INITIAL STUDY CHECKLIST

The proposed Midcoast Multimodal Trail (MMT) Project is a project under the California Environmental Quality Act (CEQA). This Initial Study was prepared by PlaceWorks for the County of San Mateo. This Initial Study was prepared pursuant to the CEQA (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations).

1.	Title:	Midcoast Multimodal Trail Project
2.	Lead Agency Name and Address:	County of San Mateo 455 County Center, 2nd Floor Redwood City, CA 94063
3.	Contact Person and Phone Number:	Mike Schaller, Senior Planner Planning Department (650) 363-1825
4.	Location:	San Mateo County
5.	Applicant's Name and Address:	County of San Mateo 455 County Center, 2nd Floor Redwood City, CA 94063
6.	General Plan Land Use Designations:	See page 6 of this Initial Study
7.	Zoning:	See page 6 of this Initial Study
8.	Description of Project:	See page 9 of this Initial Study
9.	Surrounding Land Uses and Setting:	See page 2 and 4 of this Initial Study
10.	Required Approvals:	See page 12 of this Initial Study

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below will be potentially affected by the proposed Project, involving at least one impact that is a potentially significant impact, as indicated by the checklist on the following pages.

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

Determination:

On the basis of this initial evaluation:

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

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

☐ I find that the proposed Project MAY have a significant effect on the environment, and an ENIRONMENTAL IMPACT REPORT (EIR) will be prepared.

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

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

M. Schaller — SIGNATURE

8/10/16 — DATE

MICHAEL SCHALLER — PRINTED NAME

SENIOR PLANNER — TITLE

A. OVERVIEW

This Initial Study checklist was prepared to assess the potential environmental effects of the Midcoast Multimodal Trail Project, herein referred to as the "proposed Project" or "Project." This Initial Study consists of a depiction of the existing environmental setting and the Project description followed by a description of various environmental effects that may result from construction and operation of the proposed Project.

B. BACKGROUND

The proposed Project will include construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The proposed Project will become a component of the larger California Coastal Trail (CCT), which is a network of public trails for walkers, bikers, equestrians, and others along the 1,200-mile California coastline.[1] Further, the Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay. A more detailed description of the Project components is included in Section D, Project Description.

C. REGIONAL AND LOCAL LOCATION

As shown on Figure 1, the Project alignment is located in western San Mateo County and is bounded by Coronado Street to the north; El Granada Elementary School and Wilkinson School, open space, and single-family residential, to the east; Mirada Road to the south, and Highway 1 to the west. The Project site is located 25 miles south of San Francisco, and 50 miles north of the City of Santa Cruz.

The Project alignment is currently undeveloped; however, access is provided via several streets that cross or are adjacent to the proposed Project, including Coronado Avenue, Cortez Avenue, Medio Avenue, Furtado Lane, and Miramar Drive.

EXISTING SETTING

Existing Conditions

The Project alignment is comprised of 10.39 acres of undeveloped land within the Highway 1 Caltrans right-of-way in San Mateo County. The Project alignment includes a variety of non-native annual grassland, central coast riparian scrub, non-native riparian woodland, a stand of Monterey cypress trees, coastal seasonal wetlands, non-wetland waters, and some developed areas. Elevations along the Project alignment range from 9 feet to 75 feet above sea level. Given that the Project site is directly adjacent to the east of Highway 1, portions of the alignment are disturbed and mowed regularly. In addition, there are several Pacific Gas & Electric (PG&E) utility poles throughout the alignment, as well as above-ground utility boxes at the corner of Coronado Street and Highway 1.

[1] California Coastal Trail.Info Website, http://www.californiacoastaltrail.info/cms/pages/main/index.html, accessed on February 18, 2016.

Source: ESRI, 2015. PlaceWorks, 2015

Proposed Trail

Figure 1
Regional and Local Location

As shown on Figure 2, the Project alignment is largely unimproved and undeveloped. The stretch of land from Coronado Street to the private driveway just north of Magellan Avenue consists primarily of non-native grassland, and slopes downward west toward Highway 1. The area south of the private driveway extending to just south of Magellan Avenue consists of dense vegetation, and then transitions back to non-native grassland to Furtado Lane. Between Furtado Lane and Miramar Drive, there's an area of dense vegetation, including a stand of trees. Finally, the area of land between Miramar Drive to the southern boundary of the Project alignment at Mirada Road consists of non-native grassland, with dense vegetation along the eastern edge of the boundary. Further, there are no formal sidewalks or improved drainage channels on or along the Project alignment; however, there is an existing bike lane on Highway 1 the length of the Project site.

Although undeveloped and not currently used as a recreational area, the Project alignment generally offers views of the Pacific Ocean on the portion of the alignment that is west of Magellan Avenue. However, areas east of Magellan Avenue are buffered by vegetation and residential development and therefore offer limited views of the Pacific Ocean.

Surrounding Conditions

Land uses surrounding the Project alignment primarily consist of single-family residential uses along the northern boundary of the Project alignment, with the exception of schools to the east at the intersection of Coronado Street and Highway 1, which includes Wilkinson School, a private K to 8th grade school, and El Granada Elementary, a Cabrillo Unified School District-K through 5th grade school. Both schools are directly adjacent to the Project alignment along its north/northeastern boundary. East of the Project alignment (from Mirada Road) land uses are similar uses as described above, including undeveloped areas of non-native grassland and, single-family residential, as well as commercial uses, including a hotel and coffee shop. To the south across Highway 1, between Coronado Street and Magellan Avenue, is an undeveloped area open space that fronts the ocean and is covered with similar vegetation as that of the Project alignment. The Mirada Surf West Walk, another multi-modal trail segment of the CCT is located in this area. A single-family residential neighborhood and areas consisting of a mix of dense vegetation, as well as less dense non-native grassland are located south of the Project alignment between Magellan Avenue and Mirada Road. The area west of the Project alignment across from Coronado Street primarily consists of areas of undeveloped land, as well as some single- and multi-family uses along Alhambra Avenue.

PLACEWORKS

Source: Google Earth Pro, 2016. PlaceWorks, 2016.

0 600
Scale (Feet)

Approximate Trail Alignment

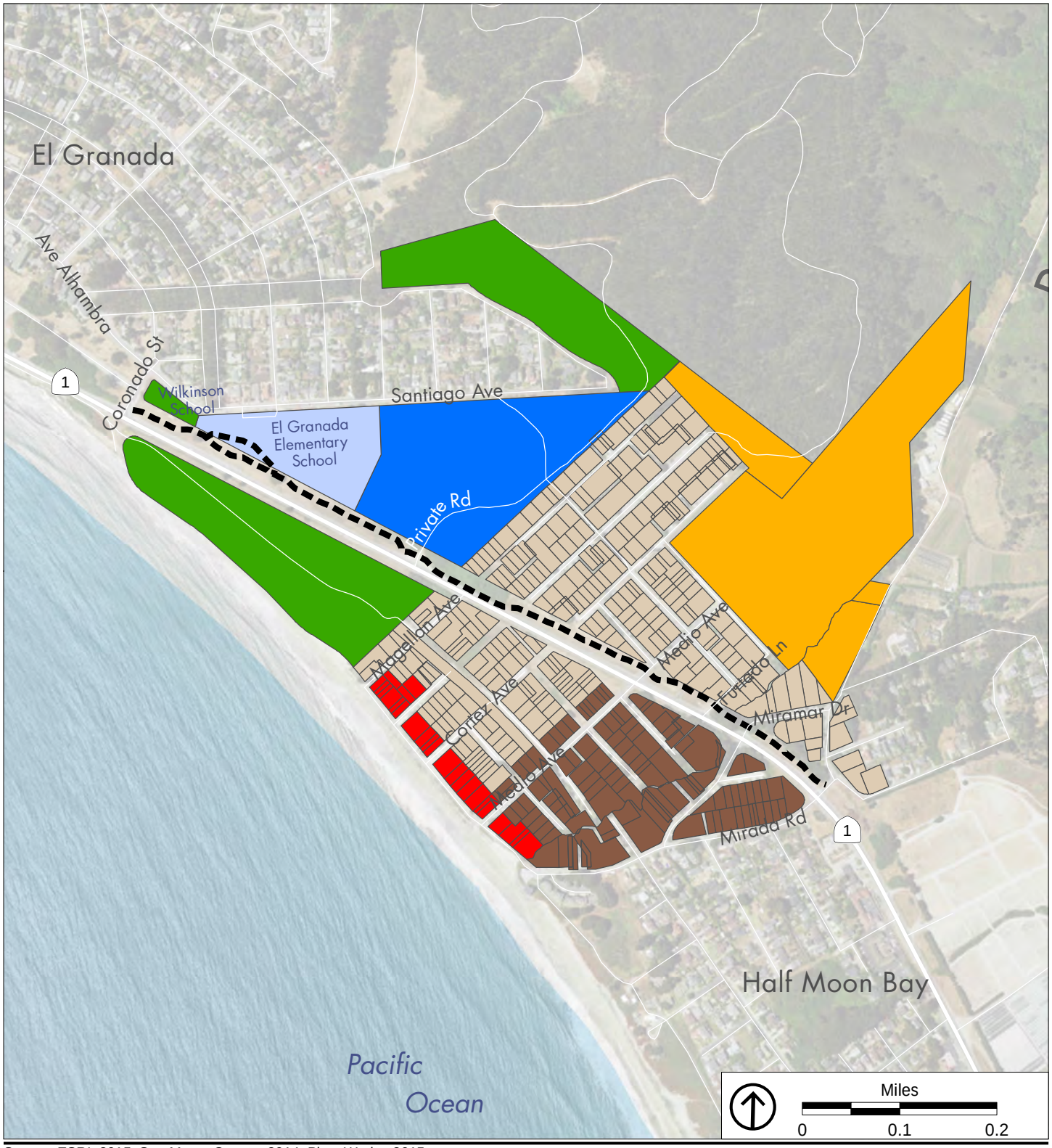
Figure 2
Exisitng Conditions

Land Use Designation and Zoning

The Project site is within Caltrans' right of way in San Mateo County; therefore, the San Mateo County General Plan Land Use and Zoning Designations will not apply. However, as shown below in Figure 3, a small portion of the Project is located outside of the Caltrans right of way, within San Mateo County jurisdiction. General Plan land use designations adjacent to the Project alignment include Open Space Urban, Institutional Urban, Public Recreation Urban, and Medium Low Density Residential Urban,[2] as shown on Figure 3. The reach of trail within County jurisdiction will occur in the Institutional land use designation.

As shown on Figure 4, the Project site is adjacent to two Zoning designations, including One-Family Residential District/Combining District Midcoast/Design Review District/Coastal Development District (R-1/S-94/DR/CD), and Resource Management-Coastal Zone/Design Review District/Coastal Development District (RM-CZ/DR/CD). The reach of trail that will be within County jurisdiction will occur in the RM-CZ/DR/CD zoning designation.

[2] San Mateo County, San Mateo Planning and Building Department GIS Website, http://maps.smcgov.org/planning/, accessed on February 18, 2016.



Source: ESRI, 2015. San Mateo County, 2014. PlaceWorks, 2015

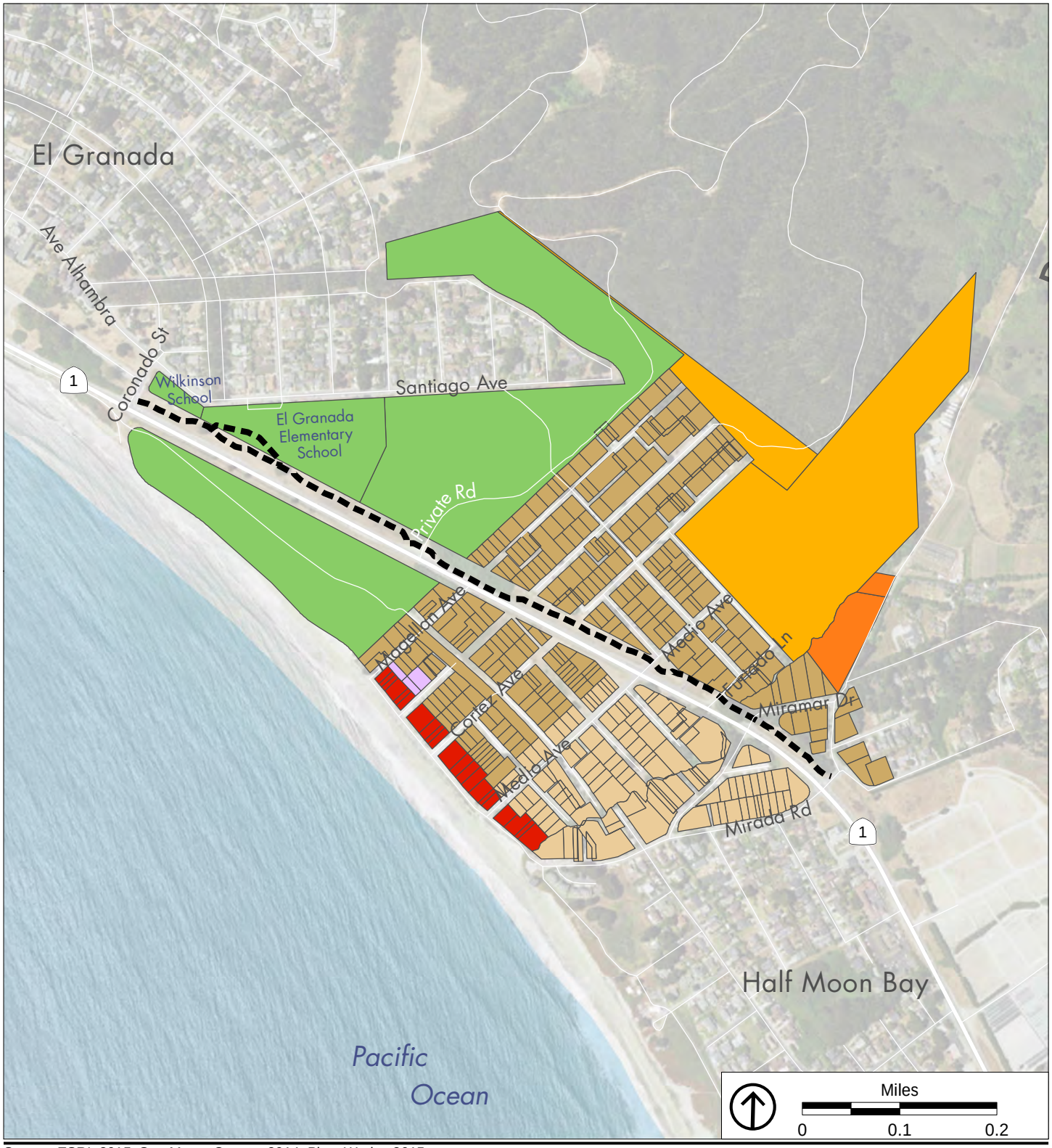
Residential Zoning Districts
- Medium High Density Residential
- Medium Low Density Residential

Commercial Zoning Districts
- Coastside Commercial Recreation

Other Zoning Districts
- Agriculture
- Open Space
- Institutional
- Public Recreation

Proposed Trail

Figure 3
General Plan Land Uses



Source: ESRI, 2015. San Mateo County, 2014. PlaceWorks, 2015

Zoning Districts

- CCR/DR/CD
- P/DR
- PAD/CD
- PAD/DR/CD
- R-1/S-17/DR/CD
- R-1/S-94/DR/CD
- RM-CZ/DR/CD
- Proposed Trail

Figure 4
Zoning

D. PROJECT DESCRIPTION

The County of San Mateo Department of Public Works proposes to construct a new 0.8 mile, 12-foot wide, two-directional multi-use trail parallel to Highway 1 from Coronado Street to Mirada Road, which will be open for public access 365 days a year. The Project will also include entry and safety signage, traffic-calming features at road crossings, a creek bridge, and other infrastructure designed to minimize potential impacts to the natural drainage courses and wetland areas, as described below under the heading "Trail Components." Further, as shown on Figure 5, the Project consists of seven segments that comprise the entire 0.8 miles of trail, which are described in more detail below.

Trail Components

a. Trail Surface

The proposed trail includes an 8-foot wide asphalt surface with a painted stripe down the center, and a 2-foot wide surface of decomposed granite on either side of the asphalt, for a total of 12 feet in width.

b. Creek Bridge

The Project will include construction of a steel bridge spanning 125 feet to connect the multimodal trail across the Arroyo de en Medio Creek between Furtado Lane and Miramar Drive. The elevation of the bridge will be approximately 10 feet above the bottom of the dry creek.

c. Drainage Infrastructure

The proposed Project crosses several small drainage courses, as described below, and will construct culverts beneath the trail to allow water to continue draining along its existing drainage course. The drainage culverts will be constructed using 24 inch in diameter reinforced concrete pipe.

d. Utilities

Proposed pedestrian scale lighting features will illuminate the proposed trail for safety; however, lighting will be solar powered and will not require connection to the existing utility infrastructure. Existing utilities, including the sewer manhole southwest of El Granada Elementary, and the above-ground utility boxes at the corner of Highway 1 and Coronado Street may require relocation to accommodate the trail alignment; however, to the extent feasible, the proposed Project will try to minimize the need to relocate existing infrastructure.

e. Safety Signage and Markings

The Project will include signage at various locations along the trail, including at the trail entrance on the corner of Highway 1 and Coronado Street, as well as safety and way-finding signage for pedestrian and vehicular traffic, as described below.

i. ***Trail Crossing Signage.*** *Trail crossing signage will be constructed on all roadways with trail crossings to alert automobile drivers from both directions that they are approaching a trail.*

ii. ***Advanced Trail Crossing Signage.*** *This signage will be placed beneath the Trail Crossing Signage (described above) when the advanced warning for automobile drivers is needed due to visibility at a crossing point.*

iii. ***Modified W10-3 Signage.*** *This signage will be placed on Highway 1 at Miramar Drive facing both northbound and southbound traffic to alert vehicles of the trail crossing on Miramar Drive.*

In addition to the signage described above, markings will be painted on the pavement for safety, including high-visibility crosswalks, shark teeth yield markings, and raised crosswalk markings.

f. Fencing and Railing

The Project will include a guardrail that will separate Highway 1 and trail traffic at Segment 4, described below and shown on Figure 9, as well as decorative fencing along the top of a proposed retaining wall, serving as a buffer between the wetland and trail users. The guardrail will be required to be approved by Caltrans, and the fencing will be consistent with the character of features along the existing CCT. Materials for fencing and guardrail will likely consist of concrete and steel.

g. Americans with Disabilities Act (ADA) Access

The surface of the proposed trail will be constructed with a slope of no more than 5 percent, and a width of 12 feet; therefore, will be ADA compliant.

Trail Segments

a. Segment 1: Trailhead at Coronado Street

This segment of trail begins at the intersection of Highway 1 and Coronado Street, as shown on Figure 6. As shown on Figure 6, the Project proposes a crosswalk across Coronado Avenue to facilitate access to downtown El Granada. In addition to the crossing, the Project will include streetscape improvements, such as a sidewalk at the corner of Coronado Street where the trail will begin, and pedestrian/bicycle-activated push buttons at the traffic signal. Further, the Project will include a trailhead at the northeast corner of Highway 1 and Coronado Street. The trail alignment will be designed to minimize the disturbance to existing utility infrastructure and drainage; however, existing utility boxes and/or manholes that are on or near that corner will be relocated to accommodate the trail. With the exception of the trailhead near Highway 1, the remainder of the trail at this segment will generally be set back 60 feet from Highway 1 and within the Caltrans right-of-way; however, there will be a reach of trail that extends from the main trail that will provide access to El Granada Elementary School, as described in more detail under Segment 2.

b. Segment 2: El Granada Elementary School Access

As shown on Figure 7, this segment is a continuation of Segment 1 (described above). As shown on Figure 7, this stretch of trail will include the reach of trail that provides access to and from the El Granada Elementary School. Similar to Segment 1, this segment is generally set back 60 feet from Highway 1 and within the Caltrans right-of-way, with the exception of the reach of trail that provides access to the El

Granada Elementary School, which is outside of the Caltrans right-of-way. The proposed Project will include installation of stop signs where the main trail intersects with the reach of trail that provides access to the school for the safety of pedestrians using both the main trail and the trail reach.

c. Segment 3: Wetland Trail at Private Road

As shown on Figure 8, this segment is a continuation of Segment 2 (described above). As shown on Figure 8, this stretch of trail will generally be set back 60 feet from Highway 1, with the exception of the eastern portion of the trail near the private road. The area adjacent to the private road and just north of the trail is a sensitive wetland and the trail is routed around that area to minimize potential impacts to the wetland and drainage area. At this segment of trail, a culvert will be constructed below the trail to minimize impacts to the existing drainage course, as shown on Figure 8. In addition, a new gate and fencing at the entry to the private road will be located 40 feet from Highway 1, which will replace the existing gate that is currently set back 120 feet from Highway 1. The trail will extend behind the fence and in front of the wetland. This segment of trail could require the removal of some vegetation to maintain sight distance.

d. Segment 4: Wetland Trail at Magellan Avenue and Coronado Avenue

As shown on Figure 9, this segment is a continuation of Segment 3 (described above). As shown on Figure 9, this stretch of trail is directly adjacent and runs parallel to Highway 1 in order to minimize potential impacts to the areas of existing wetland and vegetation. This segment will include construction of a guardrail six feet from the roadway to serve as a buffer between the trail and the roadway. In addition, a retaining wall and decorative fencing will be constructed, consistent with the character of the existing CCT, up to four feet in height in order to protect the wetland. Construction of this segment will require removal of some existing vegetation in order to accommodate the trail.

e. Segment 5: Cortez Avenue to Medio Avenue

As shown on Figure 10, this segment is a continuation of Segment 4 (described above). As shown on Figure 10, this stretch of trail will generally follow along the 60-foot setback line from Highway 1. The Project will include a crosswalk across Medio Avenue to connect the trail, as well as bulbouts, chokers, and signage to serve as traffic-calming measures and to alert vehicular traffic where the trail crosses Medio Avenue.

f. Segment 6: Medio Avenue to Miramar Drive

As shown on Figure 11, this segment is a continuation of Segment 5 (described above). As shown on Figure 11, the trail will cross a private driveway, Furtado Lane, and Miramar Drive. In order to control vehicular speed at these crossings, the Project will elevate the trail no more than 6 inches and include signage and pavement markings in order to alert vehicles of the trail. This segment of trail will involve removal of vegetation, as well as construction of a 125 foot bridge, in order to accommodate the proposed Project and to minimize potential impacts to the existing creek that runs between Furtado Lane and Miramar Drive. The trail will generally be set back more than 60 feet from Highway 1, and the proposed bridge will be set back 100 feet from the highway. The Project will also include a raised crosswalk where the trail crosses Miramar Drive.

g. Segment 7: Miramar Drive to Mirada Road

As shown on Figure 12, this segment is a continuation of Segment 6 (described above), and is the last segment of the trail. The Project will include removal of vegetation on the south side of Miramar Drive where trees and dense vegetation currently exists in order to increase the sight distance and visibility of trail users as they approach Miramar Drive from the south. Additionally, there will be some vegetation removal where the trail approaches Mirada Road in order to align the trail 60 feet from Highway 1 at the Miranda Road crossing. This stretch of trail will be set back 40-60 feet from Highway 1 and will be aligned to minimize potential impacts to existing vegetation along the northern boundary of the Project site which serves as a buffer between existing residential uses and the proposed Project. Although this segment is the end of the trail for the proposed Project, there will not be a formal trailhead where this segment ends given that it is intended to connect to future phases of the trail, not currently proposed under this Project.

E. CEQA LEAD AGENCY

Section 15367 of the CEQA Guidelines defines the "Lead Agency" as the public agency which has the principal responsibility for carrying out or approving a project. The County of San Mateo Public Works Department is the public agency which has the principal responsibility for planning, designing, and building the proposed Project; however, the Project site is within the Caltrans right-of-way.

F. CONSTRUCTION

Construction of the proposed Project will take place up to 6 months and is expected to begin August 2017.

G. REQUIRED APPROVALS

Following the County's certification of the Initial Study/Mitigated Negative Declaration and subsequent approval of the Project, San Mateo County will conclude their review and analysis of the proposed Project, and hold the required public hearings for the following permits, as well as other permits as determined throughout the environmental review and permitting process:

- Section 1602 Lake and Streambed Alteration Agreement – (California Department of Fish and Wildlife)
- Section 401 Water Quality Certification Permit – (Regional Water Quality Control Board)
- Section 404 Nationwide Permit – (Army Corps of Engineers)
- State Water Quality Control Board Review – (State Water Quality Control Board)
- California Department of Fish and Wildlife Review – (California Department of Fish and Wildlife)

PLACEWORKS

Source: Google Earth Pro, 2016. PlaceWorks, 2016.

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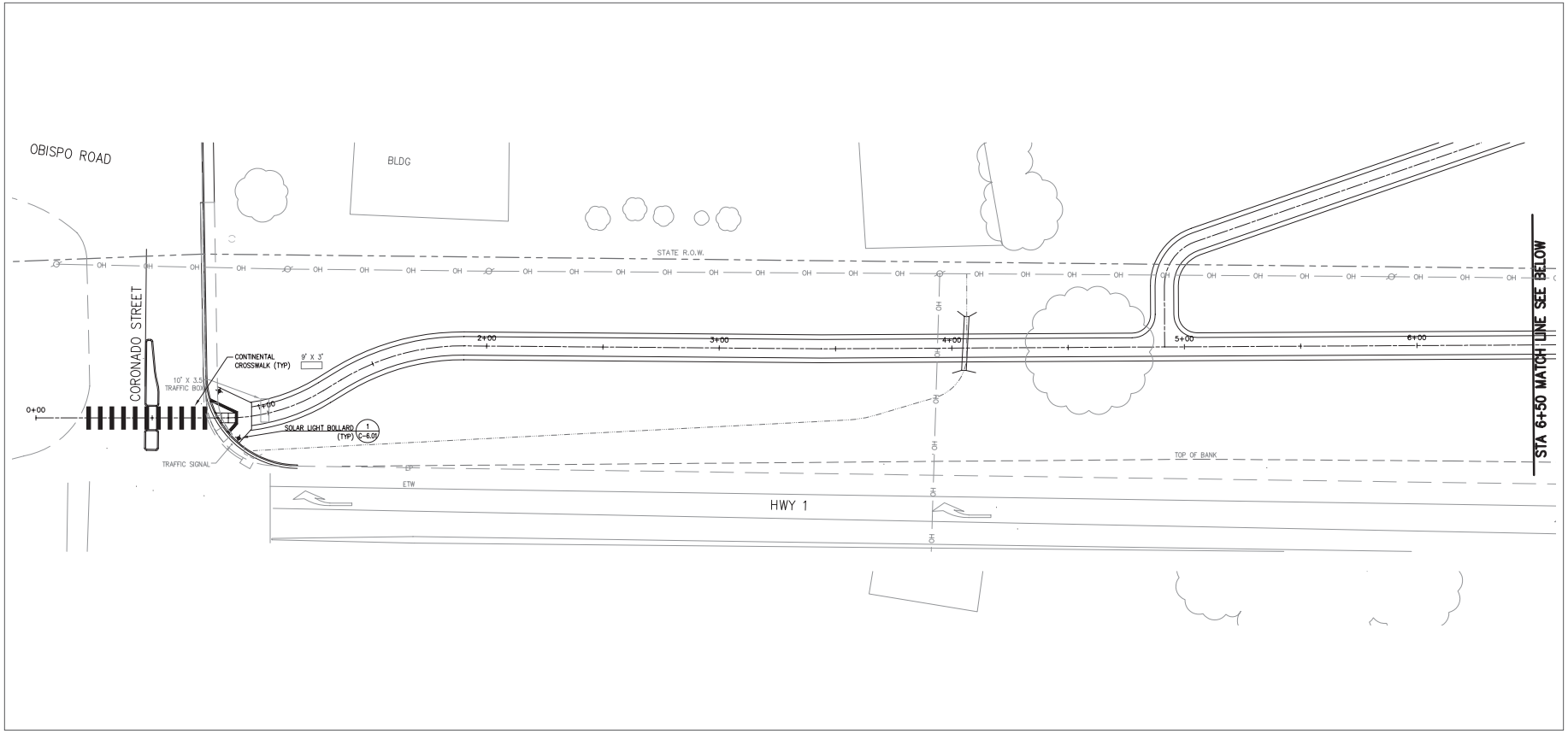
Scale (Feet)

Approximate Project Trail Alignment

Approximate Trail Segment Dividers

Figure 5
Trail Segments

PLACEWORKS



Source: BKF Engineers | Surveyors | Planners, 2016.

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Scale (Feet)

Figure 6
Trailhead at Coronado Street

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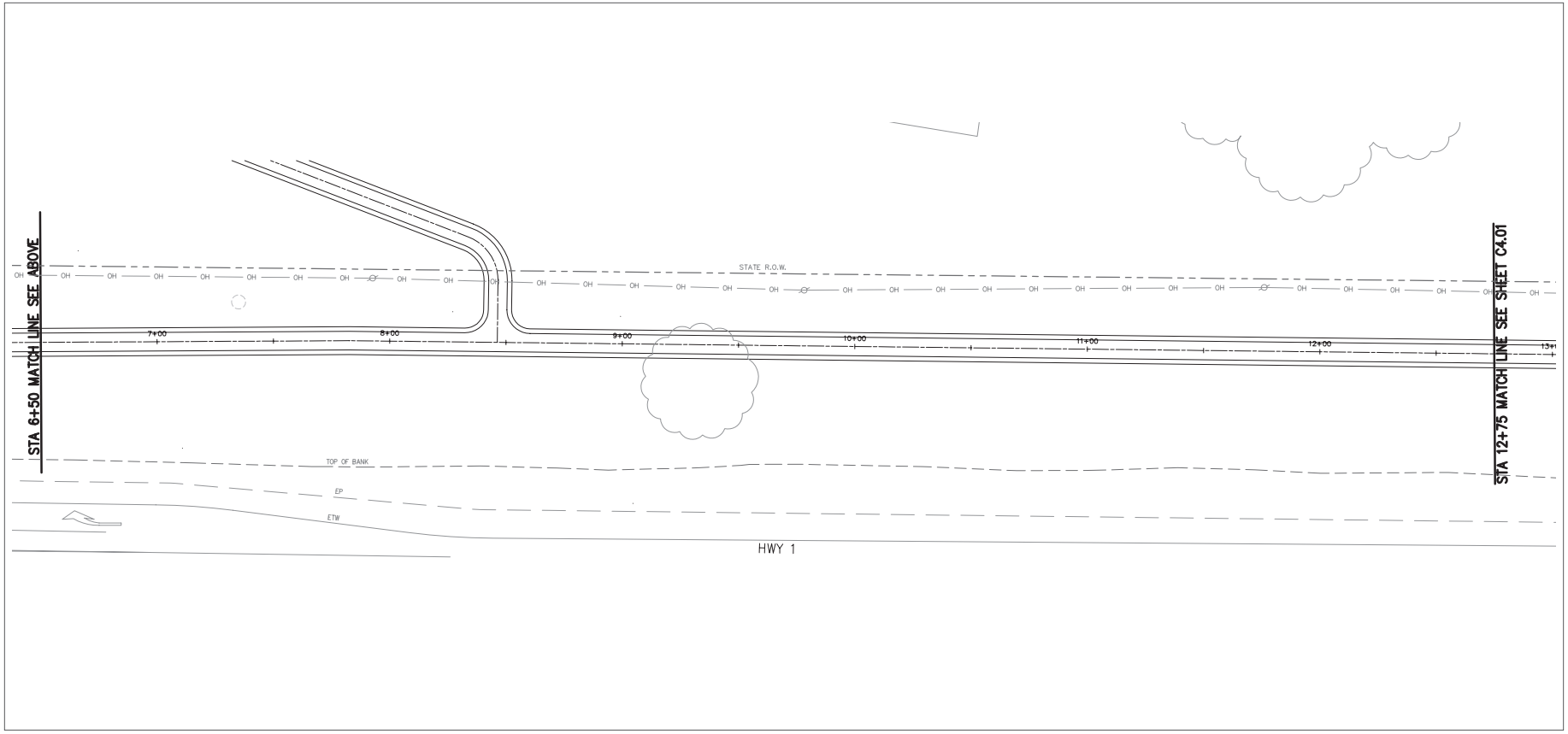

Source: BKF Engineers | Surveyors | Planners, 2016.

Figure 7
El Granada Elementary School Access

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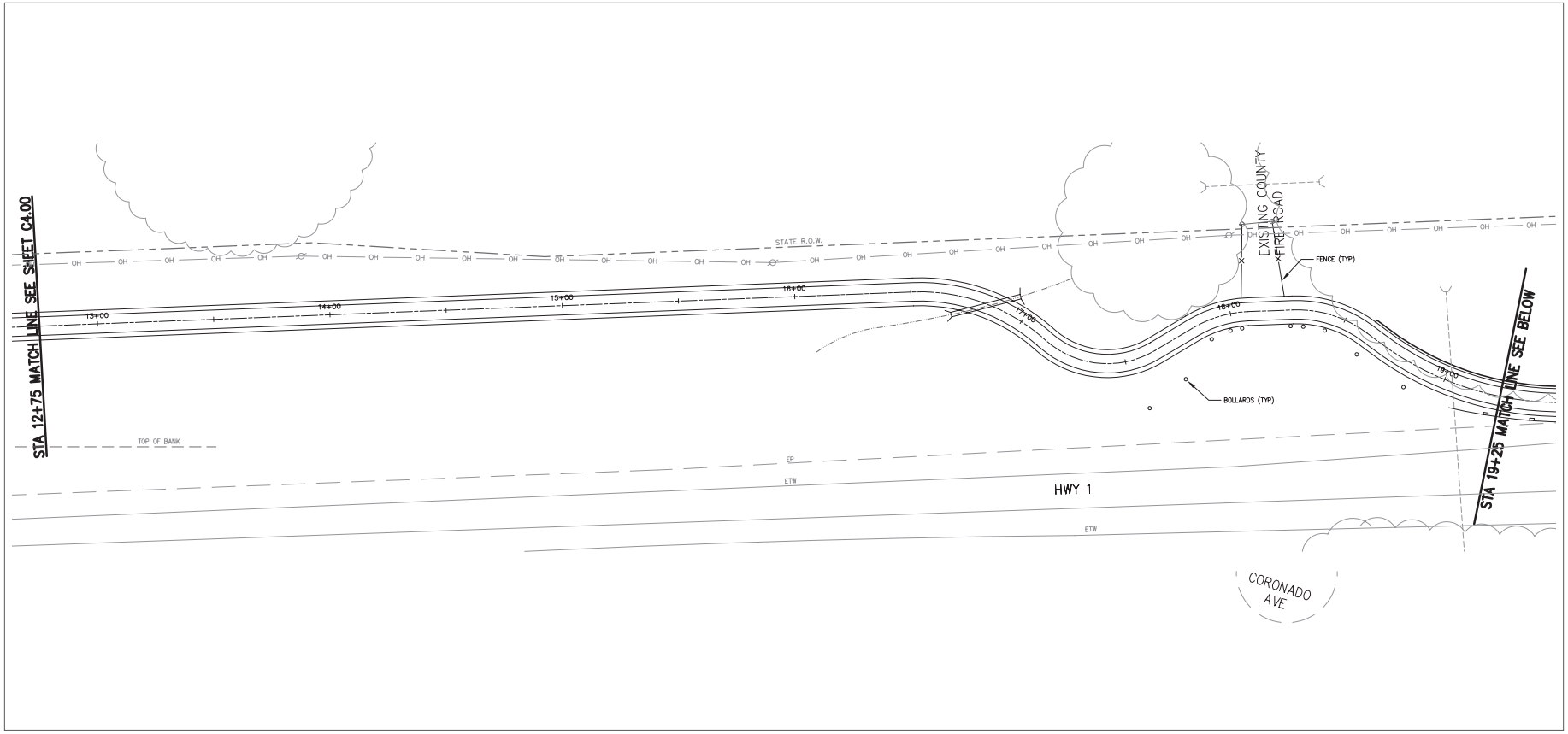

Source: BKF Engineers | Surveyors | Planners, 2016.

Figure 8
Wetland Trail at Private Road

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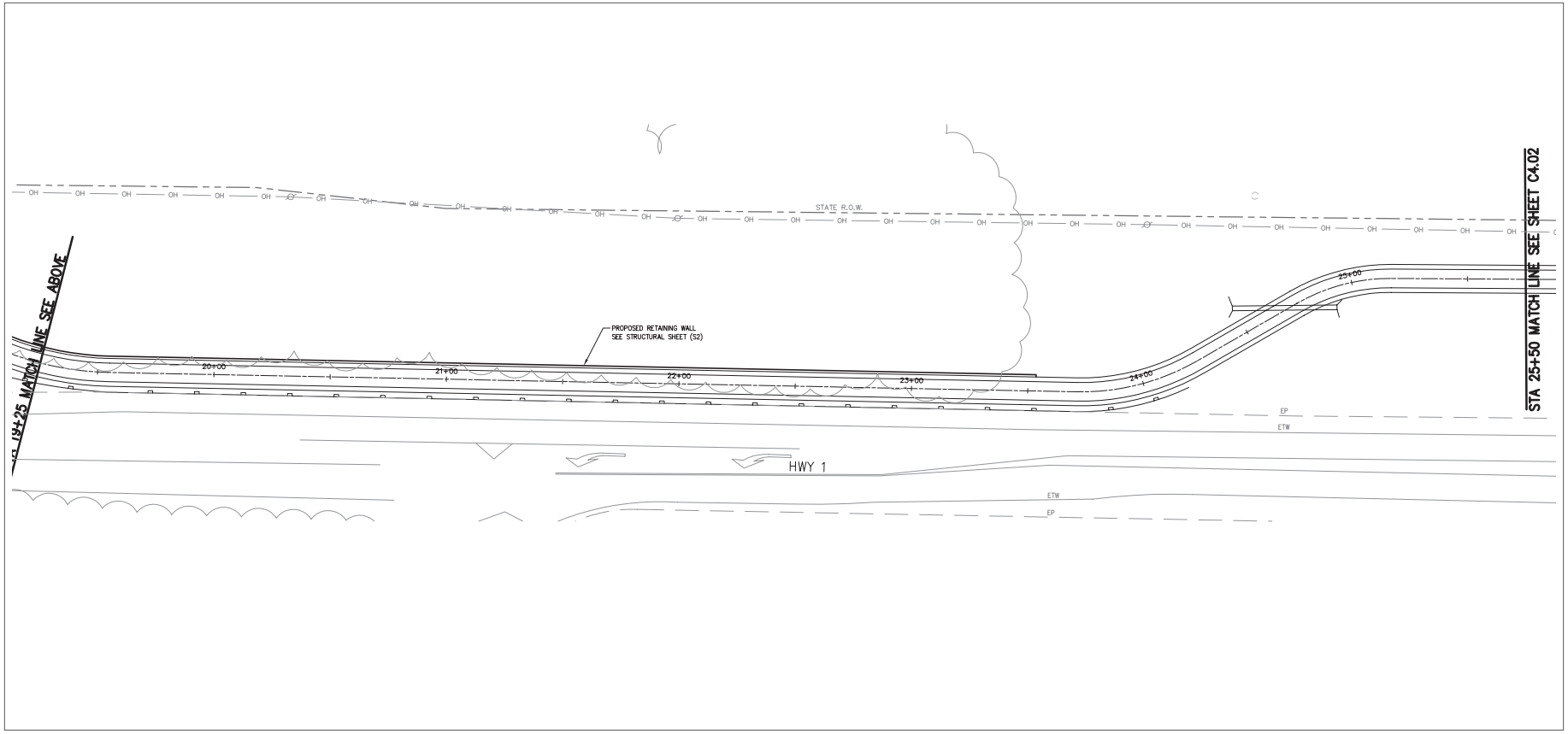

Source: BKF Engineers | Surveyors | Planners, 2016.

Figure 9

Wetland Trail at Magellan Avenue and Coronado Avenue

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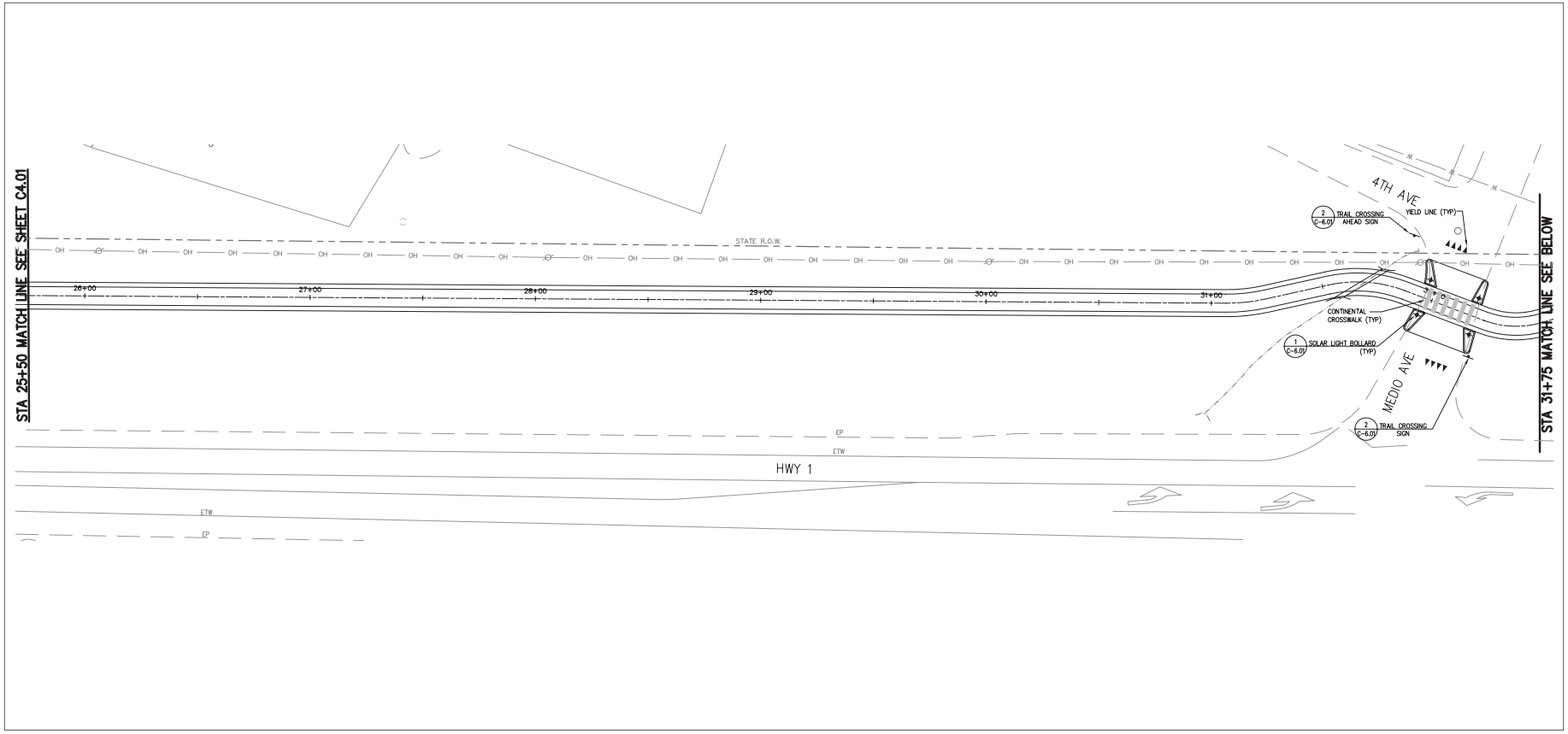

Source: BKF Engineers | Surveyors | Planners, 2016.

Figure 10
Cortez Avenue to Medio Avenue

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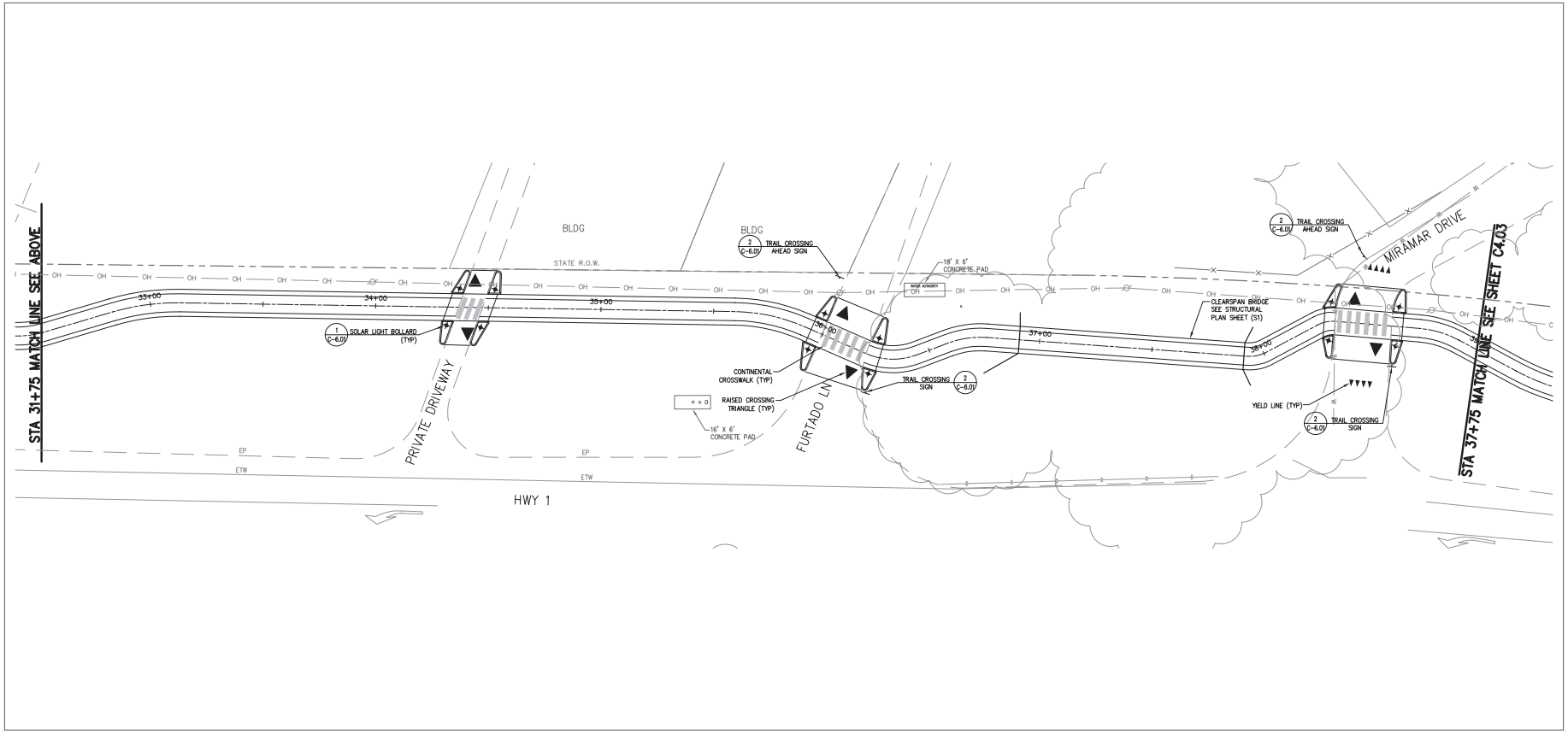

Source: BKF Engineers | Surveyors | Planners, 2016.

