Draft

Initial Study/Mitigated Negative Declaration

TUNITAS CREEK BEACH IMPROVEMENT PROJECT

County of San Mateo

Parks Department

August 2021

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CHAPTER 1. BACKGROUND INFORMATION

PROJECT DATA

1. **Project Title:** Tunitas Creek Beach Improvement Project

2. **Lead Agency Name and Address:**
   County of San Mateo Parks Department
   455 County Center, 4th Floor
   Redwood City, CA 94063

3. **Contact Person and Phone Number:**
   Mario Nastari, Park Ranger IV
   (650) 599-1352

4. **Project Location:** The project site is located in unincorporated San Mateo County, approximately 5 miles south of the City of Half Moon Bay. The project site is located to the west of Highway 1 and extends approximately 0.7 miles south from Tunitas Creek. The approximately 58-acre site comprises three parcels (Assessor Parcel Numbers [APNs] 081-060-030, 081-060-020, and 081-060-130). In addition, the project includes a portion of the State of California Department of Transportation's right of way located to the east, as well as, the portion of the beach located to the west of the project parcels.

5. **Project Proponent:**
   County of San Mateo Parks Department
   455 County Center, 4th Floor
   Redwood City, CA 94063

6. **General Plan:** Agriculture

7. **Zoning:** RM-CZ/CD **-** Resource Management -Coastal Zone District/Coastal Development District/Coastal Development District and PAD/CD - Planned Agriculture District/Coastal Development District

8. **Project Description:** The County of San Mateo Parks Department (Parks Department) proposes to make improvements to Tunitas Creek Beach and the surrounding areas in order to increase coastal access and recreational opportunities for public use and protect natural resources present on the property. The proposed project includes construction of a parking facility, pathways, overlooks, restrooms, ranger shed, picnic areas, amphitheater, ranger residence, and related amenities. The Parks Department would operate and maintain the park and its amenities. A more detailed description of the proposed project is provided in Chapter 2.

9. **Surrounding Land Use and Setting:** The project site is located between Tunitas Creek Road and Star Hill Road and west of Highway 1. Tunitas Creek borders the project site to the north, the Pacific Ocean borders the site to the west, and rural semi-developed coastal property borders to the site to the south. A more detailed description of the project site and existing site conditions is provided in Chapter 2.

10. **Other Public Agencies Whose Approval is Required:**

    - County of San Mateo
    - Bay Area Air Quality Management District
    - United States Army Corps of Engineers
    - National Marine Fisheries Service
    - State of California Department of Transportation
    - California Coastal Commission
    - California State Water Resources Control Board

- United States Fish and Wildlife Services
- California Department of Fish and Wildlife
- Regional Water Quality Control Board

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?: On July 8, 2020, the County of San Mateo Parks Department provided formal notification by mail to those California Native American tribes that are traditionally and culturally affiliated with the geographic area within which the proposed project is located pursuant to the consultation requirements of AB 52. To date no tribes have requested consultation. The outreach included the following tribes:

- Amah Mutsun Tribal Band
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- The Ohlone Indian Tribe

CHAPTER 2. PROJECT DESCRIPTION

2.1 INTRODUCTION

This Initial Study has been prepared pursuant to the requirements of the California Environmental Quality Act (CEQA). The purpose of an Initial Study is to determine whether the proposed project could significantly affect the environment, requiring the preparation and distribution of an Environmental Impact Report. Based on the following analysis, it is projected that the environmental impacts of the project would be less-than-significant with proposed mitigation, and that the project is eligible for a Mitigated Negative Declaration.

2.2 PROJECT LOCATION

The project site is located in unincorporated San Mateo County, approximately 5 miles south of the City of Half Moon Bay. The project site is located west of Highway 1 and extends approximately 0.7 mile south from Tunitas Creek. The approximately 58-acre site comprises three parcels (Assessor Parcel Numbers [APNs] 081-060-030, 081-060-020, and 081-060-130). In addition, the project includes a portion of the State of California Department of Transportation's (Caltrans) right of way located to the east, as well as the portion of the beach located to the west of the project parcels. Highway 1 and the Toto Ranch/Tunitas Creek Open Space Preserve are located further to the east. The project location is shown on the map in Figure 1.

2.3 BACKGROUND

The County of San Mateo (County) acquired property located along the San Mateo coastline from the Peninsula Open Space Trust to be operated by the County's Parks Department as a new public park. For many years, the property was privately owned. In the recent years prior to the County acquiring the property, illicit activity occurred including large parties, vandalism, and poaching. The Parks Department is working to make improvements to Tunitas Creek Beach to safely open it for public access and recreation.

The Parks Department has worked extensively with community members, including a Citizen's Advisory Committee, to define values for development of the Tunitas Creek Beach Park as a new public park. The process established four core values including: 1) environmental protection, 2) equity and inclusion, 3) education and awareness, and 4) outdoor experience. The project includes physical improvements to the site to meet these values as well as future programming opportunities designed to educate visitors and enhance the user experience.

2.4 PROJECT SITE

The following provides an overview of existing conditions at the project site.

2.4.1 Site History

The project site includes numerous habitat types, including northern (Franciscan) coastal scrub, central coast riparian scrub, Monterey pine forest, red alder riparian forest, stream, landscaped, coastal strand and coastal dune, developed, and coastal and valley freshwater marsh. Native Californians would have used the area for hunting game, fishing, collecting seeds and plants, and collecting mollusks. The project site is within the territory of the ethnographic Cotegen, one of many Ohlone groups. The Ohlone were located directly south of the project site and centered within San Gregorio Valley. Two previously recorded precontact-period cultural resources have been identified on the project site: CA-SMA-2 was recorded in 1949 as the Tunitas Glen Shellmound, a deposit of midden and shell detritus and CRHL-375, recorded in 1940 as the "Tunitas Beach Indian Village Site on Portola Route." It is likely that these two sites are the same. The Tunitas Beach Indian Village Site on the Portola Route is designated as California Historical Landmark #375.

