disturbed
U.S. Environmental Protection Agency (EPA)		X	
U.S. Fish and Wildlife Service	X		USFWS approval of biologist for CRLF and FYLF monitoring and, if necessary, frog relocation.

MITIGATION MEASURES		
	Yes	No
Mitigation measures have been proposed in project application.		X
Other mitigation measures are needed.	X	
The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:		

DETERMINATION (to be completed by the Lead Agency).

On the basis of this initial evaluation:

	I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Planning Department.
X	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 of the mitigation measures in the discussion have been included as part of the proposed project. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Sophie Mintier	Sophie Mintier Digitally signed by Sophie Mintier Date: 2022.06.06 16:31:29 -07'00'
	(Signature)
June 6, 2022	Interim Assistant Director, Planning and Building
Date	Title

_ND - Initial Study Checklist (07-17-19).dotx

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ATTACHMENT A: BIOLOGICAL RESOURCES REPORT

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Biological Habitat Evaluation Report

Pescadero High School Water Supply and Fire Station Project Pescadero, California

Prepared for:

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January 2021

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FIGURES

APPENDICES

1.0 INTRODUCTION

This report presents the methods and results of a biological habitat evaluation conducted by Vollmar Natural Lands Consulting, Inc. (VNLC) for the Pescadero High School Water Supply and Fire Station Project (project). The Project Area is located within the Town of Pescadero, in San Mateo County, California (**Figure 1**). The project involves construction of a new County fire station, installation of 1.5 miles of new water supply pipeline to serve Pescadero High School and the new County fire station, and decommission of a portion of the existing County fire station. The new water supply pipeline will extend from the existing CSA-11 water line east of the intersection of Pescadero Creek Road and Stage Road to Pescadero High School, and the pipeline would either run along the unpaved roadway shoulders, or within paved road. The new fire station will be constructed within an undeveloped portion of an adjacent parcel, also owned by La Honda-Pescadero Unified School District. The existing fire station, located at 1200 Pescadero Creek Road, will be partially decommissioned, while retaining a portion of the existing structures. There is no tree removal anticipated as part of this project.

This habitat evaluation was conducted to identify and characterize existing conditions, as well as to assess the potential for special-status species and sensitive habitats to occur within the project disturbance areas. In the absence of minimization and avoidance measures, the project could result in disturbance to the regulated biological resources listed below, which have potential to occur within the Project Area.

- Seven federally or state listed wildlife species: foothill yellow-legged frog (*Rana boylii*), California red-legged frog (*Rana draytonii*), tricolored blackbird (*Agelaius tricolor*), bank swallow (*Riparia riparia*), steelhead Central California Coast Distinct Population Segment (CCC DPS, *Oncorhynchus mykiss irideus* pop. 8), tidewater goby (*Eucyclogobius newberryi*), San Francisco gartersnake (*Thamnophis sirtalis tetrataenia*);
- Ten non-listed special-status species: Santa Cruz black salamander (*Aneides niger*), long-eared Owl (*Asio otus*), burrowing owl (*Athene cunicularia*), black swift (*Cypseloides niger*), American peregrine falcon (*Falco peregrinus anatum*), salt marsh common yellowthroat (*Geothlypis trichas sinuosa*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), hoary bat (*Lasiurus cinereus*), and western pond turtle (*Emys marmorata*);
- One plant species: harlequin lotus (*Hosackia gracilis*);
- Sensitive habitats: Any potentially jurisdictional aquatic habitats associated with Pescadero and Butano Creeks. This includes the unvegetated channel below the ordinary high water mark (OHWM), as well as associated wetland and riparian vegetation; and
- Active nests of bird species protected by the Migratory Bird Treaty Act and California Fish and Game Code.

The implementation of recommended minimization and avoidance measures would reduce potential impacts to habitats and features to less-than-significant levels, and avoid take of special-status species.

2.0 EXTENT AND LOCATION OF THE PROJECT AREA

The Project Area consists of the San Mateo County Fire Station – Station 59 (APN 086-160-050), the proposed water pipe alignment along Pescadero Creek Road/Cloverdale Road, and Pescadero High School (APN 087-053-010). The Study Area encompasses the Project Area and an approximately 500-foot buffer around it, which includes approximately 0.2-mile (1,000 feet) of Butano Creek and 1.5 miles of Pescadero Creek. The Project Area represents the proposed project's action area and area of likely impact, while the Study Area is significantly larger and encompasses more habitat to assist in evaluation of wildlife species with potential to occur (see **Figure 2**, **Section 3.2**).

The Study Area is broken up into the western and eastern portions; the western portion consists of the existing Fire Station 59, while the eastern portion consists of the proposed water pipe alignment and Pescadero High School (where the new fire station is proposed to be built in the southwest corner). The site is mapped within the Franklin Point, La Honda, Pigeon Point, and San Gregorio U.S. Geological Survey (USGS) 7½ minute topographic quadrangles and may be accessed via the Pacific Coast Highway by exiting at Pescadero Creek Road and continuing east for 1.25 miles until Fire Station 59 is reached, at 1200 Pescadero Creek Road. To reach Pescadero High School, continue west along Pescadero Creek Road for another 1.25 miles, turn right (southeast) on Cloverdale Road, and then turn left (east) on Butano Cutoff. Pescadero High School is located to the left (north) after 0.2 mile, at 360 Butano Cutoff, Pescadero.

The western Study Area (Fire Station 59) is primarily surrounded by open space, with Butano Creek and agricultural land use to the east. The eastern Study Area is surrounded by agricultural land use, civic buildings, and open space. The Study Area is described in greater detail in **Section 4.0** below.

3.0 METHODS

3.1 Preliminary Review

Prior to conducting field surveys, VNLC project ecologists compiled and reviewed existing information pertaining to the Study Area. Specifically, the ecologists compiled and reviewed the latest version of the California Natural Diversity Database (CNDDB) (CDFW 2020b), the California Native Plant Society (CNPS) Inventory of Rare Plants (CNPS 2020), and a U.S. Fish and Wildlife Service (USFWS) Information Planning and Consultation System (IPaC) list (USFWS 2020a). Site aerial imagery, previous design reports, project description, and general regional conditions were also reviewed prior to the site survey.

Legend

- Study Area
- Highway
- Midpen Preserve
- Other Public or Preserved Land
- Water Body
- Urbanized Area

Data Sources: Midpen, 2019, 2020 | CPAD, 2016
USGS, Various | GAP, 1998 | VNLC, 2019
GAP Analysis Project, 1998 | TIGER, 2012
GIS/Cartography by: Ivy Poisson, Dec. 2020
Map File: 484_Vicinity_484_A-P_2020-1230.mxd

FIGURE 1
Regional Vicinity Map

Pescadero High School Water Supply
and Fire Station Project
San Mateo County, California

N
W E
S

1:200,000

0 2 4 Km

0 1 2 4 Miles

3.2 Targeted Sensitive Biological Resources

Special-status animal species targeted and analyzed in this report include those listed by the USFWS and/or California Department of Fish and Wildlife (CDFW) as threatened or endangered, as well as those proposed for listing or that are candidates for listing as threatened or endangered. The listing of "Endangered, Rare, or Threatened" is defined in Section 15380 of the *California Environmental Quality Act* (*CEQA*) *Guidelines*. Section 15380(b) states that a species of animal or plant is "endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species is "rare" when either "(A) although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or (B) the species is likely to become endangered within the foreseeable future throughout all or a portion of its range and may be considered 'threatened' as that term is used in the Federal Endangered Species Act" (ESA).

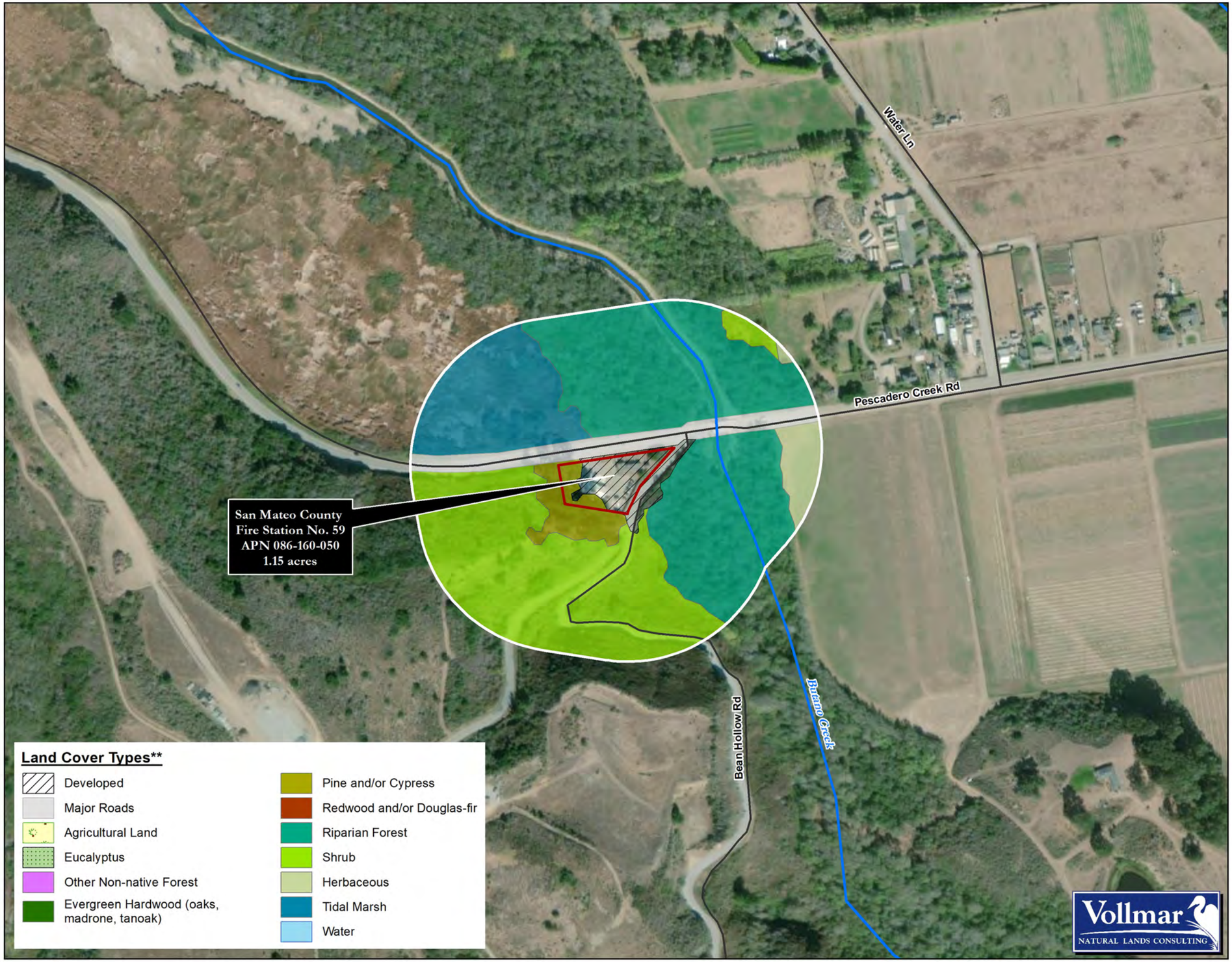
Animal species are designated as "Fully Protected," "Species of Special Concern," or "Watch List" by the CDFW. Although these species have no legal status under the California Endangered Species Act (CESA), the CDFW recommends their protection as their populations are generally declining and they could be listed as threatened or endangered (under CESA) in the future. "Fully Protected" species generally may not be taken or possessed at any time. The CDFW may only authorize take for necessary scientific research and may authorize live capture and relocation of "fully protected" birds to protect livestock. The "Species of Special Concern" designation is meant to call attention to the plight of the species and address the issues of concern early enough to secure their long-term viability. "Watch List" species were previously designated as "Species of Special Concern" but no longer meet that status, or do not yet meet that status but there is concern and need for more information to clarify status.

Birds are designated by the USFWS as "Birds of Conservation Concern." Although these species have no legal status under ESA, the USFWS recommends their protection as their populations are generally declining, and they could be listed as threatened or endangered (under ESA) in the future.

Special-status plants include species that are designated rare, threatened, or endangered as well as candidate species for listing by the USFWS. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those plant species identified by the CNPS as California Rare Plant Rank (CRPR) 1A, 1B, and 2 in the Inventory of Rare and Endangered Vascular Plants of California. Finally, for the purposes of this report, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included as CRPR List 3 and List 4 in the CNPS Inventory—these may be included on a case-by-case basis in CEQA analyses.

FIGURE 2a
Western Study Area and Habitat Map

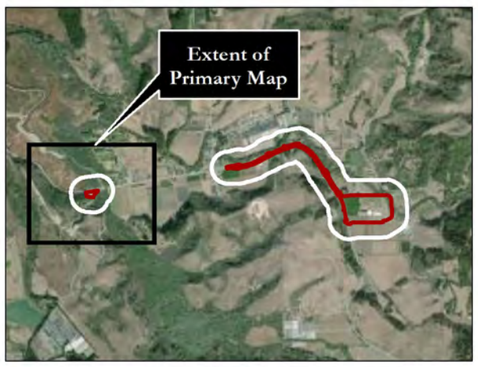
Pescadero High School Water Supply and Fire Station Project
San Mateo County, California



Legend

- Project Area
- Study Area*
- Stream
- Road

*500-foot buffer of Project Area
**Land cover data is from the San Mateo County Draft Enhanced Lifeform Map project (GGNRA, published May 2020), and land cover boundaries were adjusted and updated by VNLC based on field observations within the Study Area.



Land Cover Types**

- Developed
- Major Roads
- Agricultural Land
- Eucalyptus
- Other Non-native Forest
- Evergreen Hardwood (oaks, madrone, tanoak)
- Pine and/or Cypress
- Redwood and/or Douglas-fir
- Riparian Forest
- Shrub
- Herbaceous
- Tidal Marsh
- Water

N
W E
S

1:4,000
(1 in. = approx. 333 feet at tabloid layout)

0 50 100 200 Meters

0 150 300 600 Feet

Vollmar NATURAL LANDS CONSULTING

Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_Project Boundary_B-L_2021-0114.mxd

FIGURE 2b
Eastern Study Area and Habitat Map

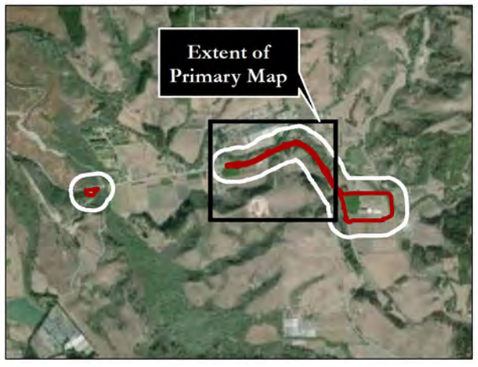
Pescadero High School Water Supply and Fire Station Project
San Mateo County, California

North St
Stage Rd
Goulson St
Pescadero Creek Rd
Pescadero Creek
Cloverdale Rd
New Water Supply Pipeline Alignment

Legend

- Project Area
- Study Area*
- Proposed Pipe Alignment
- Stream
- Road

*500-foot buffer of Project Area
**Land cover data is from the San Mateo County Draft Enhanced Lifeform Map project (GGNRA, published May 2020), and land cover boundaries were adjusted and updated by VNLC based on field observations within the Study Area.



Land Cover Types**

- Developed
- Major Roads
- Agricultural Land
- Eucalyptus
- Other Non-native Forest
- Evergreen Hardwood (oaks, madrone, tanoak)
- Pine and/or Cypress
- Redwood and/or Douglas-fir
- Riparian Forest
- Shrub
- Herbaceous
- Tidal Marsh
- Water

N
W E
S

1:4,000
(1 in. = approx. 333 feet at tabloid layout)

0 50 100 200 Meters

0 150 300 600 Feet

Vollmar
NATURAL LANDS CONSULTING

Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_Project Boundary_B-L_2021-0114.mxd

FIGURE 2c
Eastern Study Area and Habitat Map

Pescadero High School Water Supply and Fire Station Project
San Mateo County, California

New Water Supply Pipeline Alignment

Honsinger Creek

Pescadero Creek

Cloverdale Rd

Pescadero Creek Rd

Butano Cutoff

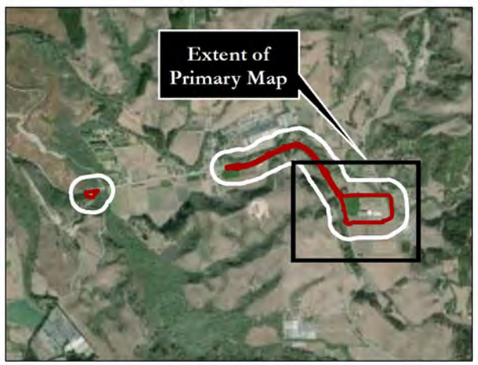
Ranch Rd

Pescadero High School and Proposed Fire Station Building Envelope
APN 087-053-010
28.61 acres

Legend

- Project Area
- Study Area*
- Proposed Pipe Alignment
- Stream
- Road

*500-foot buffer of Project Area
**Land cover data is from the San Mateo County Draft Enhanced Lifeform Map project (GGNRA, published May 2020), and land cover boundaries were adjusted and updated by VNLC based on field observations within the Study Area.



Land Cover Types**

- Developed
- Major Roads
- Agricultural Land
- Eucalyptus
- Other Non-native Forest
- Evergreen Hardwood (oaks, madrone, tanoak)
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- Riparian Forest
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1:4,000
(1 in. = approx. 333 feet at tabloid layout)

0 50 100 200 Meters

0 150 300 600 Feet

Vollmar NATURAL LANDS CONSULTING

Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001 GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_Project Boundary_B-L_2021-0114.mxd

For the purposes of this report, 'sensitive plant communities' include those designated as such by the CDFW, either in the CNDDB, the list of California Sensitive Natural Communities (CDFW 2020a), or as sensitive alliances classified in the online Manual of California Vegetation (MCV) (CNPS 2020). Alliances included within the MCV that are designated as global or state rank ("G" or "S") 1-3 are considered "rare or threatened" at the global and/or state level, and are therefore considered sensitive.

In addition, wetland and riparian habitats, regardless of MCV/CDFW status, are considered sensitive. Wetlands, streams, and permanent and intermittent drainages are subject to the jurisdiction of the U.S. Army Corps of Engineers (ACOE) under Section 404 of the Federal Clean Water Act (CWA). The CDFW also generally has jurisdiction over these resources, together with other aquatic features that provide an existing fish and wildlife resource pursuant to Sections 1602-1603 of the California Fish and Game Code. The CDFW asserts jurisdiction to the outer edge of vegetation associated with a riparian corridor. The Regional Water Quality Control Board (RWQCB) also generally has jurisdiction over streams and wetlands. Any grading, excavation, or filling of jurisdictional drainage corridors or wetlands would require a Section 404 permit and will require mitigation.

Local regulations regarding tree removal also warrant consideration for this project. The town of Pescadero is a census-designated place and subject to San Mateo County ordinances. Tree removal activities fall under San Mateo County's jurisdiction; a permit is required for removing trees within the County right-of-way, and any trees defined as significant or heritage trees requires a permit for removal (San Mateo County 2016a and 2016b).

3.3 Field Survey

A habitat assessment survey was conducted within the Study Area on December 7, 2020. The survey was conducted by VNLC Ecologists Ivy Poisson and Linnea Neuhaus. During the survey, the ecologists traversed the entire Project Area and as much of the Study Area as possible (excluding private or inaccessible land) and recorded all dominant plant taxa and commonly observed animal species, along with general ecological conditions and notable habitat features. An effort was made to find any special-status plants identifiable at the time of year (i.e., winter blooming species and woody perennial species). In addition, the survey involved a search for habitat with potential to support special-status species (e.g., nesting potential, mammal burrows). Photographs detailing representative site conditions and habitats were also collected from across the Study Area (**Appendix A**).

4.0 EXISTING SITE CONDITIONS

The Study Area is located within the Pescadero Watershed, the largest watershed in San Mateo County. Land use within the study area is predominantly rural, which is a blend of open space, agriculture (farmland and ancillary structures), and civic buildings (school and fire station). The elevation within the Study Area ranges from 16-295 feet (5-90 meters) above sea level, while the

range for the Project Area is more limited, ranging from 26-92 feet (8-28 meters) above sea level (USGS 1997).

Pescadero Creek within the eastern Study Area is a perennial stream with a canopy of mature riparian vegetation and steep banks, approximately 10-20 feet from top of bank to the water level. Butano Creek, found in the western Study Area, represents a subwatershed within the larger Pescadero Creek watershed. The riparian habitat supported by Pescadero Creek features a fairly open canopy (surveys were conducted in December, and many species are deciduous) with sparse to moderate coverage in the understory. There was water present in the creek despite limited precipitation leading up to the field survey, with observed depths of up to approximately 20 inches. The section of Butano Creek within the eastern Study Area (where it crosses underneath Pescadero Road) was recently dredged and regraded as part of the Butano Creek Reconnection Project. That project, which was completed in winter of 2019 by the San Mateo Resource Conservation District, re-established 8,000 feet of historic creek channel by removing built up sediment and restoring 28 acres of degraded marsh. During the field survey, Butano Creek lacked a riparian canopy but was characterized by a wide floodplain supporting predominately native riparian and marsh vegetation; this was for the reach of Butano Creek within the Study Area. The banks of Butano Creek were mostly barren, likely due to the recent dredging and regrading, but there were mature willows (*Salix* spp.) and cottonwoods (*Populus trichocarpa*) present within the floodplain (see **Section 4.1** for a discussion on plant communities). Both Pescadero and Butano Creek flow in a northwesterly direction and converge about ¼ mile inland from the coast, where they both empty into the Pacific Ocean.

Soils series throughout the Project Area are mapped as Cayucos clay loam, Corralitos sandy loam, Gazos loam, Lobitos loam, mixed alluvial land, and Soquel loam (USDA NRCS 2021). **Table 1** contains the soil properties for each of these soil series. The Soquel and Corralitos soil series represent the majority of the underlying soils, at 70.6% and 21.3%, respectively. Because both of these soils are alluvial soils, they are high in sand and silt content.

Table 1. Soil Properties within the Project Area

Soil Series	% in Project Area	Parent Material	Surface Texture (0” – 24” below surface)		
			Clay	Silt	Sand
Cayucos sandy loams	1.7%	noncalcareous shale and fine-grain sandstone	41.5%	31.1%	27.5%
Corralitos sandy loams	21.3%	alluvium	6.2%	22.2%	71.6%
Gazos loams	3.4%	shale	23.8%	44.8%	31.4%
Lobitos loams	0.4%	shale	23.6%	36.4%	40.0%
mixed alluvial land	2.3%	alluvium	8.7%	26.5%	64.8%
Soquel loams	70.6%	alluvium derived from sedimentary rock	21.1%	37.0 – 38.7%	40.2 - 42.0%

Source: USDA NRCS Web Soil Mapper 2021

Soil series documented in the Project Area has pH ranging from 6.1 to 7.5, which is considered to be slightly acidic to slightly alkaline pH. This somewhat neutral pH range indicates the absence of alkaline soils (over 7.5 is considered alkaline) within the Project Area. In addition, there are no serpentine or other specialized soils within potential to support edaphic special-status plants (USDA NRCS 2021).

The plant communities present in the Study Area are detailed in the following sections.