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Figure 11
Medio Avenue to Miramar Drive

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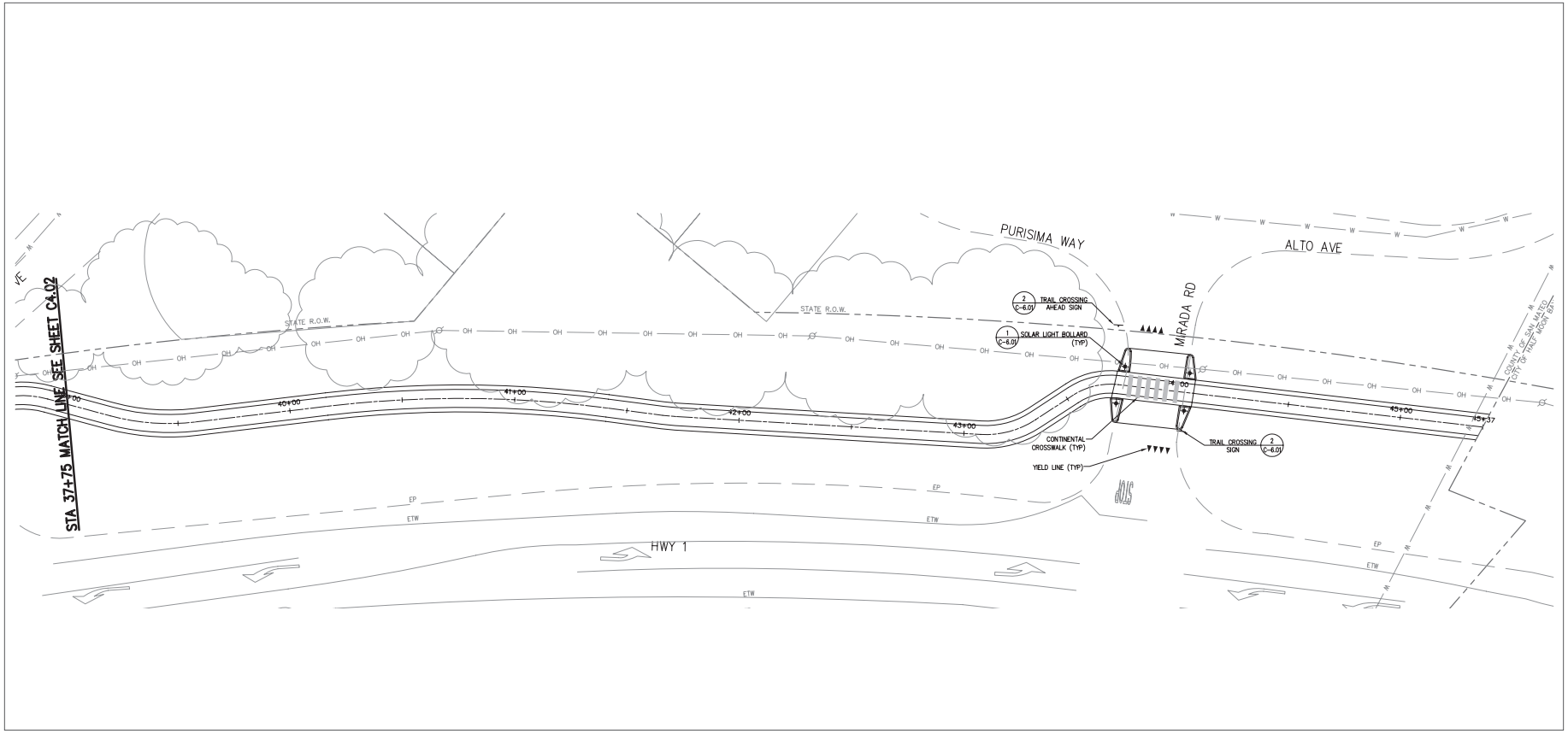

Source: BKF Engineers | Surveyors | Planners, 2016.

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Scale (Feet)

Figure 12
Miramar Drive to Mirada Road

ENVIRONMENTAL CHECKLIST

I. AESTHETICS

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	❒	❒	☑	❒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a State scenic highway?	❒	❒	❒	☑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	❒	☑	❒	❒
d) Create a new source of substantial light or glare that will adversely affect day or nighttime views in the area?	❒	☑	❒	❒
e) Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?	❒	☑	❒	❒
f) Be within a Design Review District, and if so, will it conflict with applicable General Plan or Zoning Ordinance provisions?	❒	❒	❒	☑
g) Visually intrude into an area having natural scenic qualities?	❒	❒	☑	❒

Discussion

a) *Will the project have a substantial adverse effect on a scenic vista?*

The San Mateo County General Plan (County General Plan) and the County Local Coastal Program (LCP) do not define or officially designate any scenic vistas within the County. However, the General Plan does state that El Granada is largely influenced by its coastal setting, and mentions that the beautiful views of the ocean, rocky hills, dense stands of mature eucalyptus trees and sloped terrain make El Granada an extremely scenic area.[3] Further, the County General Plan identifies the Cabrillo Highway (Highway 1) as providing dramatic coastal views and is a County-designated scenic corridor.[4]

The Project will construct a new 0.8 mile, 12-foot wide, two-directional multi-use trail parallel to Highway 1 from Coronado Street to Mirada Road primarily within an existing Caltrans right-of-way. As described in detail under the Project Description, the trail will consist of an 8-foot wide asphalt surface, and a 2-foot wide surface of decomposed granite on either side of the asphalt, for a total of 12 feet in width. Other features will include a pedestrian bridge along Segment 6 (described above) spanning the creek, as well as safety and way-finding signage along the trail.

Additionally, Segment 4 (described above) will include construction of a retaining wall up to four feet in height to serve as a buffer between the trail and the existing wetland; however, the retaining wall will be below the height of the existing vegetation and will not obstruct any views. Lastly, the Project will include

[3] County of San Mateo General Plan, page 4.14.
[4] County of San Mateo General Plan, Table 4.1, page 4.8 and map from page 4.12.

a guardrail at Segment 4 where the trail alignment is directly adjacent to Highway 1 to serve as a safety barrier between vehicles and trail users; however, the guardrail will be below the height of existing vegetation and the proposed retaining wall, therefore will not obstruct views.

Overall, the Project will not include any components or features that will block scenic vistas. Therefore, a *less-than-significant* impact will occur and no mitigation measures are required.

b) *Will the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a State scenic highway?*

The trail alignment is not located within the vicinity of a State scenic highway; however, the stretch of Highway 1 from Half Moon Bay (2.5 miles south) to the Santa Cruz County line, is a State-designated scenic highway. Given the distance of the trail alignment from this segment of Highway 1, and because the trail alignment itself is not located immediately adjacent to a State designated scenic highway, there will be *no impact*. No mitigation measures are required.

c) *Will the project substantially degrade the existing visual character or quality of the site and its surroundings?*

As discussed above, the undeveloped Project site is within the Caltrans right-of-way; however, the surrounding visual setting is characterized by single- and multi-family residential homes, and Wilkinson and El Granada Elementary Schools. There is also an existing portion of the CCT which exists directly to the south of Highway 1 across from the Project site between Coronado Street and Magellan Avenue.

The proposed trail will include visible enhancements including an improved 8 foot wide asphalt surface and with a 2 foot decomposed granite shoulder on either side, for a total of 12 feet, a retaining wall fence and guard rail along Segment 4 (as described above), and a 125 foot bridge along Segment 6. Further, there will also be safety and way-finding signage at various points along the trail. There are no permanent buildings that will degrade the existing visual character. Overall, the Project will provide visual enhancement to the surrounding area by providing a formalized trail for pedestrians to facilitate views of scenic resources. Although there could be impacts to visual character during construction related activities, such as views of construction equipment (i.e., tractors, trucks, etc.) and supplies, these impacts will be temporary and last only during construction of the trail.

Although the Project will not include construction of permanent buildings, the construction of a trail in an otherwise undeveloped area could substantially degrade the existing visual character or quality of the site and its surroundings. However, compliance with Mitigation Measure AES-1 will minimize these potential impacts to the visual character.

> Mitigation Measure AES-1: Consistent with policies included in the Visual Resources Component of the San Mateo County Local Coastal Program, adopted in June 2013, the applicant shall comply with the following measures:
>
> - Set back development from the edge of streams and other natural waterways a sufficient distance to preserve the visual character of the waterway;

- Prohibit structural development which will adversely affect the visual quality of perennial streams and associated riparian habitat, except for those permitted by Sensitive Habitats Component Policies of the Local Coastal Program;
- Retain wetlands intact except for public accessways designed to respect the visual and ecological fragility of the area and adjacent land, in accordance with Sensitive Habitats Component policies of the Local Coastal Program.
- Employ the use of natural materials and colors (i.e. earth tones) for construction of the trail, trail signage and the pedestrian bridge that blend with the vegetative cover of the site;

Overall, while the proposed Project will introduce a trail to an undeveloped area which could alter the character of the existing site, compliance with Mitigation Measure AES-1, will ensure that the project has a *less-than-significant* impact with regards to visual character.

d) *Will the project create a new source of substantial light or glare that will adversely affect day or nighttime views in the area?*

The Project site itself is undeveloped and does not contain existing sources of light or glare; however, the area is developed with urban uses, which provide sources of light in the vicinity.

Existing sources of light and glare in the vicinity of the Project site are typical of residential, institutional, and commercial land uses, including interior and exterior lighting, and sources of glare from building windows and cars. As described above, the project will include lighting features at key locations to illuminate the proposed trail for safety which could result in impacts to day or nighttime views in the area. Additionally, the Project will include structures such as guardrails, way-finding and safety signage, and a pedestrian bridge, which could be constructed of materials that result in glare. However, compliance with Mitigation Measure AES-2 will serve to minimize these impacts.

Mitigation Measure AES-2: To ensure that lighting and glare impacts do not cause a significant impact upon adjacent residential or open space uses, the applicant shall implement the following measures:

- The Project shall use lighting standards that are shielded, aimed directly to the ground to minimize light spillage to adjacent properties and in the case of the proposed bridge and boardwalk will be low or pedestal mounted;
- Employ the use of natural materials and colors (i.e. earth tones) that blend with the vegetative cover of the site; and
- Design and minimize information and direction signs to be simple, easy-to-read, and harmonize with surrounding elements;

Overall, compliance with Mitigation Measure AES-2 related to lighting and reflection will ensure that the Project does not result in a new source of substantial light or glare that will adversely affect day or nighttime views in the area. Therefore, a *less-than-significant* impact will occur.

e) *Will the project be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?*

As described under discussion I.b above, the trail alignment is not located within the vicinity of a State scenic highway. However, the Project site is parallel and directly adjacent to Cabrillo Highway (Highway 1), which is designated as a County Scenic Corridor. The San Mateo County General Plan defines "scenic corridors" as land adjacent to a scenic road right-of-way which, when seen from the road, provides outstanding views of natural landscapes and attractive man-made development.[5] Although the proposed Project would involve construction of a trail, trail signage, and a pedestrian bridge within the County Scenic Corridor, none of the proposed features would include the type of structures (i.e. buildings) that would typically obstruct or otherwise impede scenic views offered along the corridor. Additionally, components of the proposed Project would be below the height of existing residential and commercial structures, and vegetation, that surround the Project site and therefore would not impede or obstruct scenic views from within the County Scenic Corridor. Nevertheless, the Project will be adjacent to a County Scenic Corridor; however, implementation of Mitigation Measure AES-3 will minimize potential impacts.

> Mitigation Measure AES-3: To ensure that Project components will not obstruct views within the County Scenic Corridor, the applicant shall:
>
> - Locate and design new development and landscaping so that ocean views are not blocked from public viewing points such as public roads and publicly-owned land; and
> - To the extent feasible, design development to minimize blocking of views to or along the ocean shoreline from Highway 1 and other public viewpoints between Highway 1 and the sea.

Overall, compliance with Mitigation Measure AES-3, will ensure that the proposed Project will result in a *less-than-significant* impact with regards to impacts in the County Scenic Corridor.

f) *Will the project be within a Design Review District, and if so, will it conflict with applicable General Plan or Zoning Ordinance provisions?*

The Project site is within the Caltrans right of way, and while the site is technically within a Design Review District, the Design Review standards do not apply in this case. These standards apply primarily to residential and/or commerical development. Therefore, given that the Project does not include a residential component, or any other permanent structural component, the Project will not be in conflict with the General Plan or Zoning Ordinance provisions regarding design review. Therefore, *no impact* will occur and no mitigation measures are required.

[5] San Mateo County, General Plan, Overview Background & Issues, November 1986, page 7G.

g) *Will the project visually intrude into an area having natural scenic qualities?*

For the reasons described under impact discussion I.c, and within implementation of Mitigation Measure AES-1 as described above, the proposed Project will have *a less-than-significant* impact with regards to intrusion into an area having natural scenic qualities.

II. AGRICULTURE AND FORESTRY RESOURCES

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	❒	❒	❒	☑
b) Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?	❒	❒	❒	☑
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or of conversion of forest land to non-forest use?	❒	❒	❒	☑
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?	❒	❒	❒	☑
e) Result in damage to soil capability or loss of agricultural land?	❒	❒	❒	☑
f) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	❒	❒	❒	☑

Discussion

a) *Will the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

According to maps from the Farmland Mapping and Monitoring Program of the California Resources Agency land within El Granada is categorized as primarily Urban and Built-Up Land. The Project site is located on Urban and Built-Up Land.[6] There are no agricultural lands identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the Project site. However, the Project site is

[6] California Resources Agency, Farmland Mapping and Monitoring Program. San Mateo County Important Farmland 2012, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/smt12.pdf, accessed on March 2, 2016.

within a Resource Management-Coastal Zone (RM-CZ) District, which does permit uses such as agricultural use, and timber harvesting, among other uses; however, the site currently does not include farming, timber harvesting, or any other agricultural use. Therefore, the Project will result in *no impact* and no mitigation measures are required.

b) *Will the project conflict with an existing zoning for agricultural use, or a Williamson Act contract?*

The Project site is located within the Caltrans right-of-way and does not include any agricultural use. Further, according to the 2012 map of Williamson Act contract land, there is no agricultural land within the Project site.[7] Therefore, implementation of the proposed Project will not conflict with existing zoning for agricultural use, or a Williamson Act contract. Consequently, the Project will result in *no impact* and no mitigation measures are required.

c) *Will the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or of conversion of forest land to non-forest use?*

As detailed above, the Project site and surrounding areas do not include any zoning, or existing land uses relating to forest land, timber production, or agriculture. Although the Project site itself is undeveloped, it is generally in an urbanized area surrounded by existing residential and commercial development, and will not impact any distant or outlying areas used for agricultural lands. Further, as mentioned above, the Project site is within a RM-CZ District, which does permit uses such as agricultural use, and timber harvesting, among other uses; however, the site currently does not include farming, timber harvesting, or any other agricultural use. Therefore, the project will result in *no impact* and no mitigation measures are required.

d) *For lands within the Coastal Zone, will the project 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?*

According to the San Mateo County Public GIS Viewer, the Project site will not be located on Class I, Class II, or Class III Agriculture Soils,[8] therefore, *no impact* will occur and no mitigation measures are required.

e) *Will the project result in damage to soil capability or loss of agricultural land?*

For the reasons described in impact discussion II.c and II.d, the proposed Project will not result in damage to soil capability or loss of agricultural land. Therefore, *no impact* would occur and no mitigation measures are required.

[7] California Department of Conservation, 2012, State of California Williamson Act Contract Land, ftp://ftp.consrv.ca.gov/pub/dlrp/wa/2012%20Statewide%20Map/WA_2012_36x42.pdf, accessed on March 2, 2016.

[8] San Mateo County Public GIS Viewer, http://maps.smcgov.org/planning/, accessed on May 18, 2016.

f) *Will the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

Neither the Project site, nor adjoining parcels feature zoning designations for forest land, timberland, or timber production. Therefore, the Project will result in *no impact* and no mitigation measures are required.

III. AIR QUALITY

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	❒	❒	☑	❒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❒	❒	☑	❒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under applicable federal or State ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	❒	❒	☑	❒
d) Expose sensitive receptors to substantial pollutant concentrations, as defined by BAAQMD?	❒	❒	☑	❒
e) Create objectionable odors affecting a substantial number of people?	❒	❒	☑	❒
f) Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?	❒	❒	☑	❒

Discussion

The Bay Area Air Quality Management District (BAAQMD) is the regional air quality management agency for the San Francisco Bay Area Air Basin (SFBAAB), which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the southern portion of Sonoma County; and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[9]

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

Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the BAAQMD 2010 Bay Area Clean Air Plan. The Project will result in the construction of a 0.8-mile multi-use trail within 10.39 acres of

[9] Bay Area Air Quality Management District, 2011, California Environmental Quality Act Air Quality Guidelines, Appendix C: Sample Air Quality Setting.

undeveloped land, within the Caltrans right-of-way in the unincorporated community of El Granada and will not generate new operational vehicle trips within the area. In addition, the proposed Project will not have the potential to substantially affect housing, employment, and population projections within the region, which is the basis of the Bay Area Clean Air Plan projections. Therefore, the proposed Project is not considered a regionally significant project under CEQA Guidelines Section 15206 that will affect regional vehicle miles traveled (VMT) and warrant intergovernmental review by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). Furthermore, the Project will fall under BAAQMD's screening criteria, which is used to determine projects that have the potential to generate emissions that exceed BAAQMD's operational emissions thresholds (see Section III (b)). These thresholds are established to identify projects that have the potential to generate a substantial amount of criteria air pollutants. Because the Project will not exceed these thresholds during Project operations, the Project will not be considered by BAAQMD to be a substantial emitter of criteria air pollutants. Therefore, the Project will not conflict with or obstruct implementation of the 2010 Bay Area Clean Air Plan and impacts will be considered *less than significant*. No mitigation measures are required.

b) *Will the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

BAAQMD has identified thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors, including reactive organic gases (ROG), oxides of nitrogen (NOx), coarse inhalable particulate matter (PM10), and fine inhalable particulate matter (PM2.5). Developments below the significant thresholds are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Construction Emissions

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the Project site, and motor vehicles transporting the construction crew. Site preparation activities produce fugitive dust emissions (PM10 and PM2.5) from soil-disturbing activities, such as grading and excavation. Air pollutant emissions from construction activities on site will vary daily as construction activity levels change. The proposed Project involves the construction of an 8-foot wide asphalt surface with a painted stripe down the center, and a 2-foot wide surface of decomposed granite on either side of the asphalt, for a total of 12 feet in width. BAAQMD's CEQA Guidelines identifies screening criteria for construction-related criteria air pollutant emissions. Since BAAQMD's CEQA Guidelines does not have specific screening criteria for recreational trails, the screening criteria for city parks were used as the best fit. Based on BAAQMD's screening criteria, city parks of 67 acres or larger have the potential to generate a substantial increase in construction-related criteria air pollutant emissions and will need further analysis. The proposed Project will not exceed the screening-level size identified by BAAQMD and will generate a nominal increase in criteria air pollutants during construction activities. Furthermore, the proposed Project does not have any unusual circumstances, such as the potential to result in overlapping construction activities. Therefore, a quantified analysis of the Project's construction emissions is not necessary and the impact is *less than significant*.

Operational Emissions

The existing 10.39 acres of undeveloped land do not generate long-term air pollutant emissions from the burning of fossil fuels in vehicles (mobile sources), energy use for cooling, heating, and cooking (energy), or landscape equipment use and consumer products (area sources). The proposed Project involves the construction of a trail. BAAQMD's CEQA Guidelines identifies screening criteria for operation-related criteria air pollutant emissions. Since BAAQMD's CEQA Guidelines does not have specific screening criteria for recreational trails, the screening criteria for city parks were used as the best fit. Based on BAAQMD's screening criteria, city parks of 2,613 acres or larger have the potential to generate a substantial increase in criteria air pollutant emissions and will need further analysis. The Project is substantially below the BAAQMD screening threshold and will generate nominal criteria air pollutant emissions. Furthermore, the proposed Project will not generate new vehicle trips within the area; therefore, it is not anticipated to result in a net increase of mobile source emissions. Additionally, the proposed trail will be energy efficient. Criteria air pollutant emissions generated by the Project at the operational level are a *less than significant* impact

c) *Will the project result in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under applicable Federal or State ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors?*

The SFBAAB is currently designated as a nonattainment area for California and National ambient air quality standards (AAQS) for ozone (O3) and for PM2.5, and a nonattainment area under the California AAQS for PM10. Any project that does not exceed or can be mitigated to less than the BAAQMD significance levels, used as the threshold for determining major projects, does not add significantly to a cumulative impact. As explained in response to Section III.b above, construction and operation of the Project will fall under the BAAQMD screening criteria and will not result in regional emissions in excess of these threshold values. This impact is considered *less than significant*.

d) *Will the project expose sensitive receptors to pollutant concentrations, as defined by BAAQMD?*

Localized concentrations refer to the amount of pollutants in a volume of air (ppm or µg/m3) that can be correlated to potential health effects on sensitive populations. The closest sensitive receptors to the Project are the residences located approximately 75 feet north of the Project near Medio Ave and El Granada Elementary School located approximately 85 feet north of the Project.

Construction Off-Site Community Risk and Hazards

Project construction will temporarily elevate concentrations of toxic air contaminants (TACs) and PM2.5 in the vicinity of sensitive land uses during construction activities. However, construction of the project trail will not generate an intensive construction schedule or a substantial off-road equipment fleet that will result in significant construction impacts to off-site sensitive receptors. Overall, construction emissions associated with the proposed Project will not exceed BAAQMD's project level and cumulative significance thresholds for community risk and hazards, and the impact is *less than significant*.

Operational Phase On-Site Community Risk and Hazards
Once completed, the project will not be a source of emissions; therefore operational on-site emissions pose no risk to the community and have a *less-than-significant* impact. No mitigation measures are warranted.

e) *Will the project create objectionable odors affecting a substantial number of people?*

Construction and operation of a recreational trail will not generate substantial odors. The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g. auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. Recreational uses are not associated with foul odors that constitute a public nuisance.

During construction activities, the application of asphalt will temporarily generate odors. Any construction-related odor emissions will be temporary and intermittent in nature. Additionally, noxious odors will be confined to the immediate vicinity of the construction equipment. By the time such emissions reach any sensitive receptor sites, they will be diluted to well below any level of air quality concern. Impacts will be *less than significant*. No mitigation measures are warranted.

f) *Will the project generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?*

The proposed Project is a passive recreation trail and motor vehicles (except for maintenance and emergency services) will not be permitted to use the facility. Although the Project may generate pollutants during the construction phase (as discussed above) related to equipment typical of trail construction (i.e. trucks, small tractors, compaction equipment, etc.), these impacts will be temporary and only last during the construction period, thus it is not anticipated that these activities will result in the generation of a substantial amount of pollutants. Overall, impacts will be *less than significant* with regards to generation of pollutants and no mitigation measures are required.

IV. BIOLOGICAL RESOURCES

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a significant adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❒	☑	❒	❒
b) Have a significant adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❒	☑	❒	❒
c) Have a significant adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	❒	❒	☑	❒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	❒	☑	❒	❒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinance)?	❒	☑	❒	❒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	❒	❒	❒	☑
g) Be located inside or within 200 feet of a marine wildlife preserve?	❒	❒	❒	☑
h) Result in the loss of oak woodlands or other non-timber woodlands?	❒	☑	❒	❒

The discussion below reflects the findings of the *Midcoast Multimodal Trail Project Biological Resources Assessment* (BRA) and Wetland Delineation Report prepared by WRA Environmental Associates on October 23, 2015. These reports are included in Appendix A. The biological resources assessment and wetland delineation were based on site conditions observed on August 13, 2015, related information available at the time of the study, and from reviewing past reports completed on the Study Area or adjacent properties.

Existing Conditions

The Study Area includes non-native annual grassland, central coast riparian scrub dominated by arroyo willow (*Salix lasiolepis*), a non-native riparian woodland dominated by blue gum (*Eucalyptus globulus*), a stand of Monterey cypress (*Hesperocyparis macrocarpa*), developed areas, coastal seasonal wetlands,

and non-wetland waters, with elevations ranging from 9 to 75 feet. Residential neighborhoods, public open space, and schools surround the Study Area. The upland portions of the Study Area are generally comprised of wind breaks of Monterey cypress and non-native annual grasslands.

The Study Area is situated on a coastal terrace between the Santa Cruz mountain range and the Pacific Coast. No past development or agricultural fields occur within the Study Area; however, based on historic aerial imagery, portions of the Study Area are mowed regularly.[10] In addition, a Pacific Gas and Electric (PG&E) power line occurs through the Study Area in several locations. The Study Area is transected by developed areas including Miramar Drive, Medio Avenue, and a private dirt road.

The study area was evaluated for the potential occurrence of special-status species by first determining which special-status species occur through a literature and database search. Database searches for known occurrences of special-status species focused on the Half Moon Bay and Montara Mountain 7.5 minute U.S. Geological Survey (USGS) quadrangles. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- California Natural Diversity Database records (CDFW 2015)
- USFWS quadrangle species lists (USFWS 2015)
- CNPS Electronic Inventory records (CNPS 2015)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication "California Bird Species of Special Concern" (Shuford and Gardali 2008)
- CDFG publication "Amphibians and Reptile Species of Special Concern in California" (Jennings 1994)
- CDFG publication "An Annotated Check List of Amphibians and Reptile Species of California and Adjacent Waters, third revised edition" (Jennings 2004)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- San Mateo County Local Coastal Program (County of San Mateo 2013)

a. Special-Status Plant Species

As shown in Figure 13, special-status plant species were identified within the vicinity of the Study Area; however, they are unlikely or have no potential to occur within the Study Area given its disturbed character, compared to the coastal prairie, woodlands, or high quality meadows and seeps where special status species are likely to occur.[11]

b. Special-Status Animal Species

As shown on Figure 14, special status animal species were identified within the vicinity of the Study Area; however, most species are unlikely or precluded from occurring based upon the high level of

[10] Biological Resources Assessment, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 1.

[11] Biological Resources Assessment, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 16.

development and disturbance in the area and lack of suitable habitat.[12] Two special-status animal species were observed during the August 13, 2015 site visit and three other special-status animal species are determined to have a moderate potential to occur in the Study Area. The two species observed included the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) and the Yellow warbler (*Setophaga petechial brewsteri*). The three species that have moderate potential to occur include the Loggerhead shrike (*Lanius ludovicianus*), Allen's hummingbird (*Selasphorus sasin*), and the White-tailed kite (*Elanus leucurus*).[13]

Discussion

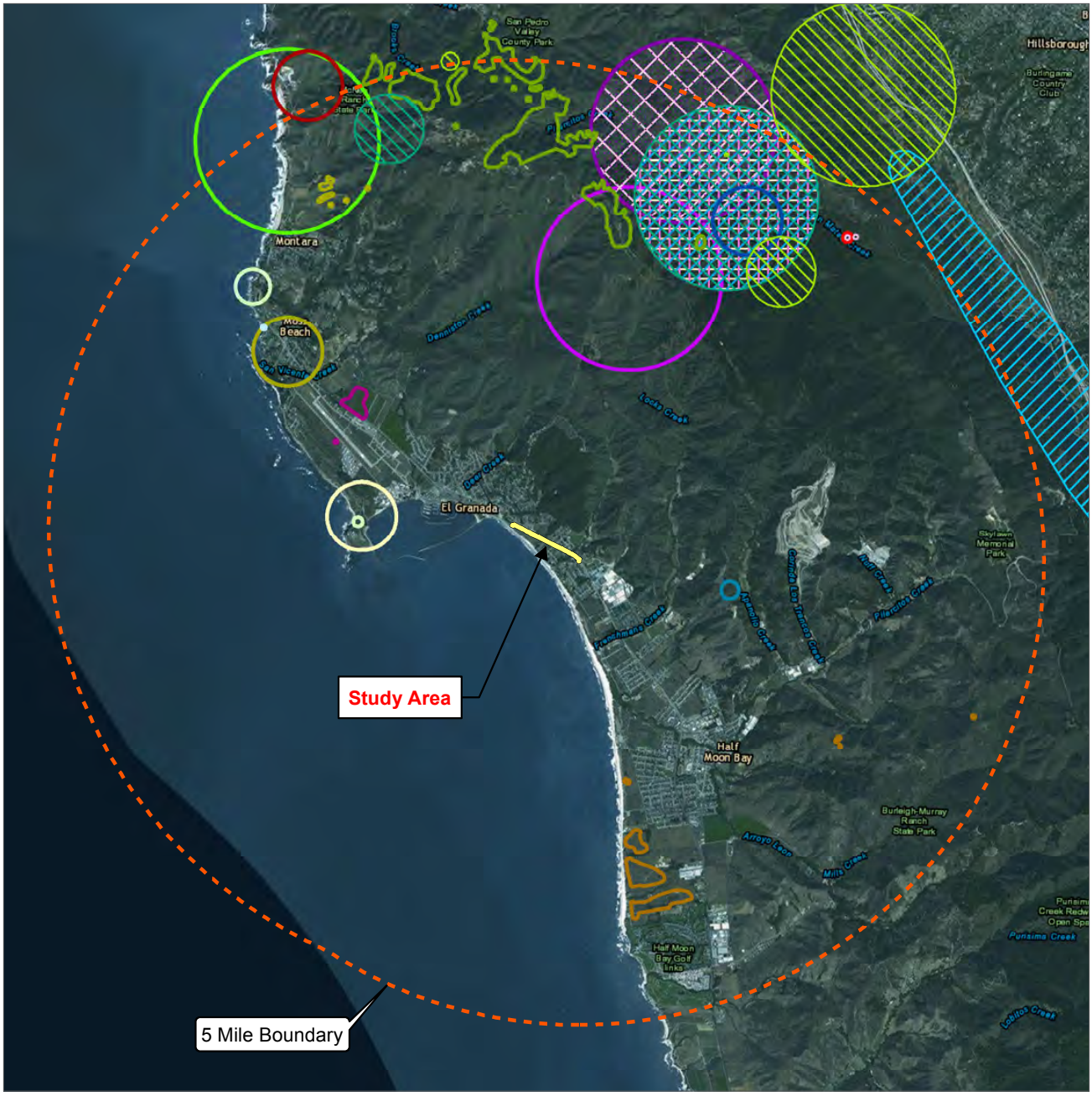
a) *Will the Project have a substantial adverse effect, either directly or through habitat modifications, on a plant or animal population, or essential habitat, defined as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?*

Special-status species are plants and animals that are legally protected under the State and/or federal Endangered Species Acts or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts and other essential habitat.

[12] Biological Resources Assessment, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 16.

[13] Biological Resources Assessment, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 16 and 19.

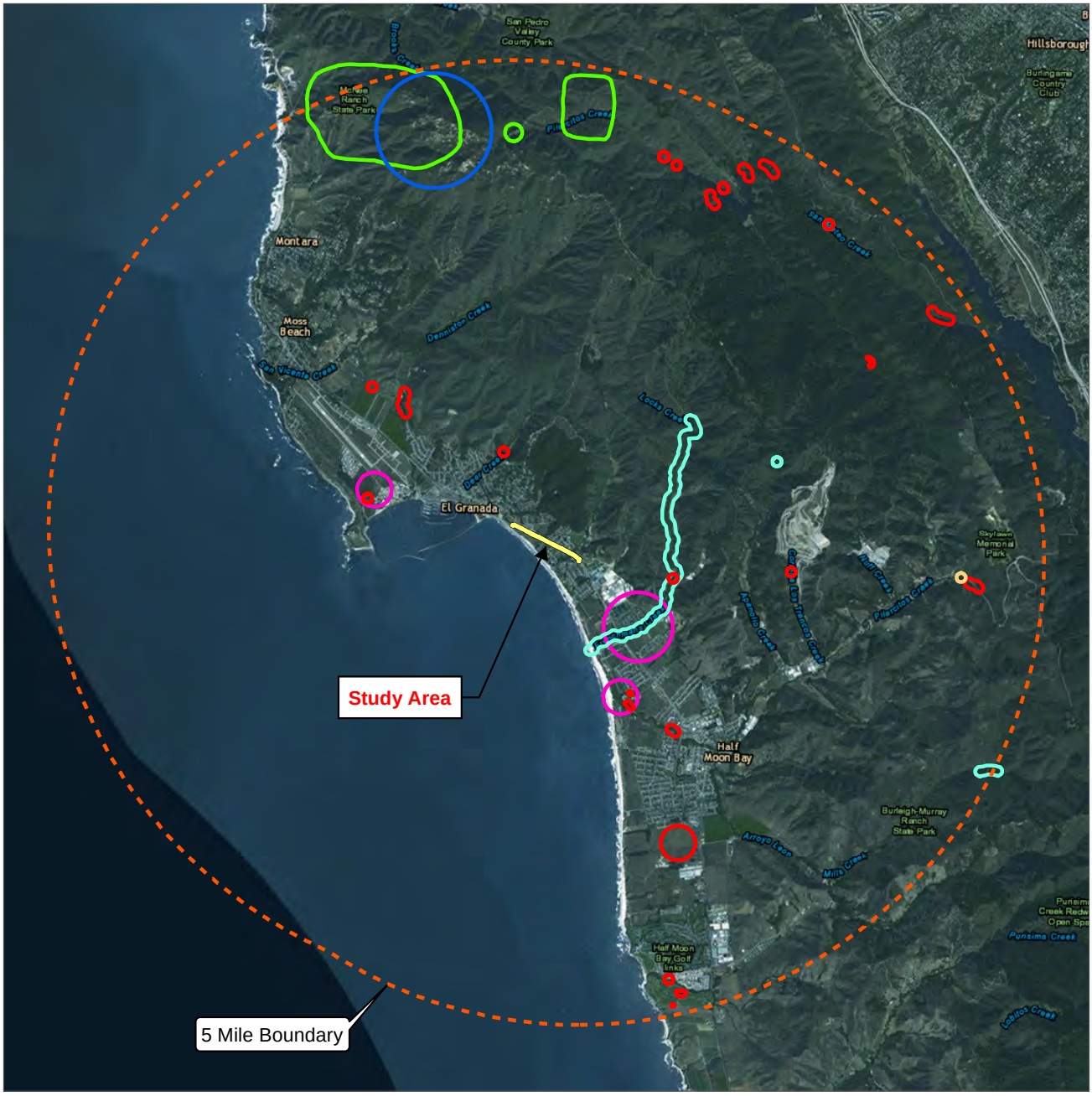
PLACEWORKS



Source: WRA Environmental Consultants, 2015.

Figure 13
Special-Status Plant Species

PLACEWORKS



Source: WRA Environmental Consultants, 2015.

Figure 14
Special-Status Animal Species

Special-Status Animal Species

Of the 59 special-status animal species previously documented in the vicinity of the Study Area, two are present and three were determined to have the potential to occur within the Study Area, as described above. However, the other species occur in habitats not found in the Study Area. Further, no aquatic habitat is present and high development and disturbance within and adjacent to the Study Area preclude the presence of many species.[14] Although most special-status species are not expected to occur within the Study Area, Mitigation Measure BIO-1 will ensure the protection of the San Francisco dusky-footed woodrat, which was observed during the site visit.

Mitigation Measure BIO-1: The following measure shall be implemented to avoid and minimize potential impacts to special-status species:

- A qualified biologist shall conduct a pre-construction survey for Dusky-footed woodrat houses no less than 7 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities. The survey shall cover the work area and a 50-foot buffer in the upstream and downstream directions. Any Dusky-footed woodrat houses found shall be marked in the field with flagging tape and their locations will be recorded with GPS.
- If a Dusky-footed woodrat house is identified in a work area, the County shall attempt to preserve the house and maintain an intact dispersal corridor between the house and undisturbed habitat. An adequate dispersal corridor would be considered to be a minimum of 50 feet wide and have greater than 70 percent vegetative cover. In the event such a corridor is infeasible, the County shall avoid physical disturbance of the nest if feasible.
- If a Dusky-footed woodrat house(s) cannot be avoided, the California Department of Fish and Wildlife (CDFW) shall be notified and information regarding the house location(s) and relocation plan shall be provided. With approval from CDFW and prior to the beginning of construction, a qualified biologist shall dismantle by hand and relocate the house material. Materials from the house shall be dispersed into adjacent suitable habitat that is outside of the work area. During the deconstruction process a qualified biologist shall attempt to assess if there are juveniles in the house. If immobile juveniles are observed, the deconstruction process shall be discontinued until a time when the biologist believes the juveniles will be fully mobile. A 10-foot wide no-disturbance buffer shall be established around the house until the juveniles are mobile. The house may be dismantled once a qualified biologist has determined that adverse impacts on the juveniles would not occur. All disturbances to woodrat houses shall be documented in a construction monitoring report and submitted to CDFW.

Implementation of Mitigation Measure BIO-1 will ensure the protection of the San Francisco dusky-footed woodrat and impacts to this special-status animal species will be *less-than-significant*.

[14] Biological Resources Assessment, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 24.

Special-Status and Non-Special-Status Nesting Birds
Four special-status bird species were determined to potentially nest in trees and shrubs within the Study Area. Although most common native bird species are also protected under the Migratory Bird Treaty Act (MBTA) during nesting season, Mitigation Measure BIO-2 will further reduce the potential disturbance to nesting birds within the Study Area.

> Mitigation Measure BIO-2: The following measure shall be implemented to avoid and minimize potential impacts to nesting birds:
>
> - If project activities are to be conducted during the nesting season (February 15 – to August 31), a pre-construction nesting bird survey shall be performed no more than 14 days prior to initial ground disturbance to avoid impacting active nests, eggs, and/or young.
> - If the survey identifies any active nest, an exclusion buffer shall be established for protection of the nest and young. Buffer distance will vary based on species and conditions at the site, however, typical buffers ranges between 25 feet up to 600 feet. A qualified biologist shall establish an appropriate buffer and the buffer shall be maintained until the young have fledged.
> - Tree trimming or removal shall be initiated outside of the nesting season (September 1 – January 31), whenever possible, to avoid potentially disturbing and/or to minimize the disturbance to any nesting birds.

Implementation of Mitigation Measure BIO-2 will ensure the protection of special-status and non-special-status bird species and, therefore, will result in a *less-than-significant* impact.

Special-Status Plant Species
Of the 42 special-status plant species known to occur in the vicinity of the Study Area, none were determined to have potential to occur within the Study Area[15]; therefore, a *less-than-significant* impact will occur with regards to having a substantial adverse effect on sensitive or special-status plant species.

b) *Will the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?*

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, and riparian habitat. These habitats are regulated under federal regulations (such as the Clean Water Act (CWA)), state regulations (such as the Porter-Cologne Act, the CDFW Streambed Alteration Program, and CEQA), or local ordinances or policies (such as County Tree Ordinances, Special Habitat Management Areas, applicable LCPs, and General Plan Elements).

Non-Sensitive Biological Communities
Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. These communities

[15] Biological Resources Assessment, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 24.

may, however, provide suitable habitat for some special-status plant or wildlife species. Non-sensitive biological communities in the Study Area include developed areas, non-native annual grassland, Monterey cypress forest, and northern coastal scrub. Detailed descriptions of these communities can be found in the BRA, included as Appendix A of this Initial Study.

Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Four Environmental Sensitive Habitat Area's (ESHA) occur within the Study Area, including coastal seasonal wetland, non-wetland waters, central coast riparian scrub, and non-native riparian woodland, as shown in Figure 15. Detailed descriptions of these communities can be found in the BRA, included as Appendix A of this Initial Study.

PLACEWORKS

Source: WRA Environmental Consultants, 2015.

Figure 15a
Biological Communities in the Study Area

PLACEWORKS

Source: WRA Environmental Consultants, 2015.

Figure 15b
Biological Communities in the Study Area

a. Wetlands

Approximately 0.02 acre of CCC wetland habitat occurs within the Study Area. Coastal seasonal wetlands are not described by Holland (1986) and are dominated by perennial herbs, especially sedges and grasses that are often low growing and grow yearlong in areas with mild winters. This community occurs scattered throughout California, being most common in grasslands.

Wetlands are defined within the Study Area as Western Rush Marshes (*Juncus patens* Provisional Herbaceous Alliance, Rarity Ranking G4 S4), which occur on seasonally saturated soils on flats, depressions or gentle slopes. Western Rush Marshes contain continuous to intermittent cover of western rush with commonly associated facultative wetland plants such as Italian wildrye, velvet grass, toad rush (*Juncus bufonius*), and clover (*Trifolium* spp.).

In the Study Area, this biological community occurs centrally, within a small man-made swale that drains to arroyo willow thicket. Western rush is dominant with co-dominants of common rush (*Juncus occidentalis*), and bristly ox-tongue. While the coastal wetlands are dominated by hydrophytic vegetation, it did not contain indicators of hydric soils or wetland hydrology and therefore only meets the California Coastal Commission definition of a wetland. Further, while wetlands were observed at the Project site, they were determined to be in association with linear, manmade shallow swale that may be associated with old tire ruts from past mowing. Although plant species found at the Project site indicated the presence of a wetland, these species were not found to be functioning as hydrophytes in its current condition. Further, the Wetland Delineation Report concluded that the surface and subsurface water associated with the wetland feature does not collect for extended periods of time and concluded that this feature is not considered a wetland in the report.

Nevertheless, construction activities typical of trail construction, such as site grading, ground disturbance, and paving of a trail, could affect or disturb this wetland feature. However, implementation of Mitigation Measure BIO-3 would minimize impacts to the wetland.

> Mitigation Measure BIO-3: Consistent with LCP Policy 7.17, the applicant shall implement the following performance standards to minimize impacts to wetlands:
>
> - All paths shall be elevated so as not to impede movement of water;
> - All construction activity shall take place during daytime hours;
> - All outdoor lighting shall be kept at a distance away from the wetland sufficient not to affect the wildlife;
> - Motorized machinery (if any is used) shall be kept to less than 45 dBA at the wetland boundary;
> - All construction which alters wetland vegetation shall be required to replace vegetation;
> - No herbicides shall be used in wetlands unless specifically approved by the county Agricultural commissioner and the California Department of Fish and Wildlife (CDFW); and
> - All projects be reviewed by the State Department of Fish and Wildlife and State Water Quality Control Board to determine appropriate mitigation measures.

Consequently, because the wetland feature is not necessarily considered a wetland in the Wetland Delineation Report for the reasons mentioned above, and implementation of Mitigation Measure BIO-3 would reduce impacts to the wetland, a *less-than-significant* impact would occur.

b. Non-Wetland Waters

Non-wetland waters associated with two streams were observed within the Study Area, totaling approximately 0.04 acre (212.97 linear feet). Non-wetland waters within the Study Area occur as an intermittent stream in the south and perennial drainage centrally.

The USGS dashed blue-line intermittent stream, Arroyo de en Medio, showed obvious signs of scouring and alluvial sediment deposition within the creek bed and an unvegetated gravel bed. Dominant vegetation associated with the creek is composed non-native tree species including blue gum and blackwood acacia (*Acacia melanoxylon*) and water was not present at the time of the site visit. The non-native riparian woodland associated with this intermittent stream is discussed below. The unnamed perennial drainage was observed with standing water and obvious signs of bank scour. The drainage was approximately fourteen inches deep and three to five feet wide.

Vegetation associated with the perennial drainage was dominated by central coast riparian scrub, as discussed below. This unnamed stream drains west through a culvert under Highway 1, ultimately to the Pacific Ocean. This perennial drainage likely receives subsurface flows from a local underground stormwater conveyance system and potential upstream intermittent flows; however, the source water is unconfirmed. As such, there is the potential that these waters could be Section 404 jurisdictional "non-wetland" waters; therefore, the Project will be required to obtain a Section 404 permit from the Army Corps of Engineers, as well as a Section 401 permit from the Regional Water Quality Control Board.

As described above, the Project proposes a trail alignment. Construction activities will be typical of trail construction, such as site grading, ground disturbance, and paving of a trail, which could affect or disturb non-wetland waters within or adjacent to the Study Area primarily due to runoff and erosion; however, the following mitigation measure will ensure that potential impacts to riparian habitat will be minimized.

> Mitigation Measure BIO-4: The applicant shall prepare a comprehensive stormwater pollution and erosion control plan for the Project. Erosion control measures shall be in place prior to the start of construction activities and remain in place throughout all phases of project construction. The plan must provide a BMP monitoring and maintenance schedule and identify parties responsible for monitoring and maintenance of construction-phase BMPs. Erosion and water quality control measures identified in the plan must comply with the County of San Mateo Department of Public Work's Contract Requirements for Erosion and Sediment Control, and at a minimum include, but not be limited to, the following measures (County of San Mateo 2013a; County of San Mateo, 2013b):

- Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place.
- Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.
- A spill prevention and countermeasure plan shall be developed that will identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on-site. The plan will also require the proper storage, handling, use, and disposal of petroleum products.
- Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction.
- Surface waters, including ponded waters, must be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of water quality objectives of the receiving waters. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.
- Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. Store, cover, and isolate construction materials, including topsoil and chemicals, to prevent runoff losses and contamination of groundwater.
- Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events. All removed topsoil shall be reused during construction to the extent feasible. Unused topsoil, if any, shall be broadly redistributed to the surrounding areas in such a manner that topography and vegetation cover would not be adversely impacted.
- Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff.
- Disturbed areas will be re-vegetated after completion of construction activities.
- Provide sanitary facilities for construction workers.

Implementation of Mitigation Measure BIO-4, as well as compliance with applicable regulations such as obtaining Section 401 and 404 permits, will ensure the protection of non-wetland waters within the Study Area; therefore, will result in a *less-than-significant* impact.

c. Riparian Habitat

Central Coast Riparian Scrub

The Study Area contains approximately 1.22 acres of central coast riparian scrub that is associated with an unnamed perennial drainage. Holland (1986) describes this central coast riparian scrub as occurring in areas of open to nearly impenetrable willow shrubs associated with a stream or mouth of streams, occurring near the coast in the South Coast Ranges. Soils are relatively fine-grained sand and gravel bars from alluvial deposition.

This community is described as Arroyo Willow Thickets (*Salix lasiolepis* Shrubland Alliance, Rarity Ranking G4 S4), which occurs throughout much of California along streams, seeps and drainages. The canopy is dominated by arroyo willow forming an open to continuous layer with a variable herbaceous layer. Typical associated species include mugwort (*Artemisia douglasiana*), coyote bush, California blackberry and other willow species.

Within the Study Area, central coast riparian scrub occurs centrally adjacent to Highway 1 and is transected by a pull out and dirt road that provides access to a large field to the east. This habitat is part of a larger area of central coast riparian scrub that extends generally east to west. The canopy is dense and nearly impenetrable, dominated by arroyo willow. Understory structure is heterogeneous due to the many branches of arroyo willow. California blackberry, stinging nettle (*Urtica dioica*), panicled bulrush, and Pacific rush (*Juncus effusus*) comprise the intermittent shrub and herb cover.

The proposed project will permanently impact approximately 3,000 square feet[16] of Coast Riparian Scrub habitat. However, implementation of the following mitigation measure will reduce and minimize these impacts.

> Mitigation Measure BIO-5: The County shall mitigate for unavoidable impacts on riparian habitat due to the proposed project by restoring riparian habitat within the region (i.e., the San Mateo County coastal watersheds) at a 1:1 ratio. To the extent feasible, riparian habitat restoration will occur concurrent with implementation of the Project.
>
> - Riparian vegetation to be restored at the mitigation site shall include native overstory and understory species, such as arroyo willow, white alder, American dogwood, Pacific silverweed, and bulrush.
> - Prior to the start of project construction, the County shall develop and implement a Riparian Mitigation Plan for creation of riparian habitat. The Riparian Mitigation Plan shall be prepared by a qualified restoration ecologist and will provide the following:
>   - A summary of riparian impacts and the proposed mitigation;
>   - Goals of the mitigation to achieve no net loss of habitat functions and values;
>   - The location of mitigation site(s) and description of existing site conditions;

[16] Based upon the current 30% plans, which call for filling in approximately 4 ft. by 700 ft. of this sensitive habitat, the project will permanently remove approximately 3,000 sq. ft. of Coast Riparian Scrub (a sensitive habitat under the Coastal Act). This must be mitigated at a 1:1 ratio.

- Mitigation design, including:
  - Existing and proposed site hydrology, geomorphology, and geotechnical stability, if applicable
  - Grading plan if appropriate, including bank stabilization or other site stabilization features
  - Soil amendments and other site preparation elements, as appropriate
  - Planting plan and species list
  - Irrigation and maintenance plan
  - Restoration schedule;
- Monitoring plan (including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.); and
- A contingency plan for mitigation elements that do not meet performance or final success criteria within 5 years; this plan will include specific triggers for remediation if performance criteria are not being met.

Non-Native Riparian Woodland

The Study Area contained approximately 0.39 acre of non-native riparian woodland, such as Eucalyptus groves (*Eucalyptus* [*globulus, camaldulensis*] Semi-Natural Woodland Alliance), which are typically planted as woodlands and shelterbelts to buffer coastal winds and provide shade. This vegetation alliance is dominated by one of several eucalyptus species (*Eucalyptus* spp.), all of which are not native to North America. Blue gum (and other eucalyptus) groves are frequently situated in rural and semi-urbanized settings, along streams, and coastal hills/prairies.

Within the Study Area, there is a non-native riparian canopy associated with Arroyo de en Medio which is dominated by blue gum and blackwood acacia. The understory structure is heterogeneous with arroyo willow saplings and black acacia with scattered red elderberry (*Sambucus racemosa*), all of which are covered by cape ivy (*Delairea odorata*). The lower shrub layer is dominated by Himalayan blackberry (*Rubus armeniacus*). The herb layer is dominated by garden nasturtium (*Tropaeolum majus*) and veldt grass (*Ehrharta erecta*), mixed with leaf and bark litter from the shedding eucalyptus.

As described above, the Project proposes a trail alignment, including a pedestrian bridge across the Arroyo de en Medio creek. Given that vegetation removal and/or tree removal could be required during construction activities in and adjacent to the creek, a Section 1602 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife will be required. Other construction activities will be typical of trail construction, such as site grading, ground disturbance, and paving of a trail, which could affect or disturb riparian habitat within or adjacent the Study Area; however, implementation of Mitigation Measure BIO-4 as described above will ensure that potential impacts to riparian habitat be *less than significant*.

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

Section 404 Jurisdictional Wetlands

No wetlands were observed during the site visit that meet the three parameters necessary to qualify as a Corps jurisdictional wetland. While facultative wetland plants dominated small areas of the Study Area, these areas did not contain indicators of hydric soils or wetland hydrology. As a result, no seasonal wetlands were mapped that are subject to Corps regulation under Section 404 of the Clean Water Act.[17] Therefore, the Project will have *no impact* to Section 404 jurisdictional wetlands.

Potential Section 404 Tidal Waters

There were no Section 404 tidal waters or jurisdictional non-wetland waters identified within the Study Area.[18] Therefore, the Project will have *no impact* on Section 404 tidal waters.