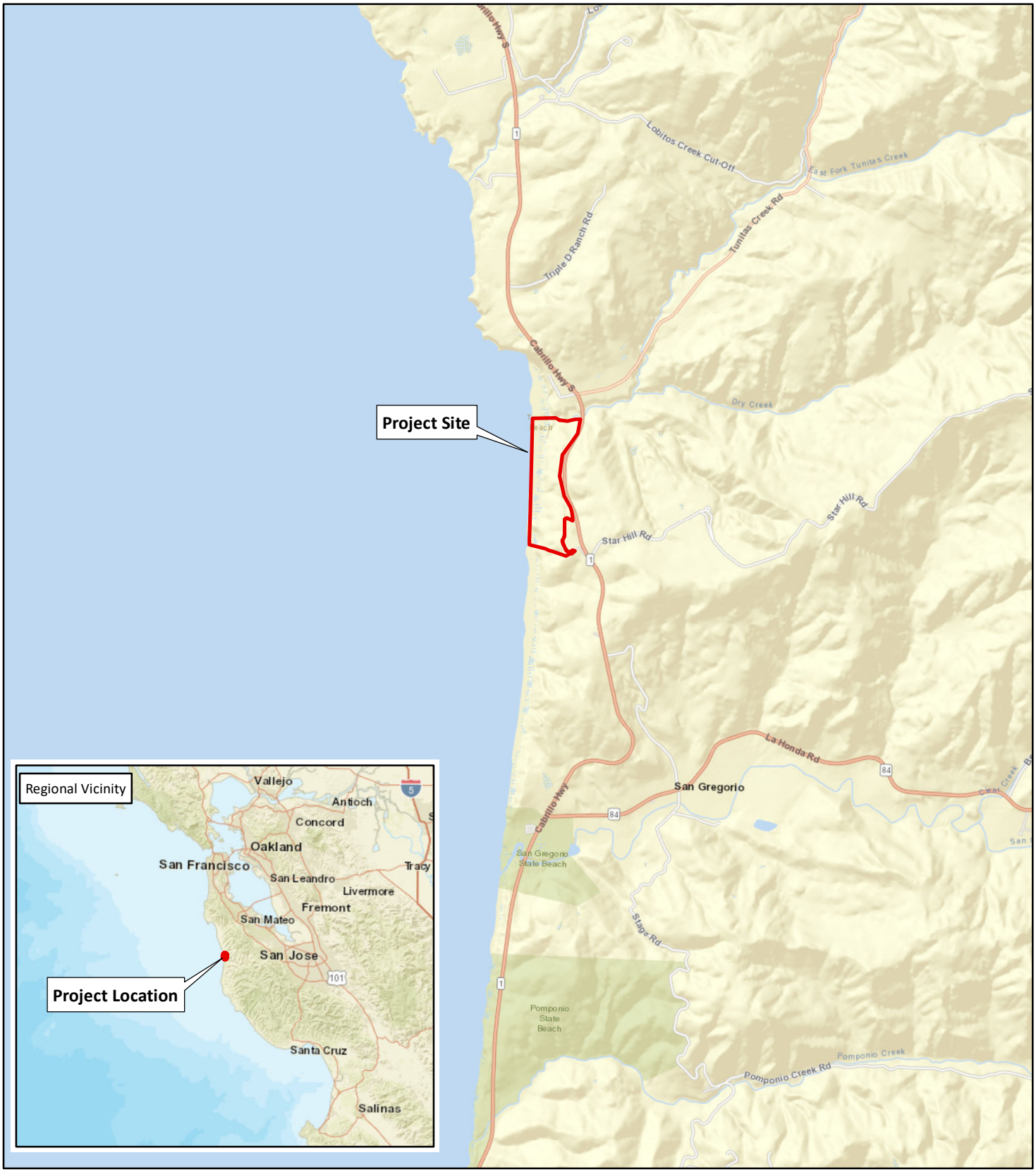

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FIGURE 1

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SOURCE: ESRI World Map (06/19).

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Tunitas Creek Beach Project
Tunitas, San Mateo County, California

Project Vicinity Map

During the Spanish Mission period, the coastal grasslands surrounding the project site supported increasingly vast cattle herds that roamed the hills and valleys; livestock generally ranged freely over the landscape and rapidly multiplied, creating an industry focused on the production of leather goods and tallow. The former Mission cattle ranches that extended into the project area were ultimately divided into two Mexican Period land grants that were separated by Tunitas Creek: Rancho Cañada de Verde y Arroyo de la Purisima on the north side of the creek and Rancho San Gregorio on the south side. Rancho San Gregorio extended along the coast from Tunitas Creek southward to Pomponio Creek and encompassed the entire San Gregorio Valley. These lands were soon subdivided and sold to new immigrants that arrived in California after 1850.

As the demand for coastal agricultural and forest products from the San Mateo County coast side increased, several entrepreneurs attempted to devise methods to load freight ships directly from the coastal bluffs to circumvent the congestion of the bay area ports. One of the more monumental schemes developed into what became known as "Gordon's Chute," which was formerly located just outside of the study area, on the coastal bluffs to the northwest of Tunitas Creek. By the time the Ocean Shore Railroad was constructed near Gordon's Landing around 1905, nothing remained of the chute or the warehouses except for the rusted iron bolts that are still imbedded in the rocks below the cliffs.

By the late 19th century prominent land developers and investors began to envision a railroad route that would link San Francisco to Santa Cruz and beyond, via a corridor that paralleled the open coastline. This route became popularly known as the Ocean Shore Railroad. The project area was the site of the Tunitas Depot, and the enormous trestle spanning Tunitas Creek to reach the depot became the southern terminus of the railroad, which was never completed. In the project area, several parallel rows of cement footings can be seen in the Tunitas Creek stream channel that once support the trestle and it is surmised that the railroad tracks traversed the project site, and that the existing residence was constructed on the level grade created for the railroad tracks. Up until recent years, several of the railroad worker's cottages once stood at various distances from each other along the slope that composes the southern bank of Tunitas Creek. These small houses eventually deteriorated and a succession of mudslides in the early 1980s destroyed several and rendered the two that remain uninhabitable. As described further below, the site currently supports a single-family residence, constructed circa 1958, and several of the worker cabins.

2.4.2 Existing Conditions

The project site is located adjacent to Highway 1, along a shoreline bluff, which affords panoramic views of the Pacific Ocean, Tunitas Creek Beach, and the natural landscape along this portion of the San Mateo County coast. The project site consists of a relatively flat to sloping surface, which descends from a ridge on the east down to the Pacific Ocean beach on the west. Slope inclinations within the project site vary from 1.5:1 to 4:1 (horizontal:vertical). Existing features that detract from these scenic views include overgrown and invasive, non-native vegetation, unsafe or unsanctioned social trails that erode the bluff, overhead utilities such as telephone poles and wires, and cars parking near the edge of the bluff in the existing dirt pullout.

Prior to acquisition by the County, the project site was privately-owned and developed for residential use. The site currently supports a single-family residence in poor condition. A small concrete-lined pond, associated waterfall, patio area, and ornamental landscaping surround the residence. A paved driveway connects the residential property to Highway 1. Several areas of miscellaneous trash are present, likely from illegal dumping at the site. A single cabin remains in its original location just uphill and to the east of the existing residence and is accessed via a short spur off the main driveway. Remnants of five other damaged and/or overgrown cabins are also located on the project site. All of the cabins are unsalvageable. The remainder of the project site is undeveloped.