4.1 Plant Communities

The Study Area features a combination of natural and semi-natural plant communities. Due to the size and location of the Study Area, many areas were inaccessible, either because they are located on private land or there are physical barriers present (e.g., Pescadero Creek). Therefore, plant communities within the Study Area were mapped as the units as described in the San Mateo County Enhanced Lifeform Map Project (GGNRA and Tukman 2020), with further clarification and classification provided for plant communities located within the Project Area. The plant communities and their constituent plant taxa are described below.

4.1.1 Riparian Forest

Pescadero Creek supports red alder forest alliance in the Project Area; specifically, the red alder – arroyo willow (*Alnus rubra – Salix lasiolepis)* alliance. This alliance has a rank of G5 S4, and is not considered sensitive (CDFW 2020a). Other non-dominant trees (less than 50% relative cover) observed in this alliance include Oregon ash (*Fraxinus latifolia*) and black cottonwood (*Populus trichocarpa*). Understory species observed include California blackberry (*Rubus ursinus)* and Himalayan blackberry (*Rubus armeniacus*); in certain areas, these two species were observed to be growing in dense mats, particularly along roadsides. Understories with a dominance of blackberry vines/shrubs precludes the presence of rare species due to high competition. This alliance was observed in the northeast corner of Pescadero High School and along Pescadero Creek Road and Cloverdale Road.

4.1.2 Eucalyptus

Scattered eucalyptus (*Eucalyptus globulus, E. camaldulensis*) semi-natural woodland stands are located generally to the southwest of Pescadero Creek Road and Cloverdale Road, typically on hillslopes. These stands feature a mature eucalyptus monoculture; few to no other species were observed in the under story due to the allelopathic effects of eucalyptus trees. In other words, other native (and rare) plant species are unlikely to be found in the understory. This is not globally or state ranked, and eucalyptus trees are considered to be invasive in the project region, though they do provide potential nesting sites for raptors and other birds. The proposed pipeline is adjacent to or within the mapped eucalyptus stands as shown in **Figure 2b** and **2c**, but it is unlikely any tree or vegetation removal will be necessary, as the eucalyptus trees were set fairly far back from the road and out of the Project Area.

4.1.3 Shrubland Habitats

There are two shrub habitats within the Project Area: Coyote brush (*Baccharis pilularis*) alliance and Himalayan blackberry semi-natural shrubland stands.

Coyote brush shrubland alliance was observed west of the corner of Cloverdale Road and Butano Cutoff, and this habitat is located along the southernmost segment of the proposed pipeline alignment. This alliance, also known more generally as coastal scrub habitat, typically occurs on the steeper slopes located to the southwest of Pescadero Creek Road and Cloverdale Road. Species observed in the shrub stratum include coyote brush, coffeeberry (*Frangula californica*), California blackberry, and sticky monkey flower (*Diplacus aurantiacus*); herbaceous stratum species include tall flatsedge (*Cyperus eragrostis*), bristly ox-tongue (*Helminthotheca echioides*), bull thistle (*Cirsium vulgare*), and pennyroyal (*Mentha pulegium*). Mesophytic species like tall flatsedge and pennyroyal were observed at the bottom of the slope, with predominantly upland species along the hillsides. This alliance has a ranking of G5 S5 and is not considered sensitive CDFW 2020a).

A roadside ditch parallel to Cloverdale Road and within the high school property features Himalayan blackberry semi-natural shrubland stands; this is not globally or state ranked, and considered to be an invasive species. This is a linear depressional feature that continues northwest and eventually transitions into riparian habitat, indicating hydrologic connectivity with Pescadero Creek. Other dominant shrub/herb species observed in this alliance include California blackberry, broad-leafed cattail (*Typha latifolia*), and sedge (*Scirpus* spp.). Although this vegetation classification does not have any special-status listing, it supports wetland vegetation, likely contributes surface water flow to Pescadero Creek, and may be subject to federal or state jurisdiction; this is discussed further in **Section 4.2** below. The proposed pipeline alignment occurs parallel to this ditch at the southwest corner of the Pescadero High School property.

4.1.4 Herbaceous

There are two herbaceous land cover types: ruderal upland and fallow fields.

Ruderal upland is found along Pescadero Creek Road and Cloverdale Road, and throughout the Pescadero High School property. Due to the disturbed nature of this area, this is typically colonized by weedy species like slim oat (*Avena barbata),* ripgut brome (*Bromus diandrus*), Italian thistle (*Carduus pycnocephalus*), Italian ryegrass (*Festuca perennis*), bristly ox-tongue, English plantain (*Plantago lanceolata*) and wild radish (*Raphanus sativus*). This vegetation type is not globally or state ranked and would not be considered sensitive. The proposed footprint for the pipeline alignment is primarily taking place within the herbaceous/ruderal upland habitats.

Fallow fields are found in the southwestern portion of the High School property where the proposed fire station will be located. This field appeared to be graded and was primarily colonized by giant horsetail (*Equisetum telmateia*, a facultative wetland species), indicating mesic conditions; other species were present, but in the form of unidentifiable cotyledons at the time of

the site visit. It is unknown if the observed mesic conditions are naturally occurring (i.e., combination of soil type, low elevation, and high water table) or artificial due to irrigation. The proposed building footprint for the new fire station takes place within this fallow field with giant horsetail.

4.1.5 Cultivated Lands

Rosemary (*Salvia rosmarinus*) fields were observed within the Pescadero High School boundary, and additional cultivated land was observed in the western end of the eastern Study Area along Pescadero Creek Road. Cultivated land is not globally or state ranked, and is not considered to be sensitive.

4.2 Potential Jurisdictional Waters

The Study Area encompasses Pescadero Creek and Butano Creek. Pescadero Creek meanders to the east of the proposed water pipe alignment, and the stream is adjacent to the existing Pescadero High School, in the northeast corner. Butano Creek is located east of Fire Station 59. While a formal wetland delineation was not conducted as part of this field survey, vegetative indicators of both riparian and wetland habitat were observed during the site reconnaissance visit within the Project Area (see **Sections 4.1.1.** and **4.1.3.**).

Both Pescadero and Butano Creeks feature a defined bed and bank topography and the two streams eventually connect west of the Study Area, and empty out at the Pacific Ocean, a traditional navigable water. Therefore, these streams would likely be considered jurisdictional as other Waters of the United States by the ACOE, and would also be considered a Water of the State (i.e., by CDFW and RWQCB) to the tops of the stream banks, or edge of riparian canopy dripline. Beyond the top of bank for these streams, there are no riparian trees and no adjacent areas featuring a majority of hydrophytic plant species, and therefore not jurisdictional at either the federal level or state level.

Since the Project Area is located within the Coastal Zone, as defined by the California Coastal Commission (CCC), only one parameter is required for a feature to be considered a wetland (CCC 2011; County of San Mateo 2021). As stated previously, wetland vegetation was observed to be in the ditch running along Cloverdale Road, at the southwest edge of the high school, and there were wetland plant species observed within the proposed footprint for the fire station. Therefore, these areas would likely be considered a wetland based on the one-parameter definition.

Drains and culverts were observed along the Pescadero Creek Road and Cloverdale Road, and these are presumed to convey water from the surrounding uplands directly into Pescadero Creek and Butano Creek.

5.0 SPECIAL-STATUS SPECIES AND SENSITIVE HABITATS

This section provides background information and lists recommended avoidance and/or minimization measures to reduce the potential for the project to impact special-status species and sensitive habitats within the Study Area. Only listed species and/or special-status species with the greatest potential to occur within the Study Area are addressed. For plants, only species with potential to occur within the Project Area are addressed.

In addition to all avoidance measures listed, all construction personnel involved in the project shall attend environmental awareness training prior to the commencement of potential project disturbance activities. The training shall be conducted by a qualified biologist and shall involve the presentation of sensitive species and habitats documented or potentially occurring in the Study Area. The training should include handouts that describe each resource with respect to listing status, habitat preferences, distinguishing physical characteristics, causes of its decline, and potential protection and avoidance measures. Information should be documented within a paper handout to be distributed among construction personnel, and should include photographs of the resources in order to facilitate identification by the personnel.

Based on the habitat requirements of these species, there are 17 special-status animal species with some potential to occur within the Study Area. These include seven federally or state listed wildlife species and ten non-listed special-status animal species (see **Appendix B, Table 1**), as well as multiple birds that fall under the Migratory Bird Treaty Act (MBTA). There is one special status plant species with potential to occur in the Study Area. **Figure 3** shows the distribution of special-status animal species and plant species that are documented in the surrounding area. These and other special-status species known from the project region are listed in **Appendix B**, along with their regulatory status, habitat requirements, and an evaluation of their potential to occur in the Study Area. These animal and plant taxa are described in more detail below.

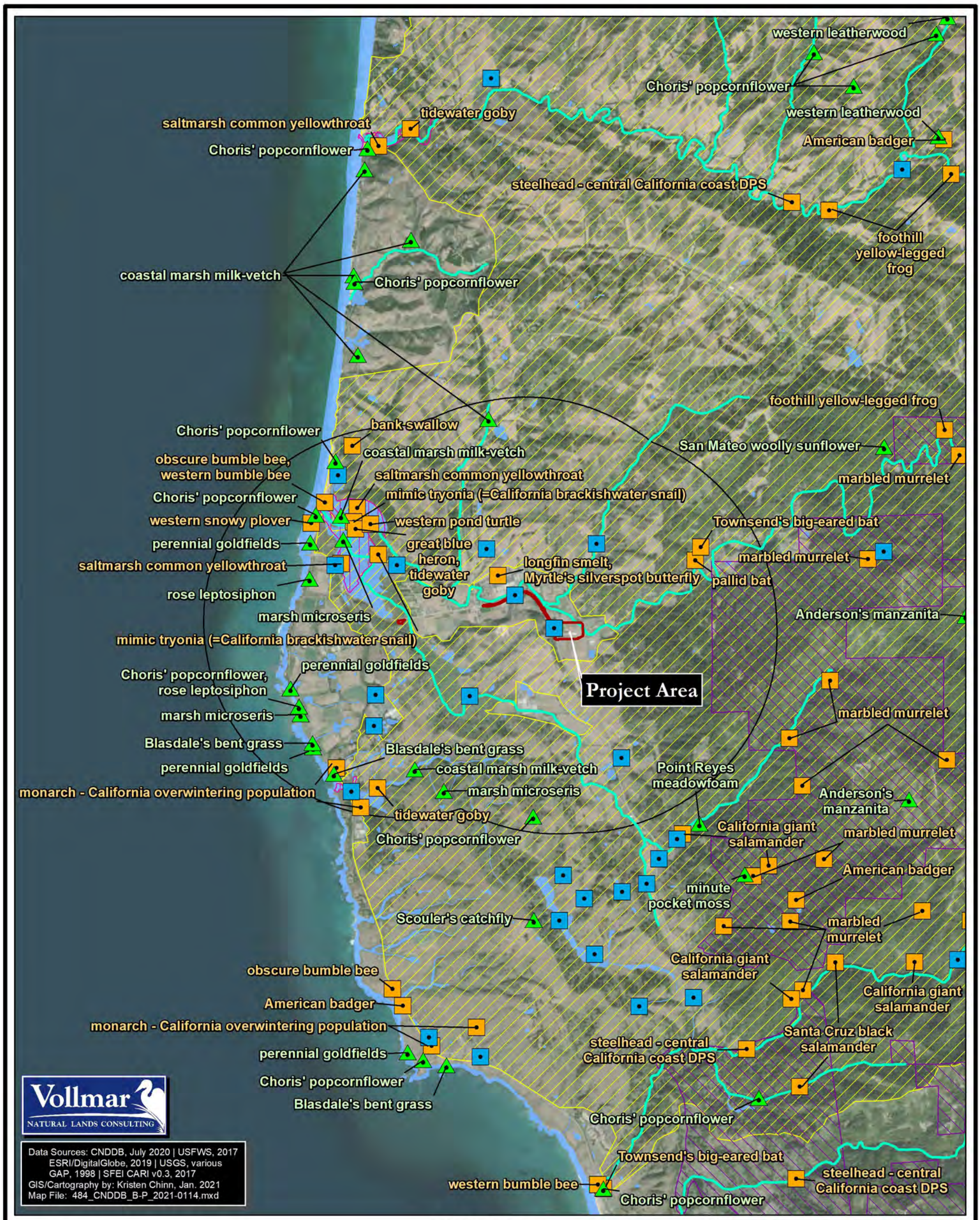
5.1 Listed Species

5.1.1 Designated Critical Habitat

As shown in **Figure 3,** the Study Area is partially within designated critical habitat for California red-legged frog. Critical habitat for this species also covers a majority of the surrounding land. Critical habitat for tidewater goby is located approximately 0.5-mile downstream (northwest) of the Study Area, and critical habitat for marbled murrelet is located approximately 1.3 miles to the east. Finally, both Butano and Pescadero Creeks are designated critical habitat for steelhead (Central California Coast DPS).

5.1.2 Foothill Yellow-legged Frog

The foothill yellow-legged frog (FYLF) West/Central Coast Clade is listed as State Endangered and is a CDFW Species of Special Concern. This species' aquatic habitat includes partly shaded,



Legend

- Project Area
- Project Boundary 2-mile Buffer
- Wetland (CARI)

Critical Habitat

- California red-legged frog
- Marbled murrelet
- Tidewater goby
- Steelhead Critical Habitat
- Special-status Plant Occurrence

Special-status Animal Occurrence

- California red-legged frog
- Other Special-status Animal

FIGURE 3
Regional Special-status Species

Pescadero High School Water Supply
and Fire Station Project
San Mateo County, California

N
W E
S

1:63,360
(1 in = 1 mi at tabloid layout)

0 0.5 1 2 Kilometers

Miles 0 0.5 1 2

low gradient ephemeral and permanent streams, rivers, and adjacent moist terrestrial habitats (Hayes et al 2016). FYLF prefer partly shaded, shallow streams and riffles with a rocky substrate that is at least cobble-sized. They occur in streams and rivers in woodland, chaparral, and forest habitats (Stebbins 2012). Breeding occurs between mid-March to early June after high water of streams subsides (ibid).

Historically, FYLF ranged from central Oregon south along the coastal Cascade ranges, and south along the foothills of the western side of the Sierra Nevada Mountains to northern Baja California. FYLF has disappeared from 55% of its habitat range in Oregon, 45% of its overall range in California, and 66% of its range in the California Sierra. The few remaining populations in the southern Sierra Nevada, specifically those south of I-80, are nearly extinct (Stebbins 2012). Frogs in this area have been largely affected by reservoir water release. Poorly timed water releases can wash away eggs and larvae, or retard their development (Kupferberg et al. 2012). Additionally, changes to flow regimes and downstream habitat alteration resulting from hydroelectric power generation and other water management projects have greatly impacted FYLF's dependence on riverine environments (ibid). FYLF are also susceptible to other environmental impacts including loss of habitat, predation by non-native species such as American bullfrog and crayfish, and air-borne pesticides (Davidson et al. 2002, Ashton et al. 1998).

Potential Project Impacts

Pescadero and Butano Creeks provide potentially suitable habitat for FYLF. Though there are no recent documentations within the area, FYLF has been documented within Pescadero Creek in the mid to late 1900s, and may still be present. While project activities are not anticipated to directly affect FYLF via impacts to the riparian habitats or channel, indirect impacts such as sedimentation could occur. The following avoidance measures are recommended to avoid impacts to FYLF from project activities.

Recommended Avoidance, Minimization, and Mitigation Measures

Measure 1: Initial ground-disturbing activities shall be avoided between November 1 and March 31 to avoid the time period when amphibians and reptiles are most likely to be moving through the Project Area.

Measure 2: Temporary exclusion fencing shall be installed around the limits of work areas and access routes to ensure special-status amphibians, reptiles, and mammals cannot enter the work area. Installation of exclusion fencing shall occur under the supervision of a designated biologist and immediately following a clearance survey of the area. The exclusion fencing shall have a minimum aboveground height of 30 inches, and the bottom of the fence should be keyed in at least 4 inches deep and backfilled with soil to prevent wildlife from passing under the fencing. Exclusion fencing shall be installed to prevent species entry into active work areas and to mark the limits of construction disturbance at equipment

staging areas, site access routes, construction equipment and personnel parking areas, debris storage areas, and any other areas that may be disturbed.

Measure 3: Plastic monofilament netting (erosion control matting), loosely woven netting, or similar material in any form shall not be used at the project site because amphibians and reptiles can become entangled and trapped in them. Any such material found on-site shall be immediately removed by the construction personnel. Materials utilizing fixed weaves (strands cannot move), polypropylene, polymer, or other synthetic materials shall not be used.

Measure 4: No more than twenty-four (24) hours prior to the date of initial ground disturbance, a pre-construction survey for foothill yellow-legged frog and other sensitive amphibians and reptiles shall be conducted by a designated biologist at the project site.

The survey shall consist of walking the project limits and within the project site to ascertain the possible presence of special-status amphibians and reptiles. The designated biologist shall investigate all potential areas that could be used by the species for feeding, sheltering, movement, and other essential behaviors. If any foothill yellow-legged frogs are found, the designated biologist shall follow the procedures specified in Measure 5.

Measure 5: Each encounter with the foothill yellow-legged frog will be treated on a case-by-case basis in coordination with the USFWS, but the general procedure is as follows: (1) the animal will not be disturbed if it is not in danger; or (2) the animal will be moved to a secure location if it is in any danger. These procedures are further described below:

- When a foothill yellow-legged frog is encountered in the project area, all activities which have the potential to result in the harassment, injury, or death of the individual shall be immediately halted. The designated biologist will then assess the situation in order to select a course of action that will avoid or minimize adverse effects to the animal. To the maximum extent possible, contact with the animal will be avoided and the applicant will allow it to move out of the potentially hazardous situation to a secure location on its own volition. This procedure applies to situations where a foothill yellow-legged frog is encountered while it is moving to another location and is actively dispersing. It does not apply to animals that are uncovered or otherwise exposed or in areas where the individual is not expected to move on its own and may be in danger (e.g., within the fenced construction perimeter).
- Foothill yellow-legged frogs that are in danger (e.g., animals that are uncovered or otherwise exposed or in areas within the fenced construction perimeter where the individual is not expected to move on its own) shall

be relocated and released by the designated biologist outside the construction area within the same habitat. Prior to the initial ground disturbance, the designated biologist will obtain approval of the relocation protocol from the USFWS and CDFW in the event that a foothill yellow-legged frog is encountered and needs to be moved away from the project site. Foothill yellow-legged frog shall be released in appropriate habitat nearby within the watershed. The designated biologist will limit the duration of the handling and captivity of the foothill yellow-legged frog to the minimum amount of time necessary to complete the task. The applicant will immediately notify the USFWS and CDFW once the foothill yellow-legged frog is relocated and the site is secure.

Measure 6: Uneaten human food and other refuse attracts crows, ravens, coyotes, raccoons, and other predators of amphibians, reptiles, and other wildlife. A litter control program shall be instituted at the project site. All workers shall ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed garbage containers. The garbage containers shall be removed from the project site at the end of each working day.

5.1.3 California Red-legged Frog

California red-legged frog (CRLF) is a federally Threatened species. The species occurs from sea level to elevations of approximately 5,200 feet (1,500 meters). Breeding occurs in streams, deep pools, backwaters within streams and creeks, ponds, marshes, sag ponds, dune ponds, lagoons, and stock ponds. Breeding adults are often associated with deep (greater than 2 feet [0.7 meter]) still or slow-moving water and dense, shrubby riparian or emergent vegetation (Hayes and Jennings 1988), but frogs have been observed in shallow sections of streams and ponds that are devoid of vegetative cover. The species is known to rest and feed within riparian vegetation and it is believed that the moisture and cover of the riparian zone provides foraging habitat and facilitates dispersal. The species has also been documented dispersing through areas with sparse vegetative cover and dispersal patterns are considered to be dependent on habitat availability and environmental conditions (Scott and Rathbun 1998).

Potential Project Impacts

Pescadero and Butano Creeks provide suitable habitat for CRLF, and the western portion of the Study Area is within CRLF designated critical habitat. There are also two CNDDB occurrences for CRLF within the Study Area. Uplands around Pescadero and Butano Creeks are also likely to provide dispersal habitat. Project activities are expected to avoid impacts to riparian habitat, but could directly impact CRLF if they are dispersing through the uplands. The following avoidance measures are recommended to avoid impacts to CRLF from project activities.

Recommended Avoidance, Minimization, and Mitigation Measures

See Measures 1-6 above. Measure 5, frog relocation protocol, will remain the same for California red-legged frog. The following two additional measures are recommended for California red-legged frog:

Measure 7: A USFWS-approved biologist(s) will be onsite until all initial habitat disturbances have been completed. The qualifications of the biologist(s) will be submitted to USFWS for review and written approval at least thirty (30) days prior to the date earthmoving is initiated at the project site.

Measure 8: To the maximum extent practicable, no construction activities shall occur during rain events or within 24-hours following a rain event. Prior to construction activities resuming, a designated biologist will inspect the Project Area and all equipment/materials for the presence of amphibians and reptiles.

5.1.4 Tricolored Blackbird

The tricolored blackbird (nesting colony) is listed as State Threatened, and is a CDFW Species of Special Concern and USFWS Bird of Conservation Concern. This species is most often found in large freshwater marshes, especially those which are saturated with cattails (*Typha* spp.) and tules (*Schoenoplectus* spp.). They tend to nest in areas with protective, spiny vegetation, especially where there is abundant insect prey within a short radius of the colony (Shuford and Gardali 2008). These birds forage in flocks, mostly on the ground, but occasionally in shrubs and trees (Kaufman 2005). The nesting behavior of the tricolored tlackbird is highly social. They form the largest colonies of any North American land bird, forming breeding groups of tens of thousands of individuals (Cook and Toft 2005). The birds in these colonies pack their nests closely together in dense cattail or bulrush marshes. Breeding takes place from mid-March through July (ibid).

Unlike the red-winged blackbird, which is abundant throughout the continent, the tricolored blackbird has a very small range in the Pacific states. Tricolored blackbird populations have seriously declined in recent decades due to habitat destruction. It is speculated that its habit of nesting in dense colonies make the tricolored blackbird more susceptible to population decline (Cook and Toft 2005).

Potential Project Impacts

The Study Area does not provide suitable nesting habitat for this species, but surrounding fields may provide foraging habitat. This species has been documented in the vicinity according to a citizen scientist bird tracking organization (data available from ebird.org). No impacts to adjacent agricultural areas are expected from the proposed project, so impacts to tricolored blackbird foraging habitat are not anticipated to occur. No avoidance measures are recommended.

5.1.5 Bank Swallow

The bank swallow is listed as State Threatened. It is the smallest North American swallow with a weight of 13.5 grams (Bank Swallow Technical Advisory Committee 2013). Bank swallows are migratory birds that breed in North America, Europe and Asia, and winter in Central and South America (Garrison 1999). The California populations of Bank swallows breed in the northern and central portion of the state with the vast majority (70-90%) of individuals occurring in the Sacramento River and its tributaries (CDFW 1992).

Bank swallows construct nest burrows along eroded, vertical banks of rivers and creeks with friable soils (Garrison et al. 1987). Bank swallows favor river and creek systems with native, over-bank riparian vegetation (Bank Swallow Technical Advisory Committee 2013). Bank swallows nest in early spring when pairs lay 3 to 5 eggs. Nesting colonies can range from 3 to 3,000 nest burrows. Burrows are often destroyed by erosional forces from year to year so there is typically low site fidelity to nesting locations (ibid).