Potential Section 404 Jurisdictional "Non-Wetland Waters"

As described above, the Study Area contains potential Section 404 Jurisdictional non-wetland waters; however, implementation of Mitigation Measure BIO-3, as well as compliance with applicable regulations such as obtaining Section 401 and 404 permits, will ensure the protection of non-wetland waters within the Study Area; therefore, will result in a *less-than-significant* impact.

Waters of the State

The potential Section 404 jurisdictional non-wetland waters identified within the Study Area are also considered Waters of the State; therefore, they will be subject to regulation by the SWRCB and the RWQCB.[19]

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

The Project site is located in a largely urbanized area, bordered by existing roadways and other urban uses which preclude the presence of any important wildlife movement corridors across the Project site. Although there are wetlands and other ESHAs within the vicinity of the Project site, Mitigation Measures BIO-1 through BIO-5 will ensure that wildlife species are not adversely affected during construction and/or operation of the Project. Therefore, a *less-than-significant* impact will occur.

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

The Project site is located within the coastal zone and will be subject to policies in the San Mateo County LCP, as well as the County's Significant Tree Ordinance and Heritage Tree Ordinance, which are further described below.

[17] Wetland Delineation Report, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 19.

[18] Wetland Delineation Report, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 19.

[19] Wetland Delineation Report, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 19 and 20.

Heritage Tree Ordinance (Ordinance No. 2427)

The regulation of the removal and trimming of heritage trees on public and private property is established under County of San Mateo Ordinance 2427, otherwise known as the Heritage Tree Ordinance. According to this ordinance, a "heritage tree" means any of the following:

- Class 1 shall include any tree or grove of trees designated after Board inspection, advertised public hearing and resolution by the Board of Supervisors. The affected property owners shall be given proper written notice between 14 and 30 days prior to inspection and/or hearing by the Board.
- Class 2 shall include any of the following trees, in addition to several species of oak trees (Coast Live Oak, Canyon Live Oak, Oregon White Oak, Black Oak, Interior Live Oak, and Blue Oak), healthy and generally free from disease, with diameter equal to or greater than the sizes listed:
  - Acer macrophyllum – Bigleaf Maple of more than 36 inches in diameter west of Skyline Boulevard or 28 inches in diameter east of Skyline Boulevard.
  - Arbutus menziesii – Madrone with a single stem or multiple stems touching each other 4 ½ feet above the ground of more than 48 inches in diameter, or clumps visibly connected above ground with a basal area greater than 20 square feet measured 4 ½ feet above average ground level.
  - Chrysolepis chrysophylla – Golden Chinquapin of more than 20 inches in diameter.
  - Cupressus abramsiana – All Santa Cruz Cypress trees.
  - Fraxinus latifolia – Oregon Ash of more than 12 inches in diameter.
  - Sequoia sempervirens – Redwood of more than 84 inches in diameter west of Skyline Boulevard or 72 inches in diameter east of Skyline Boulevard.

Further, "protected tree" is defined as a tree specially listed as endangered by either the California Native Plant Society's List or any tree species designated protected by the Board of Supervisors. Section 11,051 of the Heritage Tree Ordinance requires a permit by the applicant to remove, destroy, or trim trees within the unincorporated area of San Mateo County. The permit will require any person proposing to cut down, destroy, move or trim one or more heritage trees to submit to the San Mateo County Planning Department an application which shall identify the species, contain the number, size and location of the trees or trees involved, a brief statement of the reason for the requested action, and describe any other pertinent information the Planning Director may require.

Significant Tree Ordinance (Part Three of Division VIII of the San Mateo County Ordinance Code)

Section 12,012 of the Significant Tree Ordinance of the San Mateo County Code defines a "significant tree" as any live woody plant rising above the ground with a single stem or trunk of a circumference of thirty-eight inches or more measured at four and one half feet vertically above the ground or immediately below the lowest branch, whichever is lower, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the lateral axes. Section 12,020 requires a permit for

the cutting down, removing, poisoning or otherwise killing or destroying or causing to be removed any significant tree or community of trees, whether indigenous or exotic, on any private property. Section 12,021 outlines permit application requirements, which requires data such as the diameter and height of the tree being removed, the type of tree(s) proposed for removal, a map or accurate sketch of the location of the trees proposed for removal, the method for marking the tree proposed for removal, a – description of the method used for removal, description of tree planting and replacement program, reasons for tree removal, the general health of the tree proposed for removal, and other pertinent information the Planning Director may require.

As described above, the Project site is relatively absent of significant or heritage size trees with the exception of the area within the banks of the Arroyo de en Medio creek. The Project proposes to construct a pedestrian bridge spanning the Creek, which contains tree species such as eucalyptus and cypress trees.[20] Therefore, it is likely that 5-10 significant size trees will be removed to accommodate the proposed bridge. However, consistent with Section 12,020.1 (Exemptions) of the Significant Tree Regulations: "Tree cutting which has been authorized by the Planning Commission, Design Review Committee, or Planning Director as part of a permit approval process in which the provisions of this Part have been considered and applied" are exempt from having to obtain a separate tree removal permit. The San Mateo County Planning Commission must approve a Coastal Development Permit for this project, at which time they will consider the provisions of the Significant Tree Removal regulations. Further, the Significant Tree Regulations require replacement of all qualifying trees at a 1:1 ratio. To comply with this requirement and not be in conflict with the County's tree regulations, the following mitigation measure is required:

> Mitigation Measure BIO-6: Prior to beginning of trail construction, the applicant shall prepare a Tree Replacement Plan, which replaces all removed significant size trees at a 1:1 ratio. The Tree Replacement Plan shall be submitted to the Planning Director for review and approval.

Implementation of Mitigation Measure BIO-6 will ensure a *less-than-significant* impact with regards to tree removal that will take place as a result of construction of the proposed project.

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

The Project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. The San Bruno Mountain Habitat Conservation Plan encompasses an area of approximately 3,600 acres near San Bruno Mountain located 20 miles north of the Project site and does not include areas in the vicinity of the Project site. No such plans have been adopted encompassing the project vicinity, *no impacts* are anticipated.

[20] Biological Resources Assessment, Midcoast Multimodal Trail Project, El Granada, San Mateo County, California, prepared by WRA Environmental Consultants, October 23, 2015, page 16.

g) *Will the Project be located inside or within 200 feet of a marine or wildlife preserve?*

The nearest State Marine Conservation Area (SMCA) is the Pillar Point SMCA, located off the coast of Pillar Point,[21] more than 200 feet from the Project site. Therefore, the Project would not be located inside or within 200 feet of a marine or wildlife preserve and *no impact* would occur. No mitigation measures are required.

h) *Will the Project result in loss of oak woodlands or other non-timber woodlands?*

The Project site includes non-native riparian woodland dominated by blue gum eucalyptus trees, and does not identify oak woodlands or non-timber woodlands within the Project site. While trees would be removed as part of the Project, they would not include removal of any oak or other non-timber woodlands. Further, implementation of Mitigation Measure BIO-6, as described above, would require that a Tree Replacement Plan be prepared to ensure that any tree removal comply with the requirements of the Heritage Tree Ordinance and the Significant Tree Ordinance, and that trees will be replaced at a 1:1 ratio. Therefore, a *less-than-significant* impact would occur.

V. CULTURAL RESOURCES

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	❒	❒	❒	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	❒	☑	❒	❒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	❒	❒	☑	❒
d) Disturb any human remains, including those interred outside of formal cemeteries?	❒	❒	☑	❒
e) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	❒	❒	☑	❒

The following discussion is based on a cultural resources study conducted for the Project site prepared by Tom Origer & Associates on October 13, 2015.[22]

The cultural resources study included archival research at the Northwest Information Center, Sonoma State University, Rohnert Park (Northwest Information Center [NWIC] File No. 15-0395), as well as

[21] California Department of Fish and Wildlife, California San Francisco Bay MPAs Map, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=74845&inline, accessed May 18, 2016.

[22] Note: The full cultural resources study prepared by Tom Origer & Associates on October 13, 2015, contains information about the locations of archaeological sites. These resources are vulnerable to looting and other vandalism, and are protected by law. For that reason, the cultural resources study is not available for public review and therefore, not included as part of the appendix to this Initial Study.

examination of the library and files of Tom Origer & Associates, field inspection of the project location, and contact with the Native American Community.

Discussion

a) *Will the Project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?*

The types of cultural resources that meet the definition of historical resources under CEQA generally consist of districts, sites, buildings, structures, and objects that are significant for their traditional, cultural and/or historical associations. Commonly, the two main resource types are subject to impact, and that may be impacted related to buildout of the Project, are historical archaeological deposits and historical architectural resources, as discussed below. Archaeological resources are addressed in Section V.b., and human remains are addressed in Section V.d below.

Cultural resources are protected by federal and State regulations and standards, including but not limited to: the National Historic Preservation Act, the California Public Resources Code, and CEQA. Also, the Office of Historic Preservation (OHP) has determined that structures in excess of 45 years of age should be considered potentially important historical resources, and former buildings and structure locations could be potentially important archaeological sites. Typically, if the Project site or adjacent properties are found to be eligible for listing on the California Register, the development will be required to conform to the current Secretary of the Interior's "Standards for Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, and Restoring Historic Buildings", which require the preservation of character defining features which convey a building's historical significance, and offers guidance about appropriate and compatible alterations to such structures.

Historical and pre-contact archaeological deposits that meet the definition of historical resources under CEQA could be damaged or destroyed by ground-disturbing activities associated with construction of the Project, such as grading and/or filling. Should this occur, the ability of the deposits to convey their significance, either as containing information important in prehistory or history or as possessing traditional or cultural significance to Native American or other descendent communities, could be materially impaired.

The records search revealed that the OHP Historic Property Directory (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) does not list any recorded buildings or structures within or adjacent to the Project site.[23] Further, the Project site itself is currently undeveloped and therefore does not have any structures that will be historically significant. As such, there will be *no impact* related to historical resources and no mitigation measures are required.

[23] Tom Origer and Associates, A Cultural Resources Study for the Mid-Coast Multi-Modal Trail Project, October 13, 2015, page 6.

b) *Will the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*

Archaeological deposits that meet the definition of unique archaeological resources under CEQA could be damaged or destroyed by ground-disturbing activities associated with Projects, such as grading and/or filling.[24] Should this occur, the ability of the deposits to convey their significance, either as containing information important in prehistory or history, or as possessing traditional or cultural significance to Native American or other descendent communities, could be materially impaired.

The proposed Project will include construction activities, such as grading, filling, digging, and other various ground disturbing activities during construction of the trail, which could inadvertently cause a substantial adverse change to an archaeological resource. The cultural resources study identified one archaeological resource (CA-SMA-149) within the study area. According to the cultural resources study, this archaeological resource was originally recorded when the property owners encountered human remains in 1973. It was reported that the site was an earthen midden containing three burials and artifacts which included mortars, a bead, bi-pitted stones, and an incised sandstone slab. Subsequent studies in the vicinity of the resource were conducted, including an auger test, in which no artifacts were found other than marine shellfish fragments.[25] No other ethnographic or archaeological sites have been reported in the vicinity.

The Project will include ground-disturbing activities during construction of the trail, implementation of which could disturb identified archaeological resources (CA-SMA-149), and/or other not-yet discovered archaeological deposits that may be present in the Study Area. As such, the following mitigation measures will minimize potential impacts to archaeological resources.

> Mitigation Measure CULT-1A: Prior to the start of construction activities, the project applicant shall comply with the following measures in order to minimize, prevent, and assure that no inadvertent damage from equipment or personnel occurs to known and/or unknown archaeological and paleontological resources:
>
> - A qualified archaeologist shall be present during any ground-disturbing construction-related activities associated with the Project, including but not limited to, site preparation, grading, exploratory borings, and construction. In the event that archaeological resources are discovered, construction activities in the vicinity of the discovery shall cease immediately until the archaeologist can determine the significance of the discovery and properly catalogs the find in accordance to professional standards and procedures. If it is determined that

[24] If the cultural resource in question is an archaeological site, CEQA Guidelines Section 15064.5(c)(1) requires that the lead agency first determine if the site is a historical resources as defined in CEQA Guidelines Section 15064.5(a). If the site qualifies as a historical resource, the potential adverse impact must be considered through the process that governs the treatment of historical resources. If the archaeological site does not qualify as a historical resources but does qualify as a unique archaeological site, then it is treated in accordance with PRC Section 21083.2 (CEQA Guidelines Section 15064.5(c)(3). In practice, most archaeological sites that meet the definition of a unique archaeological resource will also meet the definition of a historical resource.

[25] Tom Origer and Associates, A Cultural Resources Study for the Mid-Coast Multi-Modal Trail Project, October 13, 2015, page 5 and 6.

construction activities could damage, destroy, or otherwise disturb archaeological/paleontological resources, a mitigation plan adequate to protect such resources shall be prepared by a qualified professional (i.e. qualified archaeologist and/or paleontologist) to ensure adequate protection of these resources.

Mitigation Measure CULT-1B: Construction activities within the vicinity of archaeological resources site CA-SMA-149 shall comply with the following measures in order to minimize, prevent, and assure that no inadvertent damage from equipment or personnel occurs:

- All staging areas shall be located away from archaeological resource site CA-SMA-149;
- A fence shall be placed around the perimeter of archaeological resource site CA-SMA-149;
- The path of the proposed trail shall be designed to avoid archaeological resource site CA-SMA-149.

Mitigation Measure CULT-1C: If an archaeological site(s) is encountered during grading or other soil disturbing activities, project managers and project contractors shall comply with the provisions set forth in Sections 15064.5 (c) or (e) of the CEQA Guidelines, depending on the type of resource encountered. The site(s) will be recorded by a qualified archaeologist, including the extent of the site boundaries. The trail alignment(s) and/or associated features shall be relocated away from the archaeological site(s), unless the site(s) are evaluated and determined not to be eligible for listing on the California Register of Historical Resources. The archaeologist shall determine the required distance from the resource. If the eligible site(s) cannot be avoided, the proposed trail shall be designed with protective elements that will provide for trail use with minimal effect on the archeological site(s). These protective elements may include fencing, or placement of the trail on a bridge, boardwalk or earthen berm. Prior to construction, data recovery and testing shall be conducted as needed. A final report, including the results of the surveys and evaluations, shall be provided to the State Historic Preservation Officer for review.

Furthermore, in the event that an archaeological resource is discovered during project construction activities (e.g., excavation, grading), the following provisions of Section 15064.5 (c) of the CEQA Guidelines are to be followed.

(1) The lead agency shall first determine whether the site is a historical resource, as defined in subdivision (a).

(2) If the lead agency determines that the archaeological site is a historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.

(3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and

cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.

(4) If an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the proposed project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Overall, implementation of Mitigation Measures CULT-1A through CULT-1C will ensure that a *less-than-significant* impact occurs with regards to causing a substantial adverse change in the significance of an archaeological resource.

c) *Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

As described in the cultural resources study for the Project site, other than the one archaeological resource site, no other cultural resources were found within the study area.[26] However, given that the Project site is currently an undeveloped and undisturbed parcel of land, there is the possibility that unique paleontological and/or geologic features could be accidently discovered and/or directly or indirectly destroyed during ground-disturbing activities associated with construction of the Project. However, as listed above in Section V.b, implementation of Mitigation Measures CULT-1A through CULT-1C will reduce potential impacts to paleontological resources that may be discovered.

Consequently, given that the cultural resources study did not identify any unique paleontological and/or geologic features at the Project site, and because compliance with federal and State laws provide protection of paleontological resources at the Project site by requiring construction activities to cease in the event of discovery of paleontological resources, impacts will be *less than significant* and no mitigation measures are required.

d) *Will the project disturb any human remains, including those interred outside of formal cemeteries?*

The Project will include grading and filling as part of the construction of the proposed Project. Given that the Project site is currently an undeveloped and undisturbed parcel of land, there is a possibility that construction activities could disturb human remains, including those interred outside of formal cemeteries.

As mentioned under discussion V.b, there is one known archaeological resource site within the study area, which included discovery of human remains. Therefore, human remains associated with pre-contact archaeological deposits could exist on the Project site in other locations, and could be encountered at the time of ground-disturbing activities during construction of the trail. The associated

[26] Tom Origer and Associates, A Cultural Resources Study for the Mid-Coast Multi-Modal Trail Project, October 13, 2015, page 6.

ground-disturbing activities, such as site grading and filling, have the potential to disturb human remains interred outside of formal cemeteries. Descendant communities may ascribe religious or cultural significance to such remains, and may view their disturbance as an unmitigable impact. Disturbance of unknown human remains will be a significant impact.

However, any human remains encountered during ground-disturbing activities will be required to be treated in accordance with California Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (CEQA), which states the mandated procedures of conduct following the discovery of human remains. According to the provisions in CEQA, if human remains are encountered at the Project site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The San Mateo County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours, who will, in turn, notify the person the NAHC identifies as the Native American Most Likely Descendant (MLD)[27] of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

In addition to compliance with the California Health and Safety Code, Public Resources Code, and the California Code of Regulations (CEQA), compliance with Mitigation Measures CULT-1A through CULT-1C will further reduce the potential to inadvertently disturb any human remains that may be present within the Study Area. Through mandatory regulatory procedures described above, and implementation of Mitigation Measures CULT-1A through CULT-1C, which will require that a qualified archaeologist be on-site during construction to determine the significance of archeological resources in the event any are inadvertently uncovered, including human remains, within the study area, as well as provide adequate protection for any known and or unknown resources, impacts to human remains will be *less than significant*.

e) *Will the proposed project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?*

A Tribal Cultural Resource (TCR) is defined under Assembly Bill 52 (AB52) as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or included in a local register of historical resources, or if the County of San Mateo, acting as the lead agency,

[27] "Native American Most Likely Descendant' is a term used in an official capacity in CEQA Guidelines Section 15064.5(e), and other places, to refer to Native American individuals assigned the responsibility/opportunity by NAHC to review and make recommendations for the treatment of Native American human remains discovered during project implementation. Section 5097.98 of the Public Resources Code and Section 7050.5 of the Health and Safety Code also reference Most Likely Descendants.

supported by substantial evidence, chooses at its discretion to treat the resource as a TCR. As discussed under criteria (b) and (d), other than the one recorded archaeological resource, no known archeological resources, ethnographic sites or Native American remains have been identified or reported on the Project site. As discussed under criterion (b) implementation of Mitigation Measures CULT-1A and CULT-1B will reduce impacts to known and unknown archaeological deposits, including TCRs, to a less-than-significant level. As discussed under criterion (d) compliance with State and federal regulations will reduce the likelihood of disturbing or discovering human remains, including those of Native Americans. Further, the County contacted known tribes in compliance with AB52 and no response was received. Invitations for consultation can be found in Appendix B of this Initial Study. Therefore, implementation of Mitigation Measures CULT-1A through CULT-1C, together with compliance with State and federal regulations related to the protection of human remains will minimize impacts to TCRs to a *less-than-significant* level.

VI. GEOLOGY AND SOILS

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides, mudslides or other similar hazards? v) Coastal cliff/bluff instability or erosion?	❒	❒	☑	❒
b) Result in significant soil erosion or the loss of topsoil?	❒	❒	☑	❒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	❒	❒	☑	❒
d) Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2010), creating substantial risks to life or property?	❒	❒	☑	❒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	❒	❒	❒	☑

Discussion

a) *Will the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: i) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other*

substantial evidence of a known fault?; ii) strong seismic ground shaking; iii) seismic-related ground failure, including liquefaction; iv) landslides, mudslides, or other similar hazards?

The Project site is set within the Coast Ranges geomorphic province which is characterized by northwest trending valleys and ridges. This setting is strongly influenced by a series of folds and faults that resulted from the impingement of the Pacific tectonic plate on the North American craton, and resultant strike-slip faulting along the San Andreas Fault zone. The Coast Ranges can be further divided into the northern and southern ranges, which are separated by the San Francisco Bay. The Southern Coast Ranges run north and south between San Francisco Bay to the north, the Central Valley to the east, the Transverse Ranges to the south, and the Pacific Ocean to the west.

The Project site is located on the Half Moon Bay terrace sequence, one of several marine terraces or wave-cut benches that are readily visible along this stretch of the Pacific Coast. Some of the oldest terraces have been mapped on the flanks of nearby Montara Mountain at elevations exceeding 1,500 feet above mean sea level (amsl). In the immediate vicinity of the Project site, where the topography is subdued and the prevailing elevations are low (i.e., 30 to 65 feet amsl), the shallow, unconsolidated geologic units beneath these terraces consist of older alluvial fan and stream terrace deposits, including coarse-grained gravel, sand, and silt at the heads of alluvial fans, and younger distal fan deposits composed of finer grained sand, silt, and clayey silt.[28] [29] The bedrock geology underlying the above-referenced terrace deposits is dominated by the heavily fractured Cretaceous granitic rocks (i.e., granites, granodiorites, and tonalities) of the Montara Mountain igneous suite.

State-level protections against these geologic and seismic hazards include, but are not limited to the Seismic Hazards Mapping Act, the Alquist-Priolo Earthquake Fault Zoning Act, and the California Building Code (CBC). Further, if San Mateo County determines that additional geotechnical investigation is needed, the applicant must provide that information to the County before a building permit can be issued.

i. The Project site is located approximately one mile northeast of the mapped trace of the San Gregorio Fault, one of the more significant earthquake faults in the San Francisco Bay area.[30] Detailed seismic investigations of this fault in the nearby Pillar Point headlands, one of only two on-land exposures, revealed that it is a zone comprised of multiple strands of right-lateral strike-slip faults. Thus, hazards associated with surface fault rupture could potentially be present at the Project site. Proximity to this fault notwithstanding, the Project site is not located in a State-designated Earthquake Fault Zone (EFZ, formerly known as an Alquist-Priolo Fault Zone). Consequently, the potential for primary seismic ground rupture at the Project site is considered low and the potential impacts of fault rupture are considered *less than significant*. No mitigation measures are required.

[28] U.S. Geological Survey (USGS), 1994. Geologic Map of the Montara Mountain and San Mateo 7-1/2 Degree Quadrangles, San Mateo County, California, by Earl H. Pampeyan, Map I-2390.

[29] USGS, 2015. Half Moon Bay Quadrangle, California, San Mateo County, 7.5-minute Series, Scale 1:24,000.

[30] USGS, 2005. Final Technical Report Paleoseismic Investigation of the Northern San Gregorio Fault, Half Moon Bay, California, by William Lettis & Associates, Inc., National Earthquake Hazards Reduction Program Award No. 04HQGR0045

ii. The Project site, as well as the greater San Francisco Bay region in which it is located, represents one of the most seismically active areas in the continental United States. As previously discussed, active earthquake faults have been mapped in relatively close proximity. An earthquake of moderate to high magnitude generated within the San Francisco Bay area could produce strong ground shaking at the Project site. The degree of shaking will be subject to a number of variables, such as the magnitude of the event, the distance to the zone of rupture, and local geologic conditions. Potential effects of earthquake-related ground shaking could include damage to buildings, streets, paved paths, and utilities. During Project construction, compliance with applicable California Building Code (CBC) requirements will help ensure that the proposed structures (such as paved paths, bridge across Arroyo de en Medio Creek, culverts, handrails, etc.) are able to resist minor earthquakes without damage, resist moderate earthquakes without structural damage (but with some nonstructural damage), and resist major earthquakes without collapse, but with some structural as well as nonstructural damage. In light of these safeguards, the potential impacts of ground shaking are considered *less than significant*. No mitigation measures are required.

iii. The California Geological Survey (CGS), through its Seismic Hazards Zonation Program, has not yet prepared maps that show seismically induced landslide or liquefaction hazards for the Project area. Nevertheless, a 2006 map published through a cooperative program involving the CGS and the U.S. Geological Survey (USGS) classified the liquefaction potential at the Project site as "moderate." Zones of moderate susceptibility are expected to account for 20 to 30 percent of all future liquefaction occurrences.[31] Compared to areas with high liquefaction potential, somewhat stronger seismic shaking is required to cause liquefaction in zones of moderate susceptibility. Considering these mapping results, the potential impacts of seismically induced liquefaction are considered *less than significant.* No mitigation measures are required.

iv. In general, the presence of steep slopes, an overabundance of surface water (including over-irrigation), combined with soils of low soil shear strength can increase the likelihood of slope instability and the potential for landslides, mudslides, and related hazards. The Project site and its immediate surroundings are typified by gentle, southwest slopes towards the Pacific Ocean, and topographic relief in this area is subdued. Steep slopes are not present, nor are there indications of soils with unusually low shear strength. Natural hazard maps published by San Mateo County show that neither debris flow source areas nor historical landslides are located in the immediate vicinity of the Project site.[32] In light of this information, the potential impacts of landslides, mudslides, or other similar hazards are considered *less than significant*. No mitigation measures are required.

v. According to the LCP, a coastal bluff or cliff is defined as a scarp or steep face of rock, decomposed rock, sediment or soil resulting from erosion, faulting, folding or excavation of

[31] USGS and California Geological Survey (CGS), 2006. Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California, by Robert C. Witter, Keith L. Knudsen, Janet M. Sowers, Carl M. Wentworth, Richard D. Koehler, and Carolyn E. Randolph, Open-File Report 2006-1037.

[32] San Mateo County, 2015. Planning and Building Adopted Maps, http://planning.smcgov.org/adopted-maps, accessed March 21, 2016.

the land mass and exceeding 10 feet in height.[33] Further, the LCP Policy 9.8 (c) states that the extent of the bluff to be considered for hazards should include the area between the face of the bluff and a line described on the bluff top by the intersection of a plane at a 20 degree angle from the horizontal passing through the toe of the bluff or cliff, or 50 feet inland from the edge of the cliff or bluff, whichever is greater. However, even at its closest point to the coast, the Project site is more than 50 feet from the nearest coastline. Therefore, hazards related to coastal bluff or cliff erosion will be *less than significant*. No mitigation measures are required.

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

Construction of the Project will entail grading and limited excavation. Such activities carry some inherent potential for soil erosion and/or loss of topsoil. Certain regulatory requirements apply to projects that disturb more than one acre of soil, such as the proposed Project, to help mitigate these potential impacts. Accordingly, the proposed Project will be required to comply with the San Francisco Bay Regional Water Quality Control Board's (RWQCB-SFB) requirements for the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), whose goal is to reduce runoff-related erosion impacts during Project grading and construction. Part of the SWPPP includes preparation of an erosion control plan that will include erosion control Best Management Practices (BMPs) such as hydroseeding and biodegradable erosion control blankets; linear sediment barriers, fiber rolls and other measures to break up slope length or flow; post-construction inspection of drains for accumulated sediment; and clearing of accumulated sediment in such drains.

Overall, compliance with the RWQCB erosion control requirements such as development and implementation of a site-specific SWPPP, including identification of erosion control BMPs, will help ensure that impacts related to erosion and the loss of topsoil will remain *less than significant*. No mitigation measures are required.

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

As previously described, the topography at the 0.8 mile-long Project site is subdued with elevations ranging from 30 to 65 feet amsl and gentle slopes to the southwest in the direction of the Pacific Ocean. The potential for landslides is judged negligible in light of the prevailing gentle topography and the susceptibility for liquefaction is judged moderate based on maps compiled by the USGS. Consequently, the potential for landsliding, lateral spreading, liquefaction, or collapse appears to be low overall. As such, the potential impacts associated with unstable geologic units or soils are considered *less than significant*. No mitigation measures are required.

[33] San Mateo County, Local Coastal Program Policies, June 2013, page 9.2.

d) *Will the project be located on expansive soil, as defined in Section1803.5.3 of the California Building Code, creating substantial risks to life or property?*

Published soil surveys of San Mateo County classified the soils beneath the Project site as soils of the Watsonville-Elkhorn Association, generally consisting of grayish, shallow to deep soils that have developed on low marine terraces.[34] Soils of this association reportedly possess a thick, dark-gray surface soil that is sandy loam, loam, or, in a few places, clay loam. These surveys did not identify expansive soils at the Project site or in its immediate vicinity. Consequently, the potential impacts arising from construction atop expansive soil are considered *less than significant.* No mitigation measures are required.

e) *Will the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

Implementation of the Project will not generate wastewater that might otherwise require the use of septic tanks. The Project vicinity is currently serviced by the existing wastewater conveyance/treatment system in the community of El Granada. This system is managed by the Sewer Authority Mid-Coastside (SAM) Wastewater Treatment Facility, a plant that also serves the Granada Community Services District (GCSD), the City of Half Moon Bay, and the Montara Water and Sanitary District. In light of the above, Project implementation will have *no impact* with respect to the use of septic tanks or alternative wastewater disposal systems. No mitigation measures are required.

VII. CLIMATE CHANGE

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	❒	❒	☑	❒
b) Conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	❒	❒	☑	❒
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?	❒	❒	❒	☑
d) Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?	❒	❒	☑	❒
e) Expose people or structures to a significant risk of loss, injury or death involving sea level rise?	❒	❒	❒	☑

[34] U.S. Department of Agriculture (USDA), 1961. Soil Survey of the San Mateo Area, California, by Richard J. Wagner and Ralph E. Nelson, issued May 1961.

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	❒	❒	❒	☑
g) Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?	❒	❒	❒	☑

Existing Conditions

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHGs), into the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[35,36] This section analyzes the Project's contribution to global climate change impacts in California through an analysis of project-related GHG emissions.

Where available, the significance criteria established by the Bay Area Air Quality Management District (BAAQMD) may be relied upon to make the following determinations.

Discussion

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

The Project does not generate enough greenhouse gas (GHG) emissions on its own to influence global climate change; therefore, the GHG analysis measures the Project's contribution to the cumulative environmental impact. The existing 10.39 acres of undeveloped land does not generate GHG emissions from the burning of fossil fuels in vehicles (mobile sources), energy use for cooling, heating, and cooking (energy), landscape equipment use and consumer products (area sources, or indirect emissions from water use, wastewater generation, and solid was disposal. The development contemplated by the Project will include construction of a 0.8-mile multi-use trail and will not result in an increase in vehicle trips within the area. Likewise, the proposed Project will not contribute to global climate change through the increase in air emissions from heating and cooling associated with a building.

[35] Intergovernmental Panel on Climate Change, 2001, Third Assessment Report: Climate Change 2001, New York: Cambridge University Press.

[36] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

The proposed Project involves the construction of an approximate 0.8-mile multi-use trail. BAAQMD does not have thresholds of significance for construction-related GHG emissions. GHG emissions from construction activities are short term and therefore not assumed to significantly contribute to cumulative GHG emissions impacts. Since BAAQMD's CEQA Guidelines does not have specific screening criteria for recreational trails, the screening criteria for city parks were used as the best fit. Based on BAAQMD's screening criteria, city parks of 2,613 acres or larger have the potential to generate a substantial increase in GHG emissions and will need further analysis. The proposed multi-use trail will be 0.8 miles long on 10.39 acres, which is below the BAAQMD screening threshold and will generate nominal GHG emissions. Furthermore, the trail will be energy efficient because all trail lighting will be solar-powered or use other energy efficient lighting features. Therefore, GHG emissions generated by the proposed Project are a *less-than-significant* impact. No mitigation measures are warranted.

b) *Will the project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?*

Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan, the MTC's/ ABAG Plan Bay Area, and County of San Mateo's Energy Efficiency Climate Action Plan (EECAP). A consistency analysis with these plans is presented below.

CARB's Scoping Plan

In accordance with Assembly Bill 32 (AB 32), the California Air Resources Board (CARB) developed the 2008 Scoping Plan to outline the State's strategy to achieve 1990 level emissions by year 2020. To estimate the reductions necessary, CARB projected Statewide 2020 business as usual (BAU) GHG emissions (i.e., GHG emissions in the absence of statewide emission reduction measures). CARB identified that the State as a whole will be required to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the targets of AB 32. A revised BAU 2020 forecast conducted after publication of the 2008 Scoping Plan by CARB shows that the state will have to reduce GHG emissions by 21.6 percent from BAU without Pavley and the 33 percent Renewable Portfolio Standard (RPS) or 15.7 percent from the adjusted baseline (i.e., with Pavley and 33 percent RPS).

Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard (LCFS), California Appliance Energy Efficiency regulations; California Building Standards (i.e., CALGreen and the 2008 Building and Energy Efficiency Standards); California Renewable Energy Portfolio standard (33 percent RPS); changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley II); and other measures that will ensure the State is on target to achieve the GHG emissions reduction goals of AB 32. Statewide GHG emissions reduction measures that are being implemented over the next six years will reduce the Project's minor GHG emissions, particularly related to the construction phase of the project.

The proposed Project does not fall into any of these categories, and does not need to mitigate according to these standards. Impacts will be *less than significant* and no mitigation measures are warranted.

MTC's/ABAG's Plan Bay Area

To achieve MTC's/ABAG's sustainable vision for the Bay Area, the Plan Bay Area land use concept plan for the region concentrates the majority of new population and employment growth in the region in Priority Development Areas (PDAs). PDAs are transit-oriented, infill development opportunity areas within existing communities. The Project is not within a PDA and will not affect regional population and employment projects. The proposed Project will continue to serve the San Mateo County coastal communities and will be consistent with the overall goals of Plan Bay Area. Therefore, the impacts will be *less than significant*. No mitigation measures are warranted and this issue will not be discussed further.

San Mateo's Energy Efficiency Climate Action Plan

The County of San Mateo adopted the EECAP in June 2013. The EECAP is intended to streamline future environmental review of development projects in the unincorporated areas of San Mateo County by following the CEQA Guidelines and meeting the BAAQMD expectations for a Qualified GHG Reduction Strategy. The EECAP identifies the County's GHG reduction goal of 17 percent reduction below baseline emissions by 2020, which exceeds the statewide AB 32 target of a 15 percent reduction below baseline emissions by 2020. The goals and measures identified in the EECAP represent the County's actions to achieve its GHG reduction targets for target year 2020. The proposed Project will consume little energy, as street lights are solar powered. The project will be consistent with the energy efficiency goals and measures identified in the County of San Mateo's EECAP. Further, the Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay. Therefore, the impacts will be *less than significant* and no mitigation measures are warranted.

c) *Will the 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?*

Although the Project will include removal of trees, it will not result in loss of forestland or conversion of forestland to non-forest use, as described above in impact discussion II.c. For those same reasons, the Project will result in *no impact* and no mitigation measures are required.

d) *Will the project expose structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?*

According to the Governor's Executive Order S-13-08 on November 2008, global sea level rise for the next century is projected to rise faster than historical levels with the Intergovernmental Panel on Climate Change predicting that sea levels will rise between seven to 23 inches this century, and in some cases up to a 55 inch increase. However, as discussed above in impact discussion VI.a.v, the Project site is far enough from the nearest coastal cliff/bluff that it will not expose structures or infrastructure to accelerated coastal erosion. Therefore, a *less-than-significant* impact would occur and no mitigation measures are required.

e) *Will the project expose people or structures to a significant risk of loss, injury or death involving sea level rise?*

According to the National Oceanic and Atmospheric Administration (NOAA) sea level rise map, the Project site sits outside of areas to be significantly impacted by sea level rise. The NOAA study predicts a maximum sea level rise of 72 inches (6 feet) in the next century.[37] Therefore, the Project will not expose people or structures to sea level rise and *no impact* will occur. No mitigation measures are required.

f) *Will the project place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Insurance Rate Map or other flood hazard delineation map?*

The Project does not include a housing component or other permanent habitable structures nor is the Project site within a 100-year floodplain.[38] Therefore, the proposed Project will result in *no impact*.

g) *Will the project place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?*

The Project site is not in the 100-year floodplain, according to FEMA FIRM No. 06081C0255E. Therefore, no structures will be placed in a 100-year floodplain that will impede or redirect flood flows. Also, the trail will be outside of an area subject to future sea level rise or in a future erosion zone, according to the recent San Mateo County inundation map.[39] The proposed Project will result in *no impact.*

VIII. HAZARDS AND HAZARDOUS MATERIALS

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	❒	❒	☑	❒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	❒	❒	☑	❒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	❒	❒	☑	❒
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?	❒	❒	❒	☑

[37] National Oceanic and Atmospheric Administration (NOAA), Sea Level Rise and Coastal Flooding Impacts Interactive Map, https://coast.noaa.gov/slr/, accessed on May 18, 2016.

[38] Federal Emergency Management Agency (FEMA), 2012. FIRM Map No. 06081C0255E.

[39] San Mateo County, 2016. *SMC– Ocean Side South – Inundation Map.* Accessed at http://seachangesmc.com/wp-content/uploads/2015/12/SMC_HighHazardFloodExtent_Poster_OceanSouthwDisclaimer.pdf on March 18, 2016.

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area?	❒	❒	☑	❒
f) For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	❒	❒	❒	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❒	❒	☑	❒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	❒	❒	☑	❒
i) 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?	❒	❒	❒	☑
j) Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?	❒	❒	❒	☑
k) 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?	❒	❒	❒	☑
l) Inundation by seiche, tsunmi, or mudflow?	❒	❒	☑	❒

Discussion

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

Small amounts of potentially hazardous materials associated with heavy mechanical equipment, for example diesel, gasoline, or other automotive fluids, or associated trail building, such as herbicides, may be used during construction of the trail, or during routine maintenance. Project operation also could involve small quantity use of the same types of materials, as well as landscape maintenance products, during the course of trail upkeep. It is not, however, anticipated that large quantities of these materials will be permanently used or stored within the Project site.

Given that it is not anticipated that large quantities of the aforementioned materials will be permanently used or stored within the Project site, and with implementation of standard precautions and best management practices, the use, storage, and/or disposal of hazardous materials will not result in a significant hazard to the public or environment. Further, given the nature of the Project (i.e., multi-use trail), the overall impacts related to this threshold will, therefore, result in a *less-than-significant* impact and no mitigation measures are required.

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

As discussed above in Section VIII.a, operation of the Project could involve small quantity storage of potentially hazardous materials associated with heavy mechanical equipment, for example diesel, gasoline, or other automotive fluids, or associated trail building, such as herbicides. However, given the nature of the Project (i.e., multi-use trail), in addition to implementation of standard precautions and best management practices, the Project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. Therefore, impacts will be *less than significant* and no mitigation measures are required.

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

The El Granada Elementary School, a Cabrillo Unified District-kindergarten through 5th grade school, and the Wilkinson School, a private school for kindergarten through 8th grade students, are directly adjacent to the Project alignment along its north/northeast boundary at the intersection of Coronado Street and Highway 1.

As discussed in Section VIII.a and VIII.b above, operation of the Project could involve small quantity storage and use of landscape maintenance products, and fuels. However, given the nature of the Project (i.e., multi-use trail), use of any such materials will be limited and the potential to emit hazardous emissions or handle hazardous materials will not be significantly different than those associated with existing conditions as a Caltrans undeveloped right-of-way. Consequently, because operations of the Project will not be drastically different than those of the existing conditions and compliance with other federal and State laws related to the handling of hazardous materials, impacts will be *less than significant* and no mitigation measures are required.

d) *Will the project be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?*

A search of the Department of Toxic Substance Control's (DTSC's) online EnviroStor database[40] and the State Water Resources Control Board's (SWRCB's) online Geotracker database[41] on March 21, 2016 revealed that the Project site is not included on a list of hazardous material sites compiled pursuant to Government Code section 65962.5, and, as a result, will not create a significant hazard to the public or the environment. The nearest listed site is Camp Miramar located southwest of the Project alignment at the corner of Mirada Road and State Highway 1. A former vaulted water well, since abandoned under permit issued by the San Mateo Environmental Health Services Agency, mistakenly was identified as a UST. The status of this listing is "No Further Action" as of August 12, 2012. Implementation of the proposed Project, therefore, will result in *no impact* with regard to this threshold and no mitigation measures are required.

[40] http://envirostore.dtsc.ca.gov/public
[41] http://geotracker.waterboards.ca.gov/public

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

The Project site is located approximately 1.7 miles southeast of Half Moon Bay Airport and is within the Airport Influence Area (AIA) established by the City/County Association of Governments (C/CAG) of San Mateo County Airport Land Use Compatibility Plan (ALUCP) for the Environs of the Half Moon Bay Airport.[42] The ALUCP indicates that the Project site is just within Safety Zone 7, which is the outer most area of flight paths. Safety Zone 7 is considered to have a low risk of aircraft accident and only requires plan review by the Airport Land Use Commission for structures 100 feet or higher given that objects shorter than 100 feet in height will not typically be airspace obstructions.[43] Given the nature of the Project (i.e., multi-use trail), there are no structures or improvements planned that will exceed the 100 foot height limit and trigger ALUC airspace review. Additionally, the Project site is not within the noise exposure area of the Half Moon Bay Airport.[44] Consequently, given that the Project will be constructed at a height significantly less than the 100 foot threshold for review by the ALUC, and because the Project is not within the noise exposure area of the airport, the Project is not expected to result in a safety hazard for people residing or working in the Project area. Therefore, this will be a *less-than-significant* impact and no mitigation measures are required.

f) *For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?*

There are no private airstrips in the vicinity of the proposed Project. Therefore, there will be *no impact* and no mitigation measures are required.

g) *Will the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The proposed Project will not result in changes to current circulation for emergency vehicles or interfere with existing emergency response plans during construction. Following construction, design of the Project will allow emergency vehicles to access and follow routes similar to those used prior to development of proposed Project. Implementation of the proposed Project, therefore, will result in a *less-than-significant* impact and no mitigation measures are required.

[42] City/County Association of Governments (C/CAG) of San Mateo County San Mateo County Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport, September 2014, Half Moon Bay Safety Zones, Exhibit 4C.

[43] City/County Association of Governments (C/CAG) of San Mateo County San Mateo County Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport, September 2014, page 4-24.

[44] City/County Association of Governments (C/CAG) of San Mateo County San Mateo County Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport, September 2014, 2032 Noise Exposure Contours, Exhibit 4B.

h) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

The proposed Project is not located on or immediately adjacent to wild lands. CAL FIRE evaluates fire hazard severity risks according to areas of responsibility (i.e., federal, state, local). According to CAL FIRE,[45] there are no very high fire hazard severity zones (VHFHSZ) within the Local Responsibility Area on or near proximity to the Project site. Likewise, these are no moderate, high, or very high fire hazard severity zones in the State Responsibility Areas in the vicinity of the Project site.[46] Although San Mateo County identifies the Project site to be located within a Community at Risk zone (i.e., neighborhoods or communities that interface with wild lands), compliance with applicable buildings codes and ordinances of the County of San Mateo, including California Building Code, Chapter 7A, Materials and Construction for Exterior Wildfire Exposure, and the very nature of the Project (i.e., multi-use trail), will reduce the risk of loss, injury, or death resulting from wildland fire and impacts will be *less than significant* and no mitigation measures are required.

i) *Will 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?*

The proposed Project does not include a housing component; therefore, *no impact* will occur with regards to placement of housing within an existing 100-year flood hazard area and no mitigation measures are required.

j) *Will the project place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?*

As described above in impact discussion VII.g), the Project site is not within a 100-year floodplain and therefore, no structures will be placed in a 100-year floodplain that could impede or redirect flood flows. As such, the proposed Project will result in *no impact* and no mitigation measures are required.

k) *Will the project 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?*

The Project site is not in a dam inundation zone;[47] therefore, development of the Project will not expose people or structures to hazards from dam inundation. Also, the Project site is not in an area protected from 100-year floods by a levee. Therefore, the Project will result in *no impact* with regard to exposing people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam, and no mitigation measures are required.

[45] California Department of Forestry and Fire Protection, 2008. San Mateo County Very High Fire Hazard Severity in LRA map, accessed on May 29, 2015.

[46] California Department of Forestry and Fire Protection, 2007. Fire Hazards and Severity Zones in State Responsibility Areas, http://frap.cdf.ca.gov/webdata/maps/sanmateo/fhszs_map.43.pdf, accessed on May 29, 2015.

[47] County of San Mateo Planning and Building, 2015. *San Mateo County Hazards/Dam Failure Inundation Areas.* Accessed at http://planning.smcgov.org/documents/san-mateo-county-hazards-dam-failure-inundation-areas on March 18, 2016.

l) *Will the project potentially be inundated by seiche, tsunami, or mudflow?*

According to the ABAG interactive debris flow and landslide maps, the Project site is not within an area susceptible to mudflows.[48] However, a small portion of the proposed trail (approximately 500 feet) is within a mapped tsunami inundation zone.[49] A tsunami is a sea wave caused by a sudden displacement of the ocean floor, most often due to earthquakes.

A seiche is a surface wave generated in a closed or partially closed body of water, which can be compared to the back-and-forth sloshing in a bathtub. Seiches can be created by winds, underwater earthquakes, or tsunamis. Bodies of water such as bays, harbors, lakes, reservoirs, large aboveground storage tanks, and swimming pools can experience seiches. Because there are no large aboveground storage tanks or reservoirs in the vicinity of the site and the Project site is near the Pacific Ocean and not an enclosed body of water, there will be no potential impact due to a seiche.

Only a small portion of the trail is within a mapped tsunami inundation zone. This will not represent a significant change regarding the risk posed by tsunami inundation above and beyond those of existing conditions. It is also unlikely that a significant number of people will be accessing the trail during a tsunami event. There are various precautions and warning systems that will be implemented by the County in the event of a tsunami. The County of San Mateo maintains an Emergency Alert System on commercial television and radio as well as over the National Weather Service All Hazard Radios to notify the public of an impending tsunami threat. In addition, the County provides local warnings and instructions to tsunami hazard areas through the County's telephone emergency notification system (TENS) and San Mateo County (SMC) alert, which is used to contact the public via email, cell phone, and/or smartphone devices.

Due to the infrequent nature of tsunamis and small area of the trail that is within the tsunami inundation zone, the potential impact of flooding from tsunamis or seiches is considered to be *less than significant* and no mitigation measures are required.

[48] Association of Bay Area Governments (ABAG), 2015. *Earthquake and Hazards Program: Interactive Map of Debris Flow Source Areas and Existing Landslides.* Accessed at http://gis.abag.ca.gov/website/Hazards/?hlyr=existingLndsld on March 18, 2016.

[49] California Emergency Management Agency, California Geological Survey, and University of Southern California., 2009. *Tsunami Inundation Map for Emergency Planning, Montara Mountain Quadrangle.* Dated June 15, 2009.

IX. HYDROLOGY AND WATER QUALITY

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements (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))?	❒	☑	❒	❒
b) Significantly deplete groundwater supplies or interfere significantly with groundwater recharge such that there will be a net deficit in aquifer volume or a significant lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses for which permits have been granted)?	❒	❒	☑	❒
c) Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on- or off-site?	❒	☑	❒	❒
d) Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or off-site?	❒	❒	☑	❒
e) Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide significant additional sources of polluted runoff?	❒	❒	☑	❒
f) Significantly degrade surface or groundwater water quality?	❒	❒	☑	❒
g) Result in increased impervious surfaces and associated increased runoff?	❒	❒	☑	❒

Discussion

a) *Will the project violate any water quality standards or waste discharge requirements?*

The proposed Project will disturb approximately 50,688 square feet (1.16 acres) and introduce approximately 33,792 square feet (0.8-acre) of impervious surface. Clearing, grading, excavation, and construction activities associated with the proposed Project have the potential to impact water quality through soil erosion and increasing the amount of silt and debris carried in runoff. Additionally, construction will involve the use of chemicals and solvents, such as fuels and lubricating grease, for motorized heavy equipment that could impact water quality with stormwater runoff. Temporary storage of construction materials and equipment in work areas or staging areas could create the potential for a release of hazardous materials, trash, or sediment to the storm drain system.

The Project will be required to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit (GCP) as well as prepare a Storm Water Pollution Prevention Plan (SWPPP) because more than one acre of land will be disturbed. This requires the incorporation of Best Management Practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. In addition, the GCP requires that prior to the start of construction activities, the project applicant must file Permit Registration Documents (PRDs) with the SWRCB, which includes a Notice of Intent (NOI), risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations.

As a result of Project construction and operation, water quality could be impacted; however, implementation of Mitigation Measure HYDRO-1 will serve to minimize these impacts.

> Mitigation Measure HYDRO-1: Consistent with the County of San Mateo's requirements, the applicant shall prepare and submit an Erosion and Sediment Control Plan with the grading permit prior to the start of construction. The plan must show what BMPs will be used and delineate work areas, measures to prevent erosion of unstable or denuded areas, locations of staging areas, construction access routes, and containment of construction materials and waste, as per the County's *General Erosion and Sediment Control Plan Checklist*. Potential BMPs may include silt fences, straw bales, catch basin inlet protection, berms around covered stockpiles, dust control, and stabilized construction access points.

Overall, compliance with implementation of Mitigation Measure HYDRO-1, and because the Project will be subject to existing regulations required by the NPDES General Construction Permit, as well as prepare a SWPPP, the impact to water quality during construction will be *less than significant.*

The operation and maintenance activities associated with the project will result in minimal impacts on water quality. Water quality in stormwater runoff is regulated locally by the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), which include the C.3 provisions set by the San Francisco Bay Regional Water Quality Control Board (RWQCB). The project is exempt from the C.3 requirements for stormwater treatment, source controls, and site design measures, because it is an impervious trail with a width of 10 feet or less and located more than 50 feet from the top of creek banks. The asphalt (impermeable) portion of the trail will be only 8 feet wide with 2 feet of decomposed granite (pervious surface) on either side of the paved trail. Nevertheless, the project will incorporate the following site design measures:

- Limit disturbance of natural water bodies and drainage systems
- Minimize compaction of highly permeable soils
- Protect slopes and channels
- Minimize impacts from stormwater and urban runoff on the biological integrity of natural drainage systems and water bodies
- Conserve natural areas, including existing trees, other vegetation and soils
- Minimize impervious surfaces.