Due to illicit activities including large parties, poaching, and vandalism of the residence, the Parks Department installed fencing and a gate closing the driveway from Highway 1 that accesses the site. However, pursuant to State law, the beach below the Mean High Tide Line is accessible to the public by other access points. Parking surveys conducted for this informal parking area found up to 63 parked vehicles on a warm sunny day with visitors remaining at the beach for about 2 hours. Approximately two thirds of visitors to the project site arrive from the southbound direction. Beachgoers also park along Tunitas Creek Road and walk under Highway 1 and along Tunitas Creek to access the beach.

2.4.3 Surrounding Land Uses

The project site is located between Tunitas Creek and Star Hill Road and west of Highway 1, which is a designated Scenic Highway. In the vicinity of the project site, Highway 1 has two lanes, carrying approximately 7,800 vehicles per day on average based on traffic counts conducted at the project site in October 2019. As indicated by the traffic count results, traffic flow is generally consistent between the north and southbound direction from 11:00 a.m. to 5:00 p.m.

Across Highway 1 to the east of the project site is the Toto Ranch/Tunitas Creek Open Space Preserve, which is owned and managed by the Midpeninsula Open Space District. This 987-acre property is an actively grazed public open space. Land further to the east consists of rural development including established ranches used primarily for beef cattle production and row crop production.

Rural semi-developed coastal lands border the site to the south. These lands are primarily grazed rangeland with associated residential/farm buildings.

Tunitas Creek borders the project site to the north. Tunitas Creek is a 6.6-mile fast-flowing perennial stream that runs from King's Mountain to the Pacific Ocean, emptying onto Tunitas Beach. The upper mouth of Tunitas Creek is located on the project site. At the mouth of the creek, the stream channel is approximately 20 feet wide and ranges from several inches to several feet deep.

The Pacific Ocean borders the site to the west.

2.5 PROJECT OBJECTIVES

The proposed project is intended to provide convenient and safe parking and access for the public to visit Tunitas Creek Beach as well as to enjoy vistas of the Pacific Ocean. Project implementation would also result in the restoration of native habitat, protection of the sensitive bluff landscape, and amelioration of erosion conditions created by use of unsanctioned social trails that descend from the top of the bluff to the beach. The project would provide outdoor education opportunities, facilities for school groups, ranger programs, and historic and cultural interpretation. With implementation of proposed improvements, including widening of the existing path, emergency services personnel would have improved access to the beach. The existing residence, which is currently in disrepair and unsound, would be removed and converted into an overlook and gathering area. In addition, vehicular safety along Highway 1 would be improved, with the addition of controlled entry/exit points along the roadway at safe sight distances.

2.6 PROJECT DESCRIPTION

The project site can generally be divided into three zones as shown in the aerial photograph in Figure 2 and noted as follows:

- Top Bluff: This area is located along Highway 1 and within the State's right-of-way and would serve as the arrival zone, parking, and overlook area. A segment of the California Coastal Trail and a trailhead for a loop trail providing access throughout the property are also located at the top bluff. Most of the proposed improvements would be located within this area of the project site.
- Mid Bluff: This area includes the site of the existing residence (to be removed) and associated improvements. Proposed development in this area would include restrooms, interpretive education opportunities, ranger shed, amphitheater, and picnic areas.
- Beach: Minimal development is proposed within the beach area with improvements focused on invasive species removal and habitat restoration.

Figure 3 illustrates the overall conceptual site plan. Each of the three project zones is described in further detail below.

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FIGURE 2

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Project Site

Tunitas Creek Beach Improvement Project Initial Study
Aerial Photograph and Proposed Improvement Zones

SOURCES: Google Earth, 9/26/2020; LSA, 2021

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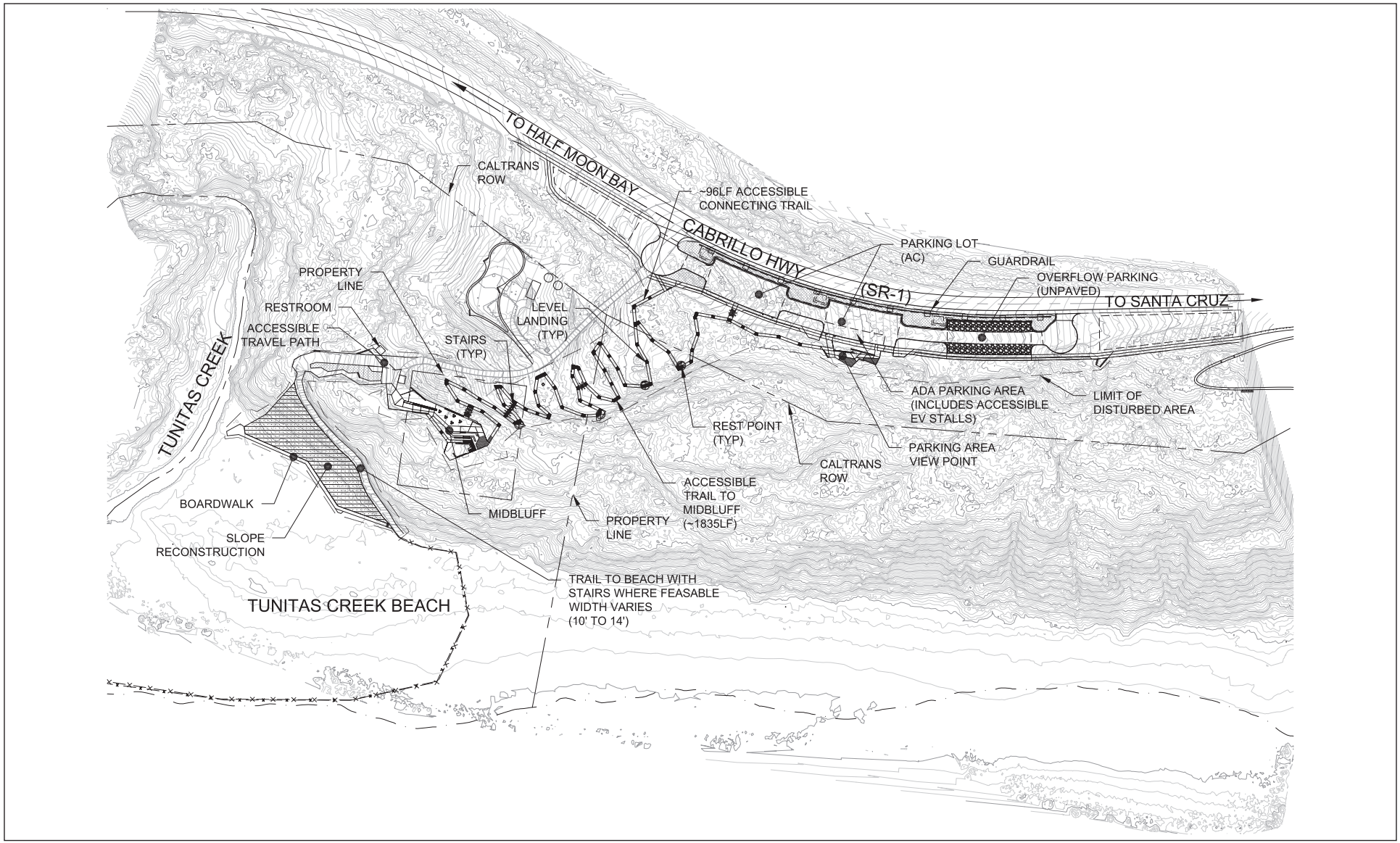