Potential Project Impacts

The Butano Creek corridor provides suitable nesting and foraging habitat for bank swallow, and the species is known to breed in Pescadero Marsh (1-2 miles from the Study Area) (CNDDB 2020). This species has also been documented in the Butano Creek corridor according to a citizen scientist bird tracking organization (data available from ebird.org). Direct impacts to the Butano Creek corridor are not anticipated, but nesting individual birds may be indirectly impacted due to construction noise or other construction-related disturbances. The following avoidance measures are recommended to avoid impacts to Bank swallow.

Recommended Avoidance, Minimization, and Mitigation Measures

Measure 9: If construction activities will commence anytime during the nesting/breeding season of native bird species potentially nesting in the Study Area (typically February through August in the project region), a pre-construction survey for nesting birds should be conducted by a qualified biologist within two weeks of the commencement of construction activities.

If active nests are found in areas that could be directly affected or are within 250 feet (for passerines) or 500 feet (for raptors) of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone should be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zone and types of construction activities restricted within it should be determined through coordination with the CDFW, taking into account factors such as the following:

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;
- Distance and amount of vegetation or other screening between the construction site and the nest; and
- Sensitivity of individual nesting species and behaviors of the nesting birds.

5.1.6 Steelhead, Central California Coast DPS

The Central California Coast Steelhead Distinct Population Segment (DPS) was listed as Federally Threatened on January 5, 2006. Steelhead are an anadromous fish with unique and complex life histories. They spend most of their adult lives in the ocean, and return to freshwater streams and rivers to spawn (CalFish 2018). They spawn in cobble or gravel bottom streams with cold, highly oxygenated water, from December through April. The majority of adult steelhead die after spawning, though some return to the ocean and may spawn for multiple years (NMFS 2016). Fry and juveniles inhabit pools and riffles in the streams while they grow, typically emigrating to the ocean after 1-3 years (CalFish 2018, NMFS 2016). Coastal lagoons and estuaries are also important in the lifecycle of a steelhead, as they provide transitional habitat between freshwater and saltwater environments (NMFS 2016).

Potential Project Impacts

Steelhead are known to occur within Pescadero Creek and Butano Creek, both of which are designated as critical habitat for the species. Project activities are not anticipated to impact the creek corridor; therefore, direct impacts are not expected to occur. However, steelhead in the creek could be affected indirectly by construction impacts such as sedimentation from ground disturbance activities, in the absence of avoidance measures. Construction projects are required to implement stormwater best management practices (BMPs) year-round; this set of BMPs include details on earthmoving which is applicable to ensuring the protection of water quality in Pescadero and Butano Creek. Implementation of these stormwater BMPs would reduce impacts to a less than significant level. The most relevant BMPs are reproduced in Measure 10 below, for reference.

Recommended Avoidance, Minimization, and Mitigation Measures

Measure 10: Ensure that stormwater BMPs are implemented to protect water quality entering Pescadero and Butano Creeks:

- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matric) until vegetation is established.
- Prevent sediment from migrating offsite and protect from storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining

appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.

- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

5.1.7 Tidewater Goby

The tidewater goby is listed as Federally Endangered. It is a small fish that inhabits discrete brackish water habitats along the California coast ranging from Del Norte County to northern San Diego County. Tidewater goby typically live up to one year (Moyle 2002). Breeding occurs year-round but is most common during the spring and late summer (Swenson 1999). Male tidewater gobies construct breeding burrows in relatively clean, unconsolidated, and coarse sand (Swift et al. 1989). Their habitat is strongly associated with shallow, brackish lagoons at the mouths of major stream drainages or tidal bays. They also range a short distance up freshwater streams (USFWS 2007a). Tidewater gobies can withstand a wide range of salinity levels (0-42 ppt) and temperatures (46-72 degrees Fahrenheit) (ibid).

Potential Project Impacts

Butano Creek within the Study Area may provide suitable habitat for tidewater goby. Recent restoration activities within Butano Creek have potentially made the reach more favorable, as sediment dredging occurred throughout the reach and lowered the creek elevation by over 10 feet where it crosses under Pescadero Road. Project activities are not anticipated to impact the creek corridor, so direct impacts are not expected to occur. However, fish in the creek could be indirectly affected by construction impacts such as increased sedimentation, in the absence of avoidance measures.

Recommended Avoidance, Minimization, and Mitigation Measures

See Measure 10.

5.1.8 San Francisco Gartersnake

The San Francisco gartersnake is listed as Federally and State Endangered, and a Fully Protected Species by CDFW. This species is considered highly vulnerable due to its limited range, loss of habitat, and invasive species (USFWS 2007b). The San Francisco gartersnake is a subspecies of the common garter snake (*Thamnophis sirtalis*) in the Colubridae family. It is endemic to the San Francisco peninsula and is currently restricted to San Mateo County and northwestern Santa Cruz County (USFWS 2020b).

San Francisco gartersnakes are often found in or adjacent to aquatic habitats such as ponds or streams featuring emergent or floating vegetation. They also occupy upland grasslands, meadows and shrubby areas. The San Francisco gartersnake's main prey species are the California red-

legged frog and the sierran treefrog (*Hyliola sierra*). Females give live birth from June through September, with litters averaging 16 newborns (USFWS 2007b).

Potential Project Impacts

Pescadero and Butano Creek, along with the surrounding upland grassland and shrubby habitats may provide suitable habitat for San Francisco gartersnake. If a snake is present in the upland grassland or riparian area when construction commences, it could be harmed in the absence of avoidance measures. Avoidance measures are detailed below.

Recommended Avoidance, Minimization, and Mitigation Measures

See Measures 1-8 above. Measure 5, relocation protocol, will remain the same for San Francisco gartersnake.

5.2 Non-listed Special-Status Animal species

5.2.1 Santa Cruz Black Salamander

The Santa Cruz black salamander is currently listed by the CDFW as a Species of Special Concern. This species is a moderately sized, robust salamander in the family Plethodontidae. The Santa Cruz black salamander is endemic to California and its range is limited to the Santa Cruz Mountains in San Mateo County, northern Santa Cruz County, and western Santa Clara County (Stebbins 2012). Adults measure up to 5.5 inches (14 cm) in total length and are nearly completely black in coloration (ibid). Santa Cruz black salamanders have long, squared toes and a rounded prehensile tail but are largely terrestrial. Their diet consists of mainly invertebrate. Females lay approximately 8-25 eggs in moist cavities below ground between July and August (ibid). The Santa Cruz black salamander requires habitats with a high degree of moisture such as well shaded, rocky streams and creeks. They are typically found underneath damp rocks or logs in woodlands, forests and coastal grasslands from sea level to approximately 2400 ft (800 m) (AmphibiaWeb 2020). Threats to this species include habitat disturbance and climate change (habitat becoming hotter and drier) (ibid).

Potential Project Impacts

Santa Cruz black salamander may be present in riparian or forested areas within the Study Area. If project activities were to directly impact riparian habitat within the Study Area, individual salamanders could be harmed. Avoidance measures are included below.

Recommended Avoidance, Minimization, and Mitigation Measures

See Measures 1-3, and 6, above.

5.2.2 Long-eared Owl

Long-eared Owl is a CDFW Species of Special Concern. This species requires riparian habitat, but can also be found in live oak thickets and other dense stands of trees (Polite 1988). They can commonly be found hunting in open areas, and occasionally in woodland and forested habitats (ibid). Long-eared Owl uses old nests of other birds or squirrels in trees with dense canopy; they breed from early March to late July in valley foothill hardwood up to ponderosa pine habitats (ibid). Populations in California have been declining since the 1940s, especially in southern California, likely due to destruction and fragmentation of riparian habitat (Grinnell and Miller 1944, Remsen 1978).

Potential Project Impacts

There is potentially suitable habitat present within the riparian corridor within the Study Area for this species. Any tree or vegetation removal activities have the potential to impact this species. Indirect impacts from construction noise or other construction-related activities could affect nesting owls.

Recommended Avoidance, Minimization, and Mitigation Measures

See Measure 9, above.

5.2.3 Burrowing Owl

The burrowing owl is a CDFW Species of Special Concern and a USFWS Bird of Conservation Concern. The burrowing owl occurs throughout non-mountainous western North America; within California, burrowing owls can be found from Mexico to the northern Central Valley, in the lowlands, coastal, and desert regions. While the range of burrowing owls within California has not significantly decreased, breeding birds have disappeared from many parts of their range, and abundance appears to have declined significantly in the latter half of the 1900s (SCVHA 2012). Burrowing owls prefer open habitat with short vegetation and minimal trees. This species utilizes grasslands, shrublands, and agricultural areas which have existing burrow complexes or soils that allow them to create burrows and hunt insects and small mammals (Urban Bird Foundation 2008, TCLO 2015).

Potential Project Impacts

Open fields surrounding and within the Study Area may provide suitable nesting and foraging habitat for burrowing owl, although no small mammal burrows were observed during the field survey. This species has been documented in the vicinity according to a citizen bird tracking organization (data available from ebird.org). Individual burrowing owls may be indirectly impacted by disturbance from construction noise or other related activities. The following avoidance measures are recommended.

Recommended Avoidance, Minimization, and Mitigation Measures

Measure 11: If construction activities commence during the burrowing owl nesting season (February 1 – August 31), a qualified biologist shall conduct preconstruction surveys covering all areas of suitable habitat within 250 feet of the proposed activity. The survey will last a minimum of 3 hours, and will either begin 1 hour before sunrise and continue until 2 hours after sunrise or begin 2 hours before sunset and continue until 1 hour after sunset. If no owls are detected during a first survey, a second survey will be conducted. If owls are detected during the first survey, a second survey is not needed. All owls observed will be counted and their locations will be mapped, and the following measure will be implemented:

If evidence of nesting burrowing owls is found, a 250-foot-wide no-disturbance buffer zone will be established around each occupied nest and will be delineated in the field by the biologist, using a suitable low-impact medium. Construction may proceed outside the no-disturbance buffer zones.

5.2.4 Black Swift

Black swift is a CDFW Species of Special Concern and USFWS Bird of Conservation Concern. This species can be found foraging in a wide variety of terrains and habitats, resting on steep, rocky, moist cliffs (Bent 1940). Black swift nests in moist crevices or caves on cliffs near the sea or waterfalls (Granholm 1988). This species has a very large home range, and leaves California in the winter (Bent 1940, Grinnell and Miller 1944). Nests are constructed of mud mixed with plant materials in deep, dark crevices, caves, or under overhangs (Bent 1940). Due to their location in cliffs, nests are generally inaccessible to terrestrial predators and human disturbance (Granholm 1988).

Potential Project Impacts

Open fields may provide suitable foraging habitat, but there is no suitable nesting habitat present within the Study Area. No impacts to adjacent agricultural areas are expected from the proposed project, so impacts to black swift foraging habitat are not anticipated to occur. No avoidance measures are recommended.

5.2.5 American Peregrine Falcon

American Peregrine Falcon was delisted from its status as federally and state endangered in 2008, but is still a CDFW Fully Protected species and USFWS Bird of Conservation Concern. There are three subspecies that occur within North America, but *Falco peregrinus anatum* is the only subspecies that breeds in California (Mitchell 2000). American Peregrine Falcons are known to occur throughout California. Their breeding range occurs along the length of the coast and, less frequently, on the east side of the Sierras (Comrack and Logsdon 2008). American Peregrine Falcons prefer to breed near water with vertical nesting sites such as cliffs, steep banks, and ledges.

They tend to establish territories near abundant food sources, which primarily consist of birds, though small mammals may also be consumed. Some of the American Peregrine Falcon populations occurring in California are migrants, while others are year-round residents (ibid). The main threats to the species include pesticide consumption which reduces reproductive success by thinning eggshells and poisoning birds, and habitat degradation from urban development (ibid).

Potential Project Impacts

The Study Area provides foraging habitat but no nesting habitat for this species due to lack of cliffs and ledges. No impacts to adjacent agricultural areas are expected from the proposed project, so impacts to foraging habitat are not anticipated to occur. No avoidance measures are recommended.

5.2.6 Salt Marsh Common Yellowthroat

The salt marsh common yellowthroat is a USFWS Bird of Conservation Concern. It is a subspecies of the Common Yellowthroat (*Geothlypis trichas*), which has a broad range, occurring across the Pacific coast from southeastern Alaska to Baja California. The salt marsh common yellowthroat is one of at least 13 subspecies and is endemic to the San Francisco Bay region (Shuford and Gardali 2008).

Salt marsh common yellowthroat requires brackish or freshwater marsh habitat, preferring to nest in vegetation such as cattails, tules, and some shrubs including coyote brush. Suitability of habitat for this species generally increases with proximity to both marsh and upland habitats, preferring to nest in small, isolated patches within these habitats such as swales and seeps. Abundance of the salt marsh common yellowthroat is positively correlated with that of vegetation such as bulrush (*Scirpus* sp.) and peppergrass (*Lepidium* sp.), and a high density of vegetation in general. Salt marsh common yellowthroats maintain a diet of almost entirely insects and spiders (Shuford and Gardali 2008).

Potential Project Impacts

Riparian habitat within the Study Area (Butano Creek in particular) may provide suitable nesting habitat for this species. Direct impacts to Butano Creek corridor are not anticipated, but nesting individual birds may be indirectly impacted due to construction noise or other construction-related disturbances. The following avoidance measures are recommended to avoid impacts to salt marsh common yellowthroat.

Recommended Avoidance, Minimization, and Mitigation Measures

See Measure 9, above.

5.2.7 Pallid Bat, Townsend's Big-Eared Bat, and Hoary Bat

Pallid bat and Townsend's big-eared bat are both CDFW Species of Special Concern and are listed as "high" priority by the Western Bat Working Group (WBWG). Hoary bat is listed as "medium" priority by the WBWG.

Pallid bats range from southern British Columbia through the western U.S. to Mexico (Weber 2009). This species is found in low elevations throughout California in wide variety of habitats including grasslands, shrublands, woodlands, and forests (Harris 1998b). Pallid bat is most commonly found in open dry habitats with rocky areas for roosting (Weber 2009). They roost in caves, crevices, mines, cliffs, and hollow trees. This species forages for insects and arachnids over open ground. Pallid bats mate from late October to February, with young born from April to July. Pallid bat is very sensitive to disturbance of their roosting sites, which are important for conserving energy and juvenile growth (Harris 1998b).

Townsend's big-eared bat is found in nearly all habitats except subalpine and alpine habitats throughout California (Harris 1988c). They roost in caves, mines, tunnels, buildings, or other human-made structures, and sometimes large hollows of trees (Gruver and Keinath 2006). They are generally found in dry uplands, but also occur in mesic habitats such as coniferous and deciduous forest (Kunz and Martin 1982). Townsend's big-eared bat is extremely sensitive to disturbance of roosting sites (Gruver and Keinath 2006).

Hoary bat is the most widespread North American bat, and can be found in almost all areas of California. This species winters along the coast and in southern California. They breed and roost in woodlands and forests with medium to large-sized trees with dense foliage, and can be found in foothills, deserts, mountains, lowlands, and coastal valleys during their migration. Hoary bat requires a source of water nearby, and prefers open habitats, with access to open areas for foraging and trees for cover. They mate in autumn, with young born from May through July (Harris 1998a).

Potential Project Impacts

The presence of a permanent water source (Pescadero and Butano Creeks) and open space (agricultural lands and ruderal upland habitat) within the Study Area provide ideal foraging habitat for these bat species, and dense clusters of trees within the riparian corridor provide cover. As these bat species utilize tree cavities, crevices, and exfoliating bark and/or bark fissures for roosting, trees within and near the Study Area with such features could provide roosting habitat. Breeding typically occurs in the fall or winter seasons. Therefore, tree removal could result in the loss of an active bat roost.

Recommended Avoidance, Minimization, and Mitigation Measures

Measure 12: A qualified biologist shall conduct a roosting bat habitat evaluation prior to the commencement of construction activities. The evaluation shall determine if any trees proposed for removal or that are located near the work sites provide potential

bat roosting habitat. If suitable roost trees or an active roost are confirmed, then a site-specific bat protection plan shall be developed by a qualified biologist to prevent disturbance of an active maternity or hibernation roost.

5.2.8 Western Pond Turtle

CDFW lists the western pond turtle (WPT) (*Emys marmorata*) as a State Species of Special Concern. WPT currently has no CESA or ESA listing. WPT is declining throughout much of its range due to urbanization, loss of aquatic habitat, and competition and predation from invasive species (Nicholson et al. 2020).

WPT consists of two recently recognized species in the genus *Emys* (family *Emydidae*); some authors alternatively use the genus *Actinemys* (family *Emydidae*). The two recently recognized species are named the northwestern pond turtle (*Emys marmorata*) and the southwestern pond turtle (*Emys pallida*). The southwestern pond turtle ranges from south of the San Francisco Bay along the Coast Range into northern Baja California while the northwestern pond turtle ranges from the Central Valley and Sierra Nevada foothills and north of the San Francisco Bay to Washington State (Thomson, Wright and Schaffer 2016). For the purpose of this report, the turtles within the Study Area will be referred to as the western pond turtle (*Emys marmorata*) following the taxonomy used in the California Department of Fish and Wildlife, "Special Animals List" (CNDDB 2020).

WPT is highly aquatic and is California's only native freshwater turtle species. WPT typically basks near water or float or swim through ponds, streams, and rivers, though it may migrate over dry land to locate new habitat, and to lay eggs. This species is diurnal and active in warm weather. It may hibernate in the mud at the bottom of ponds in cold winters, or estivate in mud at the bottom of dry ponds during hot summers. WPT's diet consists of aquatic plants, invertebrates, worms, frog and salamander eggs and larvae, crayfish, carrion, and occasionally frogs and fish (Stebbins 2012). Female WPT migrate away from aquatic habitat to lay eggs. Preferred oviposition sites are small burrows in friable soils on warm south or west-facing slopes. Breeding occurs in April and May; it typically takes eight to ten years for a turtle to reach reproductive age (Stebbins 2012).

As shown in **Figure 3**, there is one CNDDB occurrence 1.3 miles to the northwest of the Study Area, downstream of Pescadero Creek.

Potential Project Impacts

Pescadero Creek and Butano Creek both provide suitable habitat for WPT. Upland areas around the creeks also likely provide dispersal habitat. Project activities could harm individual turtles if any are present within the uplands or riparian habitats in the Study Area. The following avoidance measures are recommended to avoid impacts from project activities.

Recommended Avoidance, Minimization, and Mitigation Measures

See Measure 1-3, and 6, above.

5.3 Sensitive Habitats

As discussed previously in **Section 4.1**, there are no alliances considered to be sensitive by CDFW within the Project Area. Although none of the identified alliances are considered to be sensitive, impacts to riparian and wetland habitats would be subject to permitting through the ACOE, CDFW, and/or the RWQCB. Recommended avoidance, minimization, and mitigation measures for potentially jurisdictional habitats within the Project Area are discussed further in **Section 5.6.**

5.4 Migratory and Nesting Birds

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 704) and the California Fish and Game Code (Section 3503) prohibit the take of migratory birds as well as disturbance to the active nests of most native birds. As stated previously, the trees in the Study Area could support nests of multiple migratory bird species, including raptors. Tree or vegetation removal could result in direct loss of birds protected by the MBTA. Additionally, construction-related noise could result in the abandonment of an active nest in trees adjacent to the Study Area, including potential nests of special-status bird species.

Recommended Avoidance, Minimization, and Mitigation Measures

See Measure 9, above.

5.5 Non-listed Special-Status Plant Species

No special-status plants have previously been documented within the Project Area, and no such species were observed within the Study Area during the December 2020 reconnaissance-level site survey; however, a focused plant survey was not conducted at the time and the timing was inappropriate for most flowering species. The Project Area contain suitable habitat for 1 special status species, and marginal suitable habitat for 10 species. (**Appendix B, Table 2**).

Most special-status plants associated with unique soil types in the region are associated with serpentinite rock, sand, or other specialized substrates, or are generally found along the immediate coast (e.g., coastal strand or dunes habitat).

The Project Area supports suitable habitat for one plant species with special-status designation, though it is not a state or federally listed species (**Appendix B, Table 2**). Harlequin lotus (*Hosackia gracilis*) is ranked as CNPS list 4.2, indicating that it is a plant of limited distribution and is fairly threatened in California. This species is frequently documented along the coastline and occupies a variety of habitats, including disturbed roadside habitats. Although there were no CNDDB occurrences documented within 2 miles of the Study Area, seven recent iNaturalist occurrences for this species were documented 2.25 miles southwest of the study area at Bean Hollow State Beach (iNaturalist, 2021).

Potential Project Impacts

Since harlequin lotus is a facultative wetland species, suitable habitat for harlequin lotus primarily exists within the wetter parts of the riparian corridor (i.e., less likely to occur at the top of bank) or within the mesic habitats that are adjacent to Cloverdale Road and Pescadero Creek Road, where the proposed pipe alignment is located. Vegetation removal could result in direct impacts to this species, if it is present.

Recommended Avoidance, Minimization, and Mitigation Measures

Measure 13: Appropriately-timed focused plant surveys during the harlequin lotus's flowering period (March - June) are recommended to detect presence of these species within the project's impact zone.

Measure 14: If this species is determined to be present within the project impact zone (where vegetation removal is needed), then transplanting potentially impacted populations to an appropriate adjacent habitatwhere impacts are not anticipated is recommended. The transplanting effort would need to be approved by the CDFW.

5.6 Potential Jurisdictional Waters

Though no formal wetland delineation was conducted in the Study Area, Pescadero Creek and Butano Creek would likely be considered jurisdictional by the ACOE as a Navigable Water with other Waters of the United States. In addition, since the Project Area is within a Costal Development Zone, potentially jurisdictional features need to only contain one wetland parameter (e.g., hydrophytic vegetation), compared to presence of all three wetland parameters typically needed for areas outside of the California Coastal Commission's jurisdiction.

In the southwest corner of Pescadero High School, the pipeline is proposed to be located on the east side of Cloverdale Road, where a ditch conveys surface water to Pescadero Creek. There are also several culverts located along Pescadero Creek Road and Cloverdale Road that drain upland sheetflow to these creeks. The proposed development footprint of the new fire station is located on a disced field containing facultative wetland plants, and may qualify as a potential jurisdictional wetland.

In the event that permits, water quality BMPs, and other measures are not included as part of the project to protect Pescadero Creek and Butano Creek, these aquatic resources could be adversely impacted by project activities. Implementation of avoidance, minimization, and mitigation measures recommended in the Biological Habitat Evaluation Report would bring project impacts to a less-than-significant level.

Recommended Avoidance, Minimization, and Mitigation Measures

Measure 15: The disturbance of wetlands and riparian habitats require permits from ACOE, CDFW, and RWQCB. Therefore, it is advisable to avoid any impacts to these habitats. It is advisable to establish buffers around the features, of a minimum distance of 25 feet. Brightly colored flags should be placed along the buffer boundaries and construction personnel should be informed of the importance of avoiding the habitats. All vehicles and heavy equipment should be kept out of the habitats and their buffers, and every effort should be made to avoid incidental impacts, such as the spilling of petrochemicals, solvents, or other potential contaminants.

Measure 16: If wetland and/or riparian habitats cannot be avoided, any grading, excavation, or filling of jurisdictional features would require a wetland delineation, obtaining the proper permits, and would require mitigating impacted habitat(s). Therefore, prior to the commencement of construction activities that could result in disturbance to a jurisdictional wetland or stream, the project proponent shall conduct a wetland delineation, obtain all required permits/agreements from the ACOE, CDFW, and RWQCB, and comply with all specified requirements contained in those permits.