Given that implementation of water runoff Best Management Practices (BMPs) and LID features will be required during construction and operation, along with implementation of Mitigation Measure HYDRO-1, which serve to protect water resources, a *less-than-significant* impact will occur.

b) *Will the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a significant lowering of the local groundwater table level?*

The proposed Project could result in a significant impact if it will substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The community of El Granada is served by Coastside County Water District (CCWD), which obtains most of its water from surface water supplies. Only 4 percent of the water supply is obtained from groundwater and the nine groundwater wells are located east of Half Moon Bay Airport and over 3 miles from the Project site. Therefore, implementation of the Project should not interfere with groundwater recharge.

The Project site is located within the Half Moon Bay Terrace Groundwater Basin and the El Granada Subbasin, which is in long term equilibrium.[50] The CCWD Urban Water Management Plan (UWMP) states that the District has sufficient water to meet demands during normal years through 2035.[51] Since the proposed Project is a new trail, there will be no increase in water demand.

Construction activities could result in short-term impacts to groundwater if the water table is high and construction dewatering was required. The State Water Resources Control Board (SWRCB's) Geotracker website indicates that groundwater in the vicinity of the Project site is typically 24 to 35 feet below ground surface (bgs). The Project will involve minimal grading and/or excavation and groundwater should not be encountered during construction activities. The Project will result in the creation of approximately 33,792 square feet of impervious surface but it will be spread over a distance of 0.8 mile. Therefore, the impact of increased impervious surfaces on groundwater recharge will be minimal.

There is sufficient water in future years for the community of El Granada and the Project will not increase water demand. The increase in impervious surfaces will have a minimal impact on groundwater recharge. Therefore, the Project will have a *less-than-significant* impact with respect to groundwater supplies and groundwater recharge and no mitigation measures are required.

c) *Will the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on- or off-site?*

The Project will not involve the alteration of a stream or river, but will involve a bridge above the Arroyo de en Medio dry creek bed between Furtado Lane and Miramar Drive. Ground disturbance during construction could result in a temporary alteration in drainage patterns. However, as noted in Section IX.a, construction will be subject to the requirements of the GCP and preparation of a SWPPP to minimize

[50] Balance Hydrologics, Inc., 2010. *Midcoast Groundwater Study Phase III, San Mateo County, California.*
[51] West Yost Associates, 2011. *2010 Urban Water Management Plan Prepared for Coastside County Water District.*

erosion and siltation impacts. Also, the Project will require preparation of an Erosion and Sediment Control Plan that specifies BMPs to minimize erosion and sedimentation and will include the following:

- Minimize disturbed areas of the site.
- Implement dust control measures, such as silt fences and regular watering of open areas.
- Stabilize construction entrances/exits.
- Install storm drain protection measures.
- Install sediment control measures around the site, including sand bags and filter rolls.

Once construction has been completed, there should be no significant alteration in existing drainage patterns. The relatively minor amount of new impervious surfaces with construction of the asphalt portion of the trail will not result in a substantial change of overland runoff volume or rates. As a result, there will not be substantial erosion or siltation impacts and operational impacts will be *less than significant.*

Overall, implementation of Mitigation Measure HYDRO-1 and compliance with the regulatory requirements and implementation of BMPs and site design measures will ensure that erosion and siltation impacts are *less than significant*.

d) *Will the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial flooding on- or off-site?*

The Project will not involve the alteration of the course of a stream or river but will involve construction of a bridge above the Arroyo de en Medio dry creek bed. The Project will take place primarily along the Caltrans right-of-way, which is currently undeveloped and thus will result in an increase in impervious surfaces with construction of an 8-foot wide asphalt path. However, this change in impervious surfaces is spread over a 0.8-mile stretch of land and will not significantly change drainage patterns or the rate and amount of surface runoff. The project has been designed to avoid the creation of rolling dips or other features that will concentrate surface runoff at any one location. The Project will implement site design features to minimize impacts to stormwater runoff.

Ground disturbance during construction could temporarily alter drainage patterns but construction activities will be subject to the NPDES permit that imposes strict requirements to reduce the volume of stormwater runoff. BMPs will be implemented during construction and an Erosion and Sediment Control Plan will be prepared and submitted to the County prior to the start of construction.

Compliance with the State and County regulatory requirements will ensure that the rate and/or volume of surface runoff will not be substantially increased in a manner that results in on-site or off-site flooding and therefore, this impact is *less than significant*.

e) *Will the project create or contribute runoff water which will exceed the capacity of the existing or planned stormwater drainage systems?*

Runoff from the trail is expected to drain via sheetflow to adjacent vegetated or undeveloped areas where it will infiltrate into the soil. Therefore, stormwater runoff will not require a connection to the

existing storm drain system. The proposed Project will cross several small drainage courses and culverts will be constructed beneath the trail to allow water to continue draining along its existing natural course. Such improvements will not change the capacity of the existing drainage channels or stormwater conveyance systems. Therefore, the Project will not result in stormwater runoff volumes that could exceed the capacity of existing or planned stormwater drainage systems, and the impact will be *less than significant.*

f) *Will the project otherwise substantially degrade water quality?*

The multi-use trail will be used by pedestrians, bicyclists, and equestrians with no motorized travel (except for routine maintenance). Therefore, the Project will not generate pollutants such as motor oil, trace metals, grease, and fuels associated with road contaminants. The trail will require minimal maintenance so there will be no pollutants such as nutrients, organic compounds, or pesticides/herbicides that could impact stormwater runoff.

Implementation of BMPs will be required during construction to control erosion and runoff in accordance with the provisions of the SWPPP and will minimize the potential for releases of construction pollutants that could impact water quality. Therefore, compliance with these regulations and the limited probability that stormwater pollutants will be generated with use of the trail will ensure that the Project does not substantially degrade water quality and the impact is *less than significant*.

g) *Will the project result in increased impervious surfaces and associated increased runoff?*

The existing Project site is unimproved and therefore does not contain impervious surfaces. The Project proposes construction of a trail which will therefore increase the amount of impervious surfaces which will increase the amount of stormwater runoff. However, as discussed above under impact discussion IX.e, increased runoff will not result in runoff volumes that could exceed the capacity of existing or planned stormwater drainage systems, thus resulting in a *less-than-significant* impact determination. No mitigation measures are required.

X. LAND USE AND PLANNING

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

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in the congregating of more than 50 people on a regular basis?	❒	❒	☑	❒
e) Result in the introduction of activities not currently found within the community?	❒	❒	❒	☑
f) Serve to encourage off-site development of presently undeveloped areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?	❒	❒	❒	☑
g) Create a significant new demand for housing?	❒	❒	❒	☑

Discussion

a) *Will the project physically divide an established community?*

Construction of the Project will have a significant environmental impact if it were sufficiently large or otherwise configured in such a way as to create a physical barrier or other physical division within an established community. A typical example will be a project which involved a continuous right-of-way, such as a roadway, which will divide a community and impede access between parts of the community.

The Project site is currently undeveloped and proposes construction of a 0.8 mile, 12-foot wide, two-directional multi-use trail parallel to Cabrillo Highway (Highway 1) from Coronado Street to Mirada Road. Although the Project site itself is undeveloped, the areas surrounding the Project site are generally developed, consisting of El Granada Elementary School and Wilkinson School, single- and multi-family residential, and commercial development. However, the proposed Project will improve connection between existing developments by formalizing a trail in an area that is otherwise undeveloped. Therefore, the proposed Project will not physically divide any established community and a *less-than-significant* impact will occur. No mitigation measures are required.

b) *Will the project conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Construction of the Project will have a significant environmental impact if it will conflict with community goals as expressed in adopted plans, policies, or regulations. The Project will be consistent with several LCP policies related to the avoidance or mitigation of an environmental effect. For example, LCP Policy 7.3, Protection of Sensitive Habitats, prohibits any land use or development which could have a significant adverse impact on sensitive habitat areas, and development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the sensitive habitats. As described above under section IV. Biological Resources, the Project will not result in significant adverse environmental effects related to sensitive habitat, wetland, or other biological resources with implementation of Mitigation Measures BIO-1 through BIO-5. Further, LCP Policy 7.5, Permit Conditions, requires applicants to demonstrate that there will be no significant impact on sensitive habitats as part of the development review process. The Project will also be consistent with LCP Policy 7.9, Permitted Uses in

Riparian Corridors, which permits limited uses within riparian corridors, including trails and scenic overlooks. Given that the Project involves construction of a trail, the Project will be consistent with this policy.

Overall, compliance with the LCP policies described above would ensure that there will be no significant impacts on sensitive habitats, and that the Project will have a *less-than-significant* impact on the surrounding area. No mitigation measures are required.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

The Project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. The San Bruno Mountain Habitat Conservation Plan encompasses an area of approximately 3,600 acres near San Bruno Mountain located 20 miles north of the Project site and does not include areas in the vicinity of the Project site. No such plans have been adopted encompassing the project vicinity; therefore the Project will result in *no impact.*

d) *Will the project result in the congregating of more than 50 people on a regular basis?*

The Project proposes construction of a trail which will result in people visiting the Project site, however, it is not expected that more than 50 people will be congregating on a regular basis. Although there could be several people using the trail simultaneously, these trail users will not likely congregate such that it results in adverse effects. Overall, a *less-than-significant* impact will occur and no mitigation measures are required.

e) *Will the project result in the introduction of activities not currently found within the community?*

The Project proposes construction of a trail along Highway 1 that will provide opportunities for passive recreation, such as walking and bicycling. Given the location near the Pacific Ocean coastline and the existing California Coastal Trail which also provides trails for passive recreation within the community, the Project will not be introducing activities that are not already present in the area. Therefore, *no impact* will occur and no mitigation measures are required.

f) *Will the project serve to encourage off-site development of presently undeveloped areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?*

Although the Project itself will develop an undeveloped area of land, the Project components will be constructed within the site itself and will not otherwise encourage any off-site development anywhere necessary to support construction and/or operation of the proposed trail. Further, because the Project is a trail and does not include a housing component which could increase the population, there will not be a need for any new industry or commercial facilities as a result. Therefore, *no impact* would occur and no mitigation measures are required.

g) *Will the project create a significant new demand for housing?*

The Project proposes construction of a trail which will encourage people to engage in passive recreation; however, it is unlikely that the trail will encourage or result in the relocation of anyone to the extent that it will create a significant new demand for housing. Further, the proposed Project will not generate an increase in employment. Therefore, *no impact* will occur and no mitigation measures are required.

XI. MINERAL RESOURCES

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	❒	❒	❒	☑
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	❒	❒	❒	☑

Discussion

a) *Will the project result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?*

The California Department of Conservation, Geological Survey (CGS) classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1974. These MRZs identify whether known or inferred significant mineral resources are present in areas. Lead agencies are required to incorporate identified MRZs resource areas delineated by the State into their General Plans.[52] The San Mateo County General Plan does not identify any Land Use designations for mineral resources on the Project site.[53] Therefore, the Project will result in *no impact* and no mitigation measures are required.

b) *Will the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

See Section XI.a above.

[52] Public Resources Code Section 2762(a)(1).

[53] County of San Mateo Planning and Building Department, Map 1.4 – Midcoast Land Use Plan, http://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/SMC_Midcoast_LCP_LU.pdf, accessed on March 31, 2016.

XII. NOISE

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

Existing Conditions

The primary sources of noise in the vicinity of the project site are from traffic noise on surrounding roadways; primarily from Cabrillo Highway (Highway 1). Secondary roadway noise sources include Coronado Street, Magellan Avenue, Medio Avenue, Miramar Drive, Mirada Road, and Furtado Lane.

Upon completion of the proposed Project, the trail will accommodate pedestrian and bicycle users. There are no new vehicle parking facilities included in the proposed Project. These pedestrian and bicycle users will generate negligible levels of sound (from footfalls, talking, and/or exertion), as compared to the motor vehicle flows along the nearby Highway 1. The Project will be accessible 365 days of the year, but will be primarily intended for daytime usage as lighting will only consist of solar-powered fixtures, meant to provide safety illumination.

The proposed project is within an unincorporated area of San Mateo County, known as El Granada. Therefore, the General Plan Noise Element of San Mateo County is referenced for noise-related policies and noise control goals. Likewise, the San Mateo County Code is used to establish regulatory noise limitation for the project. These two documents are summarized below.

a. County of San Mateo Noise Element

The Noise Element of the County's General Plan is generally intended to protect public health and welfare by eliminating existing noise problems and by preventing significant degradation of the future acoustic

environment. The Noise Element was adopted in November of 1986 and it provides over-arching strategies for controlling and/or reducing community-wide noise environments within the County.

The General Plan Noise Element also provides land use compatibility and interior and exterior noise standards to "guide development within the unincorporated area." These exterior noise standards are based on the State of California's Noise Compatibility Guidelines, but the Noise Element also states: "…this approach has never been incorporated by ordinance into the development review process."[54] For reference, however, the State's Noise Compatibility Guidelines denote the following for uses categorized as 'Playgrounds, Neighborhood Parks':

- "normally acceptable" will have environmental noise levels between 50 and 70 dBA CNEL
- "conditionally acceptable" will have environmental noise levels between 67.5 and 75 dBA CNEL
- "normally unacceptable" (no guidelines provided)
- "clearly unacceptable" will have environmental noise levels between 72.5 and 85+ dBA CNEL

These land use standards are designed to ensure that proposed land uses are compatible with the predicted future noise environment. For example, a "conditionally acceptable" designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements.

The above discussion notwithstanding, it is important to note that with the recent Supreme Court decision regarding the assessment of the environment's impacts on proposed projects (*CBIA v BAAQMD*, issued December 17, 2015)[55], it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on any given project. For noise, the application of this ruling means that the analysis of traffic, rail, and aircraft noise effects at the project site—regarding land use compatibility issues—is no longer part of CEQA. Therefore, exterior noise effects from nearby roadways relative to land use compatibility of the project is no longer a topic for impact evaluation under CEQA, and no statement of impact significance is germane.

b. San Mateo County Code (Noise Ordinance)

In general, noise is primarily a concern with regard to noise-sensitive land uses such as residences, schools, churches, and hospitals. The nearest sensitive receptors to Project site are residential uses that are generally between approximately 75 and 150 feet from the trail pathway. The closest school use is the El Granada Elementary School, portions of which are within approximately 75 feet of the proposed trail.

[54] Section 'Man-Made Hazards Issues', Part I 'Noise', Section C 'Evaluation of Existing Plan, Policies, and Regulations for Noise Control, Subsection 4 'Noise Land Use Compatibility', Page 16.54

[55] California Supreme Court. *California Building Industry Association v. Bay Area Air Quality Management District* (2015) [Case No. S213478]

Noise emissions within the County of San Mateo are primarily regulated by Chapter 4.88 – Noise Control of the County Code.[56] This portion of the County Code was adopted in October of 1982. As an over-arching restriction on community noise, section 4.88.350 reads:

The Code does not list quantitative noise thresholds for interior or exterior noise standards. Rather, the Noise Limitations focus on subjective traits for community noise, such as annoyance, disturbance, and offensiveness. Specifically, subsection (a) of Section 2.05.020 reads:

> Notwithstanding any other provision of this ordinance, it shall be unlawful for any person to willfully or negligently make or continue, or cause to be made or continued any unreasonably loud, unnecessary, or unusual noise which disturbs the peace and quiet of any neighborhood or which causes any discomfort or annoyance to any person of normal sensitivity residing in the area. The factors which shall be considered in determining whether a violation of the provisions of this section exists include the following:
> a) The sound level of the objectionable noise.
> b) The sound level of the background noise.
> c) The proximity of the noise to residential sleeping or hospital facilities.
> d) The nature and zoning of the area from which the noise emanates and upon which the noise impacts.
> e) The number of persons affected by the noise sources.
> f) The time of day or night the noise occurs.
> g) The duration of the noise and its tonal, informational, or musical content.
> h) Whether the noise is continuous, recurrent, or intermittent.
> i) Whether the noise is produced by a commercial or non-commercial activity. (Prior Code Section 4955; Ord. 2803, 10/19/82)

The primary numerical standards for limiting exterior and interior noise levels are contained in Sections 4.88.330 and 4.88.340, respectively. The county's noise ordinance is designed to protect people from objectionable non-transportation noise sources such as music, construction activity, machinery, pumps, and air conditioners. Like many noise regulations, San Mateo County restricts noise levels generated at a source property from exceeding certain noise levels over a stepped range of time periods. That is, increasing levels of noise emissions are allowable for decreasing time frames.

i. Exterior Noise Limits.

For exterior noise, the receiving property types are delineated as single or multiple family residential, school, hospital, church, or public library; situated in either the incorporated or unincorporated area. These numerical standards for exterior noise are summarized in Table 1.

[56] https://www.municode.com/library/ca/san_mateo_county/codes/code_of_ordinances?searchRequest=%7B%22searchText%22:%22noise%22,%22pageNum%22:1,%22resultsPerPage%22:25,%22booleanSearch%22:false,%22stemming%22:true,%22fuzzy%22:false,%22synonym%22:false,%22contentTypes%22:%5B%22CODES%22%5D,%22productIds%22:%5B%5D%7D&nodeId=TIT4SAHE_CH4.88NOCO_4.88.360EX; accessed March 24, 2016.

Table 1 – EXTERIOR NOISE LEVEL STANDARDS, dBA for Receiving Land use: Single or Multiple Family Residence, School, Hospital, Church, or Public Library Properties.

Category	Cumulative Number of Minutes (in any 1 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

Source: County of San Mateo Code, Chapter 4.88, Section 4.88.330.
Notes:
a) In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in five (5) dBA increments so as to encompass the background noise level.
b) Each of the noise level standards specified above shall be reduced by 5 dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.
c) If the intruding noise source is continuous and cannot reasonably be stopped for a period of time whereby the background noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards in Table 1.

Interior Noise Limits. For interior noise, it is unlawful to create, or allow the creation of, any noise which causes the noise level when measured inside a receiving dwelling unit with windows in their normal seasonal configuration to exceed the noise level standards summarized in Table 2.

Table 2 – INTERIOR NOISE LEVEL STANDARDS, dBA for Dwelling Units

Category	Cumulative Number of Minutes (in any 1 hour time period)	Daytime 7 A.M.—10 P.M.	Nighttime 10 P.M.—7 A.M.
1	5	45	40
2	1	50	45
3	0	55	50

Source: County of San Mateo Code, Chapter 4.88, Section 4.88.340
Notes:
a) In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in five (5) dBA increments so as to encompass the background noise level.
b) Each of the noise level standards specified above shall be reduced by 5 dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.
c) If the intruding noise source is continuous and cannot reasonably be stopped for a period of time whereby the background noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards in Table 2.

ii. Construction-related Noise

Construction activities are exempted from the above noise limitations, provided said construction is conducted per the requirements of Section 4.88.360. That is, construction activities are prohibited between 6:00 PM and the following 7:00 AM on weekdays and between 5:00 PM and the following 9:00 AM on Saturdays. Construction is not allowed on Sundays, Thanksgiving, and Christmas.

c. Pertinent Acoustical Industry Considerations

With respect to projected increases, noise impacts can be broken down into three categories. The first is "audible" impacts, which refer to increases in noise level that are perceptible to humans. Audible increases in general community noise levels generally refer to a change of 3 dB or more since this level has been found to be the threshold of perceptibility in exterior environments. The second category, "potentially audible" impacts, refers to a change in noise level between 1 and 3 dB. This range of noise levels was found to be noticeable to sensitive people in laboratory environments. The last category includes changes in noise level of less than 1 dB that are typically "inaudible" to the human ear except under quiet conditions in controlled environments. Only "audible" changes in noise levels at sensitive receptor locations (i.e., 3 dB or more) are considered potentially significant. Note that a doubling of traffic flows (i.e., 10,000 vehicles per day to 20,000 per day) will be needed to create a 3 dB increase in traffic-generated noise levels.

Discussion

The County of San Mateo proposes to construct a new 0.8 mile, 12-foot wide, two-directional multi-use trail parallel to Highway 1 from Coronado Street to Mirada Road, which will be open for public access 365 days a year. The Project will also include entry and safety signage, traffic-calming features; at road crossings, a creek bridge, and other infrastructure designed to minimize potential impacts to the natural drainage courses and wetland areas. The Project consists of seven segments that comprise the entire 0.8 miles of trail. With the exception of the trailhead near Highway 1, the majority of the trail will generally be set back 60 feet from Highway 1; mostly within the Caltrans right-of-way. However, there will be a portion of the trail that is within approximately 16 feet of the center of the nearest travel lane of Highway 1.

a) *Will the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or other applicable standards of other agencies?*

General Plan Noise Element

El Granada is a census-designated place in San Mateo County without established exposure land use compatibility standards. Therefore, the General Plan of San Mateo County is referenced in order to determine what can be characterized as acceptable noise compatibility. At relatively low levels, noise can interfere with speech, sleep and mental concentration. At higher levels and for extended periods of time, noise can cause stress, headaches and a variety of physiological effects, including permanent hearing loss. The County of San Mateo General Plan states in chapter 16 that all citizens are entitled to a peaceful and quiet environment without the intrusion of noise which may be hazardous to their health and welfare. The General Plan seeks to develop policies aimed at providing an environment free from harmful and annoying levels of noise. As noted above, however, noise land use compatibility impact assessments are no longer part of the CEQA process (per the CBIA v BAAQMD ruling of December 2015), so the environment's noise effects onto the proposed project are not pertinent to this CEQA document.

County Code Noise Emission Limits

The proposed project will consist of pedestrian and bicycle users following the trail. No motorized vehicles will be on the trail[57] and there are no new vehicle parking facilities included in the proposed project. These pedestrian and bicycle users will generate negligible levels of sound (from footfalls, talking, and/or exertion), as compared to the motor vehicle flows along the adjacent Highway 1. Therefore, the operations at and the use of the proposed project will not change (or substantially increase) the area noise levels (as compared to existing conditions) and will not create noise levels that will violate Sections 4.88.330 or 4.88.340 of the County Code (dealing with noise emissions at sensitive receptor land uses). Thus, trail users will not generate noise levels in excess of County Code standards and this impact is *less than significant.*

County Code Construction Activities

Construction of the proposed Project will take approximately 6 months and is expected to begin August 2017. The project site is generally level, so relatively little heavy earthwork will be required. Additionally, there will be no structures or buildings associated with the proposed project, so no substantial foundations will be needed. As such, construction activities will primarily employ equipment items that will not generate significant levels of noise. These new, but temporary sources, coupled with the relatively high existing noise levels from traffic flows on Highway 1 may, at times, be audible at nearby residential and school land uses, but are not expected to substantially raise the community noise levels. Lastly, with adherence to Section 4.88.360 of the County Code that restricts construction activities to allowable portions of the day[58], construction noise impacts will be *less than significant*.

b) *Will the project result in exposure of persons to or generate excessive groundborne vibration or groundborne noise levels?*

Construction Vibration

As mentioned above, there are single- and multi-family homes along the Project site's northern boundary, as well as Wilkinson School and El Granada Elementary School at the eastern boundary of the Project. Construction activities associated with the proposed Project are not likely to result in significant vibration attributed to equipment that could be used during construction, such as tractors, dump trucks, and heavy grading. The nearest sensitive uses are apartments approximately 75 feet adjacent to the Project site near Medio Ave, which are located east and west of the Project boundary. Because vibration waves decrease in energy as they propagate from a source, vibration levels at 75 feet from the construction site are expected to have diminished to below detectability from the envisioned equipment set. Therefore, impacts related to groundborne vibration and groundborne noise levels during construction activities are expected to be *less than significant*.

[57] With the possible exceptions of law enforcement patrols or occasional maintenance vehicles.

[58] Specifically, construction activities are prohibited between 6:00 PM and the following 7:00 AM on weekdays and between 5:00 PM and the following 9:00 AM on Saturdays. Construction is not allowed on Sundays, Thanksgiving, and Christmas.

Operations Vibration

Operation of the walking/biking trail will not involve any mechanical equipment that will induce notable levels of groundborne vibration. Likewise, users of the trail will not produce measureable levels of groundborne vibration. Thus, vibration impacts during project operations will be *less than significant*.

In summary, both construction and operations activities will not create substantial groundborne vibration or groundborne noise. This impact will be *less than significant* and no mitigation measures are needed.

c) *Will the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Traffic flows are the primary source of ambient noise in the vicinity of the Project site. The main vehicular noise source is Highway 1, immediately to the southeast of the project trail. The Project's proposed trail is not expected to create a significant noise impact, since its primary use is walking and recreation. As such, this impact will be *less than significant*. No mitigation measures are required.

d) *Will the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Construction of the proposed Project will involve earthwork and grading, and could involve the use of tractors, dump trucks, and graders. In addition, chainsaws could be used to remove vegetation, where necessary. Construction-related short-term noise levels will be higher than existing ambient noise levels in the vicinity of the Project site but will end once construction is completed. Site preparation, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is typically earthmoving equipment. Usual operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three or four minutes at lower power settings.

The closest sensitive noise receptors are the residences approximately 75 feet adjacent to the Project site near Medio Ave (located east and west of the Project boundary). As such, residential and school receptors may intermittently and sporadically hear construction-related noise levels that are noticeable in relation to the existing conditions. However, the traffic flows on Highway 1 will continue to be the dominant noise source at these receptors and construction activities are not expected, to substantially increase the daytime noise environment. Additionally, provided that all construction activities are limited to weekdays between 7:00 AM and 6:00 PM, construction activities will be exempt from the applicable local noise level limits.

In consideration that the project construction will be temporary over 6 months, will generally be overshadowed by traffic flow noise on nearby roadways, and will be infrequent and short-lived throughout the least noise-sensitive portions of the day, impacts due to construction noise will be *less than significant*.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?*

The Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport (ALUCP) outlines regulations for compatible land uses within the Half Moon Bay Airport Influence Area (AIA). The Project site is located approximately 1.5 miles to the southeast of Half Moon Bay Airport, and is located within the AIA. While people working in the Project site may be exposed to occasional noise associated with airport use, the Project site is not located within the 60 dBA CNEL Noise Exposure Contour (of 2012),[59] and any such exposure is expected to be brief and not expected to occur at levels that will conflict with the Noise Compatibility Criteria outlined in the ALUCP. Further, exposure to excessive noise levels attributed to aircraft noise from a public airport will not likely be substantially different than existing conditions. Therefore, impacts will be *less than significant*. No mitigation measures are required.

f) *For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?*

As mentioned above, there are no private airstrips in the vicinity of the proposed Project. Therefore, there will be *no impact* with regard to exposing people residing or working in the vicinity of the Project site to excessive noise levels related to private airstrips.

XIII. POPULATION AND HOUSING

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce significant 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)?	❒	❒	❒	☑
b) Displace existing housing (including low- or moderate-income housing), necessitating the construction of replacement housing elsewhere?	❒	❒	❒	☑

Discussion

a) *Will the project induce substantial 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)?*

The Project proposes to construct a new 0.8 mile, 12-foot wide, two-directional multi-use trail for recreational purposes. The Project does not propose housing or employment, and thus will not induce

[59] City/County Association of Governments of San Mateo County, Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport, 2014, http://ccag.ca.gov/wp-content/uploads/2014/10/HAF-ALUCP-Final.pdf, accessed on March 21, 2016.

substantial population growth in the area. Therefore, the Project will result in *no impact* related to population growth and no mitigation measures are required.

b) *Will the project displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?*

The Project site is currently undeveloped and will therefore not result in the displacement of any housing units. Therefore, the Project will result in *no impact* and no mitigation measures are required.

XIV. PUBLIC SERVICES

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	❒	❒	☑	❒
ii. Police protection?	❒	❒	☑	❒
iii. Schools?	❒	❒	❒	☑
iv. Parks?	❒	❒	❒	☑
v. Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?	❒	❒	❒	☑

Discussion

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

The primary purpose of a public services impact analysis is to examine the impacts associated with physical improvements to public service facilities required to maintain acceptable service ratios, response times, or other performance objectives. Public service facilities need improvements (i.e., construction of new, renovation or expansion of existing) as demand for services increase. Increased demand is typically driven by increases in population. The Project will have a significant environmental impact if it will exceed the ability of public service providers to adequately serve the residents of El Granada, thereby requiring construction of new facilities or modifications to existing facilities.

Fire Protection

Fire protection in El Granada is provided by the Coastside Fire Protection District, which serves 30,000 residents in a 50-square-mile area from three fire stations.[60] The El Granada Fire Station #41 is located at 531 Obispo Road, El Granada, CA 94018, which is located 1.1 miles from the proposed trail alignment at its furthest point.[61] The proposed Project will include enhancements to an area of undeveloped land within the Caltrans right of way that will include a 0.8 mile 12-foot wide trail alignment. As a result, the Project could result in an increase in visitors engaging in passive recreation, such as jogging, walking, biking, and running, which could result in additional calls for fire and emergency services. However, the construction of a 0.8 mile trail is unlikely to draw a significant amount of visitors to the extent of requiring the need for new or physically altered fire protection facilities. As mentioned above, the Project does not include a residential component and therefore will not result in an increase of the permanent population. Further, given the close proximity of Fire Station #41 to the proposed trail, response times and service ratios are unlikely to be affected to the point of requiring expansion of existing or construction of new facilities. Consequently, a *less-than-significant* impact will occur with respect to fire and emergency services and no mitigation measures are required.

Police Protection

Police protection in El Granada is provided by the San Mateo County Sheriff. The North Coast Substation located at 500 California Ave in Moss Beach, and the Half Moon Bay Substation located at 537 Kelly Avenue in Half Moon Bay, are both located less than 4 miles from the Project site. Although a potential increase in visitors could occur, given the close proximity of both Substations, any increase will unlikely affect response times or service ratios resulting in any substantial changes that will trigger the need for new or expanded police protection facilities. Further, as described above, the Project does not include a residential component and therefore will not result in an increase of the permanent population. Overall, a *less-than-significant* impact will occur with respect to police protection and no mitigation measures are required.

Schools

As mentioned above, the project does not include a residential component and therefore will not result in an increase of the permanent population. As such, the Project will not generate students that will attend any schools serving the area, and *no impact* will occur to schools. No mitigation measures are required.

Parks

The proposed Project will not cause an increase of use or demand for parks and will not trigger the need for new or physically altered facilities in order to maintain existing levels of service. Further, the project itself will increase the amount of recreational opportunities in the area. Therefore, there will be *no impact* with respect to parks and no mitigation measures are required.

[60] Coastside Fire District, 2008. About Us. Accessed March 2, 2016 from http://coastsidefire.org/about.

[61] This accounts for the distance from the Fire Station 41 at 531 Obispo Road to the eastern boundary of the Project at Mirada Road.

Other Public Facilities (e.g. hospitals, or electrical/natural gas supply systems)
As mentioned above, the project does not include a residential component and therefore will not result in an increase of the permanent population nor would the Project result in the construction of permanent structures that would require electrical or natural gas supply. As such, the Project will not result in a substantial increase to the number of visitors to libraries. Therefore, *no impact* will occur and no mitigation measures are required.

XV. RECREATION

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

Discussion

a) *Will the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility will occur or be accelerated?*

As discussed above in Section XIII, Population and Housing, the proposed Project will construct a paved, 0.8 mile-long trail and is not expected to result in any direct or indirect increase in population as a result. Further, the Project will increase the quality of recreational opportunities available in the area. As such, there will be *no impact* with regards to use of existing parks and recreational facilities and no mitigation measures are required.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment?*

See Section XV.a above.

XVI. TRANSPORTATION AND CIRCULATION

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	❒	☑	❒	❒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	❒	❒	☑	❒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	❒	❒	❒	☑
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❒	❒	☑	❒
e) Result in inadequate emergency access?	❒	❒	❒	☑
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	❒	❒	☑	❒
g) Cause a noticeable increase in pedestrian traffic or a change in pedestrian traffic patterns?	❒	❒	☑	❒
h) Result in inadequate parking capacity?	❒	❒	❒	☑

Discussion

a) *Will the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

The City/County Associations of Governments of San Mateo County's (C/CAG) Congestion Management Program (2013 CMP) requires local jurisdictions to notify C/CAG at the beginning of the CEQA process of all development applications or land use policy changes that are expected to generate a net 100 or more peak hour trips on the CMP network. In addition, San Mateo County does not require the preparation of traffic impact analysis for land use projects that generate less than 500 trips per day or 100 peak hour trips at an intersection.[62]

[62] County of San Mateo, Traffic Impact Study Requirements, September 2013, page 2.

The proposed Project will construct a 0.8 mile multi-use trail within Caltrans right-of-way parallel Highway 1. Overall, vehicle trips within El Granada will not increase substantially in the long term as a result of the Project and will likely generate fewer than 100 peak hour trips or 500 trips per day. Thus, Project operation will have minimal impacts on congestion management programs for San Mateo County roads.

In the short-term, during project construction, construction equipment will be brought to the site, and numerous truck trips to bring gravel and other material to the Project site will occur. It is anticipated that there will be an average of 8 inbound vehicle trips and 8 outbound vehicle trips each day during the 24-week construction phase. The short-term construction traffic related to delivery of equipment and import of material as well as the daily transportation of construction workers to the site is not expected cause a significant increase in traffic volume. Further, vehicle trips related to delivery of construction equipment will not increase traffic congestion to above less than significant levels because these short-term activities will be mitigated through the implementation of Mitigation Measures TRAF-1A and TRAF-1B.

> Mitigation Measure TRAF-1A: The Construction contractor shall be responsible for providing a Traffic Control Plan (TCP) approved by the County Traffic Engineer, prior to the start of construction. The TCP shall include traffic control measures in order to ensure traffic safety during all construction phases. The traffic control devices may involve signage, use of delineators, flashing arrows, and/or temporary lane lines at the discretion of the County Traffic Engineer. The TCP shall be approved by the County Traffic Engineer. The TCP shall include provisions for advanced notification (signage) of the proposed detour routes and coordination with emergency service providers.
>
> Mitigation Measure TRAF-1B: The proposed project shall be constructed in a manner to avoid a substantial increase in construction-period traffic congestion.
>
> - The applicant will identify locations for contractor parking on site for the duration of the construction period so that parking does not affect the operation of local roads.
> - Vehicle trips to and from the site for purposes of transporting cut and fill will be prohibited during peak traffic AM and PM peak hours.
> - In the event of lane closures due to deliveries, adequate number of flaggers and the appropriate signage will be required to ensure the safe passage of vehicles, bicyclists, and pedestrians.

Implementation of Mitigation Measure TRAF-1A and TRAF-1B will reduce construction-related traffic impacts to a *less-than-significant* level.

b) *Will the project conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

The nearest CMP intersection is located 3 miles south of the Project site in Half Moon Bay at Highway 1 and State Route 92. As discussed in response Section XVI.a above, the Project will generate fewer trips

than the 100 peak hour trips, which is the threshold for the preparation of traffic impact analysis to the CMP roadway system. As the Project will generate fewer trips than the 100 peak hour trip threshold, the Project will not cause a substantial impact to the CMP roadway network. As such, this impact will be *less than significant* and no mitigation measures are required.

c) *Will the project result in a change in air traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks?*

As discussed above in section VIII.e above, the Project site is located approximately 1.7 miles southeast of Half Moon Bay Airport and is within the AIA established by the C/CAG of San Mateo County ALUCP for the Environs of the Half Moon Bay Airport.[63] The ALUCP indicates that the Project site is just within Safety Zone 7, which is the outer most area of flight paths. Safety Zone 7 is considered to have a low risk of aircraft accident and only requires plan review by the Airport Land Use Commission for structures 100 feet or higher given that objects shorter than 100 feet in height will not typically be airspace obstructions.[64] Given the nature of the Project (i.e., multi-use trail), there are no structures or improvements planned that will exceed the 100 foot height limit and trigger ALUC airspace review. Therefore, there will be *no impact* to existing air traffic patterns as a result of the Project and no mitigation measures are required.

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

The proposed Project will not include any hazardous design features, such as sharp curves or intersections with inadequate signalization, nor will it increase incompatible uses on local roads resulting in hazards. The proposed Project will decrease conflicts of incompatible uses on local roads, offering an alternative trail to non-motorized traffic on local roads. Although the Project will result in the trail crossing existing roadways, safety signage will be installed to alert trail users and vehicles as the trail approaches these intersections. As a result, the Project will result in *less-than-significant* impacts and no mitigation measures are required.

e) *Will the project result in inadequate emergency access?*

The proposed Project will not result in a change in the existing roadway network and will not result in congestion on roadways. Further, the Project does not include any components that will otherwise obstruct emergency routes. Therefore, *no impact* will occur and no mitigation measures are required.

f) *Will the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of safety of such facilities?*

Existing circulation facilities include sidewalks on Coronado Street south of Obispo Road where the trailhead will begin. As described above in the Project Description, the Project proposes several new or enhanced crosswalks where the trail will cross existing roadways which will increase the safety of

[63] City/County Association of Governments (C/CAG) of San Mateo County San Mateo County Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport, September 2014, Half Moon Bay Safety Zones, Exhibit 4C.

[64] City/County Association of Governments (C/CAG) of San Mateo County San Mateo County Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport, September 2014, page 4-24.

pedestrian facilities in the area. For example, Segment 1 of the trail will include a crosswalk across Coronado Street. Other areas where the trail bisects existing roadways will also include crosswalks to ensure the safety of trail users and vehicles.

Overall, the Project proposes several components, such as sidewalks, crosswalks, streetscape improvements, and a pedestrian activated traffic signal to facilitate and enhance the safety for trail users. Therefore, the Project will not decrease the safety performance of the area related to pedestrian facilities and a *less-than-significant* impact will occur. No mitigation measures are required.

g) *Will the project cause a noticeable increase in pedestrian traffic or a change in pedestrian patterns?*

The Project will include construction of a trail in an area that is currently undeveloped. As a result, the Project will result in an increase in pedestrian traffic at the Project site; however, it is not expected that the number of people will cause or otherwise result in substantial affects regarding pedestrian traffic. Further, the Project will encourage and facilitate better access in this area of the County and will provide safer options for traveling along Highway 1. Therefore, although the Project will increase pedestrian traffic patterns and will increase the amount of pedestrian traffic over existing conditions, these are considered improvements to the overall pedestrian circulation pattern. Therefore, a *less-than-significant* impact will occur and no mitigation measures are required.

h) *Will the project result in inadequate parking capacity?*

The San Mateo County Zoning Code does not establish or provide minimum parking regulations for trail-related uses. Therefore, *no impact* will occur and no mitigation measures are required.

XVII. UTILITIES AND SERVICE SYSTEMS

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	❒	❒	❒	☑
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❒	❒	❒	☑
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❒	❒	☑	❒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	❒	❒	❒	☑

Will the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	❒	❒	❒	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	❒	❒	☑	❒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	❒	❒	☑	❒

Discussion

a) *Will the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

Wastewater treatment in the community of El Granada is provided by the Sewer Authority Mid-Coastside (SAM) Wastewater Treatment Facility, which serves the Granada Community Services District (GCSD), in addition to the City of Half Moon Bay and the Montara Water and Sanitary District, covering a service area of approximately 12 square miles. The proposed Project will not include the construction of facilities that will require connection to the sanitary sewer; therefore, *no impact* will occur and no mitigation measures are required.

b) *Will the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

The Project site is currently undeveloped and does not generate demand for water or wastewater treatment. The Project will construct a new 0.8 mile, 12-foot wide, two-directional multi-use trail parallel; however, there will be no wastewater output associated with the Project components, thus it will not result in an increase beyond existing conditions. Therefore, the Project will not require construction of new water or wastewater treatment facilities or expansion of existing facilities, and *no impacts* will occur. No mitigation measures are required.

c) *Will the Project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

As described above in the Project Description, the proposed Project crosses several small drainage courses, and will construct culverts beneath the trail to allow water to continue draining along its existing drainage course. The drainage culverts will be constructed using reinforced concrete pipe.

The Project will not involve the alteration of the course of a stream or river but will involve construction of a bridge above the Arroyo de en Medio dry creek bed. The Project will take place primarily along the Caltrans right-of-way, which is currently undeveloped and thus will result in an increase in impervious surfaces with construction of an 8-foot wide asphalt path. However, this change in impervious surfaces is

spread over a 0.8-mile stretch of land and will not significantly change drainage patterns or the rate and amount of surface runoff.

Ground disturbance during construction could temporarily alter drainage patterns but construction activities will be subject to the NPDES permit that imposes strict requirements to reduce the volume of stormwater runoff. BMPs will be implemented during construction and an Erosion and Sediment Control Plan will be prepared and submitted to the County prior to the start of construction.

Compliance with the State and County regulatory requirements along with the General Plan goals and policies listed above in Section IX.a will ensure that the rate and/or volume of surface runoff will not be substantially increased in a manner that results in on-site or off-site flooding and therefore, this impact is *less than significant*. No mitigation measures are required.

d) *Will the Project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

The Coastside County Water District (CCWD) provides the water supply for the community of El Granada, as well as the City of Half Moon Bay and the unincorporated coastal communities of Miramar and Princeton-By-The-Sea.[65] Approximately 72 percent of CCWD's water is purchased on a wholesale basis from the San Francisco Public Utilities Commission (SFPUC), which in turn derives its water from sources including Pilarcitos Lake and the Upper Crystal Springs Reservoir, and the remaining 28 percent is produced locally from both wells and surface water. The average yield from these sources is approximately 830 million gallons per year.[66] The CCWD Urban Water Management Plan (UWMP) states that the District has sufficient water to meet demands during normal years through 2035. However, the supplies are subject to significantly reduced availability in dry years.[67]

The Project involves constructing a new 0.8 mile, 12-foot wide, two-directional multi-use trail parallel to Highway 1 from Coronado Street to Mirada Road. As mentioned above in section XIII, Population and Housing, the proposed Project does include a residential component, thus will not directly or indirectly result in an increase to the permanent population in the area. The proposed Project will not include the construction of facilities that will require connection to the CCWD's water supply; therefore, *no impact* will occur and no mitigation measures are required.

e) *Will the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

As discussed in Section XVII.a and XVII.b above, the proposed Project will not include the construction of facilities that will require connection to the sanitary sewer. Therefore, the project will not result in a determination by the wastewater treatment provider which serves or may serve the project that it has

[65] Coastside County Water District, Coastside County Water District Web Page, http://www.coastsidewater.org/, accessed on March 22, 2016.

[66] Coastside County Water District, Water Supply, http://www.coastsidewater.org/water-supply.html, accessed on March 22, 2016.

[67] West Yost Associates, 2011. *2010 Urban Water Management Plan Prepared for Coastside County Water District.*

inadequate capacity to serve the project; as a result, *no impact* will occur and no mitigation measures are required.

f) *Will the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Solid waste disposal in the community of El Granada is provided by Recology of the Coast,[68] which also provides solid waste services to the City of Pacifica,[69] the Miramar district of Half Moon Bay, and the unincorporated communities of Pillar Point, Princeton-by-the-Sea, Montara, and Moss Beach.[70] This solid waste is sorted, and non-recyclable, non-compostable materials are sent to Ox Mountain Sanitary Landfill in Half Moon Bay. The Ox Mountain Landfill has a total maximum permitted capacity of 69,000,000 cubic yards, with a remaining capacity of 28,898,089 cubic yards as of 2011.[71] As such, the Ox Mountain Landfill is well below its total capacity. Solid waste will be generated through a potential increase in visitors and during construction activities associated with buildout of the Project. However, implementation of the Project will result in minimal, if any, solid waste which will require service by a landfill. Overall, impacts to solid waste disposal will be *less than significant* and no mitigation measures are required.

g) *Comply with federal, state, and local statutes and regulations related to solid waste?*

In compliance with State Law SB 1016, the Project will target a California Integrated Waste Management Board (CIWMB) target of 15.7 pounds of waste per day per employee and 5.1 pounds per day per resident. According to CalRecycle, in 2014 unincorporated San Mateo had a disposal rate of 5.7 pounds of waste per day per employee, and 2.5 pounds per day per resident, both of which are well below the targets.[72]

Chapter 4.04 of the San Mateo County Municipal Code address the collection, transport, storage, and disposal of solid wasted within the County. For example, Section 4.04.120 states that solid waste and recyclable materials shall be placed by the person(s) occupying the premises upon which solid waste and recyclable materials are created in a watertight plastic or metal receptacle, or in carts or bins with tight fitting lids provided by the refuse collector, of not less than 20-gallon capacity. Other provisions of the Chapter address solid waste disposal and handling.

[68] Granada Community Services District, Garbage and Recycling, http://granada.ca.gov/trash-collection/, accessed on March 22, 2016.

[69] Recology of the Coast, Pacifica Residential Recycling, Organics & Garbage Program, http://www.recologyofthecoast.com/index.php/for-homes/residential-pacifica-services, accessed on March 22, 2016.

[70] Recology of the Coast, El Granada, Pillar Point, Princeton, Miramar, Montara & Moss Beach Residential Recylcing, Green Waste & Garbage Program, http://www.recologyofthecoast.com/index.php/for-homes/residential-services, accessed on March 22, 2016.

[71] CalRecycle, Facility/Site Summary Details: Corinda Los Trancos Landfill (Ox Mtn)(41-AA-0002), http://www.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Detail/, accessed on March 22, 2016.

[72] CalRecycle, Jurisdiction Diversion/Disposal Rate Summary (2007-current), http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx, accessed on March 22, 2016.

Solid waste collection and disposal will continue to operate under existing conditions. As such, the Project will continue to comply with federal, State, and local statutes and regulations related to solid waste as it currently does. Therefore, a *less-than-significant* impact will occur and no mitigation measures are required.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

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

Discussion

a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

As described in this Initial Study, no new construction or physical changes proposed by the Project will significantly degrade the quality of the environment. The design and methods of construction of the proposed trail alignment ensures that the trail will avoid sensitive plant and animal habitats and in areas that could disturb sensitive habitat, such as wetlands or riparian areas, Mitigation Measures BIO-1 through BIO-6, as well as compliance with LCP policies and other existing federal and State regulations for the protection of wildlife and habitat, will serve to reduce these impacts. Further, the trail design ensures conservation of habitats and avoids impacts to sensitive wildlife and plants to the extent possible. Overall, compliance with LCP policies and implementation of the mitigation measures identified throughout this IS/MND would ensure that impacts will be reduced to a *less-than-significant* level.

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)?*

Future cumulative impacts will result in increased connectivity to the California Coastal Trail, and increased recreational opportunities in El Granada through completion of the Midcoast Multimodal Trail. Overall, given that the Project will involve formalization of a small segment of trail that promotes non-motorized passive recreation, the formalization of the trail will cause only minor impacts when taken into consideration cumulatively.

During construction, slight increases in noise and impacts to air quality may occur, but will be minor and temporary in nature. Due to their minor, temporary in nature, cumulative impacts will be considered *less than significant*.

c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

The proposed project will not create environmental effects that will cause physical changes to property that will result in adverse effects on humans, either directly or indirectly. The increased recreational opportunities proposed by the Project are considered a beneficial impact. Therefore, implementation of the proposed Project will have a *less-than-significant* impact on human beings.

APPENDIX A:
BIOLOGICAL RESOURCES ASSESSMENT & WETLAND DELINEATION REPORT

Biological Resources Assessment

MIDCOAST MULTIMODAL TRAIL PROJECT
EL GRANADA, SAN MATEO COUNTY, CALIFORNIA

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Project Number 24261

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LIST OF ACRONYMS AND ABBREVIATIONS

Cal-IPC	California Invasive Plant Council
CCC	California Coastal Commission
CCR	California Code of Regulations
CCT	California Coastal Trail
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
County	San Mateo County
CRLF	California red-legged frog
CWA	Clean Water Act
dBA	A-weighted decibels
ESHA	Environmentally Sensitive Habitat Area
FAC	Facultative species (equal in wetland or non-wetlands)
FACW	Facultative wetland species (usually found in wetlands)
FESA	Federal Endangered Species Act
LCP	Local Coastal Program
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
OBL	Obligate wetland species (almost always found in wetlands)
OHWM	Ordinary High Water Mark
PCEs	Primary constituent elements
PG&E	Pacific Gas and Electric
RPW	Relatively permanent water
RWQCB	Regional Water Quality Control Board
SFGS	San Francisco garter snake
TNW	Traditionally navigable waters
TOB	Top of Bank
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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1.0 INTRODUCTION

On August 13, 2015, WRA, Inc. conducted a biological resource assessment of the 10.39-acre Midcoast Multi-modal Trail site located in the unincorporated community of El Granada in San Mateo County, California (Figure 1).

The purpose of the site visit and report is to identify, describe, and map any sensitive habitats, including riparian and wetland areas, or other Environmental Sensitive Habitat Area (ESHA); and "rare, threatened, or endangered" species, which may occur in the Study Area. WRA performed the biological resources assessment in accordance with the San Mateo County (County) Midcoast Local Coastal Program (LCP), including sections 7.1-7.19. This assessment is based on site conditions observed on the date of the site visit, related information available at the time of the study, and from reviewing past reports completed on the Study Area or adjacent properties. This report also contains an evaluation of potential impacts to special-status species or ESHAs that may occur as a result of the proposed project and potential mitigation measures to compensate for those impacts.