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FIGURE 3

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SOURCE: CSW-ST2 2021

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Tunitas Creek Beach Improvement Project Initial Study
Conceptual Site Plan

2.6.1 Top Bluff

In the current condition, visitors to Tunitas Creek Beach park along the shoulder of Highway 1 and climb down the bluff to the beach. As the parking area is not paved and there is no path to the beach, the climbing is treacherous and the activity erodes the bluff dislodging sediment to the Pacific Ocean. In this zone, the proposed project would include a parking area, overlooks, pathways, and stormwater quality facilities to improve public access to Tunitas Creek Beach and closure/restoration of existing social trails from the bluff to prevent further erosion down the bluff and promote safer access routes provided as part of the project (see Figure 4).

The area within the Top Bluff is located within the State of California Department of Transportation's (Caltrans) right of way. Based upon discussions with Caltrans, the Parks Department would negotiate an airspace lease agreement to use the land for proposed parking and access improvements. In addition, the Parks Department would need to secure approval from Caltrans through either an encroachment permit or approval from the Division of Design.

Within this area, the project could accommodate 80 parking stalls, including standard, accessible, electric charging and paratransit parking. This area includes the unpaved parking lot which could serve buses or other large vehicles at the southern end of the Top Bluff. If a bus parks in this location, it would occupy some of the vehicle parking stalls. A pedestrian loading/unloading zone would be located near the entrance to State Route 1 and provide a pedestrian connection to the Mid Bluff either through the accessible pathway or the existing driveway. In addition, a portion of the California Coastal Trail would be installed along the western-frontage of the proposed parking area. Safety and security lighting would be provided along pathways from the top to mid bluff and around the proposed ranger residence (described below). Light levels in the park would be kept low after hours to provide for safety/security, but are not intended to promote use of the park after the park is closed. All lights would feature light emitting diode technology for energy conservation, be night sky friendly, and operate at a temperature suitable for humans and animals. Motion sensors would be installed to intensify light levels when movement is detected. A visual rendering of proposed improvements along the Top Bluff is provided in Figure 5.

Several trails have been cut into the bluff by pedestrians walking to the beach. The project would block these trails from access with fences, installation of signage for habitat restoration, planting of native species, and installation of erosion control. Although informal access points would be closed, new accessible paths would be constructed to provide safe access down to the beach from the Top Bluff.

2.6.2 Mid Bluff

To gain access to the Mid Bluff, an accessible pedestrian pathway would be installed from the Top Bluff. Due to the significant elevation difference and the need to maintain a slope of less than 8.3 percent for accessibility, the pathway would be approximately 1,800 feet in length and be constructed of either asphalt and/or a stabilized decomposed granite. A secondary trail between the passenger loading area and the primary accessible pathway would be 95 feet in length. The pathway would include several seating areas and overlooks along the route. Lighting would be installed along the pathway. Lighting would consist of low-level bollards that would cast just enough light to enhance safety and security for trail users, while limiting light spillover. The existing paved driveway would remain but would only be accessible for vehicles operated by Parks Department staff or for emergency services.

To complete the trail, the project would remove four trees that include Monterey cypress or Monterey pine trees. These trees have a circumference of 38 inches or greater and are considered a Significant Tree in accordance with San Mateo County Ordinance Code. However, the Parks Department would review all trees prior to construction to determine their health. For any trees an arborist finds to be in fair or poor condition, the Parks Department would remove them prior to construction. For all trees removed, the project would obtain a Tree Cutting Permit from the County's Planning Division. A previous biological investigation of the site completed by H.T Harvey and Associates found that as there are no native stands of Monterey cypress and Monterey Pine trees within the property, they are not considered rare trees by the California Native Plant Society. All trees within the project area that are not removed, would be trimmed to remove low level and/ or dead limbs. The trimming would be completed under the supervision of an arborist.