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APPENDIX A:

REPRESENTATIVE PHOTOGRAPHS

OF THE STUDY AREA

(Recorded December 7, 2020)

Representative Photographs of the Study Area

Photo facing southwest. Proposed location of the new fire station. Disced field with giant horsetail. Coastal scrub habitat shown on hillslopes.

Willow thicket at the top of bank along Pescadero Creek. Northeast corner of the Pescadero High School property.

Representative Photographs of the Study Area

The reach of Pescadero Creek located at the northeast corner of Pescadero High School.

Roadside/wetland ditch along Cloverdale Road; Himalayan blackberry thickets and roadside ditch/swale.

Representative Photographs of the Study Area

Typical top of bank for Pescadero Creek riparian habitat along Cloverdale Road.

Eucalyptus stands along Cloverdale Road.

APPENDIX B:

SPECIAL-STATUS SPECIES TABLES

TABLE 1. Special-status Animals Documented within the Vicinity of the Study Area

Note: Taxa with higher potential to occur in the Study Area, based on presence of habitat, are shaded in gray.

Species	Status	Description of Habitat Requirements	Potential to Occur in Study Area
Amphibians			
Santa Cruz black salamander *Aneides niger*	SSC	Inhabits coastal grassland, open oak and conifer woodlands, redwood forest, mixed evergreen forest and along riparian corridors; adults found under rocks, talus, and damp woody debris.	**Potential to Occur (low).** Riparian habitat along Pescadero and Butano Creeks offer suitable habitat for breeding and rearing. There are no CNDDB occurrences within 2 miles of the Study Area.
California giant salamander *Dicamptodon ensatus*	SSC	Adults rarely seen, but sometimes on surface in wet conditions, under rocks or woody debris, or in creeks; larvae found in cold, clear streams, often near headwaters. Mostly associated with dense scrub and forested areas including redwoods.	**Not Expected.** Riparian habitat along Pescadero and Butano Creeks may offer suitable habitat for breeding and rearing. There are no CNDDB occurrences within 2 miles of the Study Area.
Foothill yellow-legged frog *Rana boylii*	SE, SSC	Rocky, high gradient streams and rivers with rocky substrate and open, sunny banks; forests, chaparral, woodland.	**Potential to Occur (low).** Riparian habitat along Pescadero and Butano Creeks offer marginally suitable habitat for breeding and rearing. One CNDDB occurrence is documented 4 miles upstream of the Study Area.
California red-legged frog *Rana draytonii*	FT, SSC	Marshes, stream pools, reservoirs, ponds. Uses both riparian and upland habitats for foraging, shelter, cover, and non-dispersal movement. Quiet pools of freshwater streams, and occasionally ponds.	**Potential to Occur (high).** Riparian habitat along Pescadero and Butano Creeks offer suitable habitat for breeding and rearing. The western Study Area containing Butano Creek is located within CRLF designated Critical Habitat, and there are two CNDDB occurrences of CRLF within the Study Area, and 12 occurrences within a 2-miles radius (within the Pescadero Creek watershed).
Birds			
Tricolored Blackbird *Agelaius tricolor*	ST, SSC, USFWS: BCC	Large freshwater marshes. Forages in open habitats such as pastures, agricultural fields, and grasslands with scattered seasonal wetlands.	**Potential to Occur (high).** Open fields surrounding and within the Study Area provide suitable foraging habitat for this species, though the Study Area does not provide suitable nesting habitat for this species. The species is known to occur within the vicinity according to citizen documentations (data from ebird.org).
Long-eared Owl *Asio otus*	SSC	Frequents dense, riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats. Also found in dense conifer stands at higher elevations.	**Potential to Occur (medium).** Riparian habitat along Pescadero and Butano Creeks may offer suitable habitat for nesting and foraging within the Study Area.

Species	Status	Description of Habitat Requirements	Potential to Occur in Study Area
Burrowing Owl *Athene cunicularia*	SSC, USFWS: BCC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Suitable habitats include coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, and valley & foothill grassland	**Potential to Occur (medium).** Open fields surrounding and within the Study Area may provide suitable nesting and foraging habitat for this species.
Marbled Murrelet *Brachyramphus marmoratus*	FT, SE	Nests in old-growth conifer forests near ocean. Forage near shorelines but also far offshore.	**Not Expected.** Study Area does not provide suitable nesting habitat for this species.
Western Snowy Plover *Charadrius alexandrinus nivosus*	FT, SSC, USFWS: BCC	Nests on sandy beaches, salt flats and other open, coastal and bay habitats.	**Not Expected.** Study Area does not provide suitable nesting habitat for this species.
Yellow Rail *Coturnicops noveboracensis*	SSC, USFWS: BCC	Shallow fresh or brackish marsh, or coastal salt marsh. May also occupy rice fields or damp meadows near coast.	**Not Expected.** Study Area does not provide suitable nesting habitat for this species.
Black Swift *Cypseloides niger*	SSC, USFWS: BCC	Nests on cliff edges behind or near waterfalls and sea caves; generally, in dark and inaccessible areas. Forages over forests and open areas.	**Potential to Occur (low).** Open fields within the Study Area may provide foraging habitat; no suitable nesting habitat is present within the Study Area.
American Peregrine Falcon *Falco peregrinus anatum*	FP, USFWS: BCC	Nests on cliffs or other tall man-made structures (approximately 25 feet and up). May also use abandoned nests from other birds.	**Potential to Occur (high).** Study area provides foraging habitat but no nesting habitat for this species. The species is known to occur within the vicinity according to citizen documentations (data from ebird.org).
Salt Marsh Common Yellowthroat *Geothlypis trichas sinuosa*	SSC, USFWS: BCC	Nests in tall grasses, tules, and willow thickets. Typically found in freshwater marshes in summer and salt or brackish marshes in fall and winter.	**Potential to Occur (medium).** Study Area is within breeding range and riparian corridor within Study Area may provide suitable nesting habitat (willow thickets were observed within the riparian corridor). Butano Creek offers higher quality habitat, while Pescadero Creek provides marginal habitat due to lack of marsh vegetation. This species is known to breed in Pescadero Marsh, approximately 1-2 miles from the Study Area (CNDDB 2020).
California Black Rail *Laterallus jamaicensis coturniculus*	ST, FP, USFWS: BCC	Nests in marshes and wet meadows with stable, shallow water (muted tidal activity).	**Not Expected.** Study Area does not provide suitable nesting habitat for this species.

Species	Status	Description of Habitat Requirements	Potential to Occur in Study Area
Short-tailed Albatross *Phoebastria albatrus*	FE, SSC	Open ocean.	**Not Expected.** Open ocean is not present within the Study Area.
Bank Swallow *Riparia riparia*	ST	Nests near bodies of fresh and salt water in vertical banks and cliffs of fine or sandy soil. Feeds in grassland, shrubland, and savanna year-round, open riparian areas during breeding season, and cropland during migration.	**Potential to Occur (high).** Suitable vertical bank nesting habitat was observed along Butano Creek corridor near Pescadero Creek Road. Suitable vertical banks were not observed along Pescadero Creek. There is one CNDDB occurrence within 1.8 miles to the northwest of the Study Area. The species is known to occur within the vicinity according to citizen documentations (data from ebird.org).
California Least Tern *Sternula antillarum browni*	FE, SE, FP	Nests along the coast and around bays/estuaries from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat sand beaches and alkali flats.	**Not Expected.** There is no suitable breeding habitat within the Study Area.
Fish			
Steelhead - central California coast DPS *Oncorhynchus mykiss irideus pop. 8*	FT	Streams, rivers, lakes, estuaries, ocean from Russian River south to Soquel Creek and to, but not including, the Pajaro River. Also includes San Francisco and San Pablo Bay Basins.	**Potential to Occur (high).** The reaches of Pescadero and Butano Creeks with the Study Area provides suitable spawning habitat for adults and rearing habitat for out-migrating juveniles/parr. Both Butano and Pescadero Creek are designated as steelhead critical habitat.
tidewater goby *Eucyclogobius newberryi*	FE	Inhabits brackish water habitats along the California coast from San Diego to the Smith River. Found in shallow lagoons and lower stream reaches with fairly still, but not stagnant, water and high oxygen levels.	**Potential to Occur (medium).** The reach of Butano Creek within the Study Area provides suitable habitat for tidewater goby since it is closer to the ocean and is brackish. Recent restoration activities at Butano Creek have likely made the area more favorable, as sediment dredging occurred throughout the lower reach of this creek and lowered the elevation of the creek by over 10 feet where it crosses Pescadero Creek Road. Pescadero Creek within the Study Area likely does not provide suitable habitat. There is one CNDDB occurrence within 1.5 miles to the northwest of the Study Area, around the confluence of Pescadero and Butano Creek into Pescadero Marsh.
delta smelt *Hypomesus transpacificus*	FT, SE	Streams, rivers, estuaries in the Delta.	**Not Expected.** Pescadero and Butano Creek is hydrodynamically isolated from the San Francisco Estuary and is therefore outside of the known range of the delta smelt.

Species	Status	Description of Habitat Requirements	Potential to Occur in Study Area
longfin smelt *Spirinchus thaleichthys*	FC, ST	Nearshore waters, estuaries, and lower portions of freshwater streams.	**Not Expected.** Pescadero and Butano Creek is hydrodynamically isolated from the San Francisco Estuary, which is the known southernmost range of longfin smelt.
Insects			
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE	Coastal dune or prairie habitat sheltered from the wind, below 820 feet elevation, and within 3 miles of the coast.	**Not Expected.** The Study Area does not contain suitable habitat.
Western bumble bee *Bombus occidentalis*	SCE	Nest in underground cavities or animal burrows. Forage and overwinter in meadows and grasslands with abundant flowers.	**Not Expected.** The Study Area does not contain suitable habitat. Agricultural lands may provide marginal habitat, but these areas likely experience routine ground disturbance.
San Bruno elfin butterly *Callophrys mossii bayensis*	FE	Rocky outcrops and cliffs in coastal scrub; host plant is broadleaf stonecrop.	**Not Expected.** The Study Area does not contain suitable habitat.
Mammals			
Pallid bat *Antrozous pallidus*	SSC, WBWG: H	Forages in a variety of habitats. Roosts in rocky outcrops, buildings, and hollow trees.	**Potential to Occur (medium).** Any onsite trees with suitable cavities may provide potential roosting habitat. There is one CNDDB occurrence within 3/4 mile to the northeast of the Study Area, further upstream Pescadero Creek.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC, WBWG: H	Pine forest or desert scrub near caves or other rock formations that provide crevices. Less common roosting habitat includes buildings, bridges, and hollow trees. Foraging habitat typically include edge habitat (wooded habitat) along streams.	**Potential to Occur (medium).** Large trees within Study Area provide potential roosting habitat (not preferred). There is one CNDDB occurrence within 1.5 miles to the northeast of the Study Area, further upstream Pescadero Creek.
Southern sea otter *Enhydra lutris nereis*	FT, FP	Near-shore marine habitats; will give birth on protected shorelines	**Not expected.** Near-shore marine habitats are not present within the Study Area.
Hoary bat *Lasiurus cinereus*	WBWG: M	Roosts at edge of clearings for coniferous and deciduous woodland/forests. Less likely roosting habitat includes caves, rock ledges, and buildings.	**Potential to Occur (medium).** Large trees within Study Area provide potential roosting habitat.

Species	Status	Description of Habitat Requirements	Potential to Occur in Study Area
American badger *Taxidea taxus*	SSC	Prefers open areas and may also frequent brushlands with little groundcover. When inactive, occupies underground burrow.	**Not Expected.** The Study Area does not contain suitable habitat.
Reptiles			
Green sea turtle *Chelonia mydas*	FT	Open ocean, return to beaches to breed.	**Not expected.** Open ocean and beaches are not present within the Study Area.
San Francisco gartersnake *Thamnophis sirtalis tetrataenia*	FE, SE, FP	Vicinity of freshwater marshes, ponds, and slow-moving streams in San Mateo and extreme northern Santa Cruz Counties. Prefers lentic habitat during the spring through fall that supports frog or fish prey with nearby uplands that consist of a mosaic of grassland, scrub and woodland.	**Potential to Occur (medium).** Study Area is within known range and Pescadero and Butano Creeks, along with the brackish lagoon, provide suitable habitat.
Western pond turtle *Actinemys marmorata*	SSC	Permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, unlined irrigation canals, and reservoirs.	**Potential to Occur (high).** Pescadero and Butano Creeks within the Study Area are freshwater creeks connected to a brackish lagoon and therefore provide suitable habitat. There is one CNDDB occurrence within 1.3 miles of the Study Area, downstream in Pescadero Creek.

[1] Status definitions:

FT – Federal Threatened;
FE – Federal Endangered;
ST – State Threatened;
SE – State Endangered;
SCE – State Candidate Endangered;
USFWS: BCC – USFWS Bird of Conservation Concern;
SSC – CDFW Species Special Concern;
FP – CDFW Fully Protected;
WBWG: H or M – Western Bat Working Group High or Medium Priority

TABLE 2. Special-status Plant Taxa Documented within the Vicinity of the Study Area

Species highlighted in gray have marginal or suitable habitat present in the Study Area.

Scientific Name **Common Name (Family Name)**	**Status, Federal/State/ CRPR[1]**	**Preferred Habitat; Elevation Range; Bloom Period**	**Presence/Quality of Preferred Habitat Within Project Area**
Agrostis blasdalei Blasdale's bent grass (Poaceae)	--/--/1B.2	Coastal bluff scrub, Coastal dunes, Coastal prairie; 0-490 feet; May-July	**Not Expected.** Project Area does not provide suitable habitat for species.
Anomobryum julaceum slender silver moss (Bryaceae)	--/--/4.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest, damp rock and soil on outcrops, usually on roadcuts; 325-3,280 feet; no bloom period listed	**Not Expected.** Project Area is outside of species' elevation range.
Arctostaphylos andersonii Anderson's manzanita (Ericaceae)	--/--/1B.2	Broadleafed upland forest, Chaparral, North Coast coniferous forest, openings, edges; 195-2,495 feet; November-May	**Not Expected.** Project Area is outside of species' elevation range.
Arctostaphylos regismontana Kings Mountain manzanita (Ericaceae)	--/--/1B.2	Broadleafed upland forest, Chaparral, North Coast coniferous forest, granitic or sandstone; 1,000-2,395 feet; December-April	**Not Expected.** Project Area is outside of species' elevation range.
Astragalus nuttallii var. *nuttallii* ocean bluff milk-vetch (Fabaceae)	--/--/4.2	Coastal bluff scrub, Coastal dunes; 5-395 feet; January-November	**Not Expected.** Project Area does not provide suitable habitat for species.
Astragalus pycnostachyus var. *pycnostachyus* coastal marsh milk-vetch (Fabaceae)	--/--/1B.2	Coastal dunes (mesic), Coastal scrub, Marshes and swamps (coastal salt, streamsides); 0-100 feet; (April) June-October	**Marginal Habitat Present.** Study Area contains marsh habitat north of the old fire station, at Butano Creek, and there is coastal scrub habitat located along Cloverdale Road and Pescadero Creek Road. There are 3 CNDDB occurrences; located 2 miles south, 1.5 miles northwest, and 1.5 miles north. However, the Project Area contains marginal habitat along the roads and along edge of development where proposed project activities would take place.

Scientific Name **Common Name (Family Name)**	**Status, Federal/State/ CRPR[1]**	**Preferred Habitat; Elevation Range; Bloom Period**	**Presence/Quality of Preferred Habitat Within Project Area**
Castilleja ambigua var. *ambigua* johnny-nip (Orobanchaceae)	--/--/4.2	Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Valley and foothill grassland, Vernal pools margins; 0-1,425 feet; March-August	**Marginal Habitat Present.** Study Area Project Area contains marginal marsh habitat north of the old fire station, at Butano Creek, and there is coastal scrub habitat located along Cloverdale Road and Pescadero Creek Road. However, the habitat along the roads and along edge of development where proposed project activities would take place.
Cirsium andrewsii Franciscan thistle (Asteraceae)	--/--/1B.2	Broadleafed upland forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, mesic, sometimes serpentinite; 0-490 feet; March-July	**Marginal Habitat Present.** The Project Area contains marginal coastal scrub habitat along the Pescadero Creek Road and Cloverdale Road and along edge of development where proposed project activities would take place. There are no CNDDB occurrences within 2 miles of the Study Area.
Cypripedium montanum mountain lady's-slipper (Orchidaceae)	--/--/4.2	Broadleafed upland forest, Cismontane woodland, Lower montane coniferous forest, North Coast coniferous forest; 605-7,300 feet; March-August	**Not Expected.** Project Area is outside of species' elevation range.
Dirca occidentalis western leatherwood (Thymelaeaceae)	--/--/1B.2	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Riparian forest, Riparian woodland, mesic; 80-1,395 feet; January-March (April)	**Marginal Habitat Present.** The Project Area contains marginal riparian woodland habitat along the Pescadero Creek Road and Cloverdale Road where proposed project activities would take place. There are 2 CNDDB occurrences documented 6 miles northeast of the Study Area.
Elymus californicus California bottle-brush grass (Poaceae)	--/--/4.3	Broadleafed upland forest, Cismontane woodland, North Coast coniferous forest, Riparian woodland; 45-1,540 feet; May-August (November)	**Marginal Habitat Present.** The Project Area contains marginal riparian woodland habitat along the Pescadero Creek Road and Cloverdale Road where proposed project activities would take place. There are no CNDDB occurrences documented within 2 miles of the Study Area.
Eriophyllum latilobum San Mateo woolly sunflower (Asteraceae)	FE/CE/1B.1	Cismontane woodland (often serpentinite, on roadcuts), Coastal scrub, Lower montane coniferous forest; 145-1,085 feet; May-June	**Not Expected.** Project Area is outside of species' elevation range.

Scientific Name **Common Name (Family Name)**	**Status, Federal/State/ CRPR[1]**	**Preferred Habitat; Elevation Range; Bloom Period**	**Presence/Quality of Preferred Habitat Within Project Area**
Erysimum ammophilum sand-loving wallflower (Brassicaceae)	--/--/1B.2	Chaparral (maritime), Coastal dunes, Coastal scrub, sandy, openings; 0-195 feet; February-June	**Marginal Habitat Present.** The Project Area contains marginal coastal scrub habitat along the Pescadero Creek Road and Cloverdale Road and along edge of development where proposed project activities would take place. There are no CNDDB occurrences within 2 miles of the Study Area.
Fissidens pauperculus minute pocket moss (Fissidentaceae)	--/--/1B.2	North Coast coniferous forest (damp coastal soil); 30-3,360 feet; no bloom period listed	**Not Expected.** Project Area does not provide suitable habitat for species.
Fritillaria agrestis stinkbells (Liliaceae)	--/--/4.2	Chaparral, Cismontane woodland, Pinyon and Juniper woodland, Valley and foothill grassland, Clay, sometimes serpentinite; 30-5,100 feet; March-June	**Not Expected.** The Project Area does not contain suitable habitat. There are no CNDDB occurrences within 2 miles of the Study Area.
Fritillaria liliacea fragrant fritillary (Liliaceae)	--/--/1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland, Often serpentinite; 5-1,345 feet; February-April	**Marginal Habitat Present.** The Project Area contains marginal coastal scrub habitat along the Pescadero Creek Road and Cloverdale Road and along edge of development where proposed project activities would take place. There are no CNDDB occurrences within 2 miles of the Study Area.
Grindelia hirsutula var. *maritima* San Francisco gumplant (Asteraceae)	--/--/3.2	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland, sandy or serpentinite; 45-1,310 feet; June-September	**Not Expected.** Project Area does not provide suitable habitat for species.
Hesperocyparis abramsiana var. *butanoensis* Butano Ridge cypress (Cupressaceae)	FT/CE/1B.2	Closed-cone coniferous forest, Chaparral, Lower montane coniferous forest, Sandstone; 1,310-1,610 feet; October	**Not Expected.** Project Area is outside of species' elevation range.
Hosackia gracilis harlequin lotus (Fabaceae)	--/--/4.2	Broadleafed upland forest, Coastal bluff scrub, Closed-cone coniferous forest, Cismontane woodland, Coastal prairie, Coastal scrub, Meadows and seeps, Marshes and swamps, North Coast coniferous forest, Valley and foothill grassland, wetlands, roadsides; 0-2,295 feet; March-July	**Suitable Habitat Present.** Project Area contains marginal coastal scrub, drainage ditch, and roadside (ruderal upland) habitat located along Cloverdale Road and Pescadero Creek Road. There are no CNDDB occurrences within 2 miles of the Study Area.

Scientific Name **Common Name (Family Name)**	**Status, Federal/State/ CRPR[1]**	**Preferred Habitat; Elevation Range; Bloom Period**	**Presence/Quality of Preferred Habitat Within Project Area**
Iris longipetala coast iris (Iridaceae)	--/--/4.2	Coastal prairie, Lower montane coniferous forest, Meadows and seeps, mesic; 0-1,970 feet; March-May	**Not Expected.** Project Area does not provide suitable habitat for species.
Lasthenia californica ssp. *macrantha* perennial goldfields (Asteraceae)	--/--/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub; 15-1,705 feet; January-November	**Not Expected.** Project Area does not provide suitable habitat for species.
Leptosiphon croceus coast yellow leptosiphon (Polemoniaceae)	--/CC/1B.1	Coastal bluff scrub, Coastal prairie; 30-490 feet; April-June	**Not Expected.** Project Area does not provide suitable habitat for species.
Leptosiphon rosaceus rose leptosiphon (Polemoniaceae)	--/--/1B.1	Coastal bluff scrub; 0-330 feet; April-July	**Not Expected.** Project Area does not provide suitable habitat for species.
Limnanthes douglasii ssp. *sulphurea* Point Reyes meadowfoam (Limnanthaceae)	--/CE/1B.2	Coastal prairie, Meadows and seeps (mesic), Marshes and swamps (freshwater), Vernal pools; 0-460 feet; March-May	**Not Expected.** Project Area does not provide suitable habitat for species.
Malacothamnus arcuatus arcuate bush-mallow (Malvaceae)	--/--/1B.2	Chaparral, Cismontane woodland; 45-1,165 feet; April-September	**Not Expected.** Project Area does not provide suitable habitat for species.
Microseris paludosa marsh microseris (Asteraceae)	--/--/1B.2	Closed-cone coniferous forest, Cismontane woodland, Coastal scrub, Valley and foothill grassland; 15-1,165 feet; April-June (July)	**Marginal Habitat Present.** The Project Area contains marginal coastal scrub habitat along the Pescadero Creek Road and Cloverdale Road and along edge of development where proposed project activities would take place. There are no CNDDB occurrences within 2 miles of the Study Area. There three CNDDB occurrences within 2 miles of the Study Area; only one occurrence is presumed to be extant. The extant occurrence is located 2 miles south of the Study Area.