1.1 Description of the Study Area

The Midcoast Multi-modal Trail Project is a component of the California Coastal Trail (CCT). The proposed trail alignment is situated on approximately 10.39 acres of undeveloped land owned by the County in the unincorporated community of El Granada, California (Figure 1). The focus of this report is the proposed trail alignment and land adjacent to the trail (Study Area). The Study Area occurs parallel to and includes parts of the California Coastal Highway (Highway 1), with an approximate distance of 0.83 mile, starting at the north end at Coronado Street and extending south to Mirada Road. The Study Area includes non-native annual grassland, central coast riparian scrub dominated by arroyo willow (*Salix lasiolepis*), a non-native riparian woodland dominated by blue gum (*Eucalyptus globulus*), a stand of Monterey cypress (*Hesperocyparis macrocarpa*), developed areas, coastal seasonal wetlands, and non-wetland waters, with elevations ranging from 9 to 75 feet. Residential neighborhoods, public open space, and schools surround the Study Area. The upland portions of the Study Area are generally comprised of wind breaks of Monterey cypress and non-native annual grasslands.

The Study Area is situated on a coastal terrace between the Santa Cruz mountain range and the Pacific Coast. No past development or agriculture fields occurred within the Study Area; however, based on historic aerial imagery, portions of the Study Area are mowed regularly (Google Earth 2002-2015). A Pacific Gas and Electric (PG&E) power line occurs through the Study Area in several locations. The Study Area is transected by developed areas including Miramar Drive, Medio Avenue, and an unnamed dirt road. The Study Area is situated in the coastal fog belt where fog is a source of precipitation in the summer and storms are the source of precipitation in the winter. Average maximum temperature peaks in September at 67 degrees Fahrenheit with average minimum temperature in January at 43 degrees Fahrenheit. Average annual precipitation is 26.98 inches, generally occurring in the winter and spring months from November through March.

Figure 1. Study Area Location Map

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

0 345 690 1,380 Feet

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Map Prepared Date: 8/26/2015
Map Prepared By: fhourigan
Base Source: NAIP, 2014 / Esri, National Geographic
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\LocationMap.mxd

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

2.1 Special-Status Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). These Acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern and the National Marine Fisheries Service (NMFS) Species of Concern, which are species that face extirpation if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Plant species on California Native Plant Society (CNPS) Ranks 1 and 2 are also considered special-status plant species. Impacts to these species are considered significant according to CEQA. Rank 3 and Rank 4 species are afforded little or no protection under CEQA, but are included in this analysis for completeness. A description of the CNPS Ranks is provided below in Table 1.

Table 1. Description of CNPS Ranks and Threat Codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

Critical Habitat

Critical habitat is a term defined and used in the FESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The FESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the FESA "jeopardy standard." However, areas that are currently unoccupied by the species but which are needed for the species' recovery, are protected by the prohibition against adverse modification of critical habitat.

2.2 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, and riparian habitat. These habitats are regulated under federal regulations (such as the Clean Water Act (CWA)), state regulations (such as the Porter-Cologne Act, the CDFW Streambed Alteration Program, and CEQA), or local ordinances or policies (such as City or County Tree Ordinances, Special Habitat Management Areas, applicable LCPs, and General Plan Elements). Mitigation measures for impacts to these communities are discussed in Section 5 of this report.

Waters of the United States

Section 404 of the Clean Water Act gives the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) regulatory and permitting authority regarding discharge of dredged or fill material into "navigable waters of the United States." Section 502(7) of the Clean Water Act defines navigable waters as "waters of the United States, including territorial seas." Section 328 of Chapter 33 in the Code of Federal Regulations (CFR) defines the term "waters of the United States" as it applies to the jurisdictional limits of the authority of the Corps under the Clean Water Act. A summary of this definition of "waters of the U.S." in 33 CFR 328.3 includes[1] (1) waters used for commerce; (2) interstate waters and wetlands; (3) territorial seas; (4) impoundments of waters; (5) tributaries to the above waters; (6) waters and wetlands adjacent to the above waters; and (7) prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernal pools, and Texas coastal prairie wetlands, provided these features have a significant nexus to the above listed waters; (8) all waters located within the 100-year floodplain of waters listed above in items 1-3 or within 4,000 feet of the high tide line or ordinary high water mark of a water listed above in items 1-5, provided those waters are determined to have a significant nexus to waters identified in items 1-3 above. Therefore, for purposes of the determining Corps jurisdiction under the Clean Water Act, "navigable waters" as defined in the Clean Water Act are the same as "waters of the U.S." defined in the CFR above.

Areas not considered to be "waters of the U.S. as defined in 33 CFR 328.3(b), are summarized as follows: (1) waste treatment systems; (2) prior converted cropland; (3) specific classes of ditches; (4) man-made aquatic features in otherwise dry land such as stock watering ponds,

irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, cooling ponds, reflecting pools, swimming pools, small ornamental waters, depressions incidental to mining and construction activity, erosional features, and puddles; (5) groundwater; (6) stormwater control features; wastewater recycling structures, groundwater recharge basins, percolation ponds for wastewater recycling, and distribution networks for wastewater recycling. These areas are discussed further in Section 3.4 of this report.

The limits of Corps jurisdiction under Section 404 as given in 33 CFR Section 328.4 are as follows: (a) *Territorial seas:* three nautical miles in a seaward direction from the baseline; (b) *Tidal waters of the U.S.:* high tide line or to the limit of adjacent non-tidal waters; (c) *Non-tidal waters of the U.S.:* ordinary high water mark or to the limit of adjacent wetlands; (d) *Wetlands:* to the limit of the wetland.

Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. "Waters of the State" are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact "Waters of the State," are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to "Waters of the State," the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of the State Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, "on, or pertaining to, the banks of a stream;" therefore, riparian vegetation is defined as, "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG ESD 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. The CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in its Natural Diversity Database (CNDDB). Sensitive plant communities are also identified by CDFW on their *List of California Natural Communities Recognized by the CNDDB*. Impacts to sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFW or USFWS must be considered and evaluated under CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in City or County General Plans or ordinances.

The California Coastal Commission ESHA Definition

The California Coastal Commission defines an ESHA as follows:

> "*Environmentally sensitive habitat area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.* “

California Coastal Commission (CCC) Guidelines contain definitions for specific types of ESHAs, including: wetlands, estuaries, streams and rivers, lakes, open coastal waters and coastal waters, riparian habitats, other resource areas, and special-status species and their habitats. For the purposes of this report, WRA has taken into consideration any areas that may meet the definition of any ESHA defined by the CCC guidelines or the County LCP.

San Mateo County Local Coastal Program and Land Use Plan

The 2013 County LCP identified sensitive habitats to include: riparian corridors, wetlands, marine habitats, sand dunes, sea cliffs, and habitats supporting rare, endangered, and unique species. Further, the County LCP defines sensitive habitats as:

> *…any area which meets one of the following criteria: (1) habitats containing or supporting “rare and endangered” species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.*
>
> San Mateo LCP, Policy 7.1

Additionally, the County LCP defines Riparian Corridors as a sensitive habitat, where riparian corridors are defined as:

> *…the “limit of riparian vegetation” (i.e., a line determined by the association of plant and animal species normally found near streams, lakes and other bodies of freshwater: red alder, jaumea, pickleweed, big leaf maple, narrow-leaf cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and*

box elder). Such a corridor must contain at least a 50% cover of some combination of the plants listed.

San Mateo LCP (2013), Policy 7.7

This County LCP further clarifies in Policy 7.8 that riparian corridors be established for all perennial and intermittent streams, lakes, and other bodies of freshwater in the Coastal Zone.

3.0 METHODS

On August 13, 2015, the Study Area was traversed on foot to determine (1) plant communities present within the Study Area, (2) if existing conditions provide suitable habitat for any special-status plant or wildlife species, and (3) if sensitive habitats including ESHA are present. All plant and wildlife species encountered were recorded, and are summarized in Appendix A. Plant nomenclature follows Baldwin et al. (2012), except where noted. For cases in which taxonomic discrepancies occur between Baldwin et al. and the CNPS Inventory of Rare Plants, precedence was given to the species classification used in the CNPS Inventory.

3.1 Biological Communities

Prior to the site visit, the Soil Survey of San Mateo Area, California (NRCS 2015) was examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present in the Study Area. Biological communities present in the Study Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and *A Manual of California Vegetation* (Sawyer et al. 2009). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

3.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species and are identified or described in Section 4.2 below.

3.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below.

<u>Wetlands and Waters</u>

The Study Area was surveyed to determine if any wetlands and waters potentially subject to jurisdiction by the Corps, RWQCB, or CDFW were present. The assessment was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology or wetland soils as defined by the Corps Manual (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation*

Manual: Arid West Region (Corps 2008). Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status of obligate wetland (OBL), facultative wetland (FACW), or facultative (FAC) as given on the U.S. Department of Agriculture: National Wetland Plant List (Lichvar 2014). Evidence of wetland hydrology can include evidence such as visible inundation or saturation, surface sediment deposits, algal mats and drift lines, and oxidized root channels. Some indicators of wetland soils include dark colored soils, soils with a sulfidic odor, and soils that contain redoximorphic features as defined in *Field Indicators of Hydric Soils in the United States* (NRCS 2010). In addition, the Study Area was surveyed for any wetlands meeting the County LCP or CCC wetland criteria.

The preliminary waters determination was based primarily on the presence of unvegetated, ponded areas or flowing water, or evidence indicating their presence such as a high water mark or a defined drainage course.

Other Sensitive Biological Communities

The Study Area was evaluated for the presence of other sensitive biological communities, including riparian areas, sensitive plant communities recognized by CDFW, significant areas of native plants, and other ESHAs. These sensitive biological communities were mapped and are described in Section 4.1.2 below.

3.2 Special-Status Species

3.2.1 Literature Review

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the Half Moon Bay and Montara Mountain 7.5 minute U.S. Geological Survey (USGS) quadrangles. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- California Natural Diversity Database records (CDFW 2015)
- USFWS quadrangle species lists (USFWS 2015)
- CNPS Electronic Inventory records (CNPS 2015)
- CDFG publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- CDFG publication “California Bird Species of Special Concern” (Shuford and Gardali 2008)
- CDFG publication “Amphibians and Reptile Species of Special Concern in California” (Jennings 1994)
- CDFG publication “An Annotated Check List of Amphibians and Reptile Species of California and Adjacent Waters, third revised edition” (Jennings 2004)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)

- San Mateo County Local Coastal Program (County of San Mateo 2013)

3.2.2 Site Assessment

On August 13, 2015, WRA surveyed the Study Area to search for suitable habitats for species identified in the literature review as occurring in the vicinity. The potential for each special-status species to occur in the Study Area was then evaluated according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

- Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

The site assessment was intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the Study Area. The site visit does not constitute protocol-level surveys and was not intended to determine the actual presence or absence of a species; however, if a special-status species was observed during the site visit, its presence was recorded and discussed. Appendix B presents the evaluation of potential for occurrence of each special-status plant and wildlife species known to occur in the vicinity of the Study Area with their habitat requirements, potential for occurrence, and rationale for the classification based on criteria listed above. Recommendations for further surveys are made in Section 5.0 below for species with a moderate or high potential to occur in the Study Area.

4.0 RESULTS

The following sections present the results and discussion of the biological assessment within the Study Area.

4.1 Biological Communities

Non-sensitive biological communities in the Study Area include developed areas, non-native annual grassland, Monterey cypress forest, and northern coastal scrub. Four ESHAs occur within the Study Area: coastal seasonal wetland, non-wetland waters, central coast riparian

scrub, and non-native riparian woodland (Figure 2). Descriptions for each biological community are contained in the following sections. Acreage summations for biological communities are detailed in Table 2.

Table 2. Biological Communities within the Study Area

Biological Community[1]	Natural Community[3]	Acreage
Non-Sensitive[4]		
Non-Native [Annual] Grassland	Wild Oats Grassland (*Avena* [*barbata, fatua*] Herbaceous Stands)	6.68
Developed[2]	N/A	1.03
Monterey Cypress Forest	Monterey Cypress Stands (Callitropsis macrocarpa Woodland Special Stands)	0.98
Northern Coastal Scrub	Coastal Brambles (*Rubus* [*parviflorus, spectabilis, ursinus*] Shrubland Alliance)	0.05
Sensitive[4]		
Non-Wetland Waters[2]	N/A	0.04
Central Coast Riparian Scrub	Arroyo Willow Thickets (*Salix lasiolepis* Shrubland Alliance)	1.22
Non-Native Riparian Woodland[2]	Eucalyptus Groves (*Eucalyptus* [*globulus, camaldulensis*] Semi-Natural Woodland Alliance)	0.39
Coastal Seasonal Wetland[2]	Western Rush Marshes (*Juncus patens* Provisional Herbaceous Alliance)	0.02
	TOTAL	10.39

[1]Holland (1986)
[2]Biological community not described in Holland (1986)
[3]Sawyer et al. (2009)
[4]Determination based on the *List of California Terrestrial Natural Communities* (CDFG 2010) and the *San Mateo County Local Coastal Program* (County 1998)

4.1.1 Non-Sensitive Biological Communities

The Study Area is dominated by biological communities that are not considered sensitive by CDFW, local LCP's, the CCC, or any other regulatory agency and would therefore be unlikely to be considered under CEQA. These biological communities include areas that have been developed (roadways and utility structures), non-native annual grasslands, Monterey cypress forest, and northern coastal scrub.

Study Area - 10.39 acres

Biological Community

- Central Coast Riparian Scrub- 1.20 acres
- Coastal Brambles - 0.05 acre
- Developed - 1.03 acres
- Non-native Riparian - 0.36 acres
- Monterey Cypress Forest - 1.00 acres
- Non-native Annual Grassland - 6.68 acres
- Coastal Seasonal Wetland - 0.02 acre
- Intermittent Stream - 0.03 acre, 121.24 L.F.
- Perennial Drainage - 0.02 acre, 91.73 L.F.

Figure 2a. Biological Communities within the Study Area

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Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

Map Prepared Date: 9/11/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\BioComms.mxd

Figure 2b. Biological Communities within the Study Area

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ENVIRONMENTAL CONSULTANTS

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

Map Prepared Date: 9/11/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\BioComms.mxd

Non-Native Annual Grassland

Approximately 6.68 acres of the Study Area contains non-native annual grassland habitat. Holland describes non-native annual grassland as a dense to sparse cover of non-native annual grasses with flowering culms 0.2-1 meter high and often associated with numerous species of showy-flowered annual forbs. This community often occurs on fine-textured, usually clay soils, that are moist, or saturated during the winter rainy season and very dry during the summer and fall. This community dominates within the Study Area. Wild Oats Grasslands (*Avena* [*barbata, fatua*] Semi-Natural Herbaceous Stands, No Rarity Ranking) are dominated by the cool-season annual grass and occur in most habitats in California (Sawyer et al. 2009). Non-native grasslands typically contain other non-native grasses.

In the Study Area, slender oat (*Avena barbata*) is the dominant natural community, occupying the flat, open areas with Italian ryegrass (*Festuca perennis* [*Lolium multiflorum*]), velvet grass (*Holcus lanatus*), and bristly ox-tongue (*Helminthotheca echioides*). Native forbs present within the community include birdsfoot trefoil (*Lotus corniculatus*), spreading rush (*Juncus patens*), fleshy willow dock (*Rumex crassus*) and Pacific American aster (*Symphyotrichum chilense*). Due to differences in micro-topography, the codominant grasses become dominant in some places; however the species composition and soil conditions are similar to the described slender oat grass alliance and therefore included into that alliance. Additionally, two stand-alone eucalyptus trees are present in this community.

Developed

The Study Area contains approximately 1.03 acres of developed areas, composed of paved roadways associated with Miramar Drive and Medio Avenue, and an unnamed dirt road, all of which connect to Highway 1.

Monterey Cypress Forest

The southern portion of the Study Area contains a 1.00-acre stand of Monterey cypress forest. Monterey cypress is native only to the Monterey Peninsula where it grows on rocky, granitic soils of coastal headlands and bluffs subject to nearly constant onshore winds (Holland 1986). Only two natural stands have been documented, but Monterey cypress has been planted throughout coastal California where it has become naturalized. Additionally, the California Invasive Plant Council (Cal-IPC) has rated Monterey cypress as “limited” for its ability to invade wildlands (Cal-IPC 2006). Sawyer (2009) has recognized this biological community as Monterey Cypress Stands (*Callitropsis macrocarpa* Woodland Special Stands), which are planted for wind protection and as an ornamental tree near roadsides, driveways and homesteads. Native stands of this alliance that occur on the Monterey peninsula are given G1 S1 status due to their rarity; however, stands outside the native range are not ranked and naturalized stands extend from Humboldt County to Santa Barbara County (Sawyer et al. 2009).

In the Study Area, Monterey cypress forest occurs in association with residential areas where it is planted along fences or driveways. At the southern end of the Study Area, tree-of-heaven (*Ailanthus altissima*) is co-dominant tree species in the canopy layer with Monterey cypress. The shrub and herb layer are depauperate due to canopy cover dense and leaf litter. Additionally, Monterey cypress forest occurs north of the non-native riparian woodland associated with Arroyo de en Medio in a generally developed area with managed non-native annual grassland associated with a nearby residence.

Coastal Brambles

Coastal Brambles occupies approximately 0.05 acre of the Study Area. Coastal Brambles (*Rubus* [*parviflorus, spectabilis, ursinus*] Shrubland Alliance, Rarity Ranking G4 S3), occur on coastal headlands and slopes between the coastal bluff scrub and coastal coniferous forests on the northern California coasts. Dominant species include California blackberry (*Rubus ursinus*), salmonberry (*Rubus spectabilis*) and thimbleberry (*Rubus parviflorus*). A continuous to intermittent canopy with sparse herbaceous layer is typical of the coastal bramble community. Typical associated species include salal (*Gaultheria shallon*) and coyote bush (*Baccharis pilularis*).

In the Study Area, Coastal Brambles occur along an old barbed wire fence adjacent to the arroyo willow thickets, and are dominated by California blackberry with the trace presence of emergent bulrush (*Scirpus microcarpus*), spreading rush and bristly ox-tongue. This biological community is transitory between mesic upland and a discernable bulrush (*Scirpus micorcarpus*) wetland to the east which is outside of the Study Area. The low percent cover of wetland plants within the Coastal Brambles is a result of this transition.

4.1.2 Environmentally Sensitive Habitat Areas (ESHAs)

The Study Area contains four natural communities considered sensitive by the CDFW, CCC and local LCPs and would therefore be considered sensitive under CEQA. These communities include coastal seasonal wetland, non-wetland waters, central coast riparian scrub, and non-native riparian woodland.

Non-Wetland Waters

Non-wetland waters associated with two streams were observed within the Study Area, totaling approximately 0.04 acre (212.97 linear feet). Non-wetland waters are not described by Holland (1986) or Sawyer (2009). Non-wetland waters within the Study Area occur as an intermittent stream in the south and perennial drainage centrally.

The USGS dashed blue-line intermittent stream, Arroyo de ne Medio, showed obvious signs of scouring and alluvial sediment deposition within the creek bed and an unvegetated gravel bed. Dominant vegetation associated with the creek is composed non-native tree species including blue gum and blackwood acacia (*Acacia melanoxylon*) and water was not present at the time of the site visit. The non-native riparian woodland associated with this intermittent stream is discussed below.

The unnamed perennial drainage was observed with standing water and obvious signs of bank scour. The drainage was approximately fourteen inches deep and three to five feet wide. Vegetation associated with the perennial drainage was dominated by central coast riparian scrub, as discussed below. This unnamed stream drains west through a culvert under Highway 1, ultimately to the Pacific Ocean. This perennial drainage likely receives subsurface flows from a local underground stormwater conveyance system and potential upgrade intermittent flows; however, the source water is unconfirmed.

Central Coast Riparian Scrub

The Study Area contains approximately 1.22 acres of central coast riparian scrub centrally that is associated with an unnamed perennial drainage. Holland (1986) describes this central coast

riparian scrub as occurring in areas of open to nearly impenetrable willow shrubs associated with a stream or mouth of streams, occurring near the coast in the South Coast Ranges. Soils are relatively fine-grained sand and gravel bars from alluvial deposition.

This community is described by Sawyer (2009) as Arroyo Willow Thickets (*Salix lasiolepis* Shrubland Alliance, Rarity Ranking G4 S4), which occurs throughout much of California along streams, seeps and drainages. The canopy is dominated by arroyo willow forming an open to continuous layer with a variable herbaceous layer. Typical associated species include mugwort (*Artemisia douglasiana*), coyote bush, California blackberry and other willow species.

Within the Study Area, central coast riparian scrub occurs centrally adjacent to Highway 1 and is transected by a pull out and dirt road that provides access to a large field to the east. This habitat is part of a larger area of central coast riparian scrub that extends generally east to west. The canopy is dense and nearly impenetrable, dominated by arroyo willow. Understory structure is heterogeneous due to the many branches of arroyo willow. California blackberry, stinging nettle (*Urtica dioica*), panicled bulrush, and Pacific rush (*Juncus effusus*) comprise the intermittent shrub and herb cover. Soil samples taken within the plant community lacked hydric soil indicators..

Non-Native Riparian Woodland

The Study Area contained approximately 0.39 acre of non-native riparian woodland. Non-native riparian habitat is not described in Holland (1986) or Sawyer (2009); however, Eucalyptus groves (*Eucalyptus* [*globulus, camaldulensis*] Semi-Natural Woodland Alliance) are described from the Coast Ranges and Central Valley, typically as planted woodlands and shelterbelts to buffer coastal winds and provide shade (Sawyer et al. 2009). This vegetation alliance is dominated by one of several eucalyptus species (*Eucalyptus* spp.), all of which are not native to North America. Blue gum (and other eucalyptus) groves are frequently situated in rural and semi-urbanized settings, along streams, and coastal hills/prairies.

Within the Study Area, a non-native riparian canopy associated with Arroyo de en Medio is dominated by blue gum and blackwood acacia. The understory structure is heterogeneous with sapling arroyo willow and black acacia with scattered red elderberry (*Sambucus racemosa*), all of which are covered by cape ivy (*Delairea odorata*). The lower shrub layer is dominated by Himalayan blackberry (*Rubus armeniacus*). The herb layer is dominated by garden nasturtium (*Tropaeolum majus*) and veldt grass (*Ehrharta erecta*), mixed with leaf and bark litter from the shedding eucalyptus.

Coastal Seasonal Wetland

Approximately 0.02 acre of CCC coastal seasonal wetland habitat occurs within the Study Area. Coastal seasonal wetlands are not described by Holland (1986) and are dominated by perennial herbs, especially sedges and grasses that are often low growing and grow yearlong in areas with mild winters. This community occurs scattered throughout California, being most common in grasslands.

Sawyer (2009) best describes the coastal seasonal wetland within the Study Area as Western Rush Marshes (*Juncus patens* Provisional Herbaceous Alliance, Rarity Ranking G4 S4), which occur on seasonally saturated soils on flats, depressions or gentle slopes. Western Rush Marshes contain continuous to intermittent cover of western rush with commonly associated

facultative wetland plants such as Italian wildrye, velvet grass, toad rush (*Juncus bufonius*), and clover (*Trifolium* spp.).

In the Study Area, this biological community occurs centrally, within a small man-made swale that drains to arroyo willow thicket. Western rush is dominant with co-dominants of common rush (*Juncus occidentalis*), and bristly ox-tongue. While the coastal seasonal wetland is dominated by hydrophytic vegetation, it did not contain indicators of hydric soils or wetland hydrology and therefore only meets the CCC definition of a seasonal wetland (WRA, August 2015.

4.2 Special-Status Species

4.2.1 Plants

Based upon a review of the resources and databases given in Section 3.2.1, 42 special-status plant species have been documented in the vicinity of the Study Area (Figure 3). Appendix B summarizes the potential for occurrence for each special-status plant species occurring in the Half Moon Bay and Montara Mountain USGS 7.5 minute quadrangles. No special-status species were observed during the site visit. All species documented to occur in the vicinity of the Study Area are unlikely or have no potential to occur due to lack of suitable habitat within the Study Area, such as coastal prairie, woodlands, or high quality meadows and seeps.. Plants observed during the site visit are listed in Appendix A.

4.2.2 Wildlife

Twenty special-status wildlife species have been documented in the vicinity of the Study Area (Figure 4; CDFW 2015) and an additional 39 are known based upon review of the resources and databases given in Section 3.2.1. Appendix B summarizes the potential for each of these species to occur in the Study Area. Most species are unlikely or precluded from occurring based upon the high level of development and disturbance in the area and lack of suitable habitat features. Two special-status wildlife species were observed in the Study Area during the site assessment, and three other special-status wildlife species have a moderate potential to occur in the Study Area. Special-status wildlife species that were observed, or have a moderate or high potential to occur in the Study Area are discussed below.

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), CDFW Species of Special Concern. Present. This subspecies of the dusky-footed woodrat occurs in the Coast Ranges between San Francisco Bay and the Salinas River (Matocq 2003). Occupied habitats are variable and include forest, woodland, riparian areas, and chaparral. Woodrats feed on woody plants, but will also consume fungi, grasses, flowers and acorns. Foraging occurs on the ground and in bushes and trees. This species constructs robust stick houses/structures in areas with moderate cover and a well-developed understory containing woody debris. Breeding takes place from December to September. Individuals are active year-round, and generally nocturnal. The majority of the Study Area is grassland and open habitat which has no potential to support woodrat. However, San Francisco dusky-footed woodrat is present within the central coast riparian scrub and in the Monterey cypress forest in the southern Study Area with a total of four woodrat houses observed within these plant communities, two of which were confirmed active. The eucalyptus and cypress habitats in Arroyo de en Medio have an open understory and woodrat are unlikely to occur here; no houses were observed in these habitats during the site assessment.

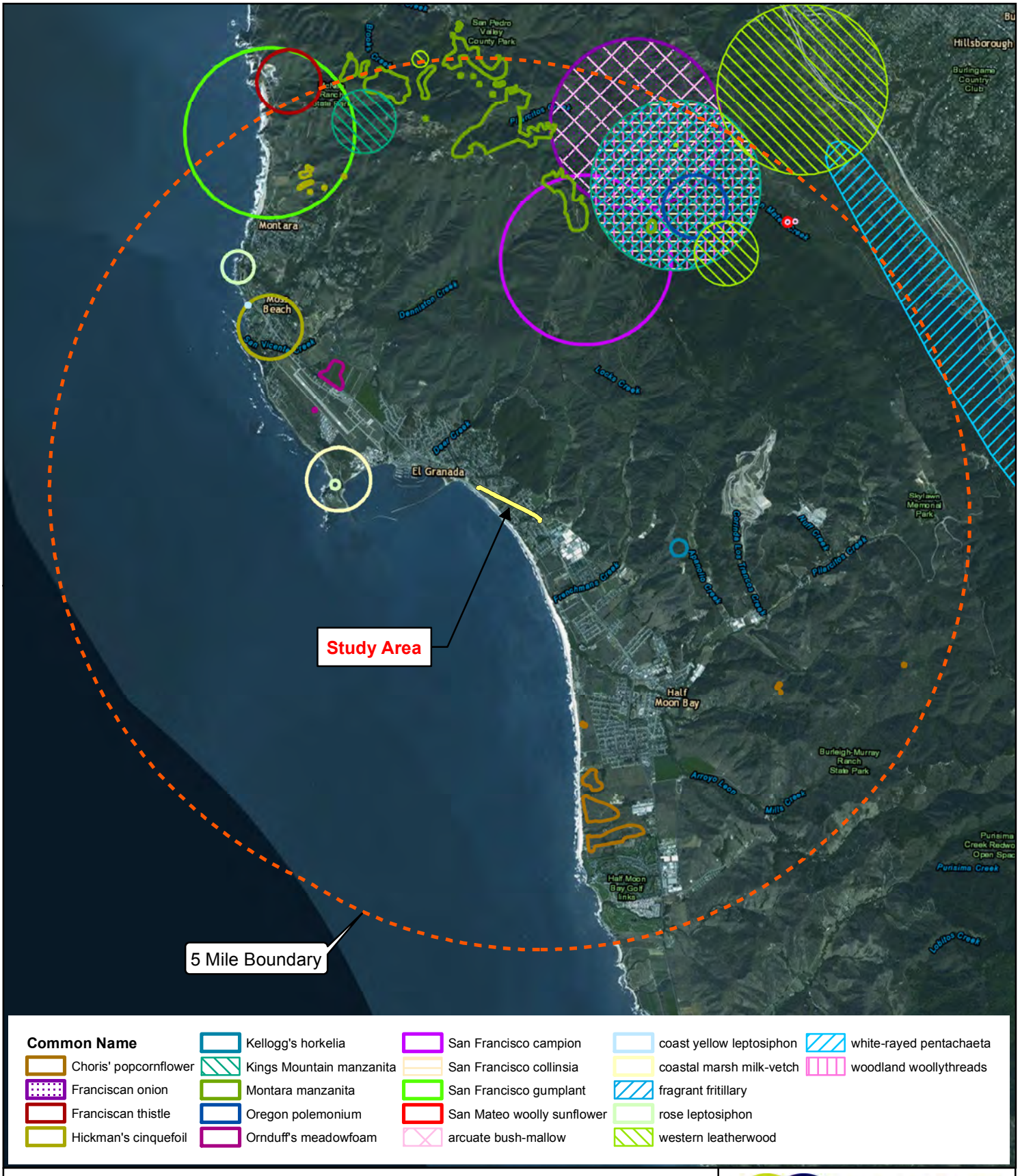

Figure 3. Special-Status Plant Species within a 5-mile Radius of the Study Area

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

N
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0 5,000 10,000 20,000 Feet

wra
ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 8/18/2015
Map Prepared By: fhourigan
Base Source: NAIP, 2014
Data Source(s): WRA, CNDDB

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\CNDDB_Plants.mxd

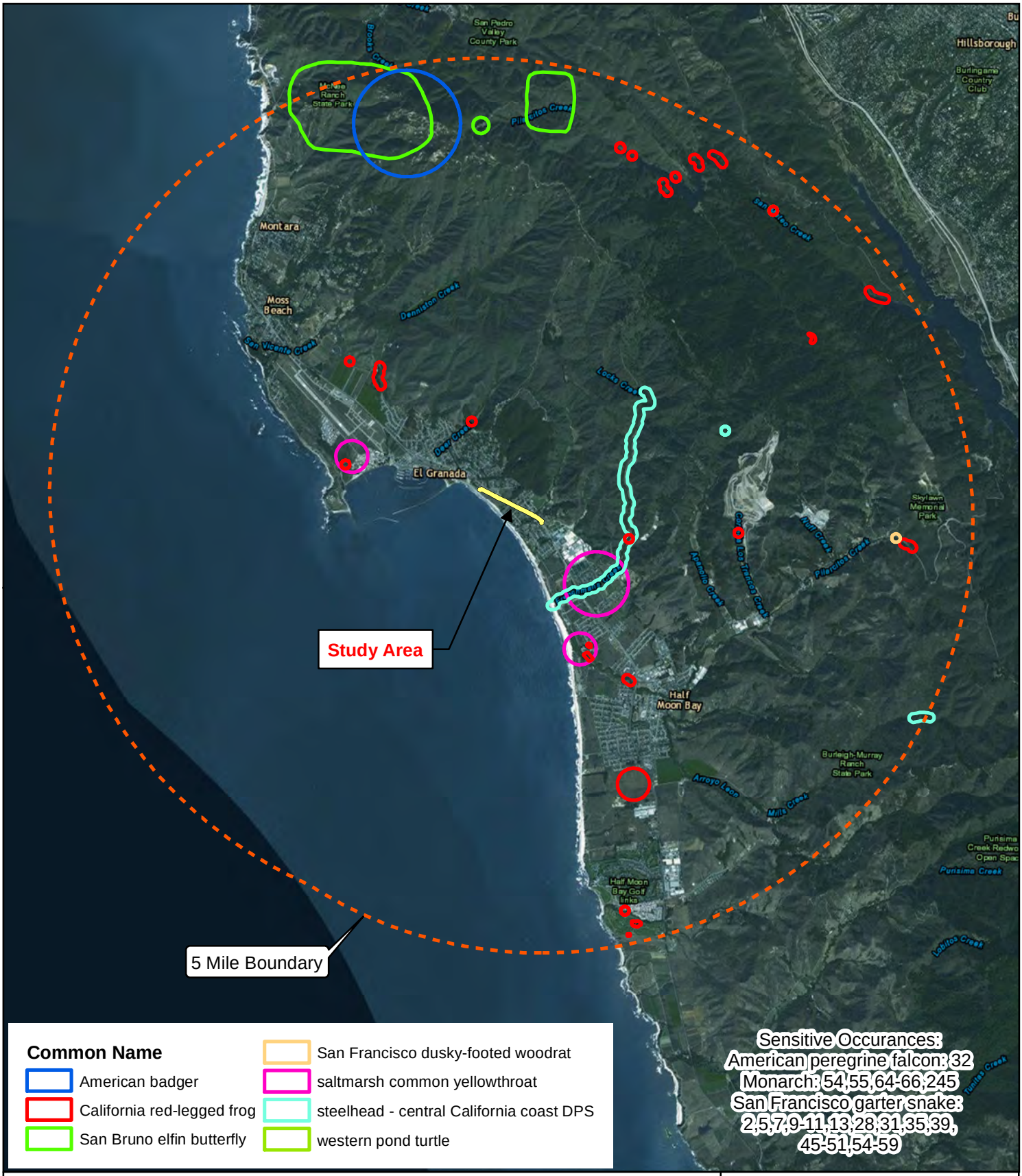

Figure 4. Special-Status Wildlife Species within a 5-mile Radius of the Study Area

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

0 5,000 10,000 20,000 Feet

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 8/19/2015
Map Prepared By: fhourigan
Base Source: NAIP, 2014
Data Source(s): WRA, CNDDB

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\CNDDB_Wildlife.mxd

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. Moderate Potential. The white-tailed kite is a resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The Study Area contains suitable foraging habitat, and the eucalyptus provide suitable nesting habitat for this species. Although the high levels of disturbance within the Study Area related to Pacific Coast Highway and residential development decrease the potential for nesting within the Study Area; nesting habitat is present in and adjacent to the Study Area.

Loggerhead shrike (*Lanius ludovicianus*). CDFW Species of Special Concern, USFWS Bird of Conservation Concern. Moderate Potential. The loggerhead shrike is a year-round resident and winter visitor in lowlands and foothills throughout California. This species is associated with open country with short vegetation and scattered trees, shrubs, fences, utility lines and/or other perches. Although they are songbirds, shrikes are predatory and forage on a variety of invertebrates and small vertebrates. Captured prey items are often impaled for storage purposes on suitable substrates, including thorns or spikes on vegetation, and barbed wire fences. Nests in trees and large shrubs; nests are usually placed three to ten feet off the ground (Shuford and Gardali 2008). Trees and shrubs in and adjacent to the Study Area provide suitable nesting habitat for this species. In addition, the grassland habitat provides suitable foraging, and loggerhead shrike has a moderate potential to nest and occur within the Study Area.

Yellow warbler (*Setophaga petechia brewsteri*). CDFW Species of Special Concern, USFWS Bird of Conservation Concern. Present. The yellow warbler is a neotropical migrant bird that is widespread in North America, but has declined throughout much of its California breeding range. The Brewster's (*brewsteri*) subspecies is a summer resident and represents the vast majority of yellow warblers that breed in California. West of the Central Valley, typical yellow warbler breeding habitat consists of dense riparian vegetation along watercourses, including wet meadows, with willow growth especially being favored (Shuford and Gardali 2008). The willow scrub habitat provides suitable habitat and a yellow warbler was observed during the site assessment near the Mirada East Trail access. Although the high disturbance in the area immediately adjacent to Pacific Coast Highway and the Mirada East Trail access decreases potential for the Study Area to be used for nesting; there is a moderate potential for yellow warbler to nest within the Study Area.

Allen's hummingbird (*Selasphorus sasin*). USFWS Bird of Conservation Concern. Moderate Potential. Allen's hummingbird, common in many portions of its range, is a summer resident along the majority of California's coast and a year-round resident in portions of coastal southern California and the Channel Islands. Breeding occurs in association with the coastal fog belt, and typical habitats used include coastal scrub, riparian, woodland and forest edges, and eucalyptus and cypress groves (Mitchell 2000). It feeds on nectar, as well as insects and spiders. The eucalyptus, small trees, and shrubs within the Study Area provide suitable nesting habitat for this species. This species is known to nest in the vicinity and in residential areas. There is a moderate potential for Allen's hummingbird to nest within most some habitats in the Study Area except the grassland habitat.

4.2.3 Listed Species that Occur in the Region that are Unlikely to Occur in the Study Area

Federally listed species that are documented to occur within the vicinity of the Study Area, but are unlikely to occur include: California red-legged frog (CRLF; *Rana draytonii*) and San Francisco gartersnake (SFGS; *Thamnophis sirtalis tetrataenia*). These species are discussed below.

California Red-legged Frog (*Rana draytonii*). Federal Threatened Species. CDFW Species of Special Concern. Unlikely. The California red-legged frog (CRLF) was listed as Federally Threatened on May 23, 1996 (61 FR 25813-25833). Critical Habitat for the CRLF was designated on April 13, 2006 (71 FR 19243-19346), and the revised designation was finalized on March 17, 2010 (75 FR 12815-12959). A Recovery Plan for the CRLF was published by the USFWS on May 28, 2002. The current distribution of this species includes only isolated localities in the Sierra Nevada, northern Coast and Northern Traverse Ranges. It is still common in the San Francisco Bay area and along the central coast. It is now believed to be extirpated from the southern Transverse and Peninsular Ranges (USFWS 2002).

There are four primary constituent elements (PCEs) that are considered to be essential for the conservation or survival of a species. The PCEs for the CRLF include: aquatic breeding habitat; non-breeding aquatic habitat; upland habitat; and dispersal habitat (USFWS 2010).

Aquatic breeding habitat consists of low-gradient fresh water bodies, including natural and manmade (e.g., stock) ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds. It does not include deep water habitat, such as lakes and reservoirs. Aquatic breeding habitat must hold water for a minimum of 20 weeks in most years and typically greater than one foot in depth (USFWS 2010).

Aquatic non-breeding habitat may or may not hold water long enough for this species to hatch and complete its aquatic life cycle, but it provides shelter, foraging, predator avoidance, and aquatic dispersal for juvenile and adult CRLF. These waterbodies include plunge pools within intermittent creeks; seeps; quiet water refugia during high water flows; and springs of sufficient flow to withstand the summer dry period (USFWS 2010).

Upland habitats typically include areas within 300 feet of aquatic and riparian habitat and are comprised of grasslands, woodlands, and/or vegetation that provide shelter, forage, and predator avoidance. These upland features provide breeding, non-breeding, feeding, and sheltering habitat for juvenile and adult frogs (e.g., shelter, shade, moisture, cooler temperatures, a prey base, foraging opportunities, and areas for predator avoidance). Upland habitat can include structural features such as boulders, rocks and organic debris (e.g. downed trees, logs), as well as small mammal burrows and moist leaf litter (USFWS 2010).

Dispersal Habitat includes accessible upland or riparian habitats between occupied locations within 0.7 miles of each other that allow for movement between these sites. Dispersal habitat includes various natural and altered habitats such as agricultural fields, which do not contain barriers to dispersal. Moderate to high density urban or industrial developments, large reservoirs and heavily traveled roads without bridges or culverts are considered barriers to dispersal (USFWS 2006a).

The Study Area does not contain any PCEs for CRLF. There is no breeding habitat within the Study Area and no connectivity with breeding or potentially occupied habitats. The drainage in the willow scrub habitat contained puddled water immediately prior to the culvert under Highway

1 with a maximum 4 inches in depth. However, based upon maximum depth (14 inches) of the drainage in the Study Area, it was determined to be too shallow and not suitable for CRLF breeding. In addition, the drainage is relatively short, sourced 400 feet upstream from the Study Area and not contiguous with other drainages or potentially occupied locations. Arroyo de en Medio does not pond within the Study Area and was dry at the time of the site assessment. Slope and vegetation indicate Arroyo de en Medio is highly ephemeral and flashy which does not support CRLF breeding or non-breeding aquatic habitat. The nearest documented occurrence is 0.8 mile northwest in the undeveloped area north of El Granada.

Upland habitat is typically within 300 feet of breeding habitat and the Study Area is greater than 500 feet from potential breeding habitat with residential development and high traffic areas between the Study Area and the potential breeding pond. Dispersal habitat by definition is located between suitable and occupied habitats. The Study Area is bounded by development including residences, associated roads, and Highway 1 with no suitable water courses or corridors to provide connectivity with occupied habitats; thus CRLF dispersal through the Study Area is likely precluded. The development within and around the Study Area, in addition to the lack of aquatic habitat, reduce the potential for CRLF to occur or move through the Study Area; therefore, no further measures are recommended for this species.

San Francisco Gartersnake (*Thamnophis sirtalis tetrataenia*), Federal Endangered, State Endangered. CDFW Fully Protected Species. Unlikely. Historically, SFGS occurred in scattered wetland areas on the San Francisco Peninsula from approximately the San Francisco County line south along the eastern and western bases of the Santa Cruz Mountains, at least to the Upper Crystal Springs Reservoir, and along the coast south to Año Nuevo Point, San Mateo County, and Waddell Creek, Santa Cruz County.

The preferred habitat of SFGS is a densely vegetated pond near an open hillside where they can sun themselves, feed, and find cover in rodent burrows; however, considerably less ideal habitats can be successfully occupied (USFWS 2006b). Temporary ponds and other seasonal freshwater bodies are also used. Emergent and bankside vegetation such as cattails (*Typha* spp.), bulrushes (*Scirpus* spp.) and spike rushes (*Juncus* spp. and *Eleocharis* spp.) apparently are preferred and used for cover. The area between stream and pond habitats and grasslands or bank sides is used for basking, while nearby dense vegetation or water often provide escape cover.

During the summer, snakes may disperse from the typical vegetated aquatic-edge habitat into adjacent areas to feed on amphibians or hibernate in rodent burrows. Typically, SFGS utilize upland rodent burrows, including Botta's pocket gopher (*Thomomys bottae*) and the California meadow vole (*Microtus californicus*), within several hundred feet of their aquatic habitat (McGinnis 2001, USFWS 2006b). Literature suggests that lowland rodent burrows are not utilized for hibernation due to the potential for flooding (McGinnis 2001).

During periods of heavy rain or shortly after, SFGS may make long-distance movements of up to 1.25 miles along drainages within the dense riparian cover, and are not documented to travel over open terrain (McGinnis 2001).

The Study Area does not contain aquatic habitat or suitable upland habitat features and is not contiguous with occupied habitats. The nearest documented occurrences are over 1.5 miles north and south of the Study Area. Highway 1 and surrounding residential development are major dispersal barriers between the occupied habitats and the Study Area. Based upon lack of

suitable habitat and barriers to dispersal, it is determined SFGS is unlikely to be present within the Study Area. No further measures are recommended for this species.

5.0 SUMMARY AND RECOMMENDATIONS

The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to special-status species and sensitive habitats. Four ESHAs occur within the Study Area:

- Non-wetland waters potentially under the jurisdictional of the Corps, RWQCB, CDFW, CCC, and County LCP;
- Central coast riparian scrub and non-native riparian woodland potentially under the jurisdictional of the CDFW, CCC, and County LCP; and
- Coastal seasonal wetland potentially under the jurisdictional of the CCC and County LCP.

No special-status plant species were observed or have been identified with moderate to high potential to occur within the Study Area. Two special-status wildlife species are present and three have a moderate potential to occur within the Study Area. The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to sensitive habitats and special-status wildlife with potential to occur in the Study Area.

5.1 Biological Communities

The CCC and LCP generally prohibit land use or development that would have significant adverse impact on ESHAs. The LCP defines specific criteria for allowable development areas in ESHAs, requires ESHA impacts to be minimized to the maximum extent feasible through siting and design, requires that mitigation measures implemented where impacts to ESHAs may occur. However, permitted uses allowed within ESHAs include the following: education and research, trails and scenic overlooks on public lands, and fish and wildlife management. As aforementioned, ESHAs within the Study Area include coastal seasonal wetlands, non-wetland waters, central coast riparian scrub, and non-native riparian woodland.

5.1.1 Wetlands

A 100-foot minimum buffer surrounding wetlands, lakes, and ponds is typically required by the LCP code. However, specific permitted uses, including trails and scenic overlooks, are allowed within these buffer areas. As such, while trail development activities may occur within the 100-foot buffer surrounding a wetland, the following standards are recommended to minimize adverse effects (Section 7.17, San Mateo County LCP):

- all paths be elevated so as not to impede movement of water;
- all construction takes place during daytime hours;
- all outdoor lighting be kept at a distance away from the wetland sufficient not to affect the wildlife;
- motorized machinery be kept to less than 45 dBA at the wetland boundry;

- all construction which alters wetland vegetation be required to replace vegetation;

- no herbicides be used in wetlands unless specifically approved by the county Agricultural commissioner and CDFW, and;

- all projects be reviewed by CDFW and SWQB to determine appropriate mitigation measures.

5.1.2 Non-Wetland Waters

The Study Area contains non-wetland waters potentially subject to regulation by the following agencies: the Corps, the RWQCB, the CDFW, and the County LCP. Given the nature of the Project, temporary and permanent impacts to federal-protected non-wetland waters are expected from the construction of a multi-use trail. Temporary and permanent impacts to federal-protected waters (below the OHWM of the stream) in the Study Area will require a Corps Section 404 Nationwide Permit, and a RWQCB Section 401 Water Quality Certification. Any work below top of bank (TOB) of the stream will require a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Best management practices should be used to lessen potential impacts to sensitive habitats. This includes the use of silt fencing, wattles, and other appropriate stormwater pollution prevention measures. Permitting agencies may require a mitigation and monitoring plan to restore or replace temporary and permanent impacts to non-wetland waters.

5.1.3 Riparian Habitat

In addition to streams and lakes, the CDFW regulates riparian vegetation. Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW. CDFW jurisdiction typically extends to the TOB or the outer edge of riparian vegetation, whichever is further from the stream.

Potential impacts to riparian vegetation could occur through riparian vegetation removal or project-related encroachment into riparian habitat. To ensure that potential impacts to riparian vegetation are avoided, exclusion and/or silt fencing should be placed around all riparian vegetation that will be preserved and this fencing shall remain in place for the duration of construction. If removal of riparian vegetation is proposed, a Section 1602 Lake and Streambed Alteration Agreement from CDFW will be needed.

5.1.4 General Avoidance Measures

Below, general avoidance measures to reduce potential impacts to sensitive habitats and specific performance criteria for ESHAs are described:

- Site grading and trail development activities should be restricted between approximately May 1 and December 31. Site grading during these dryer months will reduce the possibility of soil erosion and sediments flowing into natural habitats.

- Install temporary silt fencing along the entire perimeter of land disturbing activities to protect potential ESHAs.

- Soil disturbance in the 100-foot buffer zone around the wetland areas (see Section 5.1.1) should be minimized as much as possible. This will reduce the impact to existing soils and vegetation that will remain as natural habitat within the buffer zone and reduce the potential for soil erosion. Perimeter erosion and sediment control measures (i.e. silt fencing, straw waddles) should be installed within the buffer zone area as an extra precaution to reduce the possibility of sediments entering the adjacent potential ESHAs.

- Solid materials, including wood, masonry/rock, glass, paper, or other materials should not be stored or placed in the 100-foot wetland buffer zone to the extent practicable. Solid waste materials should be properly disposed of off-site. Fluid materials, including concrete, wash water, fuels, lubricants, or other fluid materials used during construction should not be disposed of on-site and should be stored or confined as necessary to prevent spillage into natural habitats. If a spill of such materials occurs, the area should be cleaned and contaminated materials disposed of properly. The affected area should be restored to its natural condition.

5.2 Special-Status Plant Species

Of the 42 special-status plant species known to occur in the vicinity of the Study Area, none were determined to have a high to moderate potential to occur in the Study Area. Therefore, there are no additional recommendations for special-status plant species.

5.3 Special-Status Wildlife Species

Of the 59 special-status wildlife species previously documented in the vicinity, two are present and three were determined to have potential to occur within the Study Area. Most of the species found in the review of background literature occur in habitats not found in the Study Area. No aquatic habitat is present and high development and disturbance within and adjacent to the Study Area preclude the presence of many species.

San Francisco Dusky-footed Woodrat

The central coast riparian scrub and non-native riparian woodland habitat is occupied by San Francisco dusky-footed woodrat, and four houses were observed. If project activities are to occur within either of these habitats, the measures below shall be implemented to minimize impacts to San Francisco dusky-footed woodrat.

- If avoidance of riparian habitat is not feasible, a pre-construction survey within the riparian habitat will identify all existing San Francisco dusky-footed woodrat houses to be impacted.