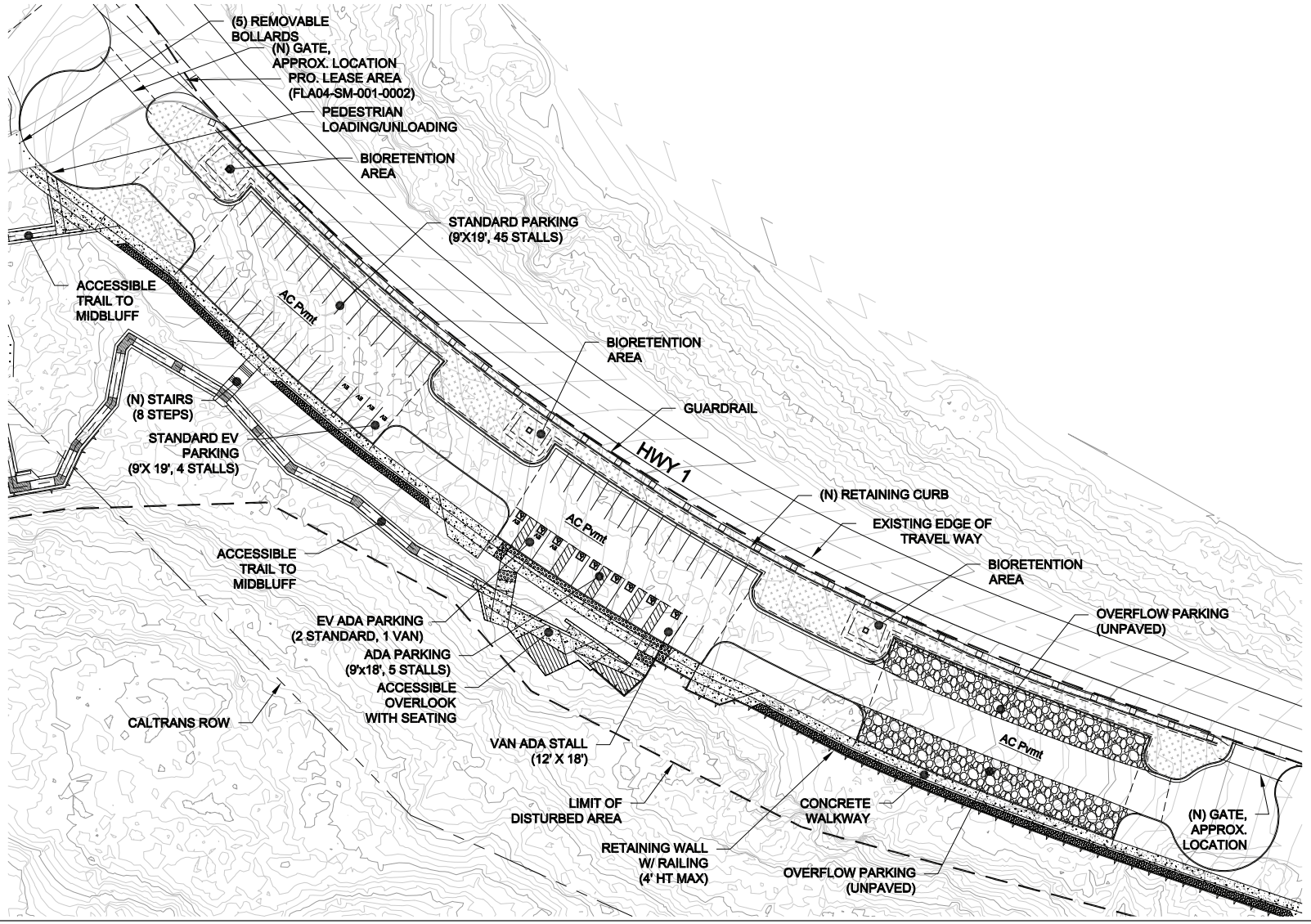

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FIGURE 4

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Tunitas Creek Beach Improvement Project Initial Study

Proposed Improvements - Top Bluff

SOURCE: CSW-ST2 2021

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① Indigenous Peoples land acknowledgment plaque

② Seating areas

③ Existing planting to remain

④ Paved walkway

⑤ Pedestrian access to mid-bluff

⑥ ADA Parking

⑦ Existing utility poles and wires to be undergrounded or relocated

Existing Site Conditions

LSA

FIGURE 5

Tunitas Creek Beach Improvement Project Initial Study
Rendering - Top Bluff

SOURCE: CSW-ST2 2021

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The Mid Bluff would be designed to serve as a gathering point for visitors. The existing residence at the site would be demolished and an overlook amphitheater would be constructed in its place. The amphitheater could be used to provide educational programs regarding Tunitas Creek Beach and the coastline, or for casual gathering and viewing. The Mid Bluff would also include picnic areas and restrooms, and a small ranger shed for use by Parks Department staff. Figure 6 shows the proposed layout of improvements in the Mid Bluff. Visual renderings of proposed improvements are provided in Figures 7A and 7B.

The restroom building would accommodate at a minimum two single-occupant unisex waterless restrooms able to serve up to 90 users per hour. A concrete vault integral to the restroom would store wastewater. The ranger shed would be a building used to hold tools and equipment for maintaining the park. All buildings would be pre-fabricated, or site constructed structures set atop concrete slabs.

A loop trail would be created to connect the parking area at the Top Bluff to the beach, extending through the southern portion of the project site. The trail would consist of an approximately 4-foot-wide, unpaved trail. The loop trail would require a stream crossing, which could either consists of a rock ford or a clear span bridge. The final crossing design would be determined as part of the final design for the proposed improvements. In addition, the project would install a short nature walk north of the main driveway, leading to flexible group programming space. This trail would also be an approximately 4-foot-wide, surfaced with stabilized decomposed granite, with educational signage along the route. In addition, the trail would feature benches at lookouts along the route. Figure 8 shows the proposed loop trail to the beach.

Currently, a 10-foot-wide unpaved trail leads down to the beach from the Mid Bluff and cuts through the slope between two active landslides. As part of the proposed project, this existing trail would be widened and timber steps would be installed to facilitate pedestrian access, while keeping a lane for emergency vehicles. To repair the slope and accommodate the trail widening, the Parks Department proposes to either: 1) remove the landslide debris and rebuild the slope, thereby reducing the slope of the hillside by shifting the toe of the slope westward by approximately 5 feet; or 2) install a retaining wall with anchors to support the slope.

As shown in Figure 6, a ranger residence is proposed in the Mid Bluff area. This residence would serve a Parks Department ranger who would live on the site full time acting as a caretaker. The residence would be a prefabricated structure of about 1,200 square feet, equipped with sprinklers for fire suppression. Additionally, the residence may include solar panels to reduce energy demands. In order to construct the residence, a potable water source would be required. Provision of potable water to the proposed ranger residence is further described in Section 2.6.4.2. Should the project not be able to secure a source of potable water, the ranger residence would not be constructed. In this case, the Parks Department would install a video surveillance system that activates upon detecting motion when the Park is closed to the public. The on-duty ranger would receive notifications from the system and coordinate with the County Sheriff's Office to respond to the site.

2.6.3 Beach

Within the beach area, the Parks Department proposes to remove invasive species and install a wooden boardwalk as illustrated in Figure 9. The boardwalk would be constructed of timber placed atop or slightly embedded within the sand. The primary purpose of the boardwalk is to facilitate users' access to view Tunitas Creek from the beach while minimizing impacts to the beach and creek habitat. Educational signage would be included along the boardwalk, with seating available in select locations. Consistent with the recommendations in the Western Snowy Plover Avoidance and Minimization plan, potential breeding areas for snowy plover would be identified prior to the breeding season. These areas would be delineated using temporary signage to alert beach visitors to the potential presence of western snowy plover and explaining the sensitivity of the area. Breeding areas may also be further delineated using a rope line tied to t-posts or stakes to prevent intrusion during the breeding season.