Scientific Name **Common Name (Family Name)**	**Status, Federal/State/ CRPR[1]**	**Preferred Habitat; Elevation Range; Bloom Period**	**Presence/Quality of Preferred Habitat Within Project Area**
Mielichhoferia elongata elongate copper moss (Mielichhoferiaceae)	--/--/4.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Meadows and seeps, Subalpine coniferous forest, Metamorphic rock, usually acidic, usually vernally mesic, often roadsides, sometimes carbonate; 0-6,430 feet; no bloom period listed	**Marginal Habitat Present.** The Project Area contains marginal coastal scrub habitat along the Pescadero Creek Road and Cloverdale Road and along edge of development where proposed project activities would take place. There are no CNDDB occurrences within 2 miles of the Study Area.
Monolopia gracilens woodland woolythreads (Asteraceae)	--/--/1B.2	Broadleafed upland forest (openings), Chaparral (openings), Cismontane woodland, North Coast coniferous forest (openings), Valley and foothill grassland, Serpentine; 325-3,935 feet; (February) March-July	**Not Expected.** Project Area is outside of species' elevation range.
Pinus radiata Monterey pine (Pinaceae)	--/--/1B.1	Closed-cone coniferous forest, Cismontane woodland; 80-605 feet; no bloom period listed	**Not Expected.** Project Area does not provide suitable habitat for species.
Plagiobothrys chorisianus var. *chorisianus* Choris' popcornflower (Boraginaceae)	--/--/1B.2	Chaparral, Coastal prairie, Coastal scrub, mesic; 5-525 feet; March-June	**Marginal Habitat Present.** The Project Area contains marginal coastal scrub habitat along the Pescadero Creek Road and Cloverdale Road and along edge of development where proposed project activities would take place. There are three CNDDB occurrences for this species within 2 miles of the Study Area; one is located 1.25 mile southwest, and 2 are located northwest. All of these locations are along the coastline.
Plagiobothrys diffusus San Francisco popcornflower (Boraginaceae)	--/CE/1B.1	Coastal prairie, Valley and foothill grassland; 195-1,180 feet; March-June	**Not Expected.** Project Area is outside of species' elevation range.
Sanicula hoffmannii Hoffmann's sanicle (Apiaceae)	--/--/4.3	Broadleafed upland forest, Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, often serpentinite or clay; 95-985 feet; March-May	**Not Expected.** Project Area is outside of species' elevation range.
Sidalcea hickmanii ssp. *viridis* Marin checkerbloom (Malvaceae)	--/--/1B.1	Chaparral (serpentinite); 160-1,410 feet; May-June	**Not Expected.** Project Area is outside of species' elevation range.

Scientific Name **Common Name (Family Name)**	**Status, Federal/State/ CRPR[1]**	**Preferred Habitat; Elevation Range; Bloom Period**	**Presence/Quality of Preferred Habitat Within Project Area**
Silene scouleri ssp. *scouleri* Scouler's catchfly (Caryophyllaceae)	--/--/2B.2	Coastal bluff scrub, Coastal prairie, Valley and foothill grassland; 0-1,970 feet; (March-May) June-August (September)	**Not Expected.** Project Area does not provide suitable habitat for species.
Stebbinsoseris decipiens Santa Cruz microseris (Asteraceae)	--/--/1B.2	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Coastal prairie, Coastal scrub, Valley and foothill grassland, open areas, sometimes serpentinite; 30-1,640 feet; April-May	**Not Expected.** Project Area does not provide suitable habitat for species.
Stuckenia filiformis ssp. *alpina* slender-leaved pondweed (Potamogetonaceae)	--/--/2B.2	Marshes and swamps (assorted shallow freshwater); 980-7,055 feet; May-July	**Not Expected.** Project Area is outside of species' elevation range.

Notes:
Compiled from a CNPS 4-Quad search of the San Gregorio, La Honda, Pigeon Point, and Franklin Point quadrangles.
Bloom Periods in Parentheses indicate that the species *occasionally* blooms during that period.

[1]**Rarity Status Codes**:
E = Federally or State listed as Endangered
T = Federally or State listed as Threatened
R = State listed as Rare

CRPR Codes:
CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere; CRPR List 1B = Plants rare, threatened or endangered in CA and elsewhere; CRPR 2B = Plants rare, threatened or endangered in California but more common elsewhere; CRPR 3 = More information is needed about plant; CRPR 4 = Plants of limited distribution, a watch list

CRPR: '.1' = Seriously threatened in CA; '.2' = Fairly threatened in CA; '.3' = Not very threatened in CA

APPENDIX C:

USFWS IPAC SEARCH RESULTS

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Mateo County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Southern Sea Otter Enhydra lutris nereis — Threatened
Marine mammal
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8560

Birds

NAME	STATUS
California Least Tern Sterna antillarum browni No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Marbled Murrelet Brachyramphus marmoratus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened
Short-tailed Albatross Phoebastria (=Diomedea) albatrus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/433	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle Chelonia mydas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6199	Threatened
San Francisco Garter Snake Thamnophis sirtalis tetrataenia No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5956	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened
Tidewater Goby Eucyclogobius newberryi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
San Bruno Elfin Butterfly Callophrys mossii bayensis There is **proposed** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3394	Endangered

Flowering Plants

NAME	STATUS
San Mateo Woolly Sunflower Eriophyllum latilobum No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7791	Endangered

Conifers and Cycads

NAME	STATUS
Santa Cruz Cypress Cupressus abramsiana No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1678	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
California Red-legged Frog Rana draytonii https://ecos.fws.gov/ecp/species/2891#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE.

"BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Black Oystercatcher Haematopus bachmani This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black Turnstone Arenaria melanocephala This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Burrowing Owl Athene cunicularia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737	Breeds Mar 15 to Aug 31
Clark's Grebe Aechmophorus clarkii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Long-billed Curlew Numenius americanus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5511

Marbled Godwit Limosa fedoa — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Rufous Hummingbird selasphorus rufus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Song Sparrow Melospiza melodia — Breeds Feb 20 to Sep 5

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee Pipilo maculatus clementae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Whimbrel Numenius phaeopus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds elsewhere
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any

week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

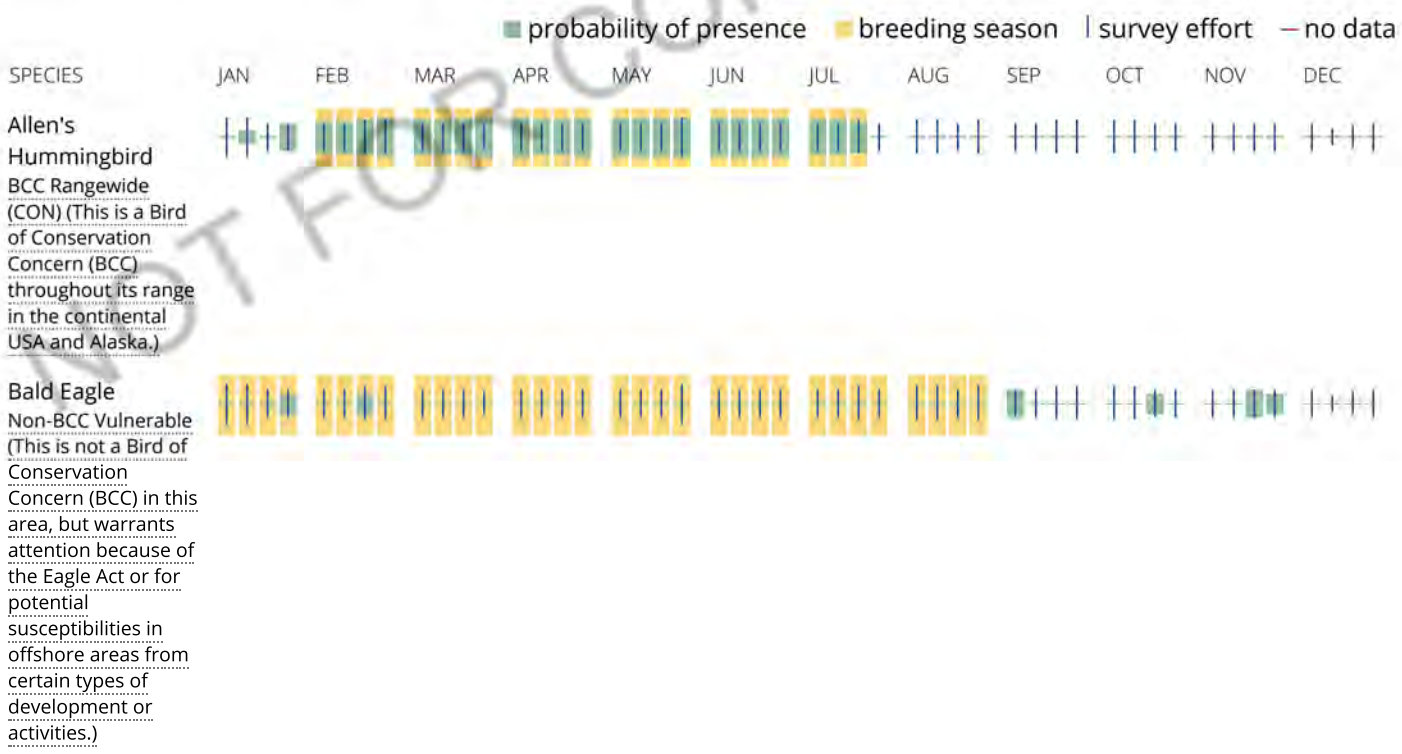
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

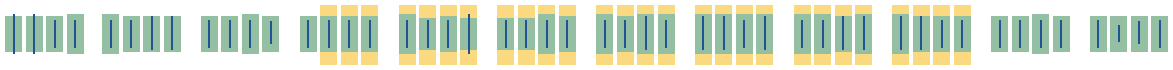
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

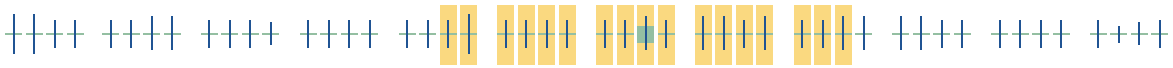
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Black Oystercatcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Black Skimmer
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



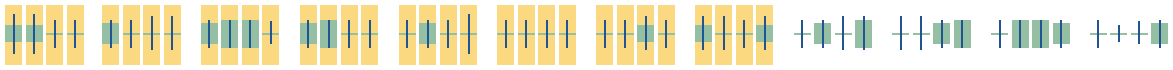
Black Turnstone
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

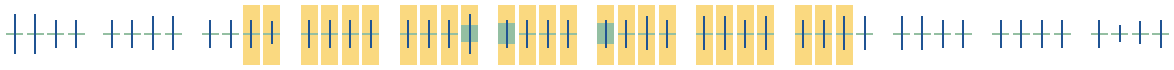
Burrowing Owl
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Clark's Grebe
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Common Yellowthroat
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Golden Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)





Lawrence's Goldfinch
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Long-billed Curlew
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

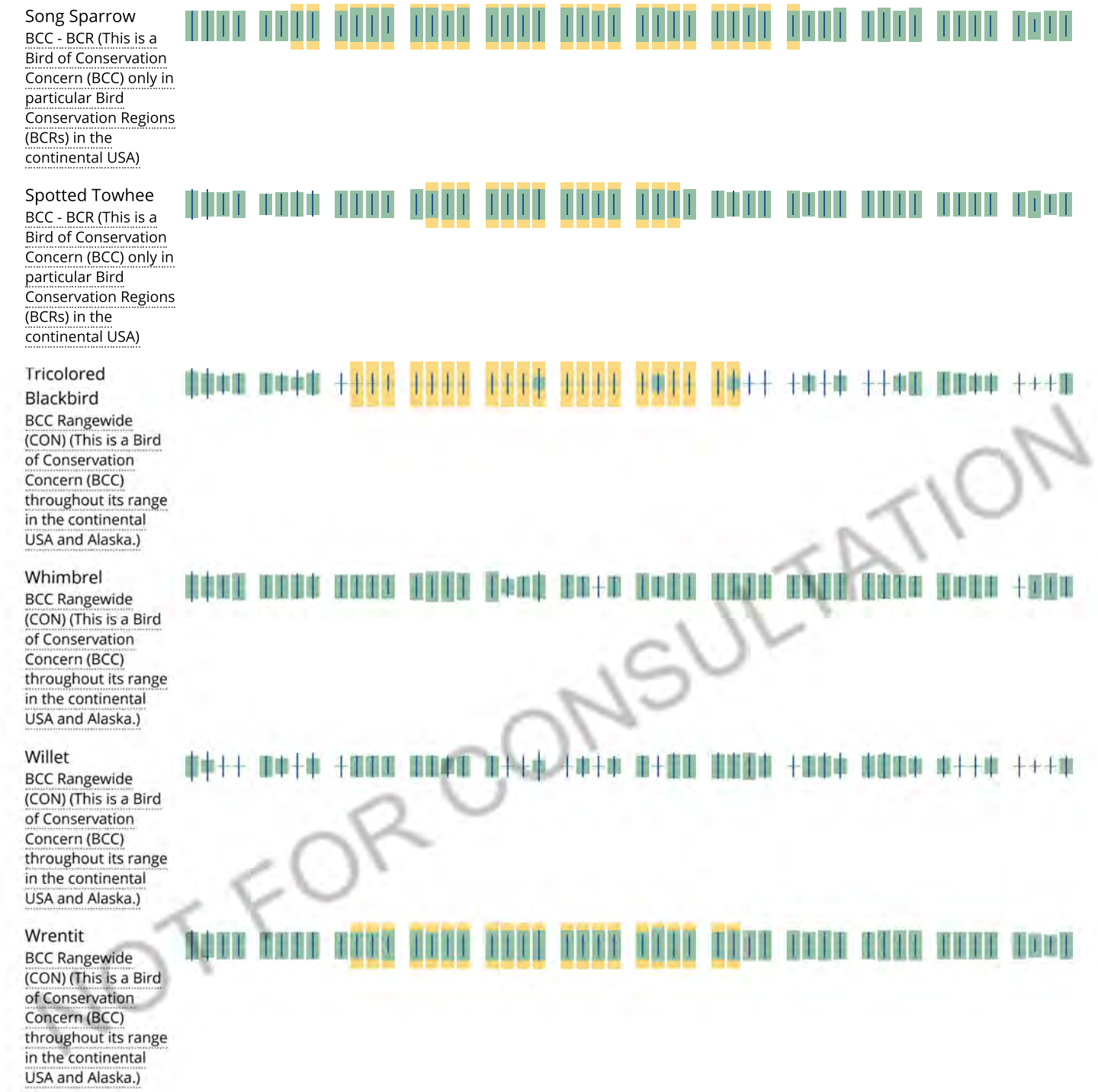
Marbled Godwit
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Nuttall's Woodpecker
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Oak Titmouse
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Rufous Hummingbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Short-billed Dowitcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review.

Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Marine mammals

Marine mammals are protected under the Marine Mammal Protection Act. Some are also protected under the Endangered Species Act[1] and the Convention on International Trade in Endangered Species of Wild Fauna and Flora[2].

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries[3] [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the Marine Mammals page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take (to harass, hunt, capture, kill, or attempt to harass, hunt, capture or kill) of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

1. The Endangered Species Act (ESA) of 1973.
2. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following marine mammals under the responsibility of the U.S. Fish and Wildlife Service are potentially affected by activities in this location:

NAME

Southern Sea Otter Enhydra lutris nereis
https://ecos.fws.gov/ecp/species/8560

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R3UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

ATTACHMENT B: DELINEATION OF POTENTIAL JURISDICTIONAL WATERS

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Delineation of Potential Jurisdictional Waters

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
Pescadero, San Mateo County, California

Prepared for:

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May 2021

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1.0 INTRODUCTION

This document presents the methods and results of the delineation of potential jurisdictional Waters of the United States and/or State of California within the CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects (project). The Study Area for the project is located within the Town of Pescadero, in San Mateo County (County), California (**Figure 1**). The project involves construction of a new County fire station, installation of 1.5 miles of new water supply pipeline to serve Pescadero High School and the new County fire station, and decommission of a portion of the existing County fire station. The new water supply pipeline will extend from the existing CSA-11 water line east of the intersection of Pescadero Creek Road and Stage Road to Pescadero High School, and the pipeline will run along the unpaved roadway shoulders, or within paved road. The new fire station will be constructed within an undeveloped portion of Pescadero High School, which is owned by La Honda-Pescadero Unified School District. The existing fire station, located at 1200 Pescadero Creek Road, will be partially decommissioned, while retaining a portion of the existing structures. The purpose of the delineation is to identify and map any potentially jurisdictional Waters within the Study Area, which is approximately 36.306 acres. The delineation was conducted by staff from Vollmar Natural Lands Consulting (VNLC).

All Waters delineated within the Study Area may be subject to federal jurisdiction by the U.S. Army Corps of Engineers (ACOE) through Section 404 of the Clean Water Act/Section 10 of the Rivers and Harbors Act and may also be subject to State jurisdiction by the California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB) and/or the California Coastal Commission (CCC) through state regulations. The results of this delineation are preliminary and must be reviewed and verified in writing by the ACOE to be considered an official delineation.

The delineation identified a total of 2.123 acres of potential jurisdictional wetlands, which include 0.204 acre of emergent channel and 1.919 acres of riparian habitat.

2.0 PROJECT BACKGROUND INFORMATION

2.1 Extent and Location of Study Area

The Study Area consists of the San Mateo County Fire Station – Station 59 (APN 086-160-050), the proposed water pipe alignment along Pescadero Creek Road/Cloverdale Road, and Pescadero High School (APN 087-053-010). Project actions like ingress/egress, staging, and construction are anticipated to occur within the Study Area.

The Study Area is broken up into the western and eastern portions; the western portion consists of the existing Fire Station 59, while the eastern portion consists of the proposed water pipe alignment and Pescadero High School (where the new fire station is proposed to be built in the southwest corner). The Study Area is mapped within the Franklin Point, La Honda, Pigeon Point, and San Gregorio U.S. Geological Survey (USGS) 7½ minute topographic quadrangles and the Butano Landgrant, San Antonio or Pescadero Landgrant, and Sections 10 and 11 of Township 08 South, Range 05 West (**Figure 2**). The Study Area may be accessed via the Pacific Coast Highway by exiting at Pescadero Creek Road and continuing east for 1.25 miles until Fire Station 59 is reached, at 1200 Pescadero Creek Road. To reach Pescadero High School, continue west along Pescadero Creek Road for another 1.25 miles, turn right (southeast) on Cloverdale Road, and then turn left (east) on Butano Cutoff. Pescadero High School is located to the left (north) after 0.2 mile, at 360 Butano Cutoff, Pescadero.

The western Study Area (Fire Station 59) is primarily surrounded by open space, with Butano Creek and agricultural land use to the east. The eastern Study Area is surrounded by agricultural land use, civic buildings, and open space. The Study Area is described in greater detail below.

Legend

- Study Area (39.306 ac)
- Highway
- Midpen Preserve
- Other Public or Preserved Land
- Water Body
- Urbanized Area

Data Sources: Midpen, 2019, 2020 | CPAD, 2016
USGS, Various | GAP, 1998 | VNLC, 2019
GAP Analysis Project, 1998 | TIGER, 2012
GIS/Cartography by: Ivy Poisson, Dec. 2020
Map File: 484_Vicinity_484_A-P_2020-1230.mxd

FIGURE 1
Regional Vicinity Map

CSA-11 Water Service Extension and
Pescadero Fire Station (Station 59) Projects
San Mateo County, California

N
W E
S

1:200,000

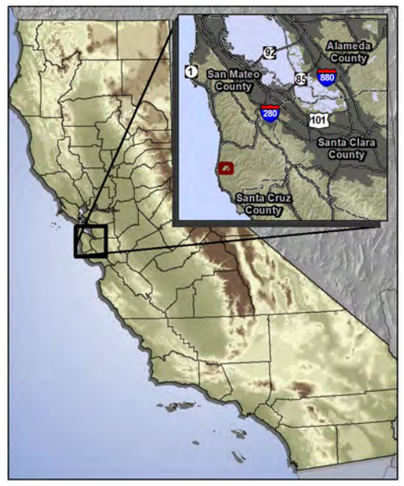
0 2 4 Km

0 1 2 4 Miles

FIGURE 2
USGS Topographic Map

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
San Mateo County, California

Project and Study Area (39.306 ac)



N
W E
S

1:12,000
(1 in. = approx. 1,000 feet at tabloid layout)

0 150 300 600 Meters

0 300 600 1,200 Feet

Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_USGS_B-P_2021-0517b.mxd

Vollmar NATURAL LANDS CONSULTING

2.2 General Setting of Study Area

The Study Area is located within the Pescadero Watershed, the largest watershed in San Mateo County. Land use within the surrounding area is predominantly rural, which is a blend of open space, agriculture (farmland and ancillary structures), and civic buildings (school and fire station). The elevation within the Study Area ranges from 26-92 feet (8-28 meters) above sea level (USGS 1997). There are two creeks that are within or adjacent to the Study Area: Butano Creek is located 150 feet east of the western Study Area (**Figure 3a**), while Pescadero Creek is located within the northeastern corner of the eastern Study Area (**Figure 3b – 3d**). Since there is no riparian or wetland habitat associated with Butano Creek within the western Study Area, both the western Study Area and Butano Creek will not be discussed further in this report.

The Study Area is located within the Coastal Zone, as defined by the CCC. Therefore, only one parameter is required for a feature to be considered a wetland (CCC 2011; County of San Mateo 2021). The Study Area and greater San Mateo County coast is within the "Western Mountains, Valleys, and Coast" climate zone, as defined by the ACOE.

The region's coastal climate is similar to California's Mediterranean climate, which is characterized by cool, wet winters and hot, dry summers, though the coastal climate features warmer winters, cooler summers, and greater moisture throughout the year. Mean annual precipitation and temperature at the study area are 29.7 inches and 55.9 degrees Fahrenheit, respectively (PRISM 2021). More than 98 percent of annual precipitation occurs during the "wet season," which extends from October to May. The 2020-2021 wet season (up to the end of April 2021) experienced much lower than average precipitation and slightly lower than average temperatures compared to historical wet seasons (October to April, due to the date of this report). Specifically, precipitation was 42.0 percent of normal (11.8 inches versus 28.0 inches), and mean temperatures were 96.2 percent of normal (51.6 degrees F versus 53.6 degrees F) (ibid). Each month of the 2020-2021 wet season received significantly lower than average rainfall. See **Table 1**.

TABLE 1. WETS Analysis Table for the May 2021 Survey

Precipitation Data from the Last 30 Years (1990-2020)[1]			Recent Field Conditions Compared to Precipitation Data from the Last 30 Years, and Analysis[1]					
Date	**30th Percentile (inches)**	**70th Percentile (inches)**	**Date**	**Recorded Rainfall (inches)**	**Rainfall Condition Compared to Previous 30 Years[2]**	**Numeric Condition Value[3]**	**Weighting Factor[4]**	**Product of Condition Value and Weighting Factor[5]**
Apr	1.69	3.78	Apr 2021	0.22	Dry	1	3	3
Mar	2.61	6.52	Mar 2021	2.33	Dry	1	2	2
Feb	2.9	9.77	Feb 2021	3.03	Normal	2	1	2
[1] All precipitation data is obtained from the Skyline Ridge Preserve, CA Weather Station (USDA-NRCS 2021). [2] Below 30th percentile = dry; between 30th and 70th percentile = normal; above 70th percentile = wet. [3] Relative rainfall conditions are then translated to a numeric condition value, as follows: dry = 1, normal = 2, wet = 3. [4] Greater weight is given to the most recent month as this would most likely influence what hydrologic or vegetative characteristics are observed. [5] The numeric condition value is then multiplied by the weighting factor, then the subtotals are added to get the total value. Total value equivalents: 6-9 = dry; 10-14 = normal; 15-18 = wet						**TOTAL[5]**	7 or DRY

3.0 REGULATORY BACKGROUND

3.1 Federal Regulatory Framework

The federal government, through Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act (RHA), has jurisdiction over all Waters of the United States. Waters of the United States are divided into four subsets – territorial seas and traditional navigable waters (TNWs); tributaries to TNWs; lakes, ponds, and impoundments of TNWs; and wetlands adjacent to territorial seas and TNWs. Section 404 of the CWA regulates the discharge of dredged or fill material into Waters of the United States. The CWA grants dual regulatory authority of Section 404 to the U.S. Environmental Protection Agency (EPA) and ACOE. The ACOE is responsible for issuing and enforcing permits for activities in jurisdictional Waters in conjunction with prior permitting authorities in navigable Waters under the RHA of 1899. The EPA is responsible for providing oversight of the permit program. In this capacity, the EPA has developed guidelines for permit review (Section 404 [b][1] Guidelines) and has the authority to veto permits by designating certain sites as non-fill areas (Section 404[c] of the CWA). The EPA also has enforcement authority under Section 404. The ACOE generally extends its jurisdiction to all areas meeting the criteria for Waters of the United States.