- Woodrat houses that cannot be avoided will be dismantled by hand under the supervision of a biologist. If young are encountered during the dismantling process, the material should be placed back on the house and the house will remain unmolested for two to three weeks in order to give the young enough time to mature and leave the house. After two to three weeks, the nest dismantling process may begin again. Nest material will be moved to suitable adjacent areas (riparian, woodland, scrub) that will not be impacted.

Special-status and Non-special-status Nesting Birds

This assessment determined that four special-status bird species may nest in trees and shrubs within the Study Area. In addition, most common native bird species are also protected by the Migratory Bird Treaty Act (MBTA) during the nesting season. The following avoidance and minimization measures are recommended to be incorporated to any proposed project within the Study Area to avoid impacts to special-status bird species and birds protected under the MBTA.

- If project activities are to be conducted during the nesting season (February 15 – August 31), a pre-construction nesting bird survey should be performed no more than 14 days prior to initial ground disturbance to avoid impacting active nests, eggs, and/or young.

- If the survey identifies any active nest, an exclusion buffer should be established for protection of the nest and young. Buffer distance will vary based on species and conditions at the site, but typically ranges between 25 up to 600 feet. The biologist shall establish an appropriate buffer if necessary; the buffer should be maintained until all young have fledged.

- Impacts to nesting birds can be avoided if potential activities including tree trimming or removal are initiated outside of the nesting season (September 1 – January 31).

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APPENDIX A

LIST OF OBSERVED PLANT AND ANIMAL SPECIES

Appendix A. Plant and wildlife species observed in the Study Area on August 13, 2015

Scientific Name	Common Name
Plants	
Acacia melanoxylon	blackwood acacia
Achillea millefolium	common yarrow
Ailanthus altissima	tree of heaven
Alyssum alyssoides	sweet alyssum
Anagallis arvensis	scarlet pimpernel
Avena barbata	slender oat
Baccharis pilularis ssp. consanguinea	coyote brush
Brachypodium distachyon	false brome
Brassica nigra	black mustard
Briza minor	little quakinggrass
Bromus carinatus var. carinatus	California brome
Bromus catharticus var. elatus	Chilean brome
Bromus diandrus	ripgut brome
Bromus hordeaceus	soft chess
Carduus pycnocephalus	Italian thistle
Carex hendersonii	Henderson's sedge
Carpobrotus edulis	iceplant
Cirsium vulgare	bull thistle
Conium maculatum	poison hemlock
Convolvulus arvensis	field bindweed
Cortaderia jubata	Pampas grass
Cyperus eragrostis	tall flatsedge
Delairea odorata	Cape ivy
Distichlis spicata	saltgrass
Ehrharta erecta	panic veldtgrass
Epilobium ciliatum ssp. ciliatum	fringed willowherb
Equisetum arvense	field horsetail
Erigeron canadensis	Canadian horseweed
Eschscholzia californica	California poppy
Eucalyptus globulus	blue gum
Festuca bromoides	brome fescue
Festuca perennis	Italian rye grass
Foeniculum vulgare	fennel

Scientific Name	Common Name
Frangula purshiana	Cascara buckthorn
Genista monspessulana	French broom
Hedera helix	English ivy
Helminthotheca echioides	bristly ox-tongue
Hesperocyparis macrocarpa	Monterey cypress
Holcus lanatus	common velvet grass
Hordeum brachyantherum ssp. brachyantherum	meadow barley
Hordeum murinum ssp. glaucum	blue foxtail
Hypochaeris radicata	hairy catsear
Juncus effusus ssp. pacificus	Pacific rush
Juncus occidentalis	western rush
Lactuca serriola	prickly lettuce
Lotus corniculatus	bird's-foot trefoil
Lupinus arboreus	yellow bush lupine
Madia sativa	coast tarweed
Malva nicaeensis	bull mallow
Marah oregana	coast manroot
Myoporum laetum	lollypop tree
Oenothera biennis	common evening-primrose
Oxalis micrantha	dwarf woodsorrel
Persicaria hydropiperoides	common smartweed
Plantago coronopus	buckhorn plantain
Plantago lanceolata	English plantain
Polypogon interruptus	ditch rabbit's-foot grass
Raphanus sativus	wild radish
Rubus armeniacus	Himalayan blackberry
Rubus ursinus	California blackberry
Rumex acetosella	common sheep sorrel
Rumex crassus	willow dock
Rumex crispus	curly dock
Rumex pulcher	fiddle dock
Salix lasiolepis	arroyo willow
Sambucus racemosa var. racemosa	red elderberry
Scabiosa atropurpurea	mourningbride
Scirpus microcarpus	panicled bulrush
Sonchus asper ssp. asper	prickly sow thistle

Scientific Name	Common Name
Sorghum halepense	Johnsongrass
Symphyotrichum chilense	Pacific aster
Tragopogon dubius	yellow salsify
Tropaeolum majus	nasturtium
Urtica dioica ssp. holosericea	hoary nettle
Birds	
Buteo jamaicensis	red-tailed hawk
Calypte anna	Anna's hummingbird
Corvus corax	common raven
Haemorhous mexicanus	house finch
Junco hyemalis	dark-eyed junco
Passer domesticus	house sparrow
Poecile rufescens	chestnut-backed chickadee
Psaltriparus minimus	bushtit
Setophaga petechia	yellow warbler
Spinus psaltria	lesser goldfinch
Sturnus vulgaris	European starling
Turdus migratorius	American robin
Zenaida macroura	mourning dove
Invertebrates	
Junonia coenia	common buckeye
Papilio zelicaon	anise swallowtail
Pieris rapae	cabbage white
Vanessa sp.	painted lady
Mammals	
Felis catus	house cat
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat
Microtus spp.	vole species
Thomomys bottae	Botta's pocket gopher

APPENDIX B

POTENTIAL FOR SPECIAL-STATUS PLANT AND WILDLIFE SPECIES TO OCCUR IN THE STUDY AREA

Appendix B. Potential for special-status plant and wildlife species to occur in the Study Area. List compiled from the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (August 2015), U.S. Fish and Wildlife Service (USFWS) Species Lists, and California Native Plant Society (CNPS) Electronic Inventory search of the Montara Mountain and Half Moon Bay USGS 7.5' quadrangles and a review of other CDFW lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Plants				
Allium peninsulare var. *franciscanum* Franciscan onion	Rank 1B.2	Cismontane woodland, valley and foothill grassland, found on dry clay, volcanic and often serpentinite soils. 100-300m elevation. Blooms May-June.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Amsinckia lunaris bent-flowered fiddleneck	Rank 1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. 3-500m elevation. Blooms March-June.	**Unlikely**. The Study Area contains valley and foothill grassland near the coast. However, Study Area is disturbed and does not represent typical habitat of the species.	**Not Observed**. The species was not observed.. No further recommendations for this species is necessary.
Arabis blepharophylla coast rockcress	Rank 4.3	Rocky substrates in broadleafed upland forest, coastal bluff scrub, coastal scrub, and coastal prairie. Elevation range: 3-1,100 m. Blooms February-May	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Arctostaphylos montaraensis Montara manzanita	Rank 1B.2	Slopes and ridges on chaparral, coastal scrub. 150-500m elevation. Blooms January-March.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Arctostaphylos regismontana Kings Mountain manzanita	Rank 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest, often on granite or sandstone soils. 305-730 meters. Blooms Jan-April.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Astragalus nuttallii var. *nuttallii* ocean bluff milk-vetch	Rank 4.2	Coastal dunes and coastal bluff scrub. Elevation range: 3-120 meters. Blooms: January-November.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Astragalus pycnostachyus var. *pycnostachyus* coastal marsh milk-vetch	Rank 1B.2	Coastal dunes (mesic) and marshes and swamps (coastal salt, streamsides). Found at elevations of 0-30m. Blooms April-Oct.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Castilleja ambigua var. *ambigua* johnny-nip	Rank 4.2	Coastal bluff scrub, coastal prairie, coastal scrub, marshes, Valley and foothill grassland, vernal pools margins. Elevation range: 0-0435 meters.Blooms: March-August.	**Unlikely.** The Study Area is disturbed and does not represent typical habitat for this species.	**Not Observed**. The species was not seen during site visit within blooming period. No further recommendations necessary.
Centromadia parryi ssp. *parryi* pappose tarplant	Rank 1B.2	Coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. 2-420m. Blooms May-November.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Chorizanthe cuspidata var. *cuspidata* San Francisco Bay spineflower	Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub, often sandy sites. 3-215m. Blooms April-Aug.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Cirsium andrewsii Franciscan thistle	Rank 1B.2	Broad leafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub/ mesic, sometimes serpentine. 0-135m. Blooms March-July.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Collinsia multicolor San Francisco collinsia	Rank 1B.2	Closed cone coniferous forest, coastal scrub, sometimes on serpentinite soils. 30-250m elevation. Blooms March-May.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Cypripedium fasciculatum clustered lady's-slipper	Rank 4.2	Serpentine seeps and streambanks in lower montane coniferous forest and North Coast coniferous forest. Elevation range: 100-2,434 m. Blooms:March- August.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Dirca occidentalis western leatherwood	Rank 1B.2	Broad leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland/mesic. 50-395m. Blooms January - April.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Elymus californicus California bottle-brush grass	Rank 4.3	Broadleafed upland forest, cismontane woodland, North Coast coniferous forest, riparian woodland. Elevation range: 15-470 m. Blooms May-November.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Eriophyllum latilobum San Mateo woolly sunflower	FE, SE, Rank 1B.1	Cismontane woodland, often on roadcuts, on and off of serpentine, 45-150 m elevation. Blooms May-June.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Erysimum franciscanum San Francisco wallflower	Rank 4.2	Serpentine or granite substrates in chaparral, coastal dunes, coastal scrub, and Valley and foothill grassland.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Fritillaria biflora var. *ineziana* Hillsborough chocolate lily	Rank 1B.1	Cismontane woodland, valley and foothill grassland in serpentine soils. Blooms March-April.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Fritillaria lanceolata var. *tristulis* Marin checker lily	Rank 1B.1	Coastal bluff scrub, coastal prairie, coastal scrub. 15-150m. Blooms February-May.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Fritillaria liliacea fragrant fritillary	Rank 1B.2	Coastal scrub, valley and foothill grassland, cismontane woodland, coastal prairie, wetland-riparian areas. Often on serpentine; various soils reported though usually clay, in grassland. 3-410m. Blooms February-April.	**Unlikely.** Species is known to occur in an array of open habitats from the coast to the central valley. However, the Study Area is disturbed and does not represent typical habitat for this species.	**Not Observed.** The species was not observed during the site visit. No further recommendations for this species is necessary..

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Grindelia hirsutula var. *maritima* San Francisco gumplant	Rank 3.2	Coastal scrub, coastal bluff scrub, and valley and foothill grassland. Found on sandy or serpentine slopes and sea bluffs at elevations of 15-400m. Blooms June-September.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Hesperevax sparsiflora var. *brevifolia* short-leaved evax	Rank 1B.2	Coastal bluff scrub in sandy soils and coastal dunes. 0-215m elevation. Blooms March-June.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Horkelia marinensis Point Reyes horkelia	Rank 1B.2	Coastal dunes, coastal prairie, coastal scrub in sandy soils. 10-150m elevation. Blooms May-September.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Iris longipetala coast iris	Rank 4.2	Mesic areas in coastal prairie, lower montane coniferous forest, and meadows and seeps. Elevation range: 0-600 meters. Blooms: March – May.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Leptosiphon croceus coast yellow leptosiphon	Rank 1B.1	Coastal bluff scrub and coastal prairie. 10-150m elevation. Blooms April-May.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Leptosiphon rosaceus rose leptosiphon	Rank 1B.1	Coastal bluff scrub. 0-100m elevation. Blooms April-July.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Lessingia arachnoidea Crystal Springs lessingia	Rank 1B.2	Cismontane woodland, coastal scrub, serpentinite soils in valley and foothill grasslands, often roadsides. 60-200m elevation Blooms July-Oct.	**Unlikely**. The Study Area is disturbed and does not represent typical habitat for this species. Additionally, this species occurs more inland.	**Not Observed.** The species was not observed during the site visit which occurred during the blooming period of the species. No further recommendations necessary.
Lessingia hololeuca woolly-headed lessingia	Rank 3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland on clay and serpentine. 15-305m elevation. Blooms June-October.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** The species was not observed during the site visit No further recommendations for this species is necessary.
Limnanthes douglasii ssp. *ornduffii* Ornduff's meadowfoam	Rank 1B.1	Meadows and seeps, agricultural fields.10-20m elevation. Blooms November – May.	**No Potential.** There are neither nearby agricultural fields nor any in the recent past. While the Study Area contains wetlands, they are low quality and have different soil type than those where the species is found.	**Assumed Absent.** No further recommendations for this species is necessary.
Lupinus arboreus var. *eximius* San Mateo tree lupine	Rank 3.2	Coastal prairie, mesic meadows and seeps, freshwater marshes and swamps, and vernal pools. 1-140m elevation. Blooms April-July.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Malacothamnus aboriginum Indian Valley bush-mallow	Rank 1B.2	Chaparral, cismontane woodland on rocky soil, often in burned areas. 150-1700m. Blooms April-October.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Malacothamnus arcuatus arcuate bush-mallow	Rank 1B.2	This evergreen shrub is found in chaparral at elevations of 15-355m. Blooms April-Sept.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Malacothamnus davidsonii Davidson's bush-mallow	Rank 1B.2	Chaparral, cismontane woodland, coastal scrub and riparian woodland. 185-855m. Blooms June-January.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Malacothamnus hallii Hall's bush-mallow	Rank 1B.2	Chaparral and coastal scrub; on serpentine. 10-550m. Blooms May-September.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Monolopia gracilens woodland woollythreads	Rank 1B.2	Broadleafed upland forest in openings, chaparral in openings, cismontane woodland, north Coast coniferous forest in openings, valley and foothill grassland on serpentine. 100-1200m elevation. Blooms Feb-July.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Pentachaeta bellidiflora white-rayed pentachaeta	FE, SE, Rank 1B.1	Open and dry slopes on valley and foothill grassland (often on serpentine soil) and cismontane woodland. 35-620m elevation. Blooms March- May.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Plagiobothrys chorisianus var. *chorisianus* Choris' popcornflower	Rank 1B.2	Chaparral, coastal prairie, and coastal scrub. Found in mesic areas at elevations of 15-100m. Blooms March-June.	**Unlikely.** The Study Area is disturbed and does not represent suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Polemonium carneum Oregon polemonium	Rank 2B.2	Chaparral, coastal prairie, coastal scrub, yellow pine forest. Found in mesic areas at elevations of 15-160m. Blooms April- September.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Potentilla hickmanii Hickman's cinquefoil	FE, SE, Rank 1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, freshwater marshes and swamps. 10-135m elevation. Blooms April-August.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Silene verecunda ssp. *verecunda* San Francisco campion	Rank 1B.2	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland (sandy). 30-645m elevation. Blooms March to August.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Triphysaria floribunda San Francisco owl's clover	Rank 1B.2	Coastal prairie, coastal scrub, valley and foothill grassland usually on serpentinite. 10-160m elevation. Blooms April-June.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.
Triquetrella californica Coastal triquetrella	Rank 1B.2	Rocky substrates in coastal bluff scrub, coastal scrub valley, and foothill grasslands. 10-100m.	**No Potential.** The Study Area does not contain suitable habitat for this species.	**Assumed Absent.** No further recommendations for this species is necessary.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Mammals				
fringed myotis *Myotis thysanodes*	WBWG	Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/sequoia groves. Buildings, mines and large snags are important day and night roosts.	**Unlikely.** The Study Area does not contain suitable roost habitat. No snags, mines, or buildings are present, and no suitable trees capable of creating suitable snag habitat are present.	No further recommendations.
big free-tailed bat *Nyctinomops macrotis*	SSC, WBWG	Occurs rarely in low-lying arid areas. Requires high cliffs or rocky outcrops for roosting sites.	**No Potential.** The Study Area does not contain suitable habitat. No cliffs or rocky outcrops are present.	No further recommendations.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC, SC, WBWG	Primarily found in rural settings in a wide variety of habitats including oak woodlands and mixed coniferous-deciduous forest. Day roosts highly associated with caves and mines. Building roost sites must be cave like. Very sensitive to human disturbance.	**Unlikely.** The Study Area does not contain suitable roost habitat. No caves or mines are present, and the Study Area has high levels of disturbance from the surrounding community and traffic.	No further recommendations.
pallid bat *Antrozous pallidus*	SSC, WBWG	Occupies a variety of habitats at low elevation including grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	**Unlikely.** The Study Area does not contain suitable roost habitat. Eucalyptus and other trees present in the vicinity do not provide roost habitat.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
western red bat *Lasiurus blossevillii*	WBWG	Roosts primarily in trees often are in edge habitats adjacent to streams, fields, or urban areas.	**Unlikely.** The Study Area does not contain suitable habitat and has a high level of disturbance. One area contains suitable willows, but is immediately adjacent to a high-use trail access and Highway 1.	No further recommendations.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	SSC	Typically occurs in forest habitats of moderate canopy and moderate to dense understory. Also found in chaparral habitats.	**Present.** Two active and two inactive woodrat houses were observed within the Study Area. The Study Area is predominantly open habitat; however, the Non-Native Riparian Woodland and Central Coast Riparian Scrub communities contain suitable woodrat habitat, and houses were observed in these locations.	If avoidance of riparian habitat is not feasible, a pre-construction survey within the riparian habitat will identify all existing San Francisco dusky-footed woodrat houses to be impacted.
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable, uncultivated soils. Prey on burrowing rodents.	**No Potential.** The Study Area does not contain suitable grassland habitat for this species and is not contiguous with occupied habitat. High development and disturbance levels preclude badger from the Study Area.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Birds				
California brown pelican *Pelecanus occidentalis californicus*	FD, SD, CFP	Nests colonially on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Does not breed north of the Channel Islands. Winter visitor and post-breeding disperser to San Francisco Bay region.	**No Potential.** The Study Area does not contain coastal island habitat and is out of the breeding range for this species.	No further recommendations.
white-tailed kite *Elanus leucurus*	CFP	Year-long resident of coastal and valley lowlands. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians.	**Moderate Potential.** The Study Area and vicinity contain suitable nesting and foraging habitat.	Work windows or pre-construction surveys consistent with Migratory Bird Treaty Act requirements.
northern harrier *Circus cyaneus*	SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge.	**Unlikely.** The Study Area contains grasslands; however, there is a high level of disturbance by humans, dogs, and feral cats. The high disturbance greatly reduces the potential for northern harrier to nest within or adjacent to the Study Area.	No further recommendations.
golden eagle *Aquila chrysaetos*	CFP	Year-round resident in rolling foothills with open grasslands, scattered trees, and cliff-walled canyons.	**No Potential.** The Study Area does not contain nesting habitat. In addition, the high level of development in the surrounding area reduces potential for golden eagle to forage in the Study Area.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
bald eagle *Haliaeetus leucocephalus*	FD, SE, CFP	Frequents ocean shores, lake margins, and rivers for both nesting and wintering. Requires abundant fish and adjacent snags or other perches. Nests in large, old-growth, or dominant live tree with open branch-work.	**No Potential.** The Study Area does not contain nesting or foraging habitat for this species.	No further recommendations.
peregrine falcon *Falco peregrinus*	FD, SD, CFP, BCC	Resident and winter visitor to region. Occurs near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	**No Potential.** The Study Area does not contain nesting or foraging habitat for this species. No cliffs, ledges, or tall buildings are present.	No further recommendations.
California Ridgway's (clapper) rail *Rallus obsoletus (longirostris) obsoletus*	FE, SE, CFP	Associated with tidal salt marsh and brackish marshes supporting emergent vegetation, upland refugia, and incised tidal channels.	**No Potential.** The Study Area is outside the known range of this species and there is no salt marsh present in or near the Study Area.	No further recommendations.
western snowy plover *Charadrius alexandrinus nivosus*	FT, SSC, BCC, RP	Federal listing applies only to the Pacific coastal population. Found on sandy beaches, salt pond levees, and shores of large alkali lakes. Requires sandy, gravelly, or friable soils for nesting.	**No Potential.** There is no sandy or beach habitat present in the Study Area. The Study Area is immediately adjacent to Highway 1 and has a level of disturbance.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
California least tern *Sterna antillarum browni*	FE, SE	Nests along the coast from San Francisco bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	**No Potential.** There is no sandy, beach, or other suitable habitat present in the Study Area. The Study Area is immediately adjacent to Highway 1 and has a level of disturbance.	No further recommendations.
Caspian tern *Sterna caspia*	BCC	Summer resident in the region. Nests in small colonies inland and along the coast, usually on small islands and sandbars.	**No Potential.** There is no sandy, beach, or other suitable habitat present in the Study Area. The Study Area is immediately adjacent to Highway 1 and has a level of disturbance.	No further recommendations.
elegant tern *Sterna elegans*	BCC	Post-breeding disperser to coastal habitats in the region; not known to nest north of San Diego County. Forages for fish over open water.	**No Potential.** There is no sandy, beach, or other suitable habitat present in the Study Area. In addition, the Study Area is outside the known breeding range of this species.	No further recommendations.
black oystercatcher *Haematopus bachmani*	BCC	Resident along rocky shorelines. Nests are small bowls or depressions close to the shore.	**No Potential.** The Study Area and vicinity do not contain shoreline habitat.	No further recommendations.
long-billed curlew *Numenius americanus*	BCC	Breeds in upland shortgrass prairies and wet meadows in northeastern California. Winter visitor to the region, occurring in grasslands and shores.	**No Potential.** There is no prairie or meadow habitat present in the Study Area. In addition, the Study Area is outside the known breeding range of this species.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
short-tailed albatross *Diomedea albatrus*	FE	Nests on Japanese islands. Very rare winter visitor to offshore California waters.	**No Potential.** The Study Area does not contain shoreline, island, or ocean habitats. In addition, the Study Area is outside the breeding range for this species.	No further recommendations.
Xantu's murrelet *Synthliborampus hypoleucus*	SSC	Generally rare post-breeding disperser to the region. Pelagic, breeding on offshore islands in rock crevices or under bushes. Does not breed north of the Channel Islands.	**No Potential.** The Study Area does not contain shoreline, island, or ocean habitats. In addition, the Study Area is outside the breeding range for this species.	No further recommendations.
Cassin's auklet *Ptychoramphus aleuticus*	SSC, BCC	Pelagic species, nesting colonially in burrows on coastal and offshore islands.	**No Potential.** The Study Area does not contain shoreline, island, or ocean habitats.	No further recommendations.
marbled murrelet *Brachyramphus marmoratus*	FT, SE	Breed in old-growth redwood stands containing platform-like branches along the coast. Winters in coastal waters.	**No Potential.** The Study Area and vicinity do not contain redwood trees or other suitable forested habitat for nesting. In addition, this species is not known to nest in this portion of coastal San Mateo County.	No further recommendations.
tufted puffin *Fratercula cirrhata*	BCC	Pelagic; nests along the coast on islands, islets, or (rarely) mainland cliffs. Typically winters well offshore.	**No Potential.** The Study Area does not contain shoreline, island, or ocean habitats.	No further recommendations.
burrowing owl *Athene cunicularia*	SSC, BCC	Open, dry annual or perennial grasslands, deserts and scrub lands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**No Potential.** The Study Area does not contain suitable burrow habitat, and no ground squirrels were observed within or adjacent to the Study Area.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
short-eared owl *Asio flammeus*	SSC	Resident and mostly winter visitor to the region. Found in swamp lands, both fresh and salt; lowland meadows; alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	**No Potential.** The Study Area does not contain marsh or other suitable habitat for this species. In addition, there is a high level of disturbance by humans, dogs, and feral cats.	No further recommendations.
rufous hummingbird *Selasphorus rufus*	BCC	Nesting occurs in the transition zone of northwest coastal area from Oregon border to southern Sonoma county. Nests in berry tangles, shrubs, and conifers. Favors habitats rich in nectar-producing flowers.	**Unlikely.** The Study Area is outside the known breeding range of this species. This species may be observed during migration.	No further recommendations.
Allen's hummingbird *Selasphorus sasin*	BCC	Inhabits mixed evergreen, riparian woodlands, eucalyptus and cypress groves, oak woodlands, and coastal scrub during breeding season. Nest in shrubs and trees with dense vegetation.	**Moderate Potential.** This species is known to breed in the vicinity, and may nest in shrubs and trees within or adjacent to the Study Area.	Work windows or pre-construction surveys consistent with Migratory Bird Treaty Act requirements.
olive-sided flycatcher *Contopus cooperi*	SSC, BCC	Conifer forests where tall trees overlook canyons, meadows, lakes, coastal areas, or other open terrain	**Unlikely.** No suitable nest trees are present within or adjacent to the Study Area. This species typically nests at higher elevations along the coast.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
little willow flycatcher *Empidonax traillii brewsteri*	SE	Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters. Winter migrant.	**Unlikely.** No suitable nest trees are present within or adjacent to the Study Area. This species typically nests at higher elevations along the coast.	No further recommendations.
oak titmouse *Baeolophus inornatus*	BCC	Occurs year-round in woodland and savannah habitats where oaks are present, as well as riparian areas. Nests in tree cavities.	**Unlikely.** Eucalyptus trees within the Study Area don't support cavities suitable for nesting by this species. This species may forage within the Study Area.	No further recommendations.
purple martin *Progne subis*	SSC	Inhabits woodlands, low elevation coniferous forest. Nest in snags, old woodpecker cavities and human-made structures.	**Unlikely.** Eucalyptus trees within the Study Area don't support cavities suitable for nesting by this species. This species may forage within the Study Area.	No further recommendations.
bank swallow *Riparia riparia*	ST	Migrant in riparian and other lowland habitats in western California. Colonial nester in riparian areas with vertical cliffs and bands with fine-textured or fine-textured sandy soils near streams, rivers, lakes or the ocean.	**No Potential.** The Study Area does not contain riparian habitats with cliffs required for nesting by this species.	No further recommendations.
loggerhead shrike *Lanius ludovicianus*	SSC, BCC	Prefers open habitats with scattered shrubs, trees, posts, or other perches. Eats mostly large insects.	**Moderate Potential.** The woodland and shrubs in the Arroyo de en Medio portion of the Study Area contain suitable nesting habitat. Elsewhere within the Study Area no shrubs are present for nesting.	Work windows or pre-construction surveys consistent with Migratory Bird Treaty Act requirements.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
San Francisco (saltmarsh) common yellowthroat *Geothlypis trichas sinuosa*	SSC, BCC	Resident of San Francisco bay region fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging, tall grasses, tule patches, willows for nesting.	**Unlikely.** The Study Area does not contain marsh habitat suitable for nesting by this species.	No further recommendations.
yellow-breasted chat *Icteria virens*	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian thickets consisting of willow, blackberry, wild grape	**Unlikely.** The Study Area does not contain suitable dense riparian habitat for nesting by this species. The Study Area is predominantly open habitat, and the Central Coast Riparian Scrub habitat is immediately adjacent to Highway 1 and high pedestrian traffic areas; reducing potential for use by yellow-breasted chat.	No further recommendations.
yellow warbler *Setophaga (Dendroica) petechia*	SSC	Summer resident in the region. Nests in riparian stands of aspens, sycamores and alders with a dense understory of willows. Also nests in montane shrubbery in open conifer forests.	**Moderate Potential.** The Central Coast Riparian Scrub habitat in the Study Area has potential to be used for nesting by yellow warbler. The area immediately adjacent to Highway 1 receives a high level of disturbance; however, suitable protected habitat is present.	Work windows or pre-construction surveys consistent with Migratory Bird Treaty Act requirements.
grasshopper sparrow *Ammodramus savannarum*	SSC	Frequents dense tall, dry or well-drained grasslands, especially native grasslands with mixed grasses and forbs for foraging and nesting. Nests on ground at base of overhanging clumps of vegetation.	**Unlikely.** The Study Area contains grasslands; however, there is a high level of disturbance by humans, dogs, and feral cats. In addition, the grassland is unlikely to support nesting based upon vegetation density.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Bryant's savannah sparrow *Passerculus sandwichensis alaudinus*	SSC	Year-round resident of tidal marshes and grasslands in coastal fog belt. Breeds from April through July.	**Unlikely.** The Study Area and vicinity do not contain tidal habitats for nesting. In addition, the high level of disturbance by humans, dogs, and feral cats likely precludes nesting by this species.	No further recommendations.
Alameda song sparrow *Melospiza melodia pusillula*	BCC, SSC	Year-round resident in tidal-influenced marshes along the eastern and southern portions of San Francisco Bay.	**No Potential.** The Study Area is outside the known range of this subspecies and does not contain marsh or tidal habitats.	No further recommendations.
tricolored blackbird *Agelaius tricolor*	SSC, BCC	Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs. Nesting area must be large enough to support about 50 pairs.	**Unlikely.** The Study Area does not contain marsh or freshwater habitat suitable for nesting by this species.	No further recommendations.
Nuttall's woodpecker *Picoides nuttallii*	BCC	Year-round resident in lowland woodlands throughout much of California west of the Sierra Nevada. Typical habitat is dominated by oaks; also occurs in riparian woodland. Nests in tree cavities.	**Unlikely.** Eucalyptus trees within the Study Area don't support cavities suitable for nesting by this species. This species may forage within the Study Area.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Reptiles and Amphibians				
Pacific (western) pond turtle *Actinemys [Emys] marmorata*	SSC	Occurs in perennial ponds, lakes, rivers and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs) and submerged shelter.	**No Potential.** There is no suitable aquatic habitat within the Study Area or vicinity. The intermittent stream and Arroyo de en Medio are not inundated for suitable periods to sustain this species.	No further recommendations.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE, SE, CFP	Vicinity of freshwater marshes, ponds, and slow moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot.	**Unlikely.** The Study Area and vicinity do not contain marshes, ponds, or slow moving streams. The intermittent stream and Arroyo de en Medio are not inundated for suitable periods to provide habitat for this species and are not contiguous with known occupied habitat.	No further recommendations.
California red-legged frog *Rana draytonii*	FT, SSC	Associated with quiet perennial to intermittent ponds, stream pools, and wetlands with adjacent upland habitat containing refugia. Prefers shorelines with extensive vegetation. Documented to disperse through upland habitats after rains.	**Unlikely.** The Study Area and vicinity do not contain marshes, ponds, or slow moving streams. The portion of Arroyo de en Medio was dry at the time of the site visit and does not appear to hold water for long periods based on vegetation. The intermittent stream does not provide suitable habitat for breeding and is not contiguous with occupied habitat to provide dispersal habitat.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Fish				
tidewater goby *Eucyclogobius newberryi*	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	**No Potential.** There is no aquatic or lagoon habitat in the Study Area.	No further recommendations.
longfin smelt *Spirinchus thaleichthys*	ST, RP	Found in open waters of estuaries, mostly in the middle or bottom of the water column. This species prefers salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	**No Potential.** There is no aquatic or estuarine habitat in the Study Area.	No further recommendations.
steelhead, Central California Coast ESU *Oncorhynchus mykiss irideus*	FT	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**No Potential.** There is no stream habitat in the Study Area, all drainages are intermittent.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Coho salmon - Central CA Coast ESU *Oncorhynchus kisutch*	FE, SE	Federal listing includes populations between Punta Gorda and San Lorenzo River. State listing includes populations south of San Francisco Bay only. Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	**No Potential.** There is no stream habitat in the Study Area, all drainages are intermittent.	No further recommendations.
Invertebrates				
white abalone *Haliotes sorenseni*	FE, SSI	White abalone is the first marine invertebrate to be listed under the ESA and is reported to be most abundant between 25-30 m (80-100 ft. depth).	**No Potential.** The Study Area does not contain tidal, shoreline, or ocean habitats.	No further recommendations.
black abalone *Haliotes cracherodii*	FE, SSI	Ranges from Cabo San Lucas to Mendocino County. Found in intertidal and shallow subtidal areas.	**No Potential.** The Study Area does not contain tidal, shoreline, or ocean habitats.	No further recommendations.
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE, SSI	Inhabits coastal mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is *Sedum spathulifolium*.	**No Potential.** The Study Area is outside of this species range and the larval host plants are not present.	No further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE, SSI	Foggy, coastal dunes and hills of the Point Reyes Peninsula.	**No Potential.** The Study Area is outside of this species range.	No further recommendations.
Monarch butterfly *Danaus plexippus*	SSI	Winter roost sites located in wind-protected tree groves (Eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Winter roosts monitored by CDFW.	**Unlikely.** The Study Area does not contain eucalyptus in groves suitable to provide wind protection and no known winter roosts are present within the Study Area. This species may be observed during migration.	No further recommendations.
Mission blue butterfly *Plebejus icarioides missionensis*	FE, SSI	Inhabits grasslands of the San Francisco peninsula. Three larval host plants: *Lupinus albifrons*, *L. variicolor*, and *L. formosus*, of which *L. albifrons* is favored.	**No Potential.** The Study Area does not contain the larval host plants for this species.	No further recommendations.
San Francisco tree lupine moth *Grapholita edwardsiana*	SMC LCP	Occurs only on sandy northern peninsula sites. Tree lupine (*Lupinus arboreus*) host the larvae of this species. This species is addressed in the San Mateo County LCP.	**No Potential.** The Study Area does not contain sandy habitats or the larval host plant for this species.	No further recommendations.
California brackish water snail *Tryonia imitator*	SMC LCP	Occurs in brackish water, such as Pescadero Marsh.	**No Potential.** There is no brackish water habitat in the Study Area.	No further recommendations.
globose dune beetle *Coelus globosus*	SMC LCP	Inhabits California's coastal dune system.	**No Potential.** The Study Area does not contain sandy or dune habitats required by this species.	No further recommendations.

*** Key to status codes:**

BCC	U.S. Fish & Wildlife Service (USFWS) Birds of Conservation Concern
CFP	CDFW Fully Protected Animal
FE	Federal Endangered
FT	Federal Threatened
RP	Sensitive species included in a USFWS Recovery Plan or Draft Recovery Plan
SC	State Candidate Species for listing
SE	State Endangered
SSC	California Department of Fish and Game (CDFG) Species of Special Concern
ST	State Threatened
Rank 1A	California Native Plant Society (CNPS) Rank 1A: Plants presumed extirpated in California and rare or extinct elsewhere
Rank 1B.1	California Native Plant Society (CNPS) Rank 1B.1: Plants rare, threatened or endangered in California and elsewhere (seriously threatened in California)
Rank 1B.2	California Native Plant Society (CNPS) Rank 1B.2: Plants rare, threatened, or endangered in California and elsewhere(moderately threatened in California)
Rank 2B.2	California Native Plant Society (CNPS) Rank 2B.2: Plants rare, threatened, or endangered in California, but more common elsewhere (moderately threatened in California)
Rank 4.3	California Rare Plant Rank 4.3: Plants of Limited Distribution - A Watch List (not very threatened in California)
WBWG	Western Bat Working Group High Priority Species
WL	CDFW Watch List

****Potential species occurrence definitions:**

Present. Species was observed on the site during site visits or has been recorded (i.e. CNDDB, other reports) on the site recently.

High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species has a low probability of being found on the site.

No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

APPENDIX C

STUDY AREA PHOTOGRAPHS

Photograph 1. Representative photograph of Central Coastal Riparian Scrub arroyo willow (*Salix lasiolepis*).

Photograph 2. Representative photograph of Northern Coastal Scrub in background on left, dominated by California blackberry (*Rubus ursinus*).

Photograph 3. Representative photograph of developed areas in background consistent of streets connecting to Highway 1.

Photograph 4. Representative photograph of non-native riparian woodland dominated by blue gum (*Eucalyptus globulus*) and blackwood acacia (*Acacia melanoxylon*).

Photograph 5. Representative photograph of Monterey cypress forest on right dominated by Monterey cypress (*Hesperocyparis macrocarpa*) and tree-of-heaven (*Ailanthus altissima*).

Photograph 6. Representative photograph of Non-native Annual Grassland.

Photograph 7. Representative photograph of coastal seasonal wetland located in swale.

Photograph 8. Close up of coastal seasonal wetland vegetation dominated by several rush species.

Photograph 9. Unnamed Perennial Stream within Central Coast Riparian Scrub in the central portion of the Study Area.

Photograph 10. Evidence of ground burrowing rodents within the Study Area.

Photograph 11. View of intermittent stream bed associated with Arroyo de ne Medio.

Photograph 12. Example of San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens)* house.

Wetland Delineation Report

MIDCOAST MULTIMODAL TRAIL PROJECT
EL GRANADA, SAN MATEO COUNTY, CALIFORNIA

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ACRONYMS

CCC	California Coastal Commission
CCR	California Code of Regulations
CCT	California Coastal Trail
CDFW	California Department of Fish and Wildlife
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
County	San Mateo County
CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
ESHA	Environmentally Sensitive Habitat Areas
HUC	Hydrologic Unit Code
LCP	Local Coastal Program
NRCS	Natural Resource Conservation Service
OHWM	Ordinary High Water Mark
RPW	Relatively Permanent Waters
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resources Control Board
TNW	Traditional Navigable Waters
TOB	Top of Bank
USDA	U.S. Department of Agriculture
USGS	U.S. Geologic Survey
WRA	WRA, Inc.

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1.0 INTRODUCTION

The Midcoast Multi-modal Trail Project is a component of the California Coastal Trail (CCT). The proposed trail alignment (Study Area) is situated on approximately 10.39 acres of undeveloped land, located in the unincorporated community of El Granada, San Mateo County, California. The Study Area occurs parallel to and includes the California Coastal Highway (Highway 1), and includes non-native annual grassland, a small patch of northern coastal scrub, central coast riparian scrub, non-native riparian woodland, coastal seasonal wetlands, and Monterey cypress wind breaks, with elevations ranging from 9 to 75 feet. Residential neighborhoods, public open space, and schools surround the Study Area. The upland portions of the Study Area are generally comprised of wind breaks of Monterey cypress and non-native annual grasslands.

On August 13, 2015, biologists from WRA, Inc. (WRA) conducted a wetland delineation within the Study Area (Figure 1). The purpose of the wetland delineation was to determine the location and extent of waters and wetlands, which may be considered jurisdictional by the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and San Mateo County (County) Local Coastal Program (LCP) under Section 404 of the Clean Water Act, Porter-Cologne Water Quality Control Act, Sections 1600-1616 of the State Fish and Game Code, and California Coastal Act, respectively. This work is being conducted for San Mateo County in preparation for trail and public access improvements along Highway 1. This report presents the results of the delineation.

Appendix A includes maps depicting the extent of Corps/RWQCB, and County/California Coastal Comission (CCC) jurisdiction. The Corps wetland data sheets and County/CCC wetland data sheets are included in Appendix B and C, respectively. Appendix D contains representative photographs of the Study Area.

2.0 REGULATORY BACKGROUND

2.1 Federal Jurisdiction over Wetlands and "Other Waters"

Section 404 of the Clean Water Act

Section 404 of the Clean Water Act gives the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) regulatory and permitting authority regarding discharge of dredged or fill material into "navigable waters of the United States." Section 502(7) of the Clean Water Act defines navigable waters as "waters of the United States, including territorial seas." Section 328 of Chapter 33 in the Code of Federal Regulations (CFR) defines the term "waters of the United States" as it applies to the jurisdictional limits of the authority of the Corps under the Clean Water Act. A summary of this definition of "waters of the U.S." in 33 CFR 328.3 includes (1) waters used for commerce; (2) interstate waters and wetlands; (3) territorial seas; (4) impoundments of waters; (5) tributaries to the above waters; (6) waters and wetlands adjacent to the above waters; and (7) prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernal pools, and Texas coastal prairie wetlands, provided these features have a significant nexus to the above listed waters; (8) all waters located within the

Figure 1. Study Area Location Map

N
W E
S

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

0 345 690 1,380 Feet

wra
ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 8/26/2015
Map Prepared By: fhourigan
Base Source: NAIP, 2014 / Esri, National Geographic
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\LocationMap.mxd

100-year floodplain of waters listed above in items 1-3 or within 4,000 feet of the high tide line or ordinary high water mark of a water listed above in items 1-5, provided those waters are determined to have a significant nexus to waters identified in items 1-3 above. Therefore, for purposes of the determining Corps jurisdiction under the Clean Water Act, "navigable waters" as defined in the Clean Water Act are the same as "waters of the U.S." defined in the CFR above.

Areas not considered to be "waters of the U.S. as defined in 33 CFR 328.3(b), are summarized as follows: (1) waste treatment systems; (2) prior converted cropland; (3) specific classes of ditches; (4) man-made aquatic features in otherwise dry land such as stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, cooling ponds, reflecting pools, swimming pools, small ornamental waters, depressions incidental to mining and construction activity, erosional features, and puddles; (5) groundwater; (6) stormwater control features; wastewater recycling structures, groundwater recharge basins, percolation ponds for wastewater recycling, and distribution networks for wastewater recycling. These areas are discussed further in Section 3.4 of this report.

The limits of Corps jurisdiction under Section 404 as given in 33 CFR Section 328.4 are as follows: (a) *Territorial seas:* three nautical miles in a seaward direction from the baseline; (b) *Tidal waters of the U.S.:* high tide line or to the limit of adjacent non-tidal waters; (c) *Non-tidal waters of the U.S.:* ordinary high water mark or to the limit of adjacent wetlands; (d) *Wetlands:* to the limit of the wetland.
The Corps of Engineers has developed standard methods and data reporting forms contained in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Corps Manual"; Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Supplement"; Corps 2008) to determine the presence or absence of wetlands and Waters of the U.S. The procedures described in the Corps Manual were used to identify wetlands and waters in the Study Area that are potentially subject to regulation under Section 404 of the CWA.

2.2 State Jurisdiction over Wetlands and "Other Waters"

2.2.1 State Water Resources Control Board and Regional Water Quality Control Board

The Dickey Water Pollution Act of 1949 and Porter Cologne Act of 1969 established the State Water Resources Control Board (SWRCB) and nine RWQCBs in the State of California. The SWRCB and each RWQCB regulate activities in Waters of the State which include Waters of the U.S. Waters of the State are defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state."

The RWQCB regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act through the State Water Quality Certification Program. State Water Quality Certification is necessary for all projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State. In order for a Section 404 permit to be valid, Section 401 of the CWA requires a Water Quality Certification or waiver to be obtained. The Water Quality Certification (or waiver) determines that the permitted activities will not violate water quality standards individually or cumulatively over the term of the action. Water quality certification must be consistent with the requirements of the Federal CWA, the California Environmental Quality Act, the California Endangered Species Act, and Porter-Cologne Act.

If a proposed project or portion of a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activity under its state authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements. In these cases, a Water Quality Certification is not necessary under Section 401 of the CWA because federal jurisdiction does not apply.

2.2.2 California Department of Fish and Game

CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. Streams and lakes, as habitat for fish, wildlife, and native plant species, are subject to jurisdiction by CDFW under Sections 1600-1616 of the California Fish and Game Code (CFGC). Fish and Game Code Section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW before beginning any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

These regulated activities require a 1602 Lake and Streambed Alteration Agreement. Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows:

> *"a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation"*
>
> (14 CCR 1.72)

In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, "on, or pertaining to, the banks of a stream;" therefore, riparian vegetation is defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG ESD 1994).

2.2.3 California Coastal Commission and San Mateo County Local Coastal Program (LCP)

The CCC/County LCP regulates the diking, filling, or dredging of wetlands within the coastal zone. Section 30121 of the Coastal Act (2010) defines "wetlands" as land "which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." In addition, the San Mateo County LCP defines "wetlands" 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. Wetlands do not include vernally wet areas where the soils are not hydric. The 1981 CCC Statewide Interpretive Guidelines state that hydric soils and hydrophytic vegetation "are useful indicators of

wetland conditions," but the presence or absence of hydric soils and/or hydrophytes alone are not necessarily determinative when the CCC identifies wetlands under the Coastal Act.

The boundaries of areas regulated by the Corps and CCC/LCP are often not the same due to the differing goals of the respective regulatory programs and also because these agencies use different definitions for determining the extent of wetland areas. For example, the Corps requires that positive indicators for the presence of wetland hydrology, hydric soils, and a predominance of hydrophytic vegetation be present for an area to meet the Corps' wetland definition. The CCC does not necessarily require that all three wetland indicators (wetland hydrology, hydric soils, and a predominance of hydrophytic vegetation) be present for an area to be determined to by a "wetland"; rather, the presence of hydric soils in the absence of a predominance of hydrophytes (or vice versa) could be sufficient for a positive wetland determination.

The 2013 County LCP identified sensitive habitats to include: riparian corridors, wetlands, marine habitats, sand dunes, sea cliffs, and habitats supporting rare, endangered, and unique species. Further, the County LCP defines sensitive habitats as:

> *…any area which meets one of the following criteria: (1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.*
>
> San Mateo LCP, Policy 7.1

Additionally, the County LCP defines Riparian Corridors as a sensitive habitat, where riparian corridors are defined as:

> *…the "limit of riparian vegetation" (i.e., a line determined by the association of plant and animal species normally found near streams, lakes and other bodies of freshwater: red alder, jaumea, pickleweed, big leaf maple, narrow-leaf cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and box elder). Such a corridor must contain at least a 50% cover of some combination of the plants listed.*
>
> San Mateo LCP (2013), Policy 7.7

This County LCP further clarifies in Policy 7.8 that riparian corridors be established for all perennial and intermittent streams, lakes, and other bodies of freshwater in the Coastal Zone.

3.0 METHODS

3.1 Army Corps Jurisdiction

The methods used in this study to delineate federal jurisdictional wetlands and waters are based on the Corps Manual, Arid West Supplement, and the most recently published National Wetland

Plant List (Lichvar 2014). A general description of the Study Area, including plant communities present, topography, and land use was also generated during the delineation visits. The methods for evaluating the presence of wetlands and "other waters" of the U.S. employed during the site visit are described in detail below.

Prior to conducting field studies, available reference materials were reviewed, including the Soil Survey of San Mateo Area (U.S. Department of Agriculture [USDA] 1961), the Montara Mountain and Half Moon Bay U.S. Geologic Survey (USGS) 7.5' quadrangles, available aerial photographs of the site, and previous studies conducted within the Study Area.

A routine level wetland delineation was performed on August 13, 2015. A general description of the Study Area, including plant communities present, topology and land use was also generated during the delineation visit. The methods for evaluating the presence of wetlands and "other waters" employed during each site visit are described in detail below.

3.1.1 Potential Section 404 Jurisdictional Wetlands

The Corps has defined the term "wetlands" as follows:

> *Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*
>
> (33 CFR 328.3)

The three parameters listed in the Corps Manual that are used to determine the presence of wetlands are: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. According to the Corps Manual:

> *"...[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."*

Data on vegetation, hydrology, and soils collected at sample points during the delineation site visits are reported on standard Corps data forms included in Appendix B. Once an area was determined to be a potential jurisdictional wetland, its boundaries were delineated using GPS equipment with sub-meter accuracy and mapped on a geo-referenced aerial photograph. The total acreage of potential jurisdictional wetlands was measured digitally using ArcGIS software. Indicators described in the Corps Manual that were used to make wetland determinations at each sample point in the Study Area are summarized below.

<u>Vegetation</u>

Plant species identified on the Study Area were assigned a wetland status according to the USDA list of plant species that occur in wetlands (USDA 2012). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

OBL	Always found in wetlands	>99% frequency
FACW(±)	Usually found in wetlands	67-99%
FAC	Equal in wetland or non-wetlands	34-66%

FACU	Usually found in non-wetlands	1-33%
UPL/NL	Upland/Not listed (upland)	<1%

The Arid West Supplement requires that a three-step process be conducted to determine if hydrophytic vegetation is present. The procedure first requires the delineator to apply the "50/20 rule" (Indicator 1) described in the manual. To apply the "50/20 rule", dominant species are chosen independently from each stratum of the community. In general, dominant species are determined for each vegetation stratum from a sampling plot of an appropriate size surrounding the sample point. In general, dominants are the most abundant species that individually or collectively account for more than 50 percent of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total cover. If greater than 50 percent of the dominant species has an OBL, FACW, or FAC status, ignoring + and - qualifiers, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails Indicator 1 and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation. However, if the sample point fails Indicator 1 but hydric soils and wetland hydrology are both present, the delineator must apply Indicator 2.

Indicator 2 is known as the Prevalence Index. The prevalence index is a weighted average of the wetland indicator status for all plant species within the sampling plot. Each indicator status is given a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5). Indicator 2 requires the delineator to estimate the percent cover of each species in every stratum of the community and sum the cover estimates for any species that is present in more than one stratum. The delineator must then organize all species into groups according to their wetland indicator status and calculate the Prevalence Index using the following formula, where A equals total percent cover:

$$PI = \frac{A_{OBL} + 2A_{FACW} + 3A_{FAC} + 4A_{FACU} + 5A_{UPL}}{A_{OBL} + A_{FACW} + A_{FAC} + A_{FACU} + A_{UPL}}$$

The Prevalence Index will yield a number between 1 and 5. If the Prevalence Index is equal to or less than 3, the sample point meets the hydrophytic vegetation criterion. However, if the community fails Indicator 2, the delineator must proceed to Indicator 3.