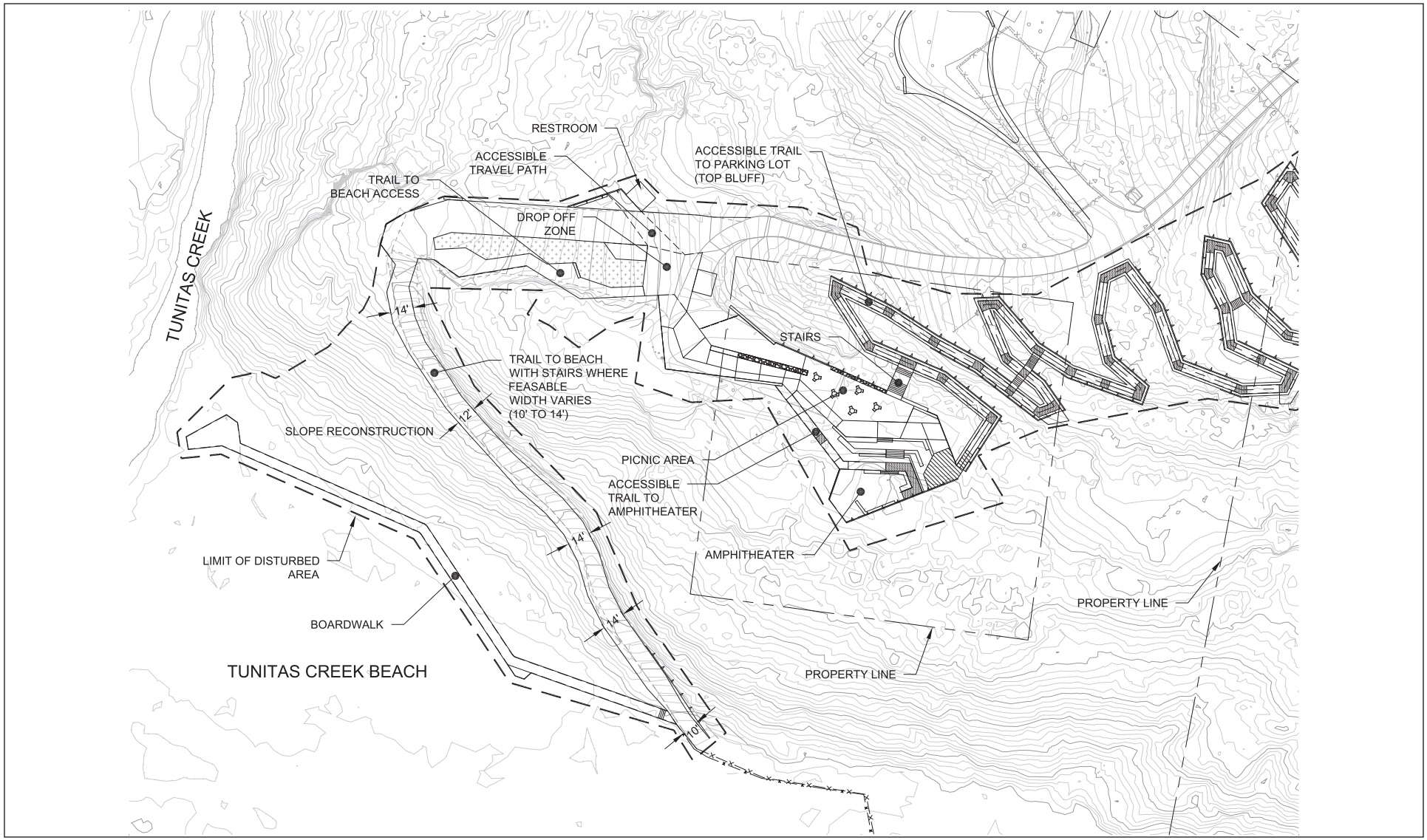

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FIGURE 6

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Tunitas Creek Beach Improvement Project Initial Study
Proposed Improvements - Mid Bluff

SOURCE: CSW-ST2 2021

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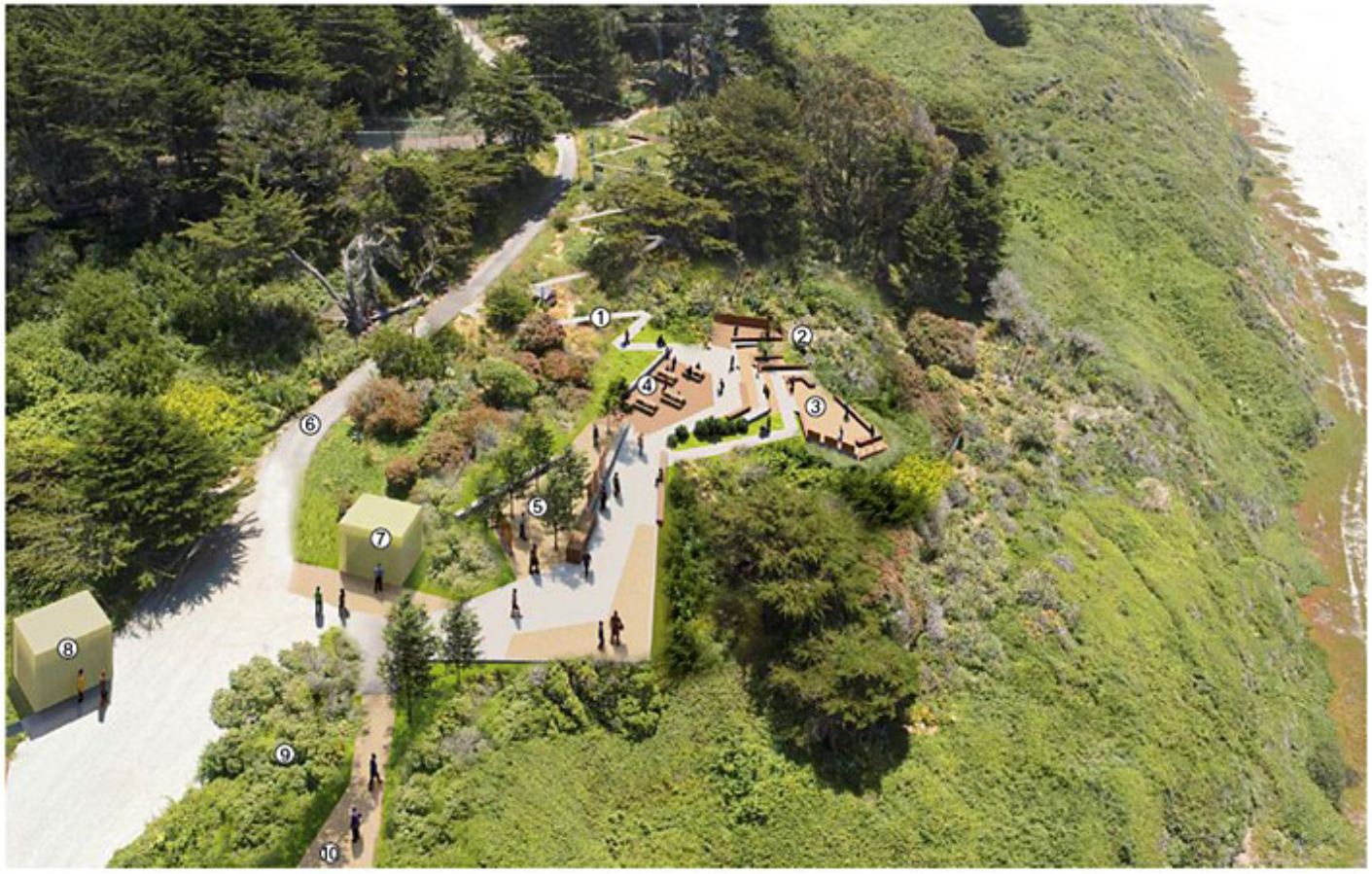