As defined in the 2020 Navigable Waters Protection Rule (published in the Federal Register, effective June 22, 2020), waters of the U.S. exclude features that lack hydrological surface connection to territorial seas and TNWs. Examples of water features excluded from federal jurisdiction include: groundwater, ephemeral features in a typical water year, diffuse stormwater runoff/sheet flow over upland areas, farm/roadside ditches[1], cropland[2], artificially irrigated areas[3], artificially created water conveyance structures located in uplands, groundwater systems in upland or in non-jurisdictional waters, and waste treatment systems.

Projects which propose activities that fall under the jurisdiction of Section 404 of the CWA and/or Section 10 of the RHA must obtain approval from the ACOE through the individual or nationwide permit (NWP) process. Individual permits entail a full public interest review that includes consultation with other federal and state agencies.

3.2 California State and Regional Regulatory Framework

California Department of Fish and Wildlife

The CDFW regulates river, stream, and lake habitats through Fish and Game Code section 1600 *et seq*. Fish and Game Code section 1602 requires an entity to notify the CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- Deposit debris, waste, or other materials that could pass into any river, stream, or lake.

A “river, stream, or lake" includes those that are episodic (i.e., they are dry for periods of time) as well as those that are perennial. The definition includes ephemeral streams, desert washes, and watercourses with a subsurface flow (CDFW 2016) and may also apply to work undertaken within the flood plain of a body of water, the boundary of which may be identified as a topographic feature or as riparian vegetation. In

[1] This exclusion would not apply if the farm/roadside ditch satisfies flow conditions of a perennial/intermittent tributary; i.e., the feature flows more than in direct response to precipitation events.
[2] This exclusion would not apply if the site was abandoned and reverts to wetland within 5 years.
[3] This exclusion would only apply if the artificially irrigated area would revert to upland conditions if irrigation ceased.

addition, the CDFW does not distinguish between a "pond" and a "lake," such that relatively small bodies of water, including both natural and artificial features, may be regulated under section 1600.

The CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources (ibid). A LSA Agreement includes measures necessary to protect existing fish and wildlife resources. The CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing a LSA Agreement, CDFW must comply with the California Environmental Quality Act (CEQA).

Regional Water Quality Control Board

The Study Area is located within the San Francisco Bay (Region 2) Regional Water Board which has authority to regulate projects that could potentially impact wetlands and/or other Waters. According to the California State Water Resources Control Board (State Water Board, 2006), the authority derives from the following:

- Porter-Cologne Water Quality Control Act through Waste Discharge Requirements to protect Waters of the state;
- The CWA under Section 4013;
- The San Francisco Bay Basin Water Quality Control Plan (Basin Plan [2005]) (Sections 4.23 & 4.23.4) which is available at http://www.waterboards.ca.gov/sanfranciscobay/basinplan incorporates several State directives to protect wetlands including:

  - Governor's Executive Order W-59-93 (i.e., the "California Wetland's Policy" which requires "No Net Loss of Wetlands");
  - Senate Concurrent Resolution No. 28; and
  - California Water Code Section 13142.5 (applies to coastal marine wetlands).

In addition to the state directives to protect wetlands, for individual permits (but not NWPs), the Basin Plan also directs the State Water Board staff to use the EPA's CWA 404(b)(1) guidelines to determine circumstances under which the filling of wetlands may be permitted and requires that attempts be made to avoid, minimize, and only lastly to mitigate for adverse impacts (ibid).

California's jurisdiction to regulate its water resources is much broader than that of the federal government. The State Water Board's Executive Director issued a memorandum directing the Regional Water Boards to regulate such waters under the authority of the Porter-Cologne Water Quality Control Act (Porter-Cologne). Porter-Cologne extends to "Waters of the State," which is broadly defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." This definition includes isolated wetlands and any action that may impact isolated wetlands is subject to the Water Board's jurisdiction, which may include the issuance of Statewide General Waste Discharge Requirements (WDRs). For projects that will impact less than 0.2 acre of "isolated" wetlands, the State Water Board issued Order No. 2004-004-DWQ, WDRs for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction (General WDRs). These General WDRs streamline the permitting process for low impact projects in isolated wetlands (ibid).

Activities or discharges from a project that could affect California's surface, coastal, or ground waters, require a permit from the local RWQCB. Discharging pollutants (or proposing to) into surface water requires the applicant to file a complete National Pollutant Discharge Elimination System permit application form with the RWQCB. Other types of discharges, such as those affecting groundwater or from

diffused sources (e.g., erosion from soil disturbance or waste discharges to land) are handled by filing a Report of Waste Discharge with the RWQCB in order to obtain WDRs. For specified situations, some permits may be waived and some discharge activities can be handled through enrollment in an existing general permit (ibid). The State has adopted updated Dredge and Fill procedures, which became effective May 28, 2020. These changes modify the current State definition and jurisdictional determination of State wetlands.

California Coastal Commission and San Mateo County

The Study Area is located within the Coastal Zone, which grants the California Coastal Commission (CCC) authority over many activities affecting wetlands (San Mateo 2011 and CCC 2021). Their authority is derived from the California Coastal Act of 1976.

In addition, wetlands in the Coastal Zone are subject to the one-parameter definition, as stated in the California Code of Regulations Title 14, Section 13577:

> "Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats."

Development activities in the Coastal Zone are subject to a Coastal Development Permit from either the CCC or the local government authority with a certified Local Coastal Plan. For this Study Area, San Mateo County would preside over permitting processes, under the guidance of County of San Mateo Local Coastal Program (LCP) Policies (San Mateo County 2013).

Development activities that are subject to the Coastal Development Permit include, but is not limited to:

> "… the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land […]; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan […]. As used in this section, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line."

The San Mateo County LCP provides their own definition of wetlands and specific guidance regarding permitted uses within wetlands, buffer zone requirements for wetlands, and development activities within the buffer zone. The relevant definitions and policies relating to wetlands are reproduced below.

Policy 7.14: Definition of Wetland

Define wetland as an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mudflats (barren of vegetation), marshes, and swamps.

Such wetlands can be either fresh or saltwater, along streams (riparian), in tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and man-made impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric. In San Mateo County, wetlands typically contain the following plants: cordgrass, pickleweed, jaumea, frankenia, marsh mint, tule, bullrush, narrow-leaf cattail, broadleaf cattail, pacific silverweed, salt rush, and bog rush. To qualify, a wetland must contain at least a 50% cover of some combination of these plants, unless it is a mudflat.

Policy 7.16: Permitted Use in Wetlands
Within wetlands, permit only the following uses: (1) nature education and research, (2) hunting, (3) fishing, (4) fish and wildlife management, (5) mosquito abatement through water management and biological controls; however, when determined to be ineffective, allow chemical controls which will not have a significant impact, (6) diking, dredging, and filling only as it serves to maintain existing dikes and an open channel at Pescadero Marsh, where such activity is necessary for the protection of pre-existing dwellings from flooding, or where such activity will enhance or restore the biological productivity of the marsh, (7) diking, dredging, and filling in any other wetland only if such activity serves to restore or enhance the biological productivity of the wetland, (8) dredging man-made reservoirs for agricultural water supply where wetlands may have formed, providing spoil disposal is planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation, and (9) incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

Policy 7.18: Establishment of Buffer Zones
Buffer zones shall extend a minimum of 100 feet landward from the outermost line of wetland vegetation. This setback may be reduced to no less than 50 feet only where: (1) no alternative development site or design is possible; and (2) adequacy of the alternative setback to protect wetland resources is conclusively demonstrated by a professional biologist to the satisfaction of the County and the State Department of Fish and Game. A larger setback shall be required as necessary to maintain the functional capacity of the wetland ecosystem

Policy 7.19: Permitted Uses in Buffer Zones.
Within the buffer zones, permit the following uses only: (1) uses allowed within wetlands policy (7.16) and (2) public trails, scenic overlooks, and agricultural uses that produce no impact on the adjacent wetlands.

4.0 METHODS

4.1 Preliminary Review and Field Preparation

Prior to conducting the field delineation, the project ecologist reviewed site aerial photography, topographic data, existing preliminary wetland and watershed mapping, and geology and soil survey maps of the Study Area and surrounding areas. This information was used to help characterize the Study Area, identify any potential Waters of the United States on a preliminary basis, and guide the field surveys. Background imagery and a project boundary map were loaded on to a professional GPS unit (Trimble GeoXH 6000) for use in navigation and mapping in the field.

4.2 Field Survey and Personnel

The delineation field survey was conducted on May 7, 2021, by Ivy Poisson (Ecologist, VNLC). During the survey, the ecologist traversed the entire Study Area, using detailed topographic and soils data as guides. The ecologist established delineation data points, recorded additional notes on plant community and site characteristics, and took representative photographs of habitats and features of interest. **Section 5** below presents summaries of the notes recorded during the field survey. A total of 5 delineation data points were established throughout the Study Area. At each data point, data were collected on soils, hydrology, and plant cover following the Routine Wetland Determination Method developed by the ACOE and described in the 1987 ACOE Wetlands Delineation Manual (Environmental Laboratory 1987) and the regional supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (ACOE 2010). The boundaries of all potential jurisdictional Waters identified in the Study Area were mapped using sub-meter precise GPS units.

The specific methods for collecting data on soils, hydrology, and plant cover at delineation data points are described below.

4.2.1 Soils

Soil profiles were taken at each data point using a tile spade shovel and/or a mattock (for difficult digging situations). Soils were examined for positive hydric soil indicators such as low matrix chromas, redox features, gleys, and iron and manganese concretions. The color and texture of the soil layers encountered were recorded on the delineation forms. A standardized soil texture chart used by the California Native Plant Society (CNPS) for assessing soils (adapted from Brewer and McCann 1982) was used to determine texture (e.g., clay versus clay loam, etc.). Soil color was identified using a Munsell soil color chart (Kollmorgen 2009). All soil samples were moistened before determining the color. Soil map units were cross-referenced with the California hydric soils list (SCS 1993) and the national hydric soils list (SCS 1991). Determination of whether or not the hydric soil criterion was met was based upon the criteria specified by the National Technical Committee for Hydric Soils (ibid) and the Western Mountains, Valleys, and Coast Supplement (ACOE 2010). In most cases, soils with a matrix chroma of 1, and mottled soils with a matrix chroma of 2 or less are considered to meet the hydric soil criteria. Soils that do not have low matrix chromas but are inundated or saturated within 12 inches of the surface are considered to be hydric when those conditions persist for at least 5 percent of the growing season (14 consecutive days). Topography and soil unit boundaries can be found on **Figures 3a-d**.

4.2.2 Hydrology

Indicators of wetland hydrology were noted, such as the presence of surface soil cracks, sediment deposits, sub-surface soil characteristics, and water-stained vegetation/thatch. To the extent possible, hydrological connectivity was investigated throughout the Study Area and surrounding habitats. This delineation was conducted in May, which experienced below average precipitation, and followed a winter and early spring that overall experienced below average precipitation (see **Section 2.2** and **Table 1** above). Based on plant

phenology, climate conditions appeared to be suitable for assessing wetland habitats, as perennial and annual seasonal wetland plant cover was conspicuous throughout the Study Area.

4.2.3 Vegetation

At each delineation data point, all herbaceous plant species within a five-foot radius were identified and a visual estimate of percent coverage for each species was recorded. The nearest trees and shrubs were accounted for at distances of 25 and 15 feet, respectively, as appropriate for the site. Plant species and strata cover estimations were calibrated using CNPS percent cover templates—see the following website: http://www.cnps.org/cnps/vegetation/pdf/percent_cover_diag-cnps.pdf.

The indicator status of each species was then checked using the most recent ACOE National Wetland Plant List—Version 3.4 (Army Corps, 2018). Indicator status categories are as follows:

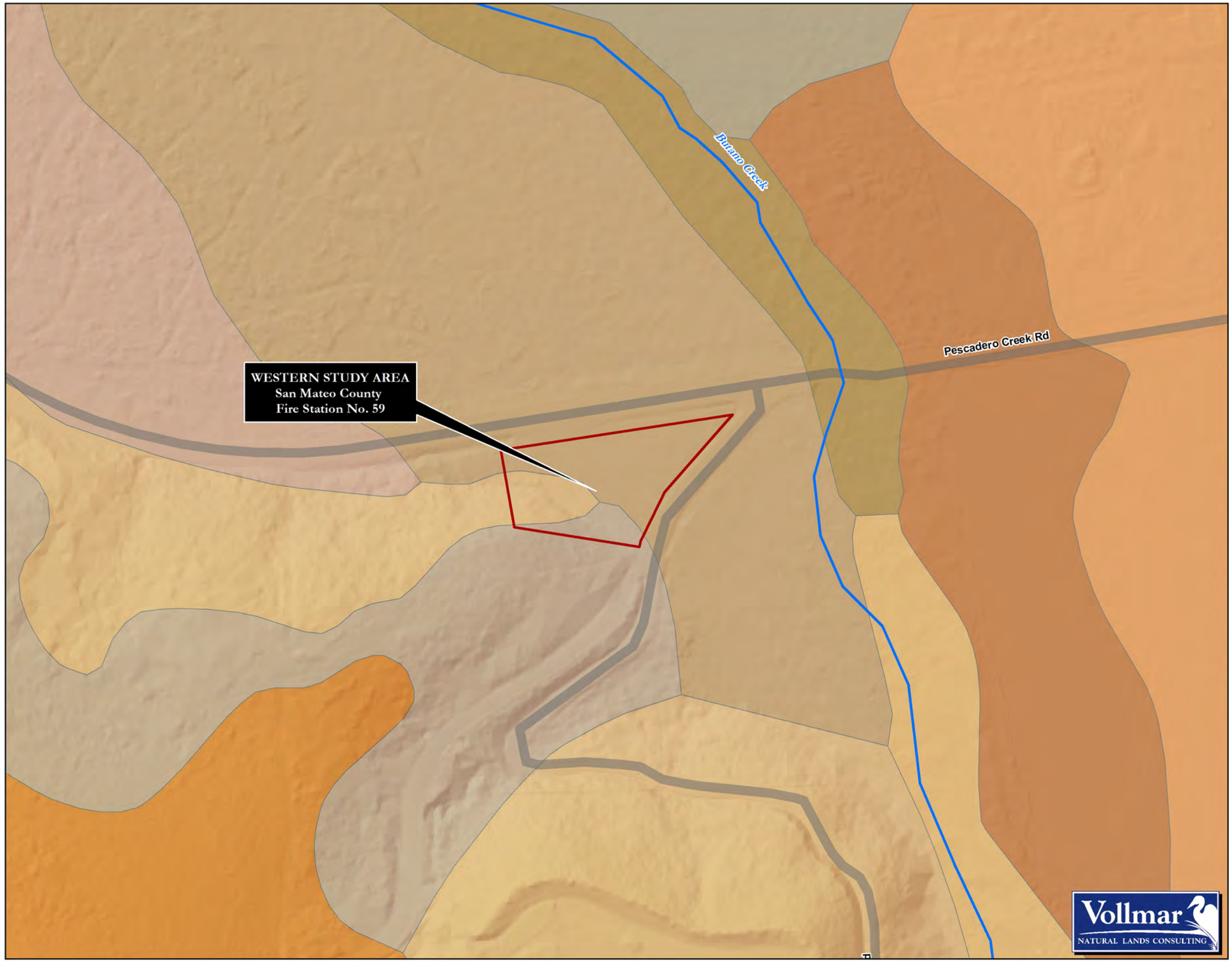
OBL = obligate wetland; >99% probability of occurring in a wetland
FACW = facultative wetland; 67%-99% probability of occurring in a wetland
FAC = facultative; 33%-67% probability of occurring in a wetland
FACU = facultative upland; 1%-33% probability of occurring in a wetland
UPL = obligate upland; <1% probability of occurring in a wetland
NL = not listed (plants not listed in Lichvar et al. [2018], including some known to occur occasionally or primarily in wetlands). Note: unlisted taxa are included as UPL on the delineation data forms included in **Appendix B**.

The wetland plant cover criterion is met when the vegetation passes the dominance test: greater than 50 percent of the dominant plants are designated as OBL, FACW, or FAC wetland indicators. The ACOE defines dominant plant species as those that, when included in descending order of their percent cover, together sum up to 50 percent of the relative cover in their stratum (tree, sapling/shrub/subshrub, herb, or woody vine). In addition, all species with at least 20 percent relative coverage of the total canopy within a stratum are always counted as dominants. All scientific and common plant names correspond to Baldwin et al. (2012) and/or the Calflora database (2021).

If the dominance test is not passed, vegetation can be considered hydrophytic if it meets the requirements of the prevalence index, morphological adaptations, or problematic wetland situations (ACOE 2008).

FIGURE 3a
Topography and Soil Units

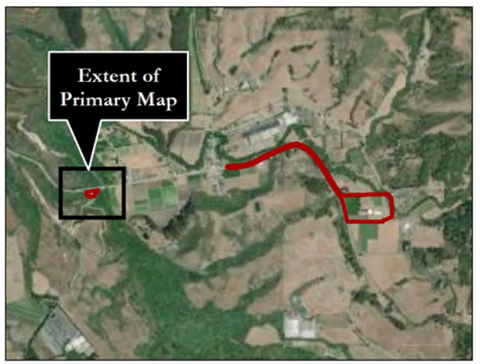
CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
San Mateo County, California



Project and Study Area (39.306 ac)

Road

Stream



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(1 in. = approx. 166 feet at tabloid layout)

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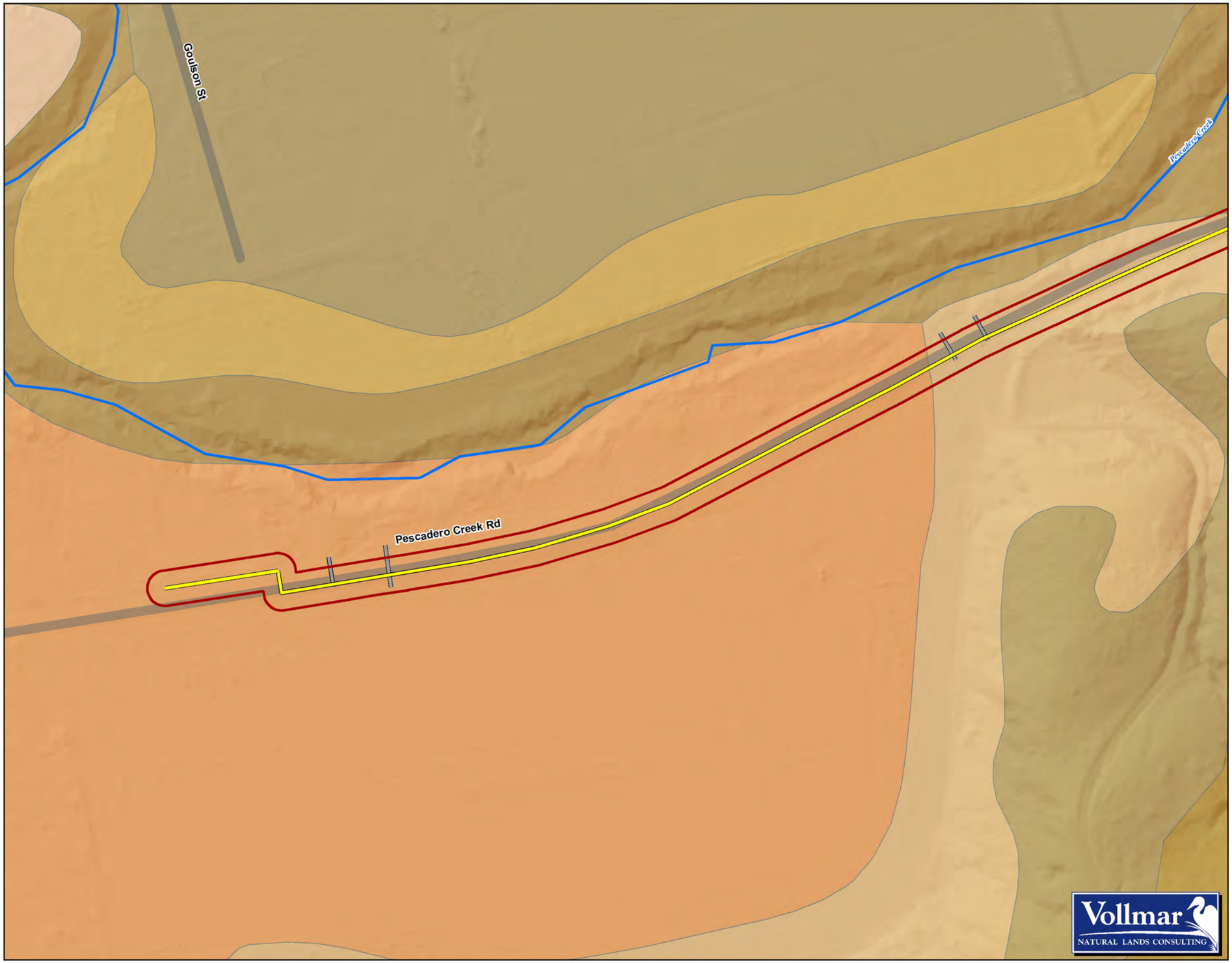
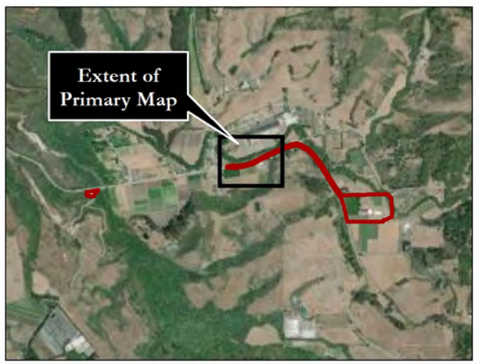
Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_Soils_B-P_2021-0517.mxd

FIGURE 3b
Topography and Soil Units

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
San Mateo County, California



- Project and Study Area (39.306 ac)
- Road
- Proposed Pipe Alignment
- Existing Water Conveyence Structures
- Stream



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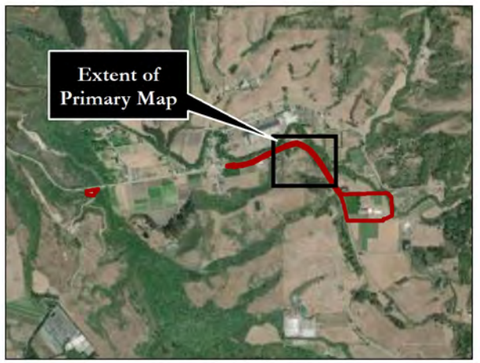
Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_Soils_B-P_2021-0517.mxd

FIGURE 3c
Topography and Soil Units

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects San Mateo County, California

- Project and Study Area (39.306 ac)
- Road
- Proposed Pipe Alignment
- Existing Water Conveyence Structures
- Stream
- Roadside Drainage Ditch