Indicator 3 is known as Morphological Adaptations. If more than 50 percent of the individuals of a FACU species have morphological adaptations for life in wetlands, that species is considered to be a hydrophyte and its indicator status should be reassigned to FAC. If such observations are made, the delineator must recalculate Indicators 1 and 2 using a FAC indicator status for this species. The sample point meets the hydrophytic vegetation criterion if either test is satisfied.

Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

> *"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part."*
>
> Federal Register July 13, 1994,
> USDA, NRCS

Soils formed over long periods of time under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. Hydric soils can have a hydrogen sulfide (rotten egg) odor, low chroma matrix color, generally designated 0, 1, or 2, used to identify them as hydric, presence of redox concentrations, gleyed or depleted matrix, or high organic matter content.

Specific indicators that can be used to determine whether a soil is hydric for the purposes of wetland delineation are provided in the NRCS *Field Indicators of Hydric Soils in the U.S.* (NRCS 2010). The Arid West Supplement provides a list of 23 of these hydric soil indicators which are known to occur in the Arid West region. Soil samples were collected and described according to the methodology provided in the Arid West Supplement. Soil chroma and values were determined by utilizing a standard Munsell soil color chart (Gretag Macbeth 2000).

Hydric soils were determined to be present if any of the soil samples met one or more of the 23 hydric soil indicators described in the Arid West Supplement.

Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days in the Arid West region). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation, drift deposits, oxidized root channels, and salt crusts, or secondary indicators such as the FAC-neutral test, presence of a shallow aquitard, or crayfish burrows. The Arid West Supplement contains 16 primary hydrology indicators and 10 secondary hydrology indicators. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

The presence or absence of the primary or secondary indicators described in the Arid West Supplement was utilized to determine if sample points within the Study Area met the wetland hydrology criterion.

3.1.2 Potential Section 404 Jurisdictional "Other Waters"

The Study Area was also evaluated for the presence of "other waters". "Other waters" subject to Corps jurisdiction include lakes, rivers, and perennial or intermittent streams. Corps jurisdiction of "other waters" in non-tidal areas extends to the ordinary high water mark (OHWM), defined as:

> *The term "ordinary high water mark" means that line on the shore established by*

> *the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*
>
> Federal Register Vol. 51, No. 219,
> Part 328.3 (d). November 13, 1986.

"Other waters" are identified in the field by the presence of a defined river or streambed, a bank, and evidence of the flow of water, or by the absence of emergent vegetation in ponds or lakes. "Other waters" that were found within the Study Area were mapped using a sub-meter accurate GPS with sub-meter accuracy and are described in Section 4.0 of this report. Identification of the ordinary high water mark followed the Corps Regulatory Guidance Letter No. 05-05, *Ordinary High Water Mark Identification* (Corps 2005).

3.1.3 Potential Tidal Waters

The Pacific Ocean is located just beyond the western boundary of the Study Area. Regulatory jurisdiction in tidal waters extends to the high tide line, which is the intersection of land with the water's surface at the maximum height reached by a rising tide. Therefore, the high tide line was not mapped as it is located beyond the boundary of the Study Area.

3.1.4 Areas Excluded from Section 404 Jurisdiction

Some areas that meet the technical criteria for wetlands or "other waters" may not be jurisdictional under the CWA. Included in this category are some man-induced wetlands, which are areas that have developed at least some characteristics of naturally occurring wetlands due to either intentional or incidental human activities. Examples of man-induced wetlands include, but are not limited to, irrigated wetlands, impoundments (such as stock ponds for livestock), or drainage ditches constructed in uplands, wetlands resulting from filling of formerly deep water habitats, dredged material disposal areas, and wetlands resulting from stream channel realignment.

Other areas that may not be jurisdictional are "isolated" wetlands, or non-navigable waters which are not connected or adjacent to a navigable Waters of the U.S. through either a hydrologic or economic connection (per [*SWANCC v. United States*] Supreme Court decision issued on January 9, 2001). Therefore, wetland areas which do not have a surface or groundwater connection to, and are not adjacent to a navigable Waters of the U.S., may be considered isolated and not subject to Corps jurisdiction. Potential wetlands in the Study Area suspected of being exempt from Corps jurisdiction are identified in this report; however determination of jurisdictional status is the responsibility of the Corps.

3.1.5 Waters of the State

The SWRCB and RWQCB have not established a formal wetland definition nor have they developed a wetland delineation protocol; however these agencies generally adhere to the same delineation protocol set forth by the Corps (Environmental Laboratory 1987). Therefore, the methods used to determine potential Waters of the State were the same as those described above for potential Section 404 jurisdiction.

3.1.6 Areas Exempt from State Jurisdiction

Unlike Federal regulations, dredging, filling, or excavation within isolated wetlands and "other waters" constitutes a discharge to Waters of the State, and prospective dischargers are required to submit a report of waste discharge to the RWQCB to comply with requirements of the California Porter-Cologne Water Quality Control Act (SWRCB 2002). However, since the State of California has not developed a formal wetlands definition or wetlands delineation protocol, the wetlands delineation method outlined in the Corps Manual and the Western Mountains, Valley, and Coast Region supplement (Environmental Laboratory 1987; Corps 2008) was utilized to map wetlands subject to SWRQCB and RWQCB jurisdiction. As a result, similar to Federal jurisdictional delineations some areas that meet the technical criteria for wetlands but do not contain normal circumstances may also be excluded from State jurisdiction due to the lack of normal circumstances (i.e., atypical situations). Included in this category are some man-induced wetlands, such as irrigated wetlands and depressions created in dry land incidental to construction activities.

3.2 CDFW Jurisdiction

CDFW jurisdiction over lakes and streams extends to the top of bank (TOB) of the stream, or the edge of riparian vegetation as determined by edge of dripline, whichever is further. Areas of potential CDFW jurisdiction under sections 1600-1616 of the State Fish and Game Code were identified in the field.

3.3 CCC/LCP Jurisdiction

The Study Area is within the CCC and County LCP boundaries; therefore, potential wetlands and riparian corridors within the Study Area will be analyzed in accordance with the CCC/County LCP definitions.

3.2.1 Wetlands

The Coastal Act defines wetlands as:

> *"Wetland means lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens."*
>
> (Public Resources Code Section 30121)

Consistent with CCC Administrative Regulations (Section 13577 (b)), the San Mateo County LCP defines wetlands 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.

(County of San Mateo LCP Chapter 7)

The Coastal Commission has considered this definition as requiring the observation of one diagnostic feature of a wetland such as wetland hydrology, dominance by wetland vegetation (hydrophytes), or presence of hydric soils as a basis for asserting jurisdiction under the Coastal Act.

The San Mateo County LCP goes on to further define wetlands as follows:

In San Mateo County, wetlands typically contain the following plants: cordgrass, pickleweed, jaumea, frankenia, marsh mint, tule, bulrush, 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.

(Ibid)

However, it is commonly accepted that the CCC statewide guidelines dictate the identification of wetlands despite the more restrictive San Mateo County definition. Furthermore, the *Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas* (CCC 1981) provide technical criteria for use in identifying and delineating wetlands and other Environmentally Sensitive Habitat Areas (ESHAs) within the Coastal Zone. The technical criteria presented in the guidelines are based on the Coastal Act definition and indicate that wetland hydrology is the most important parameter for determining a wetland, recognizing that:

. . . the single feature that most wetlands share is soil or substrata that is at least periodically saturated with or covered by water, and this is the feature used to describe wetlands in the Coastal Act. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil, and therefore only plants adapted to these wet conditions (hydrophytes) could thrive in these wet (hydric) soils. Thus, the presence or absence of hydrophytes and hydric soils make excellent physical parameters upon which to judge the existence of wetland habitat areas for the purposes of the Coastal Act, but they are not the sole criteria.

The Technical Criteria requires that saturation of soil in a wetland must be at or near the surface continuously for a period of time. The meaning of "at or near the surface" generally is considered to be approximately one-foot from the surface or less (the root zone), and the saturation must be continuously present for a period of time (generally more than two weeks) in order to create the necessary soil reduction (anaerobic) processes that create wetland conditions. For example, water from rain during a storm that causes saturation near the surface but then evaporates or infiltrates to 18 inches or deeper below the surface shortly after the storm does not meet the generally accepted criteria for wetland hydrology.

The presence of wetland classified plants or the presence of hydric soils (generally referred to as the "one parameter approach) can be used to identify an area as being a wetland in the Coastal Zone. There is correlation between the presence of wetland plants, wetland hydrology,

and/or hydric soils occurring together, especially in natural undisturbed areas, and in many cases where one of these parameters is found (e.g., wetland plants) the other parameters will also occur. But there are situations which can result in the presence of wetland classified plants without there being wetland conditions, and these areas are not wetlands. Where these situations occur, the delineation study must carefully scrutinize whether the wetland classified plants that are present are growing there as hydrophytes in reducing (anaerobic) conditions caused by the presence of wetland hydrology or are there for some other (non-wetland) reason. Examples may include wetland-classified plants which are also salt-tolerant (e.g., alkali heath) and may be responding to either wetland conditions or saline soil conditions, but not necessarily both, and deep-rooted trees (e.g., willows) which are able to tap into deep groundwater sources and can grow in dry surface soils, but are also found in wetland conditions where surface water is present.

Hydric soils can also occur in upland areas especially in areas where historic disturbances may have exposed substratum or in densely vegetated grasslands (mollisols). Similarly, the delineation must determine if the hydric soil indicators are a result of frequent anaerobic conditions or if they are the result of non-wetland conditions.

The Coastal Act uses a broad wetland definition in which the presence of any one of the wetland parameters may indicate presence of a wetland. The CCC presumes that the area is a wetland if one of the wetland parameters is present. However, there may be exceptions to this presumption if there is strong positive evidence of upland conditions, as opposed to negative evidence of wetland conditions. Positive evidence of upland hydrology might be the observation that a given area saturates only ephemerally following significant rainfall, that the soil is very permeable with no confining layer, or that the land is steep and drains rapidly. Positive evidence of upland conditions should be obtained during the wet season. Based on these facts, this biological resource assessment identified areas within the Study Area that had wetland plants, hydric soils, or wetland hydrology indicators (See Section 3.1.1 for definitions). Soils, hydrology, and vegetation were examined on August 13, 2015 at locations within the Study Area that had the potential to meet the LCP's wetland definition. Sample points were taken in representative areas throughout the Study Area. Once an area was determined to be a potential jurisdictional wetland, its boundaries were delineated using sub-meter accuracy GPS equipment and overlain on a topographic map. Jurisdictional wetland acreage was measured digitally using ArcGIS software.

All areas meeting at least one parameter are depicted on the CCC/LCP jurisdictional map included as Appendix A-3. During this delineation, several areas dominated by facultative wetland vegetation were determined not to be wetlands. The rationale for classifying these areas as non-wetlands are provided in Section 4.1 and the data sheets included as Appendix C. The vegetation, hydrology, and soil criteria used during this delineation are summarized below.

3.2.2 Streams

A stream is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the USGS map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil, or debris (CCC 1981). Prior to visiting the site, WRA reviewed the most recent USGS map for the Study Area.

3.2.3 Open Coastal Waters

Open coastal waters refer to the open ocean overlying the continental shelf and its associated coastline. Salinities exceed 30 parts per thousand with little or no dilution except opposite mouths of estuaries.

4.0 STUDY AREA DESCRIPTION

4.1 Vegetation

Upland areas within the Study Area contain non-native annual grassland, Monterey cypress stands, and northern coastal scrub. Sensitive communities included central coast riparian scrub, non-native riparian woodland, and coastal seasonal wetland.

The non-native annual grassland covers the majority of the Study Area and is dominated by common grasses such as wild oat (*Avena barbata*, NL), Italian ryegrass (*Festuca perennis* [*Lolium multiflorum*]; FAC), false brome (*Brachypodium distachyon*, NL), and velvet grass (*Holcus lanatus,* FAC), with herbaceous species such as bristly ox-tongue (*Helminthotheca echioides* [*Picris echioides*], FACU) and black mustard (*Brassica nigra*, NL). While the dominant non-native grass species shift between above mentioned species, the species composition and soil type remains consistent throughout the Study Area. Additionally, two stand-alone blue gum (*Eucalyptus globulus*, NL) trees are present in this community.

A stand of Monterey cypress (*Hesperocyparis macrocarpa;* NL) occurs in the southern portion of the Study Area. The tree canopy is co-dominated by tree-of-heaven (*Ailanthus altissima*, FACU) and the sparse understory includes California blackberry (*Rubus ursinus*, FAC) and English ivy (*Hedera helix*, FACU). A small stand of Monterey cypress also occurs west of the non-native riparian woodland associated with Arroyo de en Medio.

Centrally in the Study Area, a small area of northern coastal scrub occurs that was dominated by California blackberry growing on a barbed wire fence along with small amounts common rush (*Juncus patens,* FACW) and bristly ox-tongue.

Central coast riparian scrub dominated by arroyo willow (*Salix lasiolepis*, FACW) was observed east of the northern coastal scrub, in the middle of the Study Area. Central coast riparian scrub was comprised almost entirely of an arroyo willow tree canopy with an understory dominated by California blackberry along with poison oak (*Toxicodendron diversilobum*, FACU), stinging nettle (*Urtica dioica*, FAC), and panicled bulrush (*Scirpus microcarpus,* OBL).

Non-native riparian woodland was associated with Arroyo de ne Medio at the southern end of the Study Area was dominated by blue gum and blackwood acacia (*Acacia melanoxylon*, NL). The shrub understory of this non-native riparian woodland contained scattered red elderberry (*Sambucus racemosa*, FACU), arroyo willow, and Himalayan blackberry (*Rubus armeniacus*, FACU), with herbaceous groundcover dominated by garden nasturtium (*Tropaeolum majus*, UPL) and English ivy (*Delairea odorata*, NL).

Within the Study Area, a coastal seasonal wetland was observed with dominant facultative wetland herbs and forb including rushes (*Juncus effusus, J.occidentalis, J. patens,* all FACW), Italian rye grass, tall flatsedge (*Cyperus eragrostis*, FACW), California blackberry, and curly dock (*Rumex crispus*, FAC). This coastal seasonal wetland was in association with linear,

manmade shallow swale that may be associated with old tire ruts from past mowing (Google Earth 2011-2015).

Some areas of the non-native annual grasslands within the Study Area were dominated by non-native, invasive, FAC species including Italian ryegrass or velvet grass with a presence of curly dock and fleshy willow dock (*Rumex crassus*, FACW). Additionally, several small patches less than one square meter of rush (*J. patens*) were observed within the non-native annual grassland and were associated with manmade shallow topography in uplands; however, these patches were too small to classify as a plant community. Although dominant plant species in these areas have a wetland indicator rating of FAC or FACW (Lichvar 2014), these species did not appear to be functioning as hydrophytes in the current conditions. In these areas, surface hydrology, oxidized rhizospheres on living root channels, and indicator levels of redoximorphic features were not observed in the upper 10 inches of the soil profile (SP2), suggesting that surface and subsurface water does not collect for extended periods of time. It is possible that the relatively low evapotranspiration pressure and presence of summer fog within the Study Area create conditions amenable for Italian ryegrass, velvet grass, and some rushes without extended subsurface moisture. Italian ryegrass, velvet grass, and curly dock have been assessed and/or deemed a moderate invasive threat (Cal-IPC 2006) and thrive in a variety of habitats. Therefore, areas dominated by these species within the Study Area do not appear to be functioning as a wetland and are not considered wetlands in this report.

4.2 Soils

Based on the Soil Survey of San Mateo Area (NRCS 2015), the Study Area is underlain primarily by four soil mapping units (Figure 2): *Watsonville loam, sloping, eroded*; *Denison clay loam, nearly level*; *Denison clay loam, nearly level, imperfectly drained*; and *Denison loam, nearly level*. Additionally, a large portion of the Study Area has no soil information available and has not been surveyed by the USDA. More information on each soil mapping unit is provided below.

Figure 2. Study Area Soils Map

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

N
W E
S

0 230 460 920 Feet

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 9/4/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA, SSURGO

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\SoilsMap.mxd

Watsonville loam, sloping, eroded

This map unit is located on old coastal terraces and valleys with slopes of 0 to 50 percent. Composition of this soil unit is fine, smectitic, thermic Xeric Argialbolls. Native vegetation that typically occurs in association with this soil type includes annual grasses and a few coastal chaparral plants.

Typic Argiobolls, loamy, are deep somewhat poorly drained soils that formed in alluvium derived from coastal sediment. The surface layer is very dark grayish brown loam approximately 10 to 16 inches thick. The subsoil is sandy loam, clay or sandy clay loam to a depth of 60 inches or more. On the lower terraces, soils have higher sandy clay loam content. Typic Argiobolls are somewhat poorly drained because perched water tables occur during periods of heavy water applications. Permeability is very slow and available water capacity is high, however this soil is not considered hydric. This unit is used mainly for field and row crops, irrigated and annual pasture specialty crops such as strawberries and brussel sprouts and urban development.

Denison clay loam

This map unit is located on low terraces adjacent to the coast with slopes of 0 to 15 percent. Composition of this soil unit is fine, smectitic, isomesic Pachic Argixerolls. Native grasslands typically occur in association with this soil type.

Pachic Argixerolls are very deep, moderately well-drained soils developed from moderately fine textured granitic alluvium. The surface layer is black clay loam with fine white quartz grains approximately 10 inches thick. The subsoil is black becoming mottled dark gray and light yellowish brownclay to heavy clay loam 10 to 45 inches thick. This soil is moderately well drained with slow permeability; therefore, it is considered hydric if found in depressions because perched water tables occur during periods of heavy water applications. The unit is used mainly for agriculture, growing brussel sprouts, artichokes, cabbage and sugar beets. The soil occurs only on terraces adjacent to the coast north of the town of Half Moon Bay.

Denison loam

This map unit is similar to Denison clay loam except that the uppermost 3 to 30 inches is loam. This soil is not considered hydric.

Soils observed within the Study Area match the description of Denison loam, nearly level. Soils were identified as a coarse sandy loam with some coarser depositional materials and were black (10YR 2/1) in the Munsell Soil Color Chart (GretagMacBeth 2000). No redoximorphic features such as oxidized rhizospheres on living root channels or redox concentrations at levels indicative of hydric conditions were observed. The soils were determined to not meet the hydric soil criteria for either the Corps or CCC definitions.

4.3 Hydrology

The Study Area occurs within the hydrologic unit code (HUC) 10 - San Gregorio Creek-Frontal Pacific Ocean watershed. The Study Area consists of generally flat topography which slopes gently downward from southeast to the northwest with elevations ranging from approximately 9 to 75 feet above mean sea level. The hydrology of the Study Area is primarily driven by direct precipitation, coastal fog drip, minimal sheet flow from surrounding areas, and two drainages consistent of intermittent and perennial flows. The Study Area is situated in the coastal fog belt

where fog is a source of precipitation in the summer and storms are the source of precipitation in the winter. Average maximum temperature peaks in September at 67 degrees Fahrenheit with average minimum temperature in January at 43 degrees Fahrenheit. Average annual precipitation is approximately 27 inches, generally occurring in the winter and spring months from November through March.

A USGS dashed blue-line intermittent stream, Arroyo de en Medio, occurs through the southern non-native riparian woodland in the Study Area. Arroyo de en Medio is fed by headwaters in the mountains of Rancho Corral de Tierra, north of the Study Area and flows southwest, draining into the Pacific Ocean. At the time of the site visit, Arroyo de en Medio was dry. The OHWM of this feature was mapped using observed physical features including changes in the characteristics of the soil, scouring, alluvial sediment deposition, changes in terrestrial vegetation, and the presence of litter and debris. Additionally, the TOB was delineated for this intermittent stream based on a distinct change in grade that coincides with the active stream channel and floodplain.

An unnamed perennial drainage occurs centrally in the Study Area, in the western portion of the central coast riparian scrub. This unnamed drainage was observed with standing water, draining west through a culvert under Highway 1, ultimately to the Pacific Ocean. This perennial drainage likely receives subsurface flows from a local underground stormwater conveyance system or potentially upgrade intermittent flows; however, the water source remains unconfirmed. The OHWM for this drainage was delineated based on a break along the bank that coincided with changes in terrestrial vegetation. The TOB was not delineated for this perennial drainage due to access restrictions resulting from the impenetrable habitat of the central coast riparian scrub.

Man-made ditches created in uplands were observed within the non-native annual grassland in the Study Area. These ditches did not exhibit signs of OHWM, did not meet wetland parameters, nor are they associated with historic water features. Manmade ditches were generally linked culverts associated with residential areas to under Highway 1.

5.0 RESULTS

The Study Area contains sensitive habitats including non-wetland waters, coastal seasonal wetlands, and riparian habitat. Table 1 below summarizes the potential jurisdictional features within the Study Area. All jurisdictional areas are depicted in Appendix A-1.

Table 1. Summary of Jurisdictional Areas within Study Area

JURISDICTION	HABITAT TYPE	ACREAGE/ LINEAR FEET
Corps Section 404/ RWQCB Section 401	Non-wetland waters	0.04/ 212
CDFW Section 1602	Drainage/Stream	0.09/ 213
	Riparian	1.61
	TOTAL	1.70/ 213
CCC/ County LCP	Non-wetland waters	0.04/ 213
	Coastal seasonal wetland	0.02
	Riparian	1.61
	TOTAL	1.67/ 213

5.1 Section 404 Jurisdictional Wetlands

No wetlands were observed during the site visit that meet the three parameters necessary to qualify as a Corps jurisdictional wetland. While facultative wetland plants dominated small areas of the Study Area, these areas did not contain indicators of hydric soils or wetland hydrology. As a result, no seasonal wetlands were mapped that are subject to Corps regulation under Section 404 of the CWA.

5.2 Potential Section 404 Jurisdictional "Non-wetland Waters"

Two features within the Study Area were observed that qualify as Section 404 jurisdictional "non-wetland waters": the USGS dashed blue-line intermittent stream, Arroyo de en Medio, and an unnamed perennial drainage that occurs within the western portion of the central coast riparian scrub (Appendix A-2). The Study Area contains approximately 0.02 acre (121.24 linear feet) of non-wetland waters associated with the intermittent stream, Arroyo de en Medio, and 0.01 acre (91.73 linear feet) of non-wetland waters associated with unnamed the perennial drainage.

5.3 Potential Section 404 Tidal Waters

No potential Section 404 tidal waters were observed within the Study Area.

5.4 Waters of the State

The potential Section 404 jurisdictional non-wetland waters identified within the Study Area are

also considered Waters of the State subject to regulation by the SWRCB/RWQCB (Appendix A-2).

Additionally, CDFW regulates streams to the TOB or to the edge of riparian habitat, whichever is further. Therefore, approximately 0.08 acre (121.24 linear feet) of the intermittent stream, Arroyo de en Medio; approximately 0.01 acre (91.73 linear feet) of unnamed perennial drainage, and approximately 1.61 acres of associated riparian habitat are considered jurisdictional by the CDFW under Section 1602 of the CFGC (Appendix A-3).

5.5 CCC/LCP Jurisdiction

All of the areas regulated by the abovementioned federal and state agencies are considered an ESHA under the CCC/LCP. Based on the CCC/LCP definitions, the central coast riparian scrub within the Study Area is considered an ESHA. While the vegetation associated with the non-native riparian woodland associated with Arroyo de en Medio in the Study Area does not meet the definition of a riparian corridor based on the definition set forth in the San Mateo LCP, it is associated with an intermittent stream and therefore is designated as a riparian corridor.

Additionally, based on the definitions of the CCC/LCP, approximately 0.02 acre of coastal seasonal wetland within the Study Area is considered an ESHA (Appendix A-3). This coastal seasonal wetland (SP4) was dominated by facultative wetland plants and meets the wetland indicator for hydrophytic vegetation but does not meet indicators of hydric soils or wetland hydrology.

6.0 CONCLUSION

The Study Area contains aquatic habitats that fall under the jurisdiction of the Corps, RWQCB, CDFW, and the CCC/County LCP. Approximately 0.04 acre (213 linear feet) of non-wetland waters occur within the Study Area that are regulated by the Corps, RWQCB, CCC, and County LCP. The Study Area contains 0.09 acre (213 linear feet) of streams as defined by the CFGC, and 1.61 acres of riparian habitat that is regulated by the CDFW. Additionally, the CCC and County LCP take jurisdiction over approximately 0.02 acre of coastal seasonal wetland and the aforementioned riparian habitat within the Study Area.

The conclusion of this delineation is based on conditions observed at the time of the field surveys performed on August 13, 2015.

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Appendix A - Jurisdictional Delineation Maps

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A-1.1 Section 404, Seaction 401, Section 1602, California Coastal Commission,
Local Coastal Program: Summary of Jurisdictional Areas

N
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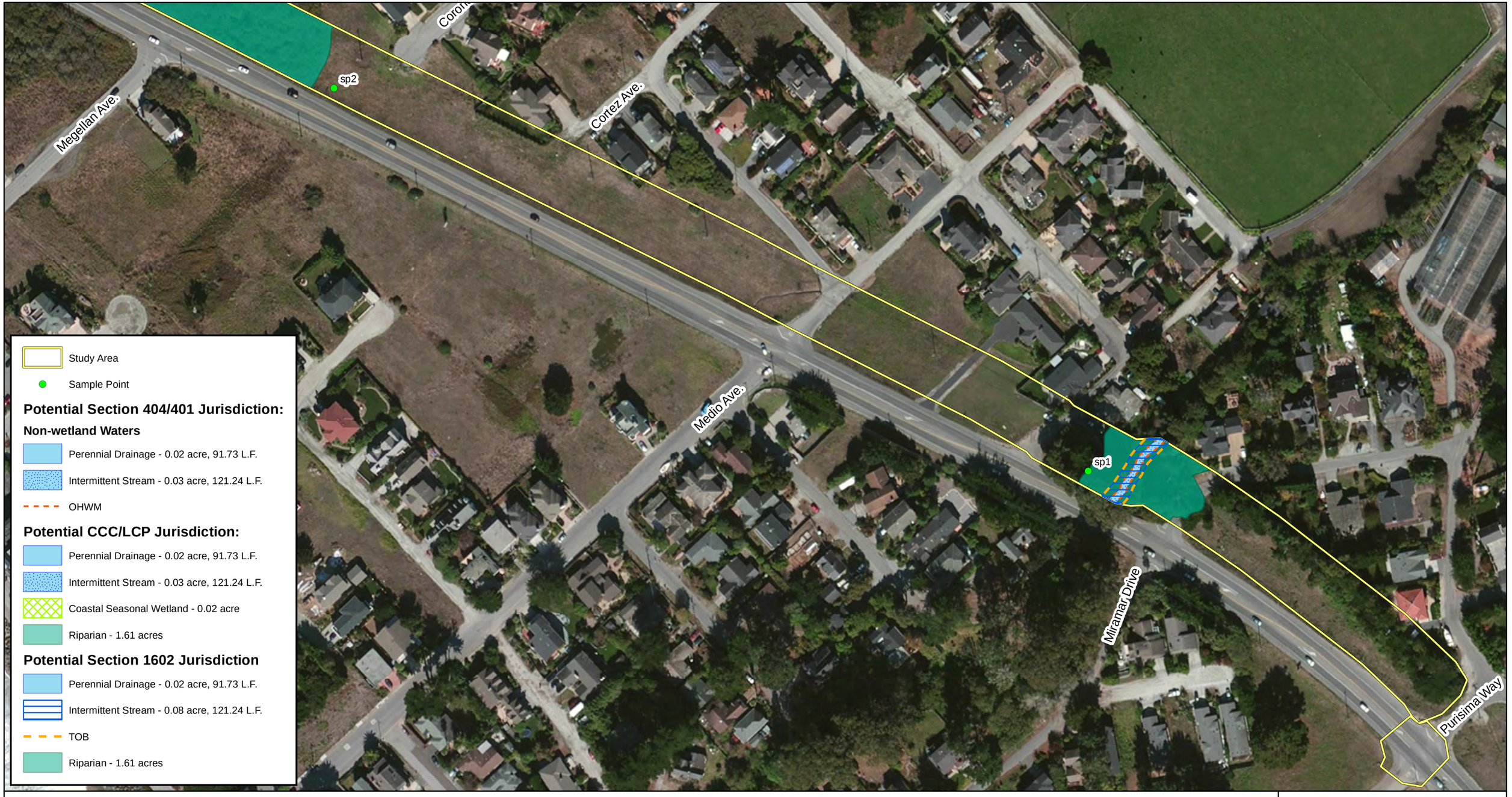
wra
ENVIRONMENTAL CONSULTANTS

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

0 130 260 520 Feet

Map Prepared Date: 9/11/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\JurisdictionalDelineationMap.mxd



A-1.2 Section 404, Seaction 401, Section 1602, California Coastal Commission, Local Coastal Program: Summary of Jurisdictional Areas

N
W E
S

0 130 260 520 Feet

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 9/11/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\JurisdictionalDelineationMap.mxd

A-2.1 Section 404/401 Potential Jurisdictional Areas

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

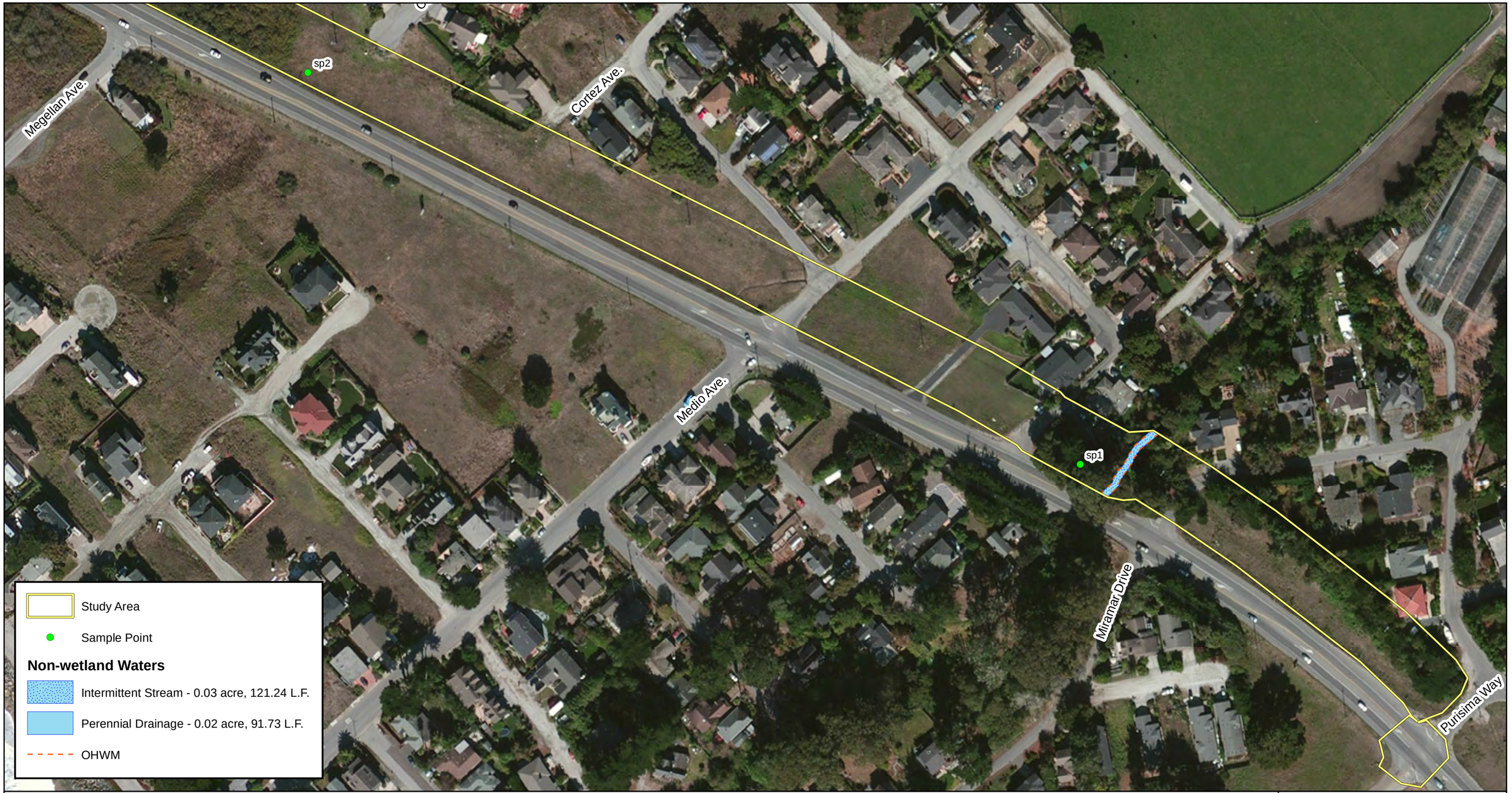
N
W E
S

0 125 250 500 Feet

wra
ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 9/11/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\JurisdictionalDelineationMapAppdx2.mxd



A-2.2 Section 404/401 Potential Jurisdictional Areas

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

N
W E
S

0 125 250 500 Feet

wra
ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 9/11/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\JurisdictionalDelineationMapAppdx2.mxd

A-3.1 CDFW Section 1602 Potential Jurisdictional Areas

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

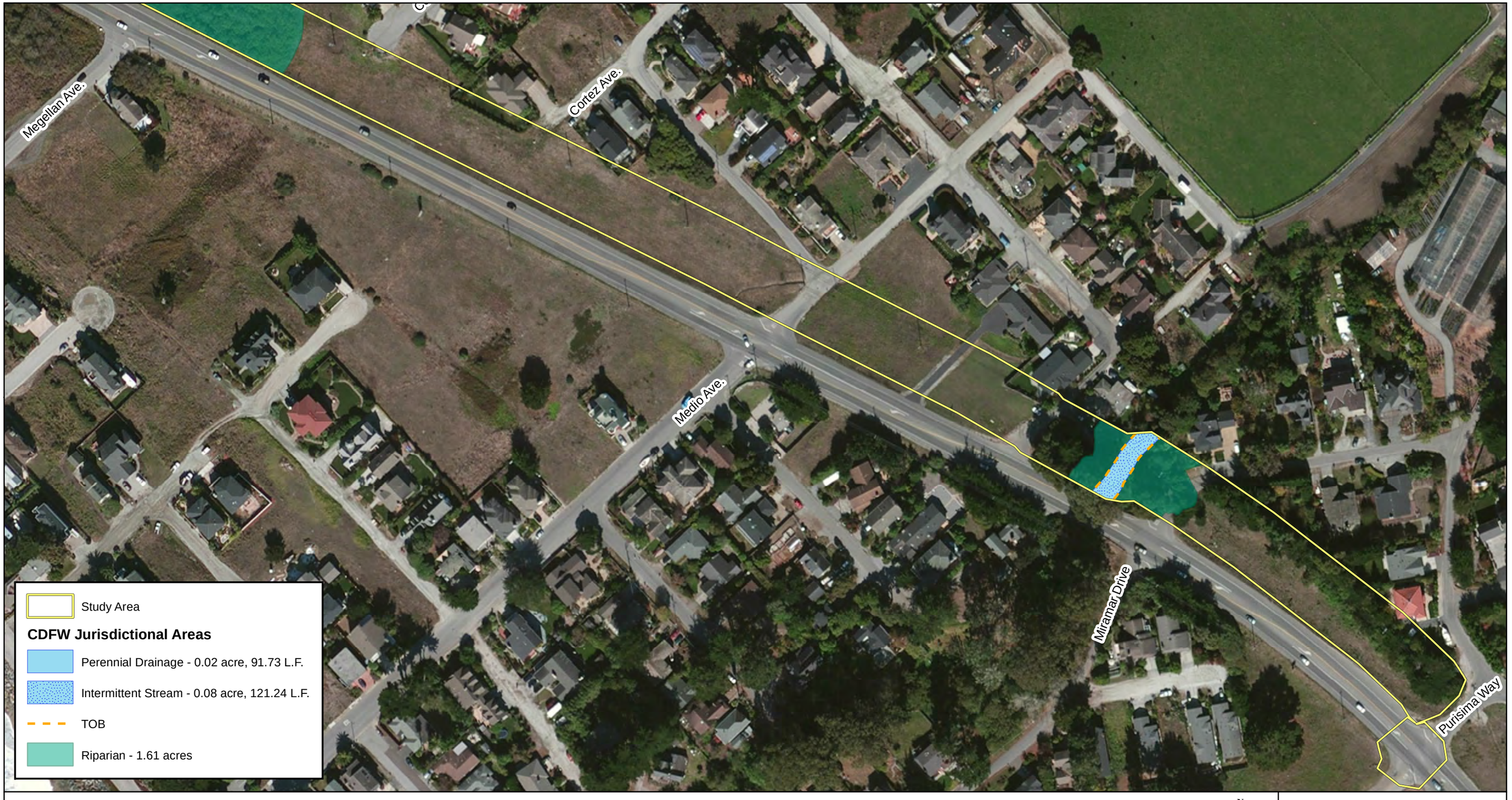
N
W E
S

0 125 250 500 Feet

wra
ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 9/11/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\JurisdictionalDelineationMapAppdx3.mxd



A-3.2 CDFW Section 1602 Potential Jurisdictional Areas

Midcoast Multi-Modal Trail
El Granada
San Mateo County, California

N
W E
S

0 125 250 500 Feet

wra
ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 9/11/2015
Map Prepared By: fhourigan
Base Source: USDA, NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\24000\24261\GIS\ArcMap\JurisdictionalDelineationMapAppdx3.mxd

Appendix B – Army Corps Delineation Data Forms

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Wetland Determination Data Form - Arid West Region

Project/Site: Midcoast Multi-Modal Trail | City: El Granada | County: San Mateo | Sampling Date: 8/13/2015

Applicant/Owner: County of San Mateo | State: CA | Sampling Point: **SP1**

Investigator(s): Stephanie Freed, Rhiannon Korhummel | Section,Township,Range: Sec. 18 T5S, R5W

Landform (hillslope, terrace, etc.): hillslope | Local Relief (concave, convex, none): none | Slope(%): 0-3

Subregion(LRR): LRR C (Medit. CA) | Lat: 37°29'43.64" | Long: 122°27'21.18"W | Datum: WGS 84

Soil Map Unit Name: no soil data available | NWI classification: n/a

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample point located within floodplain terrace of intermittent stream. No wetland indicators are present.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:** 30'	Absolute % cover	Dominant Species?	Indicator Status
1. *Eucalyptus globulus*	60	Y	NL
2. *Salix lasiolepis*	5	N	FACW
3.			
4.			
Tree Stratum Total Cover:	65		
SAPLING/SHRUB STRATUM **Plot Size:** 30'			
1. *Acacia melanoxylon*	5	Y	NL
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:	5		
HERB STRATUM **Plot Size:** 10'			
1. *Tropaeolum majus*	20	Y	UPL
2. *Delairea odorata*	10	N	NL
3.			
4.			
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:	30		
WOODY VINE STRATUM **Plot Size:**			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 70 | % cover of biotic crust:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 0 (A)

Total number of dominant species across all strata? 3 (B)

% of dominant species that are OBL, FACW, or FAC? 0 (A/B)

Prevalence Index Worksheet

Total % cover of:		Multiply by:	
OBL species	0	x1	
FACW species	5	x2	10
FAC species	0	x3	
FACU species	0	x4	
UPL species	90	x5	450
Column Totals	95 (A)		460 (B)

Prevalence Index = B/A = 4.84

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ 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

Remarks: Eucalyptus leaf litter covering bare ground. Sample point is dominated by NL and UPL vegetation and does not meet any hydrophytic vegetation indicators.

SOIL

Sampling Point SP1

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 %	Type[1]	Loc[1]	Texture	Remarks
0-6	10YR 2/2	100					sandy loam	
6+	refusal							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)(LRR C)
- ☐ 1cm Muck (A9)(LRR D)
- ☐ 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)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: tree roots

Depth (inches): 6

Hydric Soil Present ? ☐ Yes ☒ No

Remarks: Sample point had no hydric soil indicators. A restrictive layer of tree roots was present at approximately 6 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)(Nonriverine)
- ☐ Sediment Deposits (B2)(Nonriverine)
- ☐ Drift Deposits (B3)(Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☐ Yes ☒ No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sample point had no indicators of wetland hydrology.

Wetland Determination Data Form - Arid West Region

Project/Site: Midcoast Multi-Modal Trail | City: El Granada | County: San Mateo | Sampling Date: 8/13/2015

Applicant/Owner: County of San Mateo | State: CA | Sampling Point: **SP2**

Investigator(s): Stephanie Freed, Rhiannon Korhummel | Section,Township,Range: Sec 18 T5S, R5W

Landform (hillslope, terrace, etc.): field | Local Relief (concave, convex, none): none | Slope(%): 0-3

Subregion(LRR): LRR C (Medit. CA) | Lat: 37°29'49.50"N | Long: 122°27'36.31"W | Datum:

Soil Map Unit Name: no soil data available | NWI classification: none

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No
Hydric Soil Present? ☐ Yes ☒ No
Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample point was located south of Salix thickets, downgrade of Route 1. Hydrophytic vegetation indicator is present but hydric soils and hydrology indicators are not met.

VEGETATION (use scientific names)

TREE STRATUM Plot Size:	Absolute % cover	Dominant Species?	Indicator Status
1. *n/a*			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size:			
1. *n/a*			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM Plot Size: 10'			
1. *Festuca perennis*	75	Y	FAC
2. *Rumex crispus*	5	N	FAC
3. *Helminthotheca echiodes*	2	N	FACU
4. *Holcus lanatus*	tr	N	FAC
5. *Symphyotrichum chilense*	tr	N	FAC
6. *Lactuca serriola*	tr	N	FACU
7. *Avena barbata*	tr	N	NL
8.			
Herb Stratum Total Cover:	82		
WOODY VINE STRATUM Plot Size: n/a			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 10 | % cover of biotic crust:

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)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:		Multiply by:	
OBL species		x1	
FACW species		x2	
FAC species	80	x3	240
FACU species		x4	
UPL species		x5	
Column Totals	80 (A)		240 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%
☒ Prevalence Index is </= 3.0[1]
☐ Morphological adaptations (provide supporting data in remarks)
☐ 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

Remarks: 10% thatch observed. Sample point was dominated by FAC vegetation and meets the dominance test and PI test and therefore meets the indicator for hydrophytic vegetation.

SOIL

Sampling Point SP2

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 %	Type[1]	Loc[1]	Texture	Remarks
0-10	10YR 2/1	99	7.5YR 2.5/3	1	C	PL	sandy loam	indistinct concentration, fades when

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)(LRR C)
- ☐ 1cm Muck (A9)(LRR D)
- ☐ 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)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: Sample point had no indicators of hydric soils. Though sample point had redox, it is less than 2% and therefore does not meet the Redox Dark Surface (F6) criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)(Nonriverine)
- ☐ Sediment Deposits (B2)(Nonriverine)
- ☐ Drift Deposits (B3)(Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☐ **Yes** ☒ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sample point had no indicators of wetland hydrology.

Wetland Determination Data Form - Arid West Region

Project/Site: Midcoast Multi-Modal Trail | City: El Granada | County: San Mateo | Sampling Date: 8/13/2015

Applicant/Owner: County of San Mateo | State: CA | Sampling Point: **SP3**

Investigator(s): Stephanie Freed, Rhiannon Korhummel | Section,Township,Range: 18, 5 South, 5 West

Landform (hillslope, terrace, etc.): terrace | Local Relief (concave, convex, none): none | Slope(%): 0-3

Subregion(LRR): LRR C (Medit. CA) | Lat: 37°29'51.75"N | Long: 122°27'41.38"W | Datum: WGS 84

Soil Map Unit Name: Denison clay loam, nearly level, imperfectly drained | NWI classification: none

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No
Hydric Soil Present? ☐ Yes ☒ No
Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample point located inside central coast riparian scrub (willow thicket) adjacent to pernnial stream within floodplain terrace. Hydrophytic vegetation indicator is present but hydric soils and hydrology indicators are not met.

VEGETATION (use scientific names)

TREE STRATUM Plot Size: 30x30	Absolute % cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	75	Y	FACW
2.			
3.			
4.			
Tree Stratum Total Cover:	75		
SAPLING/SHRUB STRATUM Plot Size: 30x30			
1. *Salix lasiolepis*	5	Y	FACW
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:	5		
HERB STRATUM Plot Size: 10x10			
1. *Rubus ursinus*	55	Y	FAC
2. *Urtica diocia*	5	N	FAC
3. *Scirpus microcarpus*	5	N	OBL
4. *Junus effusus*	2	N	FACW
5.			
6.			
7.			
8.			
Herb Stratum Total Cover:	67		
WOODY VINE STRATUM Plot Size: n/a			
1.			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 10 | % cover of biotic crust:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 3 (A)

Total number of dominant species across all strata? 3 (B)

% of dominant species that are OBL, FACW, or FAC? 100 (A/B)

Prevalence Index Worksheet

Total % cover of:		Multiply by:	
OBL species	5	x1	5
FACW species	82	x2	164
FAC species	60	x3	180
FACU species		x4	
UPL species		x5	
Column Totals	147 (A)		349 (B)

Prevalence Index = B/A = 2.37

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%
☒ Prevalence Index is </= 3.0[1]
☐ Morphological adaptations (provide supporting data in remarks)
☐ 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

Remarks: Bareground observed with 5% thatch. Sample point was dominated by FAC vegetation and meets Dominance test and PI test therefore meets the indicator for hydrophytic vegetation.

SOIL

Sampling Point SP3

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 %	Type[1]	Loc[1]	Texture	Remarks
0-8	10YR 2/1	100					sandy loam	small pieces of mineral give soil

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)(LRR C)
- ☐ 1cm Muck (A9)(LRR D)
- ☐ 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)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: root

Depth (inches): 8

Hydric Soil Present ? ☐ Yes ☒ No

Remarks: Sample point did not meet hydric soil indicators. A restrictive layer is present due to plant roots at a depth of approximately 8 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)(Nonriverine)
- ☐ Sediment Deposits (B2)(Nonriverine)
- ☐ Drift Deposits (B3)(Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☐ Yes ☒ No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sample point had no indicators of wetland hydrology.

Wetland Determination Data Form - Arid West Region

Project/Site: Midcoast Multi-Modal Trail | City: El Granada | County: San Mateo | Sampling Date: 8/13/2015

Applicant/Owner: County of San Mateo | State: CA | Sampling Point: **SP4**

Investigator(s): Stephanie Freed, Rhiannon Korhummel | Section,Township,Range: Sec 18, T5S, R5W

Landform (hillslope, terrace, etc.): field | Local Relief (concave, convex, none): none | Slope(%): 0-3

Subregion(LRR): LRR C (Medit. CA) | Lat: 37°29'52.48"N | Long: 122°27'43.45"W | Datum:

Soil Map Unit Name: Denison loam, nearly level | NWI classification: none

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No
Hydric Soil Present? ☐ Yes ☒ No
Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample point located in small swale that drains into central coast riparian scrub (willow thicket). Hydrophytic vegetation indicator is present but hydric soils and hydrology indicators are not met.

VEGETATION (use scientific names)

TREE STRATUM Plot Size:	Absolute % cover	Dominant Species?	Indicator Status
1. *n/a*			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM Plot Size: 10x2			
1. *Salix lasiolepis*	5	Y	FACW
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:	5		
HERB STRATUM Plot Size: 10x2			
1. *Juncus patens*	35	Y	FACW
2. *Juncus occidentalis*	20	Y	FACW
3. *Helmenthotheca echiodes*	20	Y	FACU
4. *Junus effusus*	5	N	FACW
5. *Rubus ursinus*	5	N	FAC
6. *Rumex crispus*	tr	N	FAC
7.			
8.			
Herb Stratum Total Cover:	85		
WOODY VINE STRATUM Plot Size:			
1. *n/a*			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 10 | % cover of biotic crust:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC? 3 (A)

Total number of dominant species across all strata? 4 (B)

% of dominant species that are OBL, FACW, or FAC? 75 (A/B)

Prevalence Index Worksheet

Total % cover of:		Multiply by:	
OBL species		x1	
FACW species	65	x2	130
FAC species	5	x3	15
FACU species	20	x4	80
UPL species		x5	
Column Totals	90 (A)		225 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators

☒ Dominance Test is >50%
☒ Prevalence Index is </= 3.0[1]
☐ Morphological adaptations (provide supporting data in remarks)
☐ 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

Remarks: Bareground observed with 5% thatch. Sample point was dominated by FACW vegetation, meeting Dominance test and PI test, therefore meets hydrophytic vegetation indicators. Plot size needed to be somewhat linear to stay within the wetland.

SOIL

Sampling Point SP4

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 %	Type[1]	Loc[1]	Texture	Remarks
0-4	10YR 2/1	100					sandy loam	small mineral pieces give a gritty

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)(LRR C)
- ☐ 1cm Muck (A9)(LRR D)
- ☐ 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)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: compacted soils

Depth (inches): 4

Hydric Soil Present ? ☐ Yes ☒ No

Remarks: Sample point had no indicators of wetland soils. A restricted layer due to compacted soils was present at approximately 4 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)(Nonriverine)
- ☐ Sediment Deposits (B2)(Nonriverine)
- ☐ Drift Deposits (B3)(Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☐ Yes ☒ No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sample point had no indicators of wetland hydrology.