① ADA accessible pedestrian path to the mid-bluff

② Overlook to beach and southern bluffs

③ Tiered seating space, interpretive panels, and overlook point

④ Picnic Area

⑤ Grove and seating area with interpretive panels

⑥ Access driveway for rangers and emergency vehicles

⑦ Ranger station and storage area

⑧ Public restroom

⑨ Restored native planting

⑩ Access to beach

Existing Mid-Bluff Conditions

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FIGURE 7A

Tunitas Creek Beach Improvement Project Initial Study
Rendering - Mid Bluff

SOURCE: CSW-ST2 2021

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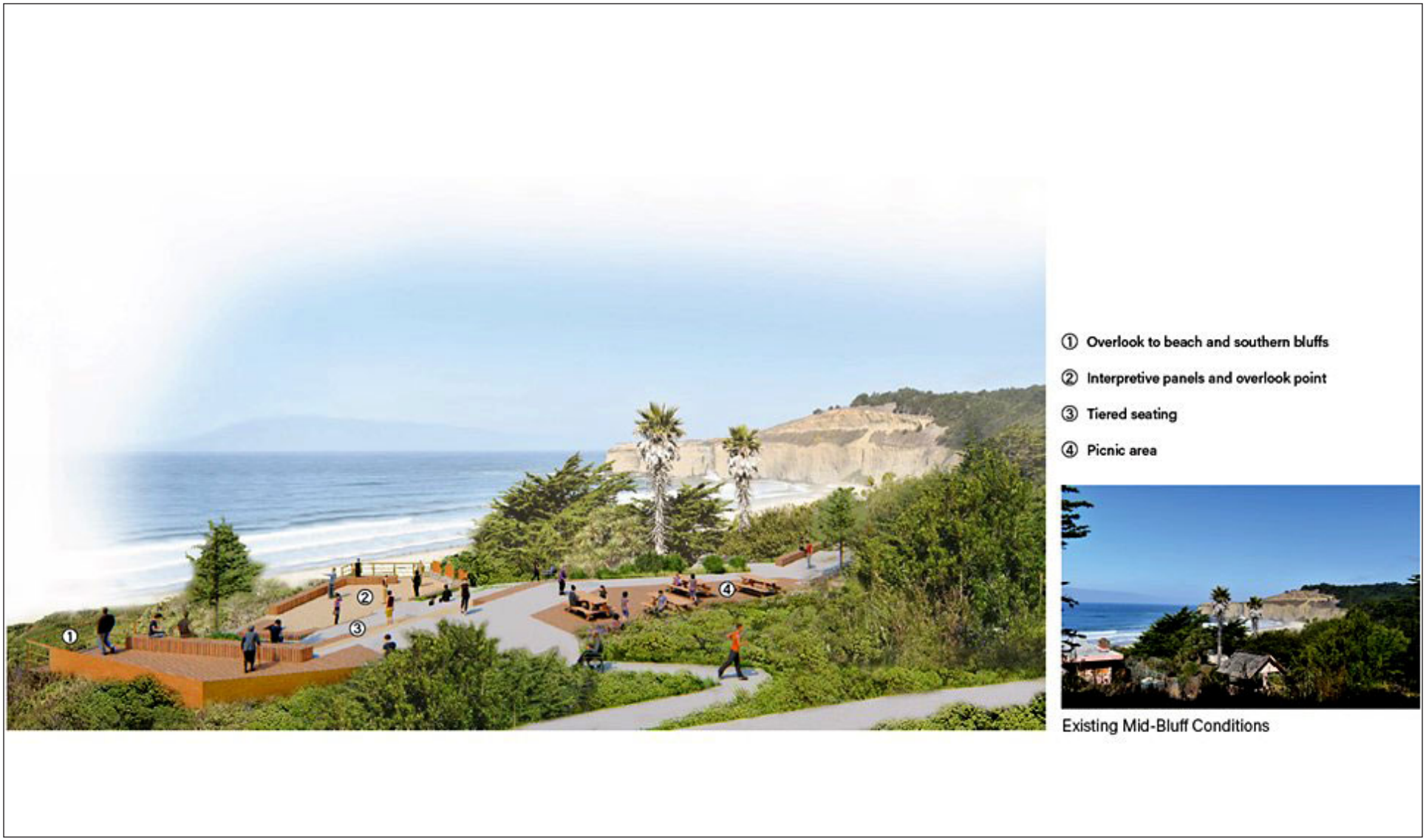

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FIGURE 7B

Tunitas Creek Beach Improvement Project Initial Study
Rendering - Mid Bluff

SOURCE: CSW-ST2 2021

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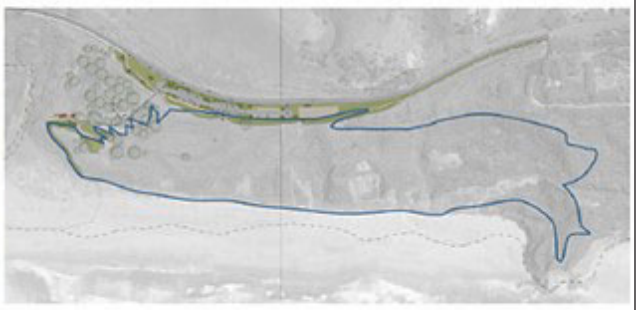

Full Loop Trail Around Tunitas Creek Beach

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FIGURE 8

Tunitas Creek Beach Improvement Project Initial Study
Rendering - Proposed Loop Trail