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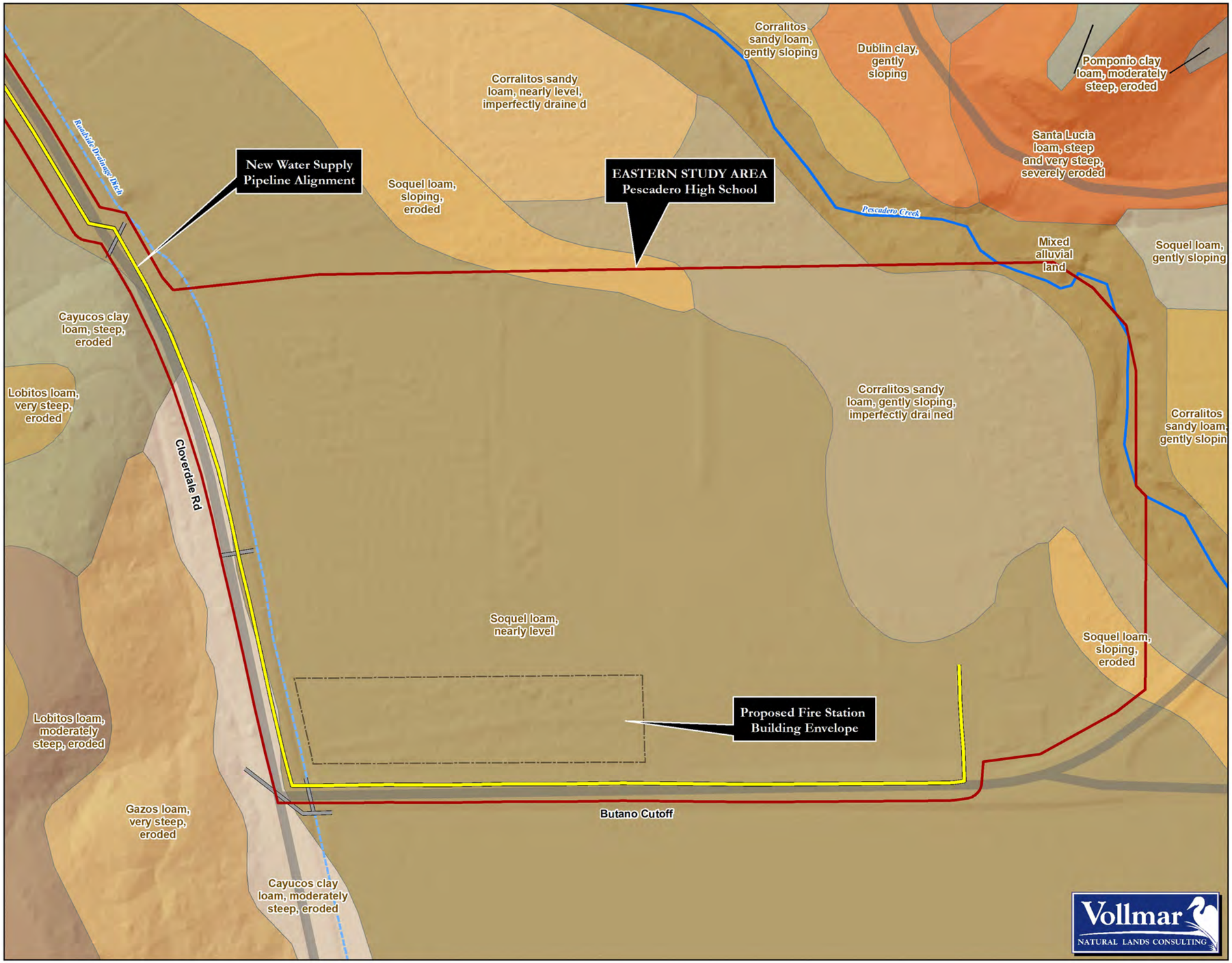
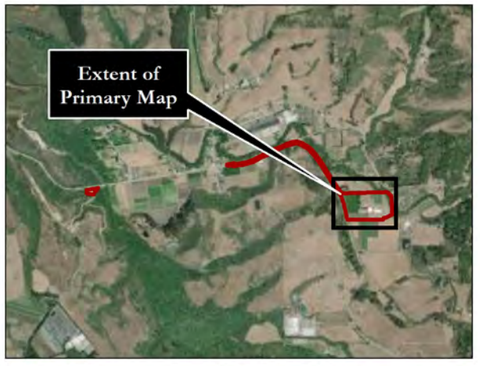
Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_Soils_B-P_2021-0517.mxd

FIGURE 3d
Topography and Soil Units

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
San Mateo County, California



- Project and Study Area (39.306 ac)
- Road
- Proposed Pipe Alignment
- Existing Water Conveyence Structures
- Stream
- Roadside Drainage Ditch



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Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_Soils_B-P_2021-0517.mxd

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5.0 RESULTS

5.1 Overview

Within the 39.306-acre Study Area, the delineation identified a total of 2.123 acres of potentially jurisdictional wetlands. This includes 0.204 acre of emergent channel and 1.919 acre of riparian habitat. These features were determined to be outside of the building envelope for the fire station, and outside of the proposed pipeline alignment.

Table 2 below lists each of these habitat types, and all features are mapped on **Figure 4d**, which also provide acreage values for the individual features. General conditions, as well as vegetation, soil, and hydrology indicators of each wetland feature type are described below. **Appendix A** provides representative photographs of the habitats, and **Appendix B** presents the delineation data forms, of which there are 5, that were recorded throughout the Study Area.

TABLE 2. Acreage of Mapped Potential Jurisdictional Waters

Habitat Type	Cowardin Code	Agency Jurisdiction				Acreage
		Army Corps	CDFW	RWQCB	CCC	
Wetlands						
Riparian Habitat	R5	X	X	X	X	1.919
Emergent Channel	PEM1Ed	X		X	X	0.204
					TOTAL	**2.123**

5.2 Potential Jurisdictional Waters

5.2.1 Riparian Habitat

Feature RP01. This feature is 1.191 acre, and is habitat associated with Pescadero Creek located in the northeastern corner of the Pescadero High School property (see **Figure 4d**). Pescadero Creek is a perennial stream with a canopy of mature riparian vegetation and steep banks, approximately 10-20 feet from top of bank to the water level. The riparian habitat supported by Pescadero Creek features bed and bank topography and a semi-closed canopy with dense understory, consisting of a mix of both native and non-native plant species. Pescadero Creek flows in a northwesterly direction for 3.5 miles, then empties into the Pacific Ocean (a territorial sea). Delineation data points 01 and 02 are representative points for the riparian area, with point 01 representing upland conditions outside of the riparian habitat, and point 02 representing riparian habitat (**Figure 4d**).

The riparian corridor of Pescadero Creek is characterized by Arroyo willow (*Salix lasiolepis*, FACW) as a codominant species with Fremont's cottonwood (*Populus fremontii*). Species observed in the riparian understory include: cape ivy (*Delareia odorata*, FAC), poison hemlock (*Conium maculatum*, FAC), and giant horsetail (*Equisetum telmateia*, FACW). Some weedy upland species were intermixed, and include wild radish (*Raphanus sativus*, UPL), ripgut brome (*Bromus diandrus*, UPL), and black mustard (*Brassica nigra*, UPL). California blackberry (*Rubus ursinus*, FACU) is also commonly seen in the understory.

The paired delineation points were taken within the Corralitos soil series (**Figure 3d**). Both sample points had the same soil characteristics: a color of 10Y 3/2, no redoximorphic features, no restrictive layers, clay loam texture, and uniform soil profile. No hydric soil indicators were observed for either delineation point.

No indicators of wetland hydrology were observed at either delineation point. However, since the Study Area is located in a Coastal Zone (as mentioned previously), only one parameter is needed to be considered a wetland; the presence of hydrophytic vegetation at point 02 satisfies this condition.

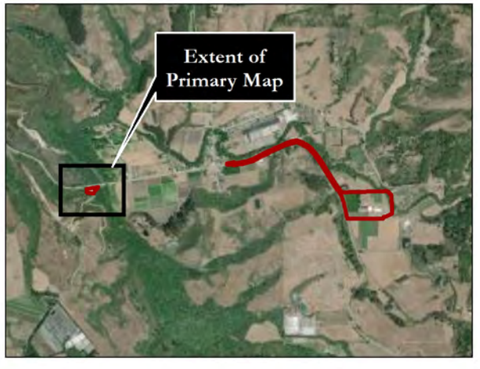
FIGURE 4a
Map of Potential Jurisdictional Waters

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
San Mateo County, California

Project and Study Area (39.306 ac)

Road

Stream



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(1 in. = approx. 166 feet at tabloid layout)

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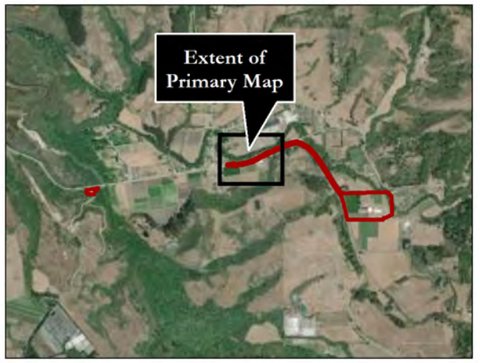
0 75 150 300 Feet

Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_WD_B-P_2021-0526.mxd

FIGURE 4b
Map of Potential Jurisdictional Waters

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
San Mateo County, California

- Project and Study Area (39.306 ac)
- Road
- Proposed Pipe Alignment
- Existing Water Conveyence Structures
- Stream



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Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_WD_B-P_2021-0526.mxd

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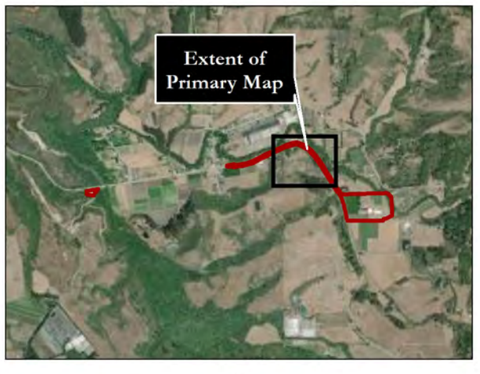
FIGURE 4c
Map of Potential Jurisdictional Waters

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
San Mateo County, California

- Project and Study Area (39.306 ac)
- Road
- Proposed Pipe Alignment
- Existing Water Conveyence Structures
- Stream
- Roadside Drainage Ditch



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0 25 50 100 Meters

0 75 150 300 Feet

Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_WD_B-P_2021-0526.mxd

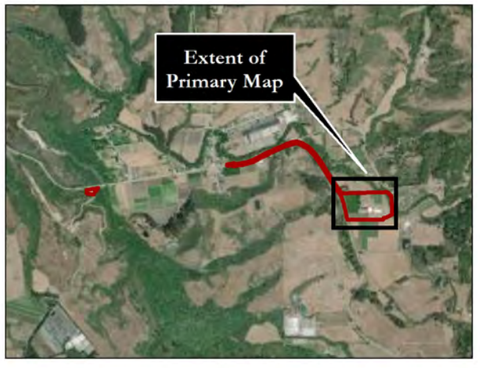
FIGURE 4d
Map of Potential Jurisdictional Waters

CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Projects
San Mateo County, California

- Project and Study Area (39.306 ac)
- Road
- Proposed Pipe Alignment
- Existing Water Conveyence Structures
- Stream
- Roadside Drainage Ditch
- Riparian Canopy Dripline
- Sample Points

Potentially Jurisdictional Features

- Emergent Channel (0.204 ac / 860 linear ft)
- Riparian (1.919 ac)



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Data Sources: LSA, 2017 | TIGER, 2012 | DWR, 2001
GGNRA, 2020 | ESRI/DigitalGlobe, 2019
GIS/Cartography by: Ivy Poisson, Jan. 2021
Map File: 484_WD_B-P_2021-0526.mxd

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Tributaries are categorically listed as waters of the United States according to the 2020 Navigable Waters Protection Rule. Feature RP01 is likely to fall under Army Corps jurisdiction since Pescadero Creek contributes surface water to the Pacific Ocean, a territorial sea. Pescadero Creek would be classified as a perennial/intermittent stream, or tributary. Feature RP01 is also potentially considered a Water of the State by CDFW, RWQCB, and CCC.

5.2.2 Emergent Channel

Feature EC01. This feature is part of the roadside drainage ditch that connects to Pescadero Creek approximately ¼ mile north of the high school (see **Figure 4c** and **4d**). Delineation data point 05 represents the emergent channel habitat and point 04 is the paired upland point.

This feature supports emergent wetland species, with cattails (*Typha latifolia*, OBL) being dominant throughout the channel. Common rush (*Juncus effusus*, FACW) and giant horsetail was also observed to be growing in the channel, higher up along the edge of the feature.

Points 04 and 05 were taken within the Soquel soil series (**Figure 3d**). Point 05, located within the emergent channel, featured yellower soils, colored at 2.5YR 3/1. In contrast, the soil at point 04 was 10YR 2/1. The soil sample collected at the wetland point (Point 05) also contained higher organic materials; the soil was textured as mucky clay loam. This is also the only sample point within the Study Area that had hydric soil indicators: histosol (A1), black histic (A3), and hydrogen sulfide (A4). Both soil samples featured no redoximorphic features, no restrictive layers, and had a uniform soil profile.

Wetland hydrology indicators observed at point 05 include High Water Table (A2), Saturation (A3), Hydrogen Sulfide Odor (C1) as primary indicators, with Geomorphic Position (D2) as secondary indicator.

Three out of three hydric indicators (vegetation, soils, and hydrology) were present for this feature, which satisfies the one-parameter wetland definition for features in Coastal Zones.

This feature is potentially a Water of the U.S. under Army Corps jurisdiction, since this conveys surface water to Pescadero Creek, which is also potentially a water of the U.S. as described above. While ditches are typically categorically excluded as waters of the U.S., the exception is if there the ditch has water flowing more than in direct response to a single precipitation event in a typical year, which is the case for feature EC01. Since there was saturation and high water table observed within this channel (during a drier than normal year), it is reasonable that there would be intermittent surface water flow in a typical year. This feature is also potentially a Water of the State under RWQCB and CCC jurisdiction.

5.2.3 Upland Agricultural Features

Upland agricultural features are located on a field that gently slopes down towards the west, in the direction of the roadside drainage ditch. At the time of the site visit, these features were located on a recently tilled/fallow field, on a rosemary field, and on a field that was planted with fava beans (*Vicia faba*). A review of historical aerial imagery shows that this area is routinely disturbed as part of the ongoing agricultural operations. Delineation data point 03 is a representative point for this feature type (particularly: soils and hydrology), and this point was taken within the building envelope for the fire station.

The vegetation at point 03 is representative of cultivated/disturbed conditions, located approximately halfway across the proposed building envelope for the fire station. Species observed include fava bean (UPL), growing with other species characteristic of disturbed habitats like scarlet pimpernel (*Lysimachia arvensis*, FAC) and mustard (*Brassica nigra*, UPL). This point does not support wetland vegetation.

Point 03 was taken within the Soquel soil series (**Figure 3d**). The soil was textured to be silty clay loam, had a color of 10Y 2/1, had no redoximorphic features, had no restrictive layers, and had a uniform soil profile. No hydric soil indicators were observed.

At the time of the site visit (both on December 7, 2020 and May 7, 2021), there were no indications of direct-surface water connection from the agricultural features to the emergent channel feature to the west; these features are separated by an at-grade, unpaved roadway. Overall, there were no hydric indicators (vegetation, soils, and hydrology) present for these agricultural features.

This is an upland feature that would likely not be subject to federal, state, or county jurisdiction.

5.3 Summary

All 2.123 acres of wetlands identified within the 36.306-acre Study Area are potentially jurisdictional Waters of the U.S.; this consists of 1.919 acre of riparian habitat and 0.204 acre of emergent channel (see **Section 5.1**, **Table 2**). Waters of the U.S. delineated within the Study Area would be regulated by the ACOE under Section 404 of the Clean Water Act. The riparian habitat would also be regulated under Section 10 of the Rivers and Harbors Act.

These features are also potentially under state jurisdiction, with the riparian habitat potentially regulated by CDFW, RWQCB, and CCC. The emergent channel is potentially regulated by RWQCB and CCC.

The results of this delineation are preliminary and must be reviewed and verified in writing by the ACOE to be considered an official delineation.

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APPENDIX A:

REPRESENTATIVE PHOTOGRAPHS OF THE STUDY AREA

(Recorded May 7, 2021)

Representative Photographs of the Study Area

Point 01, facing south-southeast. Point 02 is located to the left of shovel, within riparian canopy.

Point 03, facing southwest, located within fava bean field.

Representative Photographs of the Study Area

Point 04, facing west. Cloverdale Road is shown in the background, with emergent channel in the middle of the photo, and upland edge of channel in the foreground (comprised of California blackberry).

Point 05, facing west. Pure stand of cattails growing in emergent channel.

Representative Photographs of the Study Area

Giant horsetail growing among upland plant species, in an upland area outside of the Pescadero Creek riparian corridor. This photo was taken in an area that was not subject to recent soil/veg disturbance, and may represent mesic, but not wetland, conditions. Equisetum species are known to colonize disturbed areas and may be weedy, indicating that it may not be the best indicator for wetland, particularly if it's the only wetland species occurring.

APPENDIX B:

WETLAND DELINEATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Pescadero Pipeline & Fire Station City/County: Pescadero, San Mateo Co Sampling Date: May 7, 2021
Applicant/Owner: Pescadero Unified School District, City of Pescadero State: CA Sampling Point: 01
Investigator(s): Ivy Poisson, VNLC Section, Township, Range: S11, T08S, R05W
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%
Subregion (LRR): A Lat: 4122572 Long: 556472 Datum: NAD 83
Soil Map Unit Name: Corralitos sandy loam, gently sloping, imperfectly drained NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If no, explain in Remarks.)
Are Vegetation ___ , Soil ___ , or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___ , Soil ___ , or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes ___ No X**
Hydric Soil Present?	Yes ___	No X		
Wetland Hydrology Present?	Yes ___	No X		

Remarks: Second consecutive year of drier than normal conditions. Point located outside of riparian area/top of bank; paired upland point for sampling point 02. Undisturbed area compared to adjacent fallow fields that have been mowed recently.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Conium maculatum*	40	Y	FAC
2. *Brassica nigra*	20	Y	UPL
3. *Silybum marianum*	10	N	UPL
4. *Raphanus sativus*	5	N	UPL
5. *Equisetum telmateia*	5	N	FACW
6. *Festuca perennis (Lolium perenne)*	5	N	FAC
7. *Bromus diandrus*	4	N	UPL
8. *Melilotus indicus*	1	N	FACU
9.			
10.			
11.			
	90	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	45	x 3 =	135
FACU species	1	x 4 =	4
UPL species	39	x 5 =	195
Column Totals:	90 (A)		344 (B)

Prevalence Index = B/A = 3.82

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks:
Ruderal vegetation characteristic of disturbed areas. Vegetation appears to be the least disturbed near this survey plot, which is why this was selected as representative point.

SOIL

Sampling Point: 01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18”	10YR 3/2	100					clay loam	friable soils

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: none

Depth (inches): N/A

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:
Uniform soil horizon throughout 18” soil profile. Expected of disturbed/developed site with potential imported fill.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	___	No	X	Depth (inches):	N/A
Water Table Present?	Yes	___	No	X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes	___	No	X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
None

Remarks:
No wetland hydrology indicators observed

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Pescadero Pipeline & Fire Station City/County: Pescadero, San Mateo Co Sampling Date: May 7, 2021
Applicant/Owner: Pescadero Unified School District, City of Pescadero State: CA Sampling Point: 02
Investigator(s): Ivy Poisson, VNLC Section, Township, Range: S11, T08S, R05W
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 1-3%
Subregion (LRR): A Lat: 4122574 Long: 556477 Datum: NAD 83
Soil Map Unit Name: Corralitos sandy loam, gently sloping, imperfectly drained NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If no, explain in Remarks.)
Are Vegetation ___ , Soil ___ , or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___ , Soil ___ , or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes X No ___**

Remarks: Point located just within the edge of the riparian canopy drip line. Hydric soil and wetland hydrology indicators not observed; however, this satisfies the one-parameter wetland for coastal zones because of the presence of wetland vegetation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 25 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	80	Y	FACW
2.			
3.			
4.			
	80	= Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Delairea odorata*	30	Y	FAC
2. *Conium maculatum*	20	Y	FAC
3. *Bromus diandrus*	10	N	UPL
4. *Equisetum telmateia*	5	N	FACW
5. *Raphanus sativus*	5	N	UPL
6. *Rubus ursinus*	4	N	FACU
7. *Brassica nigra*	1	N	UPL
8.			
9.			
10.			
11.			
	75	= Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 25

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	50	x 3 =	150
FACU species	4	x 4 =	16
UPL species	16	x 5 =	80
Column Totals:	75 (A)		256 (B)

Prevalence Index = B/A = 3.41

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ___**

Remarks:
Survey plot is more representative of dry, outer edge of riparian habitat.

SOIL

Sampling Point: 02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18”	10YR 3/2	100					clay loam	friable soils

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: none

Depth (inches): N/A

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:
Same soil type found at point 01. Uniform soil horizon throughout 18” soil profile. Expected of disturbed/developed site with potential imported fill.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): N/A

Water Table Present? Yes ___ No X Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): N/A

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
None

Remarks:
No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Pescadero Pipeline & Fire Station City/County: Pescadero, San Mateo Co Sampling Date: May 7, 2021
Applicant/Owner: Pescadero Unified School District, City of Pescadero State: CA Sampling Point: 03
Investigator(s): Ivy Poisson, VNLC Section, Township, Range: S11, T08S, R05W
Landform (hillslope, terrace, etc.): plain Local relief (concave, convex, none): none Slope (%): 1-3%
Subregion (LRR): A Lat: 4122502 Long: 556111 Datum: NAD 83
Soil Map Unit Name: Soquel loam, nearly level NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If no, explain in Remarks.)
Are Vegetation X , Soil X , or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___ , Soil ___ , or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes ___ No X**
Hydric Soil Present?	Yes ___	No X		
Wetland Hydrology Present?	Yes ___	No X		

Remarks: Second consecutive year of drier than normal conditions. Located in cultivated field consisting of fava beans (*Vicia faba).* Elevation is slightly higher on the eastern end of the cultivated field; the field slopes down towards the roadside drainage ditch.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Vicia faba*	16	Y	UPL
2. *Lysimachia arvensis*	2	N	FAC
3. *Brassica nigra*	2	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20	= Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	18	x 5 =	90
Column Totals:	20 (A)		96 (B)

Prevalence Index = B/A = 4.8

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks:
Located in cultivated field consisting of fava beans (*Vicia faba),* but with upland plant species growing among fava beans. Beans may be planted as cover crop/nitrogen fixer. Rosemary fields are located to the north. Vegetation is regularly disturbed for ag.