Wetland Determination Data Form - Arid West Region

Project/Site: Midcoast Multi-Modal Trail | City: El Granada | County: San Mateo | Sampling Date: 8/13/2015

Applicant/Owner: County of San Mateo | State: CA | Sampling Point: **SP5**

Investigator(s): Stephanie Freed, Rhiannon Korhummel | Section,Township,Range: 18, 5 South, 5 West

Landform (hillslope, terrace, etc.): field | Local Relief (concave, convex, none): none | Slope(%): 0-3

Subregion(LRR): LRR C (Medit. CA) | Lat: 37°29'52.59"N | Long: 122°27'43.47"W | Datum:

Soil Map Unit Name: Denison loam, nearly level | NWI classification: none

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample point located in field north of swale (SP4), Highway 1, and west of central coast riparian scrub (willow thicket). No wetland indicators are present.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:**	Absolute % cover	Dominant Species?	Indicator Status
1. *n/a*			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:**			
1. *n/a*			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 10x10			
1. *Rubus ursinus*	30	Y	FAC
2. *Achillea millifolia*	25	Y	FACU
3. *Holcus lanatus*	15	N	FAC
4. *Equisetum arvense*	5	N	FAC
5. *Raphanus sativus*	5	N	FACU
6. *Helmentohtheca echiodes*	5	N	FACU
7.			
8.			
Herb Stratum Total Cover:	85		
WOODY VINE STRATUM **Plot Size:**			
1. *n/a*			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 15 | % cover of biotic crust:

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)

% of dominant species that are OBL, FACW, or FAC? 50 (A/B)

Prevalence Index Worksheet

Total % cover of:		Multiply by:	
OBL species		x1	
FACW species		x2	
FAC species	50	x3	150
FACU species	35	x4	140
UPL species		x5	
Column Totals	85 (A)		290 (B)

Prevalence Index = B/A = 3.41

Hydrophytic Vegetation Indicators

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is </= 3.0[1]
- ☐ Morphological adaptations (provide supporting data in remarks)
- ☐ 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

Remarks: Bareground observed with 5% thatch. Sample point was dominated by FAC and FACU plants, therefore does not meet Dominance test or PI. Hydrophytic vegetation is not present.

SOIL

Sampling Point SP5

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 %	Type[1]	Loc[1]	Texture	Remarks
0-4	10YR 2/1	100					sandy loam	small mineral pieces give gritty

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)(LRR C)
- ☐ 1cm Muck (A9)(LRR D)
- ☐ 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)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: compacted soils

Depth (inches): 4

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: Sample point had no indicators of hydric soils. A restrictive layer is present due to compacted soils at approximately 4 inches depth.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)(Nonriverine)
- ☐ Sediment Deposits (B2)(Nonriverine)
- ☐ Drift Deposits (B3)(Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☐ **Yes** ☒ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sample point had no indicators of wetland hydrology.

Wetland Determination Data Form - Arid West Region

Project/Site: Midcoast Multi-Modal Trail | City: El Granada | County: San Mateo | Sampling Date: 8/13/2015

Applicant/Owner: County of San Mateo | State: CA | Sampling Point: **SP6**

Investigator(s): Stephanie Freed, Rhiannon Korhummel | Section,Township,Range: Sec 18 T5S, R5W

Landform (hillslope, terrace, etc.): field | Local Relief (concave, convex, none): none | Slope(%): 0-3

Subregion(LRR): LRR C (Medit. CA) | Lat: 37°29'52.91"N | Long: 122°27'43.52"W | Datum: WGS 84

Soil Map Unit Name: Denison loam, nearly level | NWI classification: none

Are climatic/hydrologic conditions on-site typical for this time of year? ☒ Yes ☐ No (If no, explain in remarks)

Are any of the following significantly disturbed? ☐ Vegetation ☐ Soil ☐ Hydrology | Are "Normal Circumstances" present? ☒ Yes ☐ No

Are any of the following naturally problematic? ☐ Vegetation ☐ Soil ☐ Hydrology | (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Hydric Soil Present? ☐ Yes ☒ No

Wetland Hydrology Present? ☐ Yes ☒ No

Is the Sampled Area within a Wetland? ☐ **Yes** ☒ **No**

Remarks: Sample point located in a narrow depressional area north of upland field (SP5). No wetland indicators are met.

VEGETATION (use scientific names)

TREE STRATUM **Plot Size:**	Absolute % cover	Dominant Species?	Indicator Status
1. *n/a*			
2.			
3.			
4.			
Tree Stratum Total Cover:			
SAPLING/SHRUB STRATUM **Plot Size:**			
1. *n/a*			
2.			
3.			
4.			
Sapling/Shrub Stratum Total Cover:			
HERB STRATUM **Plot Size:** 10x10			
1. *Carex hendersonii*	40	Y	FAC
2. *Helmenthotheca echiodes*	30	Y	FACU
3. *Cyperus eragrostis*	15	N	FACW
4. *Juncus patens*	5	N	FACW
5. *Juncus effusus*	5	N	FACW
6. *Symphyotrichum chilense*	tr	N	FAC
7.			
8.			
Herb Stratum Total Cover:	95		
WOODY VINE STRATUM **Plot Size:**			
1. *n/a*			
2.			
Woody Vines Total Cover:			

% Bare ground in herb stratum: 5 | % cover of biotic crust:

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)

% of dominant species that are OBL, FACW, or FAC? 50 (A/B)

Prevalence Index Worksheet

Total % cover of:		Multiply by:	
OBL species		x1	
FACW species	25	x2	50
FAC species	40	x3	120
FACU species	30	x4	120
UPL species		x5	
Column Totals	95 (A)		290 (B)

Prevalence Index = B/A = 3.05

Hydrophytic Vegetation Indicators

☐ Dominance Test is >50%

☐ Prevalence Index is </= 3.0[1]

☐ Morphological adaptations (provide supporting data in remarks)

☐ 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

Remarks: Sample point is dominated by FAC and FACU vegetation. It does not meet hydrophytic vegetation indicators.

SOIL **Sampling Point** SP6

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 %	Type[1]	Loc[1]	Texture	Remarks
0-4	10YR 2/1	100					sandy loam	small but visible mineral particles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)(LRR C)
- ☐ 1cm Muck (A9)(LRR D)
- ☐ 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)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1cm Muck (A9) (LRR C)
- ☐ 2cm Muck (A10)(LRR B)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (explain in remarks)

[3]Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: compacted soil

Depth (inches): 4

Hydric Soil Present ? ☐ **Yes** ☒ **No**

Remarks: Sample point had no hydric soil indicators. A compacted soil restrictive layer at approximately 4 inches was present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)(Nonriverine)
- ☐ Sediment Deposits (B2)(Nonriverine)
- ☐ Drift Deposits (B3)(Nonriverine)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in PLowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1)(Riverine)
- ☐ Sediment Deposits (B2)(Riverine)
- ☐ Drift Deposits (B3)(Riverine)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface water present? ☐ Yes ☒ No Depth (inches): _____

Water table present? ☐ Yes ☒ No Depth (inches): _____

Saturation Present? (includes capillary fringe) ☐ Yes ☒ No Depth (inches): _____

Wetland Hydrology Present ? ☐ **Yes** ☒ **No**

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: some vegetation was lying down; possible evidence of hydrology, otherwise no evidence of hydrology was present at the sample point.

Appendix C – CCC Delineation Data Forms

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California Coastal Act Wetland Data Sheet

Project Name: Midcoast Multi-Modal Trail
City/Location: El Granada
Applicant/Owner: City of San Mateo
WRA Investigator(s): Stephanie Freed, Rhiannon Korhummel
Date: 8/13/2015

County: San Mateo
LCP (if applicable): San Mateo
☐ LRR A (Western Mts., Valley, and Coast [WMVC])
☑ LRR C (Arid West)
SAMPLE POINT ID: SP1
HABITAT:

CCC/LCP WETLAND DETERMINATION

Meets CCC or LCP vegetation criteria? ☐ Yes ☑ No
Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No
Meets CCC or LCP hydrology criteria? ☐ Yes ☑ No
CCC/LCP WETLAND? ☐ Yes ☑ No

Sample point located within floodplain terrace of intermittent stream. No wetland indicators are present.

VEGETATION

*indicator status from the USFWS 1996 National List of wetland species

TREES - Plot size: 30x30	% Cover	Status*	Dominant?
Eucalyptus globulus	60	NL	Yes
Salix lasiolepis	5	FACW	No
TOTAL	65.0		1
50% of stratum cover =	*32.5*	*20% =*	*13.0*

SAPLING/SHRUBS - Plot size: 30x30	% Cover	Status*	Dominant?
Acacia melanoxylon	5	NL	Yes
TOTAL	5.0		1
50% of stratum cover =	*2.5*	*20% =*	*1.0*

HERBACEOUS - Plot size: 10x10	% Cover	Status*	Dominant?
Tropaeolum majus	20	UPL	Yes
Delairea odorata	10	NL	No
TOTAL	30.0		1
50% of stratum cover =	*15.0*	*20% =*	*6.0*

Dominance Test:

Total # of dominant species across all strata: 3

Total # of dominants that are hydrophytic (status of OBL, FACW, or FAC): 0

Percentage of dominants that are hydrophytic: 0%

[Meets dominance test if >50%]

Prevalence Index:

Total % cover of species across all strata:

OBL:	0	x 1 =	
FACW	5	x 2 =	10
FAC:	0	x 3 =	
FACU:	0	x 4 =	
UPL:	90	x 5 =	450
Total:	95 (A)		460 (B)

Prevalence Index (B/A) = 4.84

[Hydrophytic vegetation dominant if B/A ≤ 3.0]

Meets CCC or LCP hydrophytic vegetation criteria? ☐ Yes ☑ No

Comments: Eucalyptus leaf litter covering bare ground. Sample point is dominated by NL and UPL vegetation and does not meet any hydrophytic vegetation indicators.

Project Name: _____ Sample Point ID: ____SP1_____

SOILS Slope (%): 0-3 Soil map unit: no soil data available

SOIL PROFILE

Depth	Matrix Color	Redox Color	% and contrast	Redox type	Texture	Comments
0-6	10YR 3/2	none			sandy loam	
6+	refusal					

All soils:
- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) *[Arid West only]*
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ **Other (explain below)**

Loamy and clayey soils only:
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9) *[Arid West only]*

Sandy soils only:
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

Test indicators (NRCS v7):
- ☐ 2 cm Muck (A10) *[WMVC only]*
- ☐ Very Shallow Dark Surface (TF12)

Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No

Comments: Sample point had no hydric soil indicators. A restrictive layer of tree roots was present at approximately 6 inches.

HYDROLOGY (indicators from Corps Regional Supplements, applicable to coastal California only)

Primary indicators (only 1 needed to meet criteria):
- ☐ Surface water (A1) *Depth (in.):* _____
- ☐ High water table (A2) *Depth (in.):* _____
- ☐ Soil saturation (A3) *Depth (in.):* _____
- ☐ Water marks (B1) *[if in Arid West: Nonriverine only]*
- ☐ Sediment deposits (B2) *[if in Arid West: Nonriverine only]*
- ☐ Drift deposits (B3) *[if in Arid West: Nonriverine only]*
- ☐ Algal mat or crust (B4) *[WMVC only; see B12]*
- ☐ Iron deposits (B5) *[WMVC only]*
- ☐ Surface soil cracks (B6)
- ☐ Inundation visible on aerial imagery (B7)
- ☐ Sparsely vegetated concave surface (B8) *[WMVC only]*
- ☐ Water-stained leaves (B9) *[Arid West and MLRA 5 only]*
- ☐ Salt crust (B11)
- ☐ Biotic Crust (B12) *[Arid West only; see B4]*
- ☐ Aquatic invertebrates (B13)
- ☐ Hydrogen sulfide odor (C1)
- ☐ Oxidized rhizospheres (C3)
- ☐ Presence of reduced iron (C4)
- ☐ Recent iron reduction in tilled soils (C6)
- ☐ Stunted or stressed plants (D1) *[WMVC only]*

Secondary indicators (need 2+ to meet criteria):
- ☐ Water marks (B1) *[Arid West riverine only]*
- ☐ Sediment deposits (B2) *[Arid West riverine only]*
- ☐ Drift deposits (B3) *[Arid West riverine only]*
- ☐ Water-stained leaves (B9) *[WMVC:MLRA 4B only]*
- ☐ Drainage patterns (B10)
- ☐ Dry-season water table (C2)
- ☐ Thin muck surface (C7) *[Arid West only]*
- ☐ Crayfish burrows (C8) *[Arid West only]*
- ☐ Saturation visible on aerial imagery (C9)
- ☐ Geomorphic position (D2) *[WMVC only]*
- ☐ Shallow aquitard (D3)
- ☐ Frost-heave hummocks (D4) *[WMVC only]*
- ☐ Raised ant mounds (D6) *[WMVC only]*
- ☐ **FAC-neutral test (D5)** ☐ (Does not meet test)

☐ **Other (explain below)**

Meets CCC or LCP wetland hydrology criteria? ☐ Yes ☑ No

Comments: Sample point had no hydrologic indicators.

Project Name: _____ Sample Point ID: _____SP2_____

Project Name: Midcoast Multi-Modal Trail
County: San Mateo
City/Location: El Granada
LCP (if applicable): San Mateo
Applicant/Owner: City of San Mateo
☐ LRR A (Western Mts., Valley, and Coast [WMVC])
WRA Investigator(s): Stephanie Freed, Rhiannon Korhummel
☑ LRR C (Arid West)
Date: 8/13/2015
SAMPLE POINT ID: SP2
HABITAT:

CCC/LCP WETLAND DETERMINATION

Meets CCC or LCP vegetation criteria? ☑ Yes ☐ No
Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No
Meets CCC or LCP hydrology criteria? ☐ Yes ☑ No
CCC/LCP WETLAND? ☐ Yes ☑ No

Sample point was located south of Salix thickets, downgrade of Route 1. While sample point meets hydrophytic vegetation indicator, facultative species are non-native, invasive species ubitquitous to the California landscape and is area does not function as wetland. Hydric soils and wetland hydrology indicators are not met.

VEGETATION

*indicator status from the USFWS 1996 National List of wetland species

TREES - Plot size:	% Cover	Status*	Dominant?
n/a			
TOTAL			

50% of stratum cover = *20% =*

SAPLING/SHRUBS - Plot size:	% Cover	Status*	Dominant?
n/a			
TOTAL			

50% of stratum cover = *20% =*

HERBACEOUS - Plot size: 10x10	% Cover	Status*	Dominant?
Festuca perennis	75	FAC	Yes
Rumex crispus	5	FAC	No
Helmithotheca echiodes	2	FACU	No
Holcus lanatus	trace	FAC	No
Symphyotrichum chilense	trace	FAC	No
Lactuca serriola	trace	FACU	No
Avena barbata	trace	NL	No
TOTAL	82.0		1

50% of stratum cover = *41.0* *20% =* *16.4*

Dominance Test:

Total # of dominant species across all strata: 1

Total # of dominants that are hydrophytic (status of OBL, FACW, or FAC): 1

Percentage of dominants that are hydrophytic: 100%

[Meets dominance test if >50%]

Prevalence Index:

Total % cover of species across all strata:

OBL:	0	x 1 =	
FACW	0	x 2 =	
FAC:	80	x 3 =	240
FACU:	0	x 4 =	
UPL:	0	x 5 =	
Total:	80 (A)		240 (B)

Prevalence Index (B/A) = 3.00

[Hydrophytic vegetation dominant if B/A ≤ 3.0]

Meets CCC or LCP hydrophytic vegetation criteria? ☑ Yes ☐ No

Comments: 10% thatch observed. Sample point was dominated by FAC vegetation and meets the dominance test and PI test, therefore meets the indicator for hydrophytic vegetation.

California Coastal Act Wetland Data Sheet

SOILS Slope (%): 0-3 Soil map unit: no soil data available

SOIL PROFILE

Depth	Matrix Color	Redox Color	% and contrast	Redox type	Texture	Comments
0-10	10YR 2/1	7.5YR 2.5/3	1%	C	sandy loam	indistinct concentration; fades when wetted

All soils:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) *[Arid West only]*
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ **Other (explain below)**

Loamy and clayey soils only:

- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9) *[Arid West only]*

Sandy soils only:

- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

Test indicators (NRCS v7):

- ☐ 2 cm Muck (A10) *[WMVC only]*
- ☐ Very Shallow Dark Surface (TF12)

Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No

Comments: Though sample point had redox, it is less than 2% and therefore does not meet the Redox Dark Surface(F6) criteria.

HYDROLOGY (indicators from Corps Regional Supplements, applicable to coastal California only)

Primary indicators (only 1 needed to meet criteria):

- ☐ Surface water (A1) *Depth (in.):* _____
- ☐ High water table (A2) *Depth (in.):* _____
- ☐ Soil saturation (A3) *Depth (in.):* _____
- ☐ Water marks (B1) *[if in Arid West: Nonriverine only]*
- ☐ Sediment deposits (B2) *[if in Arid West: Nonriverine only]*
- ☐ Drift deposits (B3) *[if in Arid West: Nonriverine only]*
- ☐ Algal mat or crust (B4) *[WMVC only; see B12]*
- ☐ Iron deposits (B5) *[WMVC only]*
- ☐ Surface soil cracks (B6)
- ☐ Inundation visible on aerial imagery (B7)
- ☐ Sparsely vegetated concave surface (B8) *[WMVC only]*
- ☐ Water-stained leaves (B9) *[Arid West and MLRA 5 only]*
- ☐ Salt crust (B11)
- ☐ Biotic Crust (B12) *[Arid West only; see B4]*
- ☐ Aquatic invertebrates (B13)
- ☐ Hydrogen sulfide odor (C1)
- ☐ Oxidized rhizospheres (C3)
- ☐ Presence of reduced iron (C4)
- ☐ Recent iron reduction in tilled soils (C6)
- ☐ Stunted or stressed plants (D1) *[WMVC only]*

Secondary indicators (need 2+ to meet criteria):

- ☐ Water marks (B1) *[Arid West riverine only]*
- ☐ Sediment deposits (B2) *[Arid West riverine only]*
- ☐ Drift deposits (B3) *[Arid West riverine only]*
- ☐ Water-stained leaves (B9) *[WMVC:MLRA 4B only]*
- ☐ Drainage patterns (B10)
- ☐ Dry-season water table (C2)
- ☐ Thin muck surface (C7) *[Arid West only]*
- ☐ Crayfish burrows (C8) *[Arid West only]*
- ☐ Saturation visible on aerial imagery (C9)
- ☐ Geomorphic position (D2) *[WMVC only]*
- ☐ Shallow aquitard (D3)
- ☐ Frost-heave hummocks (D4) *[WMVC only]*
- ☐ Raised ant mounds (D6) *[WMVC only]*
- ☐ **FAC-neutral test (D5)** ☐ (Does not meet test)

☐ **Other (explain below)**

Meets CCC or LCP wetland hydrology criteria? ☐ Yes ☑ No

Comments: Sample point had no hydrologic indicators.

California Coastal Act Wetland Data Sheet

Project Name: Midcoast Multi-Modal Trail
City/Location: El Granada
Applicant/Owner: City of San Mateo
WRA Investigator(s): Stephanie Freed, Rhiannon Korhummel
Date: 8/13/2015

County: San Mateo
LCP (if applicable): San Mateo
☐ LRR A (Western Mts., Valley, and Coast [WMVC])
☑ LRR C (Arid West)

SAMPLE POINT ID: SP3
HABITAT:

CCC/LCP WETLAND DETERMINATION

Meets CCC or LCP vegetation criteria? ☑ Yes ☐ No
Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No
Meets CCC or LCP hydrology criteria? ☐ Yes ☑ No
CCC/LCP WETLAND? ☑ Yes ☐ No

Sample point located inside central coast riparian scrub (willow thicket) adjacent to perennial stream within floodplain terrace. Hydrophytic vegetation indicator is present but hydric soils and wetland hydrology indicators are not met.

VEGETATION

*indicator status from the USFWS 1996 National List of wetland species

TREES - Plot size: 30x30	% Cover	Status*	Dominant?
Salix lasiolepis	75	FACW	Yes
TOTAL	75.0		1
50% of stratum cover =	*37.5*	*20% =*	*15.0*

SAPLING/SHRUBS - Plot size: 30x30	% Cover	Status*	Dominant?
Salix lasiolepis	5	FACW	Yes
TOTAL	5.0		1
50% of stratum cover =	*2.5*	*20% =*	*1.0*

HERBACEOUS - Plot size: 10x10	% Cover	Status*	Dominant?
Rubus ursinus	55	FAC	Yes
Urtica diocia	5	FAC	No
Scirpus microcarpus	5	OBL	No
Juncus effusus	2	FACW	No
TOTAL	67.0		1
50% of stratum cover =	*33.5*	*20% =*	*13.4*

Dominance Test:

Total # of dominant species across all strata: 3

Total # of dominants that are hydrophytic (status of OBL, FACW, or FAC): 3

Percentage of dominants that are hydrophytic: 100%

[Meets dominance test if >50%]

Prevalence Index:

Total % cover of species across all strata:

OBL:	5	x 1 =	5
FACW	82	x 2 =	164
FAC:	60	x 3 =	180
FACU:	0	x 4 =	
UPL:	0	x 5 =	
Total:	147 (A)		349 (B)

Prevalence Index (B/A) = 2.37

[Hydrophytic vegetation dominant if B/A ≤ 3.0]

Meets CCC or LCP hydrophytic vegetation criteria? ☑ Yes ☐ No

Comments: Bareground observed with 5% thatch. Sample point was dominated by FAC vegetation and meets Dominance test and PI test, therefore meets the indicator for hydrophytic vegetation.

Project Name: _____ Sample Point ID: _____SP3_____

SOILS Slope (%): 0-3 Soil map unit: Denison clay loam, nearly level, imperfectly drained

SOIL PROFILE

Depth	Matrix Color	Redox Color	% and contrast	Redox type	Texture	Comments
0-8	10YR 2/1	n/a			sandy loam	

All soils:
- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) *[Arid West only]*
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ **Other (explain below)**

Loamy and clayey soils only:
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9) *[Arid West only]*

Sandy soils only:
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

Test indicators (NRCS v7):
- ☐ 2 cm Muck (A10) *[WMVC only]*
- ☐ Very Shallow Dark Surface (TF12)

Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No

Comments: A restrictive root layer was present at approximately 8 inches. Sample point does not meet hydric soil indicators.

HYDROLOGY (indicators from Corps Regional Supplements, applicable to coastal California only)

Primary indicators (only 1 needed to meet criteria):
- ☐ Surface water (A1) *Depth (in.):* _____
- ☐ High water table (A2) *Depth (in.):* _____
- ☐ Soil saturation (A3) *Depth (in.):* _____
- ☐ Water marks (B1) *[if in Arid West: Nonriverine only]*
- ☐ Sediment deposits (B2) *[if in Arid West: Nonriverine only]*
- ☐ Drift deposits (B3) *[if in Arid West: Nonriverine only]*
- ☐ Algal mat or crust (B4) *[WMVC only; see B12]*
- ☐ Iron deposits (B5) *[WMVC only]*
- ☐ Surface soil cracks (B6)
- ☐ Inundation visible on aerial imagery (B7)
- ☐ Sparsely vegetated concave surface (B8) *[WMVC only]*
- ☐ Water-stained leaves (B9) *[Arid West and MLRA 5 only]*
- ☐ Salt crust (B11)
- ☐ Biotic Crust (B12) *[Arid West only; see B4]*
- ☐ Aquatic invertebrates (B13)
- ☐ Hydrogen sulfide odor (C1)
- ☐ Oxidized rhizospheres (C3)
- ☐ Presence of reduced iron (C4)
- ☐ Recent iron reduction in tilled soils (C6)
- ☐ Stunted or stressed plants (D1) *[WMVC only]*

Secondary indicators (need 2+ to meet criteria):
- ☐ Water marks (B1) *[Arid West riverine only]*
- ☐ Sediment deposits (B2) *[Arid West riverine only]*
- ☐ Drift deposits (B3) *[Arid West riverine only]*
- ☐ Water-stained leaves (B9) *[WMVC:MLRA 4B only]*
- ☐ Drainage patterns (B10)
- ☐ Dry-season water table (C2)
- ☐ Thin muck surface (C7) *[Arid West only]*
- ☐ Crayfish burrows (C8) *[Arid West only]*
- ☐ Saturation visible on aerial imagery (C9)
- ☐ Geomorphic position (D2) *[WMVC only]*
- ☐ Shallow aquitard (D3)
- ☐ Frost-heave hummocks (D4) *[WMVC only]*
- ☐ Raised ant mounds (D6) *[WMVC only]*
- ☐ **FAC-neutral test (D5)** ☐ (Does not meet test)

☐ **Other (explain below)**

Meets CCC or LCP wetland hydrology criteria? ☐ Yes ☑ No

Comments: Sample point had no indicators of wetland hydrology.

Project Name: _____ Sample Point ID: _____SP4_____

Project Name: Midcoast Multi-Modal Trail
City/Location: El Granada
Applicant/Owner: City of San Mateo
WRA Investigator(s): Stephanie Freed, Rhiannon Korhummel
Date: 8/13/2015

County: San Mateo
LCP (if applicable): San Mateo
☐ LRR A (Western Mts., Valley, and Coast [WMVC])
☑ LRR C (Arid West)

SAMPLE POINT ID: SP4

HABITAT:

CCC/LCP WETLAND DETERMINATION

Meets CCC or LCP vegetation criteria? ☑ Yes ☐ No
Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No
Meets CCC or LCP hydrology criteria? ☐ Yes ☑ No
CCC/LCP WETLAND? ☑ Yes ☑ No

Sample point located in small swale that drains into central coast riparian scrub (willow thicket). Hydrophytic vegetation indicator is present but hydric soils and wetland hydrology indicators are absent.

VEGETATION

*indicator status from the USFWS 1996 National List of wetland species

TREES - Plot size:	% Cover	Status*	Dominant?
n/a			
TOTAL			

50% of stratum cover = *20% =*

SAPLING/SHRUBS - Plot size:	% Cover	Status*	Dominant?
Salix lasiolepis	5	FACW	Yes
TOTAL	5.0		1

50% of stratum cover = *2.5* *20% =* *1.0*

HERBACEOUS - Plot size:	% Cover	Status*	Dominant?
Juncus patens	35	FACW	Yes
Juncus occidentalis	20	FACW	Yes
Helmentohteca echiodes	20	FACU	Yes
Juncus effusus	5	FACW	No
Rubus ursinus	5	FAC	No
Rumex crispus	trace	FAC	No
TOTAL	85.0		3

50% of stratum cover = *42.5* *20% =* *17.0*

Dominance Test:

Total # of dominant species across all strata: 4

Total # of dominants that are hydrophytic (status of OBL, FACW, or FAC): 3

Percentage of dominants that are hydrophytic: 75%

[Meets dominance test if >50%]

Prevalence Index:

Total % cover of species across all strata:

OBL:		x 1 =	
FACW	65	x 2 =	130
FAC:	5	x 3 =	15
FACU:	20	x 4 =	80
UPL:		x 5 =	
Total:	90 (A)		225 (B)

Prevalence Index (B/A) = 2.50

[Hydrophytic vegetation dominant if B/A ≤ 3.0]

Meets CCC or LCP hydrophytic vegetation criteria? ☑ Yes ☐ No

Comments: Bareground observed with 5% thatch. Sample point was dominated by FACW vegetation, meeting Dominance test and PI test, therefore meets hydrophytic vegetation indicators. Plot size needed to be somewhat linear to stay within the wetland.

California Coastal Act Wetland Data Sheet

SOILS Slope (%): 0-3 Soil map unit: Denison loam, nearly level

SOIL PROFILE

Depth	Matrix Color	Redox Color	% and contrast	Redox type	Texture	Comments
0-4	10YR 2/1	n/a			sandy loam	small mineral pieces give a gritty texture

All soils:
- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) *[Arid West only]*
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ **Other (explain below)**

Loamy and clayey soils only:
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9) *[Arid West only]*

Sandy soils only:
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

Test indicators (NRCS v7):
- ☐ 2 cm Muck (A10) *[WMVC only]*
- ☐ Very Shallow Dark Surface (TF12)

Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No

Comments: Sample point had no hydric soil indicators. Redox was absent.

HYDROLOGY (indicators from Corps Regional Supplements, applicable to coastal California only)

Primary indicators (only 1 needed to meet criteria):
- ☐ Surface water (A1) *Depth (in.):* _____
- ☐ High water table (A2) *Depth (in.):* _____
- ☐ Soil saturation (A3) *Depth (in.):* _____
- ☐ Water marks (B1) *[if in Arid West: Nonriverine only]*
- ☐ Sediment deposits (B2) *[if in Arid West: Nonriverine only]*
- ☐ Drift deposits (B3) *[if in Arid West: Nonriverine only]*
- ☐ Algal mat or crust (B4) *[WMVC only; see B12]*
- ☐ Iron deposits (B5) *[WMVC only]*
- ☐ Surface soil cracks (B6)
- ☐ Inundation visible on aerial imagery (B7)
- ☐ Sparsely vegetated concave surface (B8) *[WMVC only]*
- ☐ Water-stained leaves (B9) *[Arid West and MLRA 5 only]*
- ☐ Salt crust (B11)
- ☐ Biotic Crust (B12) *[Arid West only; see B4]*
- ☐ Aquatic invertebrates (B13)
- ☐ Hydrogen sulfide odor (C1)
- ☐ Oxidized rhizospheres (C3)
- ☐ Presence of reduced iron (C4)
- ☐ Recent iron reduction in tilled soils (C6)
- ☐ Stunted or stressed plants (D1) *[WMVC only]*

Secondary indicators (need 2+ to meet criteria):
- ☐ Water marks (B1) *[Arid West riverine only]*
- ☐ Sediment deposits (B2) *[Arid West riverine only]*
- ☐ Drift deposits (B3) *[Arid West riverine only]*
- ☐ Water-stained leaves (B9) *[WMVC:MLRA 4B only]*
- ☐ Drainage patterns (B10)
- ☐ Dry-season water table (C2)
- ☐ Thin muck surface (C7) *[Arid West only]*
- ☐ Crayfish burrows (C8) *[Arid West only]*
- ☐ Saturation visible on aerial imagery (C9)
- ☐ Geomorphic position (D2) *[WMVC only]*
- ☐ Shallow aquitard (D3)
- ☐ Frost-heave hummocks (D4) *[WMVC only]*
- ☐ Raised ant mounds (D6) *[WMVC only]*
- ☐ **FAC-neutral test (D5)** ☐ (Does not meet test)

☐ **Other (explain below)**

Meets CCC or LCP wetland hydrology criteria? ☐ Yes ☑ No

Comments: Sample point had no indicators of wetland hydrology.

California Coastal Act Wetland Data Sheet

Project Name: Midcoast Multi-Modal Trail
City/Location: El Granada
Applicant/Owner: City of San Mateo
WRA Investigator(s): Stephanie Freed, Rhiannon Korhummel
Date: 8/13/2015

County: San Mateo
LCP (if applicable): San Mateo
☐ LRR A (Western Mts., Valley, and Coast [WMVC])
☑ LRR C (Arid West)

SAMPLE POINT ID: SP5
HABITAT:

CCC/LCP WETLAND DETERMINATION

Meets CCC or LCP vegetation criteria? ☐ Yes ☑ No
Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No
Meets CCC or LCP hydrology criteria? ☐ Yes ☑ No
CCC/LCP WETLAND? ☐ Yes ☑ No

Sample point located in field north of swale (SP4), Highway 1 and west of central coast riparian scrub (willow thicket). No wetland indicators present.

VEGETATION

*indicator status from the USFWS 1996 National List of wetland species

TREES - Plot size:	% Cover	Status*	Dominant?
n/a			
TOTAL			

50% of stratum cover = *20% =*

SAPLING/SHRUBS - Plot size:	% Cover	Status*	Dominant?
n/a			
TOTAL			

50% of stratum cover = *20% =*

HERBACEOUS - Plot size:	% Cover	Status*	Dominant?
Rubus ursinus	30	FAC	Yes
Achillea millifolia	25	FACU	Yes
Holcus lanatus	15	FAC	No
Equisetum arvense	5	FAC	No
Raphanus sativus	5	FACU	No
Helmenthotheca echiodes	5	FACU	No
TOTAL	85.0		2

50% of stratum cover = *42.5* *20% =* *17.0*

Dominance Test:

Total # of dominant species across all strata: 2

Total # of dominants that are hydrophytic (status of OBL, FACW, or FAC): 1

Percentage of dominants that are hydrophytic: 50%

[Meets dominance test if >50%]

Prevalence Index:

Total % cover of species across all strata:

OBL:		x 1 =	
FACW:		x 2 =	
FAC:	50	x 3 =	150
FACU:	35	x 4 =	140
UPL:		x 5 =	
Total:	85 (A)		290 (B)

Prevalence Index (B/A) = 3.41

[Hydrophytic vegetation dominant if B/A ≤ 3.0]

Meets CCC or LCP hydrophytic vegetation criteria? ☐ Yes ☑ No

Comments: Bareground observed with 5% thatch. Sample point was dominated by FAC and FACU plants, therefore does not meet Dominance test or PI. Hydrophytic vegetation is not present.

Project Name: _____ Sample Point ID: _____SP5_____

SOILS Slope (%): 0-3 Soil map unit: Denison loam, nearly level

SOIL PROFILE

Depth	Matrix Color	Redox Color	% and contrast	Redox type	Texture	Comments
0-4	10YR 2/1	n/a			sandy loam	small mineral pieces give gritty texture
4+	restrictive					

All soils:
- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) *[Arid West only]*
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ **Other (explain below)**

Loamy and clayey soils only:
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9) *[Arid West only]*

Sandy soils only:
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

Test indicators (NRCS v7):
- ☐ 2 cm Muck (A10) *[WMVC only]*
- ☐ Very Shallow Dark Surface (TF12)

Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No

Comments: Sample point had a restrictive layer of compacted soil at approximately 4 inches. Sample point had no indicators of hydric soils.

HYDROLOGY (indicators from Corps Regional Supplements, applicable to coastal California only)

Primary indicators (only 1 needed to meet criteria):
- ☐ Surface water (A1) *Depth (in.):* _____
- ☐ High water table (A2) *Depth (in.):* _____
- ☐ Soil saturation (A3) *Depth (in.):* _____
- ☐ Water marks (B1) *[if in Arid West: Nonriverine only]*
- ☐ Sediment deposits (B2) *[if in Arid West: Nonriverine only]*
- ☐ Drift deposits (B3) *[if in Arid West: Nonriverine only]*
- ☐ Algal mat or crust (B4) *[WMVC only; see B12]*
- ☐ Iron deposits (B5) *[WMVC only]*
- ☐ Surface soil cracks (B6)
- ☐ Inundation visible on aerial imagery (B7)
- ☐ Sparsely vegetated concave surface (B8) *[WMVC only]*
- ☐ Water-stained leaves (B9) *[Arid West and MLRA 5 only]*
- ☐ Salt crust (B11)
- ☐ Biotic Crust (B12) *[Arid West only; see B4]*
- ☐ Aquatic invertebrates (B13)
- ☐ Hydrogen sulfide odor (C1)
- ☐ Oxidized rhizospheres (C3)
- ☐ Presence of reduced iron (C4)
- ☐ Recent iron reduction in tilled soils (C6)
- ☐ Stunted or stressed plants (D1) *[WMVC only]*

Secondary indicators (need 2+ to meet criteria):
- ☐ Water marks (B1) *[Arid West riverine only]*
- ☐ Sediment deposits (B2) *[Arid West riverine only]*
- ☐ Drift deposits (B3) *[Arid West riverine only]*
- ☐ Water-stained leaves (B9) *[WMVC:MLRA 4B only]*
- ☐ Drainage patterns (B10)
- ☐ Dry-season water table (C2)
- ☐ Thin muck surface (C7) *[Arid West only]*
- ☐ Crayfish burrows (C8) *[Arid West only]*
- ☐ Saturation visible on aerial imagery (C9)
- ☐ Geomorphic position (D2) *[WMVC only]*
- ☐ Shallow aquitard (D3)
- ☐ Frost-heave hummocks (D4) *[WMVC only]*
- ☐ Raised ant mounds (D6) *[WMVC only]*
- ☐ **FAC-neutral test (D5)** ☐ (Does not meet test)

☐ **Other (explain below)**

Meets CCC or LCP wetland hydrology criteria? ☐ Yes ☑ No

Comments: Sample point had no hydrologic indicators.

Project Name: _____ Sample Point ID: _____SP6_____

Project Name: Midcoast Multi-Modal Trail
City/Location: El Granada
Applicant/Owner: City of San Mateo
WRA Investigator(s): Stephanie Freed, Rhiannon Korhummel
Date: 8/13/2015

County: San Mateo
LCP (if applicable): San Mateo
☐ LRR A (Western Mts., Valley, and Coast [WMVC])
☑ LRR C (Arid West)

SAMPLE POINT ID: SP6

HABITAT:

CCC/LCP WETLAND DETERMINATION

Meets CCC or LCP vegetation criteria? ☐ Yes ☑ No
Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No
Meets CCC or LCP hydrology criteria? ☐ Yes ☑ No
CCC/LCP WETLAND? ☐ Yes ☑ No

Sample point located in a slight depressional area north of upland field (SP5). No wetland indicators present.

VEGETATION

*indicator status from the USFWS 1996 National List of wetland species

TREES - Plot size:	% Cover	Status*	Dominant?
n/a			
TOTAL			

50% of stratum cover = *20% =*

SAPLING/SHRUBS - Plot size:	% Cover	Status*	Dominant?
n/a			
TOTAL			

50% of stratum cover = *20% =*

HERBACEOUS - Plot size:	% Cover	Status*	Dominant?
Carex hendersonii	40	FAC	Yes
Helmenthotheca echiodes	30	FACU	Yes
Cyperus eragrostis	15	FACW	No
Juncus patens	5	FACW	No
Juncus effusus	5	FACW	No
Symphyotrichum chilense	trace	FAC	No
TOTAL	95.0		2

50% of stratum cover = *47.5* *20% =* *19.0*

Dominance Test:

Total # of dominant species across all strata: 2

Total # of dominants that are hydrophytic (status of OBL, FACW, or FAC): 1

Percentage of dominants that are hydrophytic: 50%

[Meets dominance test if >50%]

Prevalence Index:

Total % cover of species across all strata:

OBL:		x 1 =	
FACW	25	x 2 =	50
FAC:	40	x 3 =	120
FACU:	30	x 4 =	120
UPL:		x 5 =	
Total:	95 (A)		290 (B)

Prevalence Index (B/A) = 3.05

[Hydrophytic vegetation dominant if B/A ≤ 3.0]

Meets CCC or LCP hydrophytic vegetation criteria? ☐ Yes ☑ No

Comments: Sample point is dominated by FAC and FACU species therefore does not meet Dominance test or PI and is not considered hydrophytic vegetation.

California Coastal Act Wetland Data Sheet

SOILS Slope (%): 0-3 Soil map unit: Denison loam, nearly level

SOIL PROFILE

Depth	Matrix Color	Redox Color	% and contrast	Redox type	Texture	Comments
0-4	10YR 2/1	n/a			sandy loam	small but visible mineral particles give gritty texture
4+	restrictive					

All soils:
- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) *[Arid West only]*
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ **Other (explain below)**

Loamy and clayey soils only:
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9) *[Arid West only]*

Sandy soils only:
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

Test indicators (NRCS v7):
- ☐ 2 cm Muck (A10) *[WMVC only]*
- ☐ Very Shallow Dark Surface (TF12)

Meets CCC or LCP hydric soil criteria? ☐ Yes ☑ No

Comments: Sample point does not meet any hydric soil indicators. Compacted soil at approximately 4 inches created a restrictive layer.

HYDROLOGY (indicators from Corps Regional Supplements, applicable to coastal California only)

Primary indicators (only 1 needed to meet criteria):
- ☐ Surface water (A1) *Depth (in.):* _____
- ☐ High water table (A2) *Depth (in.):* _____
- ☐ Soil saturation (A3) *Depth (in.):* _____
- ☐ Water marks (B1) *[if in Arid West: Nonriverine only]*
- ☐ Sediment deposits (B2) *[if in Arid West: Nonriverine only]*
- ☐ Drift deposits (B3) *[if in Arid West: Nonriverine only]*
- ☐ Algal mat or crust (B4) *[WMVC only; see B12]*
- ☐ Iron deposits (B5) *[WMVC only]*
- ☐ Surface soil cracks (B6)
- ☐ Inundation visible on aerial imagery (B7)
- ☐ Sparsely vegetated concave surface (B8) *[WMVC only]*
- ☐ Water-stained leaves (B9) *[Arid West and MLRA 5 only]*
- ☐ Salt crust (B11)
- ☐ Biotic Crust (B12) *[Arid West only; see B4]*
- ☐ Aquatic invertebrates (B13)
- ☐ Hydrogen sulfide odor (C1)
- ☐ Oxidized rhizospheres (C3)
- ☐ Presence of reduced iron (C4)
- ☐ Recent iron reduction in tilled soils (C6)
- ☐ Stunted or stressed plants (D1) *[WMVC only]*

Secondary indicators (need 2+ to meet criteria):
- ☐ Water marks (B1) *[Arid West riverine only]*
- ☐ Sediment deposits (B2) *[Arid West riverine only]*
- ☐ Drift deposits (B3) *[Arid West riverine only]*
- ☐ Water-stained leaves (B9) *[WMVC:MLRA 4B only]*
- ☑ Drainage patterns (B10)
- ☐ Dry-season water table (C2)
- ☐ Thin muck surface (C7) *[Arid West only]*
- ☐ Crayfish burrows (C8) *[Arid West only]*
- ☐ Saturation visible on aerial imagery (C9)
- ☐ Geomorphic position (D2) *[WMVC only]*
- ☐ Shallow aquitard (D3)
- ☐ Frost-heave hummocks (D4) *[WMVC only]*
- ☐ Raised ant mounds (D6) *[WMVC only]*
- ☐ **FAC-neutral test (D5)** ☐ (Does not meet test)

☐ **Other (explain below)**

Meets CCC or LCP wetland hydrology criteria? ☐ Yes ☑ No

Comments: Some vegetation was lying down; possible evidence of drainage patterns (B10), otherwise, sample point does not meet any hydrologic indicators.

Appendix D – Representative Site Photographs

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Unnamed perennial stream inside central coast riparian scrub dominated by arroyo willow (*Salix lasiolepis*, FACW).

Interior of central coast riparian scrub dominated by arroyo willow (*Salix lasiolepis*, FACW) with SP3.

Representative soil profile from SP3..

Exterior of central coast riparian scrub dominated by arroyo willow (*Salix lasiolepis*, FACW).

Henderson's sedge (*Carex hendersonii,* FAC) observed at SP6.

Bristly ox-tongue (*Helminthotheca echioides*, FACU) was characteristically present around and within sample points 4-6.

Overall landscape of sample points 4-6.

Typical soils profile observed throughout sample points 4-6.

California blackberry (*Rubus ursinus*, FAC) upland between SP4 and SP6.

Spreading rush (*Juncus patens*, FACW) swale (SP4).

Bristly ox-tongue was closely associated with the spreading rush swale (SP5).

Cement culverts in Arroyo de en Medio at Highway 1.

Creek bed of Arroyo de en Medio within the Study Area.

Representative soil sample upland of Arroyo de en Medio.

Looking north into non-native riparian woodland that is associated with Arroyo de en Medio.

Manmade ditch at north end of Study Area.

Area of non-native annual grassland with dominant species including Italian ryegrass (*Festuca perennis*, FAC) (SP2).

Manmade ditch running down to Highway 1.

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APPENDIX B:
AB52 Consultation Letters

July 11, 2016

Alan Leventhal
Muwekma Ohlone Tribal Historian

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Muwekma Ohlone Tribe pursuant to the provision of Assembly Bill 52 (AB52).

Dear Mr. Leventhal:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Muwekma Ohlone Tribe of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Muwekma Ohlone Tribe has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Muwekma Ohlone Tribe as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Andrew Galvan
The Ohlone Indian Tribe
PO Box 3152
Fremont, California 94539

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Ohlone Indian Tribe pursuant to the provision of Assembly Bill 52 (AB52).

Dear Mr. Galvan:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Ohlone Indian Tribe of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Ohlone Indian Tribe has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Ohlone Indian Tribe as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Ann Marie Sayers
Indian Canyon Mutsun Band of Costanoan
PO Box 28
Hollister, California 95024

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Indian Canyon Mutsun Band of Costanoan Tribe pursuant to the provision of Assembly Bill 52 (AB52).

Dear Mr. Ketchum:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Indian Canyon Mutsun Band of Costanoan Tribe of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Indian Canyon Mutsun Band of Costanoan Tribe has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Indian Canyon Mutsun Band of Costanoan Tribe as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Edward Ketchum
Amah Mutsun Tribal Band
35867 Yosemite Ave
Davis. California 95616

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Amah Mutsun Tribal Band pursuant to the provision of Assembly Bill 52 (AB52).

Dear Mr. Ketchum:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Amah Mutsun Tribal Band of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Amah Mutsun Tribal Band has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Amah Mutsun Tribal Band as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

EXHIBIT A

[Insert Project Description]

July 11, 2016

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

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Amah Mutsun Tribal Band pursuant to the provision of Assembly Bill 52 (AB52).

Dear Mr. Ketchum:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Amah Mutsun Tribal Band of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Amah Mutsun Tribal Band has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Amah Mutsun Tribal Band as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Ramona Garibay
Trina Marine Ruano Family
30940 Watkins St
Union City, California 94587

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Ohlone/Costanoan Tribe pursuant to the provision of Assembly Bill 52 (AB52).

Dear Ms. Garibay:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Ohlone/Costanoan Tribe of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Ohlone/Costanoan Tribe has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Ohlone/Costanoan Tribe as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Jakki Kehl
720 North 2nd Street
Patterson, California 95363

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Ohlone/Costanoan Tribe pursuant to the provision of Assembly Bill 52 (AB52).

Dear Ms. Kehl:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Ohlone/Costanoan Tribe of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Ohlone/Costanoan Tribe has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Ohlone/Costanoan Tribe as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

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Mike Schaller, Senior Planner

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The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Ramona Garibay
Trina Marine Ruano Family
30940 Watkins St
Union City, California 94587

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Ohlone/Costanoan Tribe pursuant to the provision of Assembly Bill 52 (AB52).

Dear Ms. Garibay:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Ohlone/Costanoan Tribe of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Ohlone/Costanoan Tribe has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Ohlone/Costanoan Tribe as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Rosemary Cambra
Muwekma Ohlone Indian Tribe of the SF Bay Area
PO Box 360791
Milpitas, California 95036

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Muwekma Ohlone Indian Tribe of the SF Bay Area pursuant to the provision of Assembly Bill 52 (AB52).

Dear Mr. Ketchum:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Muwekma Ohlone Indian Tribe of the SF Bay Area of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Muwekma Ohlone Indian Tribe of the SF Bay Area has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Muwekma Ohlone Indian Tribe of the SF Bay Area as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Tony Cerda
Costanoan Rumsen Cannel Tribe
244 E. First Street
Pomona, CA 91 766

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Costanoan Rumsen Cannel Tribe pursuant to the provision of Assembly Bill 52 (AB52).

Dear Mr. Ketchum:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Costanoan Rumsen Cannel Tribe of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Costanoan Rumsen Cannel Tribe has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Costanoan Rumsen Cannel Tribe as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.

July 11, 2016

Valentin Lopez
Amah Mutsun Tribal Band
PO Box 5272
Galt, California 95632

Subject: Notification of Proposed Project Subject to CEQA Review within the Geographic Area of the Amah Mutsun Tribal Band pursuant to the provision of Assembly Bill 52 (AB52).

Dear Mr. Ketchum:

Pursuant to the provisions of AB 52, the County of San Mateo, as Lead Agency for the proposed Midcoast Multimodal Trail Project (proposed Project), described in Exhibit A to this letter, is hereby notifying the Amah Mutsun Tribal Band of the proposed Project to seek input and to provide any information or concerns regarding the potential for any tribal cultural resources (TCR), as defined by AB 52.

A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources, or if the County of San Mateo, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.[1]

Although the Amah Mutsun Tribal Band has not formally requested to the County of San Mateo to be notified of proposed projects under pursuant to AB 52, the County, has identified the Amah Mutsun Tribal Band as potentially having knowledge of cultural resources in the project area as indicated by the Native American Heritage Commission on September 30, 2015. Please advise the County of San Mateo if you would like to request a consultation. Pursuant to AB 52, this request must be submitted, in writing and received by the County of San Mateo by August 10, 2016.

[1] Public Resources Code (PRC) Sections 21074(a)(1) and (2).

If you have any questions, please feel free to contact Mike Schaller, Senior Planner, at (650) 363-1849 or email at mschaller@smcgov.org.

Sincerely,

Mike Schaller, Senior Planner

EXHIBIT A

The proposed Project is the construction of a 0.8-mile multi-use trail within 10.39 acres of undeveloped land within the Caltrans right-of-way land in the unincorporated community of El Granada, California. The Project site runs parallel to Cabrillo Highway (Highway 1) between Coronado Street and Mirada Road, as shown on Figure 1. The Project will enable people to safely commute by bicycle from El Granada to areas south of El Granada, and eventually serve as a connection to the Naomi Patridge trail which connects to Half Moon Bay.