SOIL

Sampling Point: 03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18”	10YR 2/1	100					silty clay loam	slightly blocky

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: none

Depth (inches): N/A

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:
Uniform soil horizon throughout 18” soil profile. Expected of disturbed/developed site that is regularly tilled for crops. Soil was moist (not saturated) below 2-4”. Dark soils may make detection of redox difficult; soil ped was left out for over 30 minutes and still no redox features were observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	___	No	X	Depth (inches):	N/A
Water Table Present?	Yes	___	No	X	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes	___	No	X	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
None

Remarks:
No wetland hydrology indicators observed. Sample point located at slightly higher elevation compared to paired wetland point.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Pescadero Pipeline & Fire Station City/County: Pescadero, San Mateo Co Sampling Date: May 7, 2021
Applicant/Owner: Pescadero Unified School District, City of Pescadero State: CA Sampling Point: 04
Investigator(s): Ivy Poisson, VNLC Section, Township, Range: S11, T08S, R05W
Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): convex Slope (%): 5-7%
Subregion (LRR): A Lat: 4122498 Long: 556060 Datum: NAD 83
Soil Map Unit Name: Soquel loam, nearly level NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If no, explain in Remarks.)
Are Vegetation ___ , Soil ___ , or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___ , Soil ___ , or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes ___ No X**
Hydric Soil Present?	Yes ___	No X		
Wetland Hydrology Present?	Yes ___	No X		

Remarks: Second consecutive year of drier than normal conditions. Point taken at the edge of emergent channel feature.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Rubus ursinus*	50	Y	FACU
2. *Equisetum telmateia*	10	N	FACW
3. *Typha latifolia*	5	N	OBL
4. *Erodium cicutarium*	5	N	UPL
5. *Juncus effusus*	2	N	FACW
6.			
7.			
8.			
9.			
10.			
11.			
	72	= Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 28

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	12	x 2 =	24
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	5	x 5 =	25
Column Totals:	72 (A)		254 (B)

Prevalence Index = B/A = 3.52

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks:
Although this survey plot indicates mesic conditions (presence of FACW and OBL plants), the dominance of Rubus ursinus at the edge of the emergent ditch feature and indicates transition to upland.

SOIL

Sampling Point: 04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18”	10YR 2/1	100					silty clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: none

Depth (inches): N/A

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:
Less recently disturbed soils along the top of drain slope share same characteristics as soils found at points 03 and 04.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): N/A

Water Table Present? Yes ___ No X Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): N/A

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
None

Remarks:
No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Pescadero Pipeline & Fire Station City/County: Pescadero, San Mateo Co Sampling Date: May 7, 2021
Applicant/Owner: Pescadero Unified School District, City of Pescadero State: CA Sampling Point: 05
Investigator(s): Ivy Poisson, VNLC Section, Township, Range: S11, T08S, R05W
Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave Slope (%): 1-3%
Subregion (LRR): A Lat: 4122498 Long: 556058 Datum: NAD 83
Soil Map Unit Name: Soquel loam, nearly level NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If no, explain in Remarks.)
Are Vegetation ___ , Soil ___ , or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___ , Soil ___ , or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ___

Remarks: Second consecutive year of drier than normal conditions. Point taken within emergent channel in roadside ditch. Roadside ditch drains to Pescadero Creek, a TNW. Width of emergent channel is approx. 6-8 feet across.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. *Typha latifolia*	90	Y	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:		(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks:
Pure stand of cattails in emergent channel

SOIL

Sampling Point: 05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18”	2.5YR 3/1	100					mucky clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- X Histosol (A1)
- ___ Histic Epipedon (A2)
- X Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: none

Depth (inches): N/A

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- X Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	___	No	X	Depth (inches):	N/A
Water Table Present?	Yes	X	No	___	Depth (inches):	18”
Saturation Present? (includes capillary fringe)	Yes	X	No	___	Depth (inches):	18”

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

None

Remarks:

Soil pit started backfilling with water. Steep/abrupt change in topography from upland point (05) to wetland point (06).

ATTACHMENT C: DRAFT MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Monitoring and Reporting Program

Introduction

The California Environmental Quality Act (CEQA) requires that when a public agency makes findings pursuant to Public Resource Code Section 21081 before approving a project that would result in one or more significant impacts on the environment, the agency must adopt a reporting or monitoring program for mitigation measures incorporated into a project or imposed as conditions of approval. The program must be designed to ensure compliance during project implementation (Public Resource Code Section 21081.6).

This Mitigation Monitoring and Reporting Plan (MMRP) for the CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Project (project) will be in place through all phases of the project, including design, construction, and operation of each of the project components, to help ensure that project's environmental commitments are implemented. As the CEQA Lead Agency, the San Mateo County Planning and Building Department (County) is responsible for verifying that the provisions of the MMRP as a whole are carried out, pursuant to Section 15097(a) of the CEQA Guidelines. The County may delegate reporting or monitoring responsibilities to a subsidiary public agency or to a private entity such as a project contractor who accepts the delegation; however, until mitigation measures have been completed, the County remains responsible for ensuring that mitigation measures are implemented in accordance with the MMRP. The County will ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected.

MMRP Content and Format

Table 4-1 below lists all mitigation measures for the proposed project identified in the Initial Study by resource area. The components of the MMRP include:

Mitigation Measure: This column presents the mitigation measure identified in the Initial Study.

Monitoring and Reporting Action(s): This column refers to the outcome from implementing the mitigation measure.

Implementation Responsibility: This column identifies the person/group responsible for implementation of the migration measure.

Monitoring Responsibility: This column contains an assignment of responsibility for the monitoring and reporting tasks.

Timing: The general schedule for conducting each mitigation task, identifying where appropriate both the timing and the frequency of the action.

Verification of Compliance: This column may be used by the lead agency to document the person who verified the implementation of the mitigation measure and the date on which this verification occurred.

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CSA-11 Water Service Extension and Pescadero Fire Station (Station 59) Project
Mitigation Monitoring and Reporting Program

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
AGRICULTURAL RESOURCES					
Mitigation AG-1*:* Prior to issuance of the building permit for construction of the fire station, the County shall submit evidence to the Coastal Commission for review and approval indicating that an agricultural easement burdening off-site agricultural property has been granted in perpetuity to the County or other qualifying entity, along with adequate funding to compensate for reasonable administrative costs incurred by the easement holder. The property provided as mitigation shall meet the following criteria: • The easement shall provide agricultural conservation acreage at a ratio of 2:1 for the loss of agricultural land associated with the approved project (i.e. at least 3.5 acres shall be provided to offset the 1.75 acres of the fire station site). • The property shall be acquired by the County and placed under an agricultural easement; or the County shall enter into an agreement to newly encumber lands owned by another entity.	The County shall submit evidence to the Coastal Commission for review and approval indicating that an agricultural easement burdening off-site agricultural property has been granted in perpetuity to the County or other qualifying entity as described in the measure. Note: This measure is for the new fire station component of the project only, and is not needed for the water pipeline extension or demolition of the existing fire station structures.	County Planning and Building Department	County Project Manager	Prior to issuance of the building permit for construction of the fire station.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
• The property shall be located within the Coastal Zone, within reasonable proximity to the project site. • The property shall be on land of a similar quality as the project site (i.e., Prime Agricultural Lands).					
BIOLOGICAL RESOURCES					
Mitigation BIO-1*:* Initial ground-disturbing activities shall be avoided between November 1 and March 31 to avoid the time period when amphibians and reptiles are most likely to be moving through the Project Area.	Contracts for project construction shall include this restriction.	County Planning and Building Department; Construction Contractor.	Construction Project Manager (waterline) Construction Project Manager (fire station)	Prior to any ground- or vegetation-disturbing activities.	
Mitigation BIO 2*:* Temporary exclusion fencing shall be installed around the limits of work areas and access routes to ensure special-status amphibians, reptiles, and mammals cannot enter the work area. Installation of exclusion fencing shall occur under the supervision of a designated biologist and immediately following a clearance survey of the area. The exclusion fencing shall have a minimum aboveground height of 30 inches, and the bottom of the fence should be keyed in at least 4 inches deep and backfilled with soil to prevent wildlife from passing under the fencing. Exclusion fencing shall be installed to	A qualified biologist shall mark the construction areas and access routes with orange construction fencing.	Consulting biologist	Construction Project Manager (waterline) Construction Project Manager (fire station)	Before any on-site construction activities begin.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
prevent species entry into active work areas and to mark the limits of construction disturbance at equipment staging areas, site access routes, construction equipment and personnel parking areas, debris storage areas, and any other areas that may be disturbed.					
Mitigation BIO-3: Plastic monofilament netting (erosion control matting), loosely woven netting, or similar material in any form shall not be used at the project site because amphibians and reptiles can become entangled and trapped in them. Any such material found on-site shall be immediately removed by the construction personnel. Materials utilizing fixed weaves (strands cannot move), polypropylene, polymer, or other synthetic materials shall not be used.	Qualified biologist shall conduct a clearance survey of the site to assure that prohibited netting is not used on-site.	Consulting biologist.	Construction Project Manager (waterline) Construction Project Manager (fire station)	Prior to any ground disturbing activities.	
Mitigation BIO-4: No more than twenty-four (24) hours prior to the date of initial ground disturbance, a pre-construction survey for foothill yellow-legged frog and other sensitive amphibians and reptiles shall be conducted by a designated biologist at the project site. The survey shall consist of walking the project limits and within the project site to ascertain the possible presence of special-status amphibians and reptiles. The designated biologist shall investigate all potential areas that could be used by the species for feeding, sheltering, movement, and other essential behaviors. If any foothill	Qualified biologist shall conduct a clearance survey for special-status amphibians and reptiles.	Consulting biologist.	Construction Project Manager (waterline) Construction Project Manager (fire station)	No more than 24 hours prior to start of construction at each project site.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
yellow-legged frogs are found, the designated biologist shall follow the procedures specified in Measure BIO-5.					
Mitigation BIO-5: Each encounter with the foothill yellow-legged frog (FYLF) shall be treated on a case-by-case basis in coordination with the USFWS, but the general procedure is as follows: (1) the animal shall not be disturbed if it is not in danger; or (2) the animal shall be moved to a secure location if it is in any danger. These procedures are further described below: • When a foothill yellow-legged frog is encountered in the project area, all activities which have the potential to result in the harassment, injury, or death of the individual shall be immediately halted. The designated biologist will then assess the situation in order to select a course of action that will avoid or minimize adverse effects to the animal. To the maximum extent possible, contact with the animal shall be avoided and the applicant shall allow it to move out of the potentially hazardous situation to a secure location on its own volition. This procedure shall apply to situations where a foothill yellow-legged frog is encountered while it is moving to another location and is actively dispersing. It does not apply to	Qualified biologist shall conduct appropriate protective activities for the FYLF upon consultation with the USFWS.	Consulting Biologist with permit to handle FYLF	Construction Project Manager (waterline) Construction Project Manager (fire station)	Upon encountering FYLF.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
animals that are uncovered or otherwise exposed or in areas where the individual is not expected to move on its own and may be in danger (e.g., within the fenced construction perimeter). • Foothill yellow-legged frogs that are in danger (e.g., animals that are uncovered or otherwise exposed or in areas within the fenced construction perimeter where the individual is not expected to move on its own) shall be relocated and released by the designated biologist outside the construction area within the same habitat. Prior to the initial ground disturbance, the designated biologist shall obtain approval of the relocation protocol from the USFWS and CDFW in the event that a foothill yellow-legged frog is encountered and needs to be moved away from the project site. Foothill yellow-legged frog shall be released in appropriate habitat nearby within the watershed. The designated biologist shall limit the duration of the handling and captivity of the foothill yellow-legged frog to the minimum amount of time necessary to complete the task. The applicant shall immediately notify the USFWS and CDFW					

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
once the foothill yellow-legged frog is relocated and the site is secure.					
Mitigation BIO-6*:* Uneaten human food and other refuse attracts crows, ravens, coyotes, raccoons, and other predators of amphibians, reptiles, and other wildlife. A litter control program shall be instituted at the project site. All workers shall ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed garbage containers. The garbage containers shall be removed from the project site at the end of each working day.	Construction Project Manager shall inspect construction site for food and refuse daily and assure that any refuse is picked up. Construction workers shall be informed of this requirement, which shall be a condition of construction contracts.	Construction Project Manager	Construction Project Manager (waterline) Construction Project Manager (fire station)	During construction	
Mitigation BIO-7: A USFWS-approved biologist(s) shall be onsite until all initial CRLF habitat disturbances have ceased. The qualifications of the biologist(s) shall be submitted to USFWS for review and written approval at least thirty (30) days prior to the date earthmoving is initiated at the project site.	Biologist shall be on-site during ground disturbing activities.	Consulting Biologist	Construction Project Manager (waterline) Construction Project Manager (fire station)	During ground-disturbing construction activities	
Mitigation BIO-8: To the maximum extent practicable, construction activities shall not occur during rain events or within 24-hours following a rain event. Prior to construction activities resuming, a designated biologist will inspect the Project Area and all equipment/materials for the presence of amphibians and reptiles.	Construction contracts will include prohibition on any ground disturbing activities during or for 24-hours after rain events. Project biologist shall conduct inspections of	County Project Manager Consulting Biologist	Construction Project Manager (waterline) Construction Project Manager (fire station)	During ground-disturbing construction activities	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
	undeveloped areas prior to resumption of activities after a rainfall.				
Mitigation BIO-9*:* If construction activities will commence anytime during the nesting/breeding season of native bird species potentially nesting in the Study Area (typically February through August in the project region), a pre-construction survey for nesting birds shall be conducted by a qualified biologist within two weeks of the commencement of construction activities. If active nests are found in areas that could be directly affected or are within 250 feet (for passerines) or 500 feet (for raptors) of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zone and types of construction activities restricted within it shall be determined through coordination with the CDFW, considering factors such as the following: • Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;	A qualified biologist shall conduct a preconstruction bird survey per mitigation measure specifications.	Consulting Biologist	Construction Project Manager (waterline) Construction Project Manager (fire station)	Survey no more than 14 days prior to start of construction. Buffers shall be fenced with construction fencing prior to the start of construction.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
• Distance and amount of vegetation or other screening between the construction site and the nest; and • Sensitivity of individual nesting species and behaviors of the nesting birds.					
Mitigation BIO-10: The County shall ensure that the following stormwater BMPs are implemented to protect water quality entering Pescadero and Butano Creeks: • Schedule grading and excavation work during dry weather. • Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matric) until vegetation is established. • Prevent sediment from migrating offsite and protect from storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc. • Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.	Measures shall be included in construction contracts. County Building Department shall inspect the site to ensure erosion-control measures are implemented.	County Project Manager Construction Contractor	Construction Project Manager (waterline) Construction Project Manager (fire station)	Prior to and during ground-disturbing activities.	
Mitigation BIO-11: If construction activities commence during the burrowing owl nesting season (February 1 – August 31), a qualified	A qualified biologist shall conduct a preconstruction	Consulting Biologist	Construction Project Manager (waterline)	Survey no more than 14 days prior to start of construction.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
biologist shall conduct preconstruction surveys covering all areas of suitable habitat within 250 feet of the proposed activity. The survey will last a minimum of 3 hours, and will either begin 1 hour before sunrise and continue until 2 hours after sunrise or begin 2 hours before sunset and continue until 1 hour after sunset. If no owls are detected during a first survey, a second survey will be conducted. If owls are detected during the first survey, a second survey is not needed. All owls observed will be counted and their locations will be mapped, and the following measure will be implemented: If evidence of nesting burrowing owls is found, a 250-foot-wide no-disturbance buffer zone shall be established around each occupied nest and shall be delineated in the field by the biologist, using a suitable low-impact medium. Construction may proceed outside the no-disturbance buffer zones.	burrowing owl survey per mitigation measure specifications.		Construction Project Manager (fire station)	Buffers shall be fenced with construction fencing prior to the start of construction.	
Mitigation Measure BIO-12: A qualified biologist shall conduct a roosting bat habitat evaluation prior to the commencement of construction activities. The evaluation shall determine if any trees proposed for removal or that are located near the work sites provide potential bat roosting habitat. If suitable roost trees or an active roost are confirmed, then a site-specific bat protection plan shall be developed by a qualified biologist to prevent disturbance of an active maternity or hibernation roost.	Qualified biologist shall conduct habitat assessment and prepare eviction recommendations if bats are present.	Consulting Biologist	Construction Project Manager (waterline) Construction Project Manager (fire station)	As described in the measure.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
Mitigation BIO-13: Appropriately-timed focused plant surveys shall be conducted during the harlequin lotus's flowering period (March - June) to detect presence of these species within the project's impact zone.	Project biologist shall conduct surveys.	Project Biologist	Construction Project Manager (waterline) Construction Project Manager (fire station)	During march-June flowering period, as determined by qualified biologist, and prior to start of construction.	
Mitigation BIO-14: If this species (harlequin lotus) is determined to be present within the project impact zone (where vegetation removal is needed), then potentially impacted populations shall be transplanted to an appropriate adjacent habitat where impacts are not anticipated. The transplanting effort shall be approved by the CDFW prior to implementation.	Qualified biologist shall transplant plants after approval of transplant plan by CDFW	Project Biologist	Construction Project Manager (waterline) Construction Project Manager (fire station)	Timing per approval of CDFW.	
CULTURAL RESOURCES					
Mitigation Measure CUL-1: To reduce potential impacts on presently undocumented early Native American cultural resources, a qualified professional archaeologist and a Native American monitor shall be present on-site during all subsurface ground-disturbing activities at the site of the proposed new fire station. If prehistoric remains (e.g., structure traces, stone artifacts, bone and/or shell concentrations) are encountered during subsurface construction and/or demolition activities, ground disturbances in the vicinity of the find shall cease until the monitor can determine the nature and potential significance of the remains and recommend	County shall incorporate cultural resources mitigation measures into site plan specifications and construction contract.	Archaeological Monitor.	Construction Project Manager (waterline) Construction Project Manager (fire station)	During ground-disturbing activities.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
mitigation. Mitigation can include, but shall not be restricted to, no action, additional documentary research, testing, and contiguous block unit excavation and resource documentation in accordance with CEQA standards. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, excavation in the vicinity of the burial shall immediately cease and the primary construction contractor and/or archaeological/Native American monitor shall notify the County. The County or their designated representative shall notify the county coroner who is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner's findings, the County, the archaeologist/Native American monitor, and the NAHC-designated most likely descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting on notification of a discovery of Native American					

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
human remains are identified in PRC Section 5097.9.					
Mitigation Measure CUL-2: If human remains or any associated funerary artifacts are discovered during construction, all work must cease within the immediate vicinity of the discovery. In accordance with the California Health and Safety Code (Section 7050.5), the San Mateo County Sheriff/Coroner shall be contacted immediately. If the Coroner determines the remains to be Native American, the Coroner will notify the Native American Heritage Commission, which will in turn appoint a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the Applicant and a qualified archaeologist to determine the proper treatment of the human remains and any associated funerary objects. Construction activities will not resume until either the human remains are exhumed, or the remains are avoided via Project construction design change.	The contractor or County Project Manager shall promptly call the County Coroner upon finding remains to satisfy the 24-hour notification period.	County Project Manager	Construction Project Manager (waterline) Construction Project Manager (fire station)	During ground-disturbing activities	
GEOLOGY AND SOILS					
Mitigation GEO-1: The pipeline shall be designed and constructed in accordance with design parameters and recommendations included in the geotechnical investigation prepared for the pipeline project (GHD 2021). **Mitigation GEO-2*:*** The fire station foundation and site preparation shall include	County shall incorporate applicable geotechnical recommendations into construction contract requirements as specified in the applicable measure.	County Project Manager to incorporate into construction docs for both pipeline and fire station projects;	Construction Project Managers (waterline and pipeline)	Prior to approval of construction contracts (design); during construction (construction) for fire station and pipeline projects.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
all recommendations of a preliminary geotechnical/geologic hazards report, which shall be prepared prior to project approval and include assessments of, and recommendations for, soil settlement, liquefaction, differential settlement, expansive soils, and other geologic hazards.		construction contractors to implement.			
HAZARDS/HAZARDOUS MATERIALS					
Mitigation HAZ-1: Prior to demolition of the existing fire station barracks, the structures shall be surveyed for potential hazardous materials including but not limited to ACM and LBP. Any such materials encountered shall be removed by a hazardous materials removal firm with staff trained and equipped for such removal activities. Any removed hazardous materials shall be disposed of in a State-approved Class III Hazardous Waste Disposal Facility.	County shall incorporate applicable hazmat survey recommendations into construction contract requirements as specified in the applicable measure. *Note: This measure applies only to demolition at existing fire station.*	County Project Manager to incorporate into construction docs for fire station demolition; construction contractors to implement.	Construction Project Manager (fire station)	Prior to demolition of the existing fire station barracks	
HYDROLOGY AND WATER QUALITY					
Mitigation HYDRO-1: County Service Area-11 (County of San Mateo Department of Public Works) shall conduct monthly water level measurement of Well #1 and Well #3 to monitor ongoing aquifer capacity.	County Public Works shall conduct monthly water level measurement of Well #1 and Well #3 *Note: This measure applies only to pipeline project.*	County Public Works Director	County Project Manager	Monthly after pipeline is completed.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
Mitigation HYDRO-2: County Service Area-11 (County of San Mateo Department of Public Works) shall evaluate groundwater level trends. Should the water level drop below 6 feet above the top of the well screen in Well #3 during static conditions, CSA-11 shall manage water supply sustainability through operational actions such as lowering the pump, or by developing other local groundwater or surface water supply sources.	County Public Works shall conduct monthly water level measurement of Well #1 and Well #3 *Note: This measure applies only to pipeline project.*	County Public Works Director	County Project Manager	Monitoring of well levels shall be ongoing but no less than annually.	
NOISE					
Mitigation NOISE-1: The following Best Management Practices shall be incorporated into the construction documents to be implemented by the Project contractor: • Limit the major stages of fire station foundation preparation and building erection to the summer months when school is not in session. • Limit Project construction activity to between 7 a.m. and 6 p.m. on weekdays, to between 9 a.m. and 5 p.m. on Saturdays, and prohibit it on Sundays, Thanksgiving and Christmas to comply with the San Mateo County Code. • Provide enclosures and noise mufflers for stationary equipment, shrouding or shielding for impact tools, and barriers around particularly noisy activity areas on the site.	The construction contract shall include all noise mitigation components and be reviewed and approved by County Project Manager. Construction contractor shall implement noise conditions and measures, and install noise attenuation devices as necessary	Construction Contractor.	County Project Manager. Construction Project Manager	Noise specifications shall be included in contracting documents. Monitor implementation of measures during construction, as applicable.	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
• Use quietest type of construction equipment whenever possible, particularly air compressors. • Provide sound-control devices on equipment no less effective than those provided by the manufacturer. • Locate stationary equipment, material stockpiles, and vehicle staging areas as far as practicable from sensitive receptors. • Prohibit unnecessary idling of internal combustion engines. • Require applicable construction-related vehicles and equipment to use designated truck routes when entering/leaving the site. • Designate a noise disturbance coordinator at County Planning Department who shall be responsible for responding to complaints about noise during construction. The telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site. Copies of the project purpose, description and construction schedule shall also be distributed to the surrounding residences, schools and library.					
TRAFFIC					
Mitigation Traffic-1. If the County Public Works Department determines that a signal at the fire station driveway is potentially warranted to	County Public Works Department to assess potential traffic conflicts at fire station	County Public Works Department	County Project Manager	County Public Works to review need for signal prior to	

Mitigation Measure	Monitoring and Reporting Actions	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Verification
allow emergency fire truck access or otherwise prevent vehicular conflicts, the school would conduct a more refined traffic count. If the count indicates that a signal is warranted, the County would install it, or, the school would require that all drop offs are at the 360 Butano Cutoff address, which is at the far end of the campus and would be less likely to result in any conflicts with the fire station traffic.	driveway and determine if signal is necessary. *Note: This measure applies only to new fire station.*			completion of that building. Traffic counts would occur after start of operation of Fire Station	