SOURCE: CSW-ST2 2021

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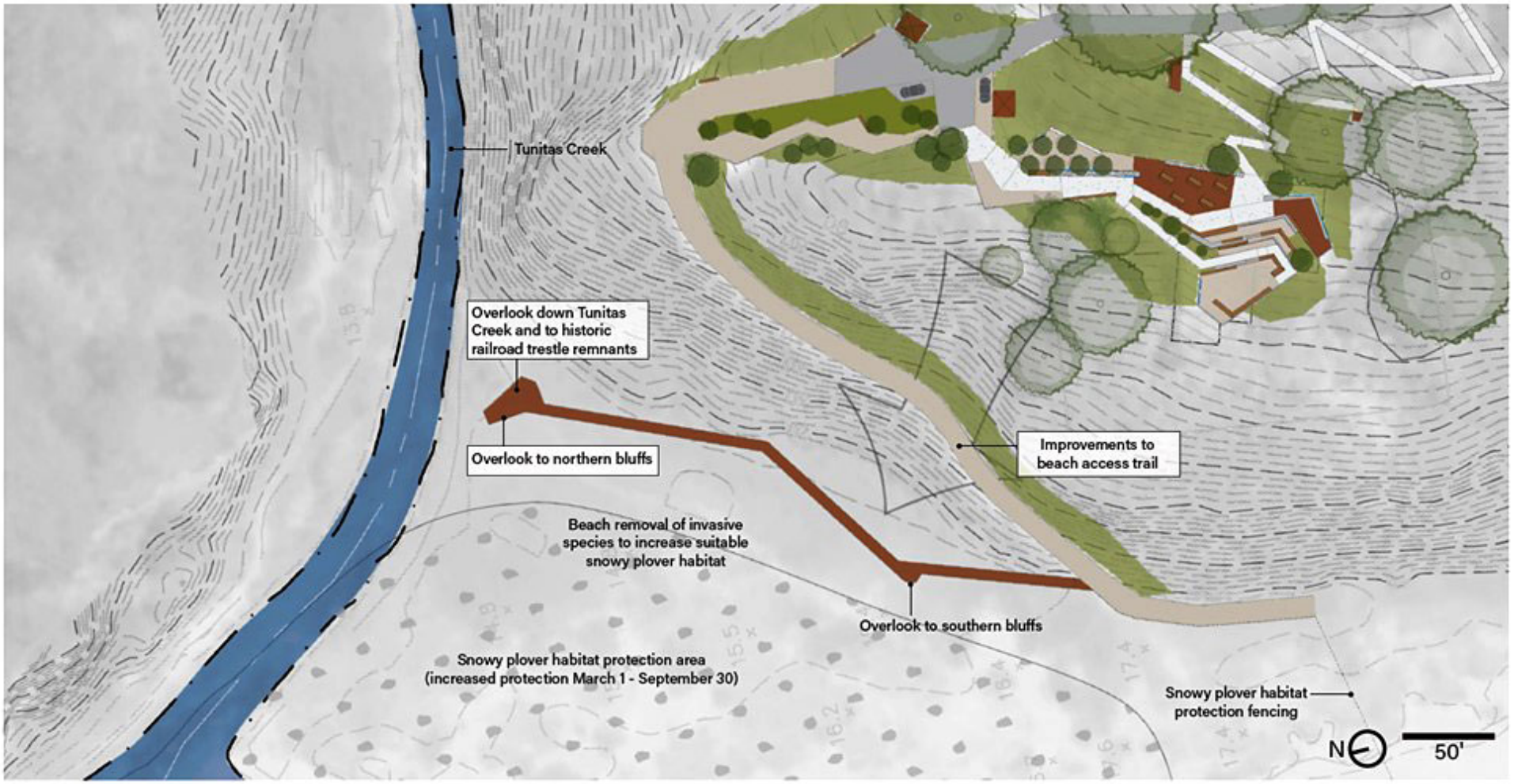

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FIGURE 9

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SOURCE: CSW-ST2 2021

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Tunitas Creek Beach Improvement Project Initial Study
Proposed Improvements - Beach

2.6.4 Utilities and Infrastructure

Utility improvements would be required to accommodate development of park facilities and improvements. Proposed utility infrastructure improvements are described below.

2.6.4.1 Stormwater. The project would be designed to manage stormwater in compliance with the County's Clean Water Program. In addition, runoff would be managed to prevent erosion, as well as reduce the potential to destabilize the bluff. The project would direct stormwater runoff from the parking area to a series of bioretention areas designed for pollutant removal. Stormwater from the accessible trail and mid-bluff area would be directed to adjacent vegetated areas, which would dissipate runoff and remove pollutants. The parking area stormwater runoff would be released at three outfalls that include dissipaters. These dissipaters slow the velocity of runoff to less than one foot per second, which prevents soil erosion.

The Tunitas Creak Beach project site is divided into five (5) watersheds (Figure 10[1]). Implementation of proposed improvements would result in an increase in peak discharge from the watershed that includes the northern area of the parking lot, path from the parking lot to the mid bluff and other mid bluff improvements. All other watershed peak discharge rates would remain the same or be reduced with implementation of the proposed project.

Proposed improvements would result in changes to the drainage patterns and the amount of impervious surface at the site. However, because stormwater from the parking lot area is captured, routed to bioretention areas, and piped to discharge at several locations along the bluff, runoff would be collected and conveyed at a faster rate than the remainder of the watershed. As a result, the peak discharge rates for the parking lot and the remaining watershed occur at different times within a storm event. The parking lot flows would be piped down the bluff, while stormwater in other areas of the watershed would flow in a less concentrated manner. The combined impact of the parking lot and the remaining watershed is less than the peak discharge rate of the predevelopment conditions.

In the existing condition, runoff from the informal parking area at the top of the bluff flows to the north and down the driveway towards the active landslide above Tunitas Creek. This condition likely resulted from the development of Highway 1 and the existing residence at the site. The proposed improvements would restore the pre-development drainage patterns by dispersing runoff across the bluff. The restoration of drainage patterns would reduce the amount of stormwater runoff being concentrated and discharged to the active slide area at Tunitas Creek. Figure 11 shows the proposed stormwater improvements.

2.6.4.2 Water. Other than the residence, proposed uses at the park would require minimal water and would likely be brought to the site by truck. These uses would include water to irrigate the drought tolerant landscaping until it establishes and water to clean the restrooms.

As required by County of San Mateo Local Coastal Program (LCP) policies, the ranger residence must have a reliable potable water supply. There is no municipal potable water source at the project site. The off-site spring, which previously supplied the on-site residence, no longer provides potable water. Previous investigations complete at the site identified no groundwater to depths as much as 400 feet below ground surface (bgs).

To provide potable water for the proposed ranger residence, the project proposes to extract raw water from Tunitas Creek, if the rights to extract water from Tunitas Creek can be obtained. This would likely be accomplished by a Small Domestic Permit as administered by the State of California Water Resources Control Board, which allows a maximum extraction of 4,500 gallons per day. The proposed water system would include installation of a well either adjacent to or within the creek to sufficient depth to provide the minimum water supply necessary to support the residence. Alternatively, the project would install an intake directly within the creek.

[1] Please note that the beach area, totaling approximately 14 acres, is not included in the watershed acreages shown in Figure 10, as this area is the discharge point for stormwater runoff and is not included in the discharge calculations prepared for the project site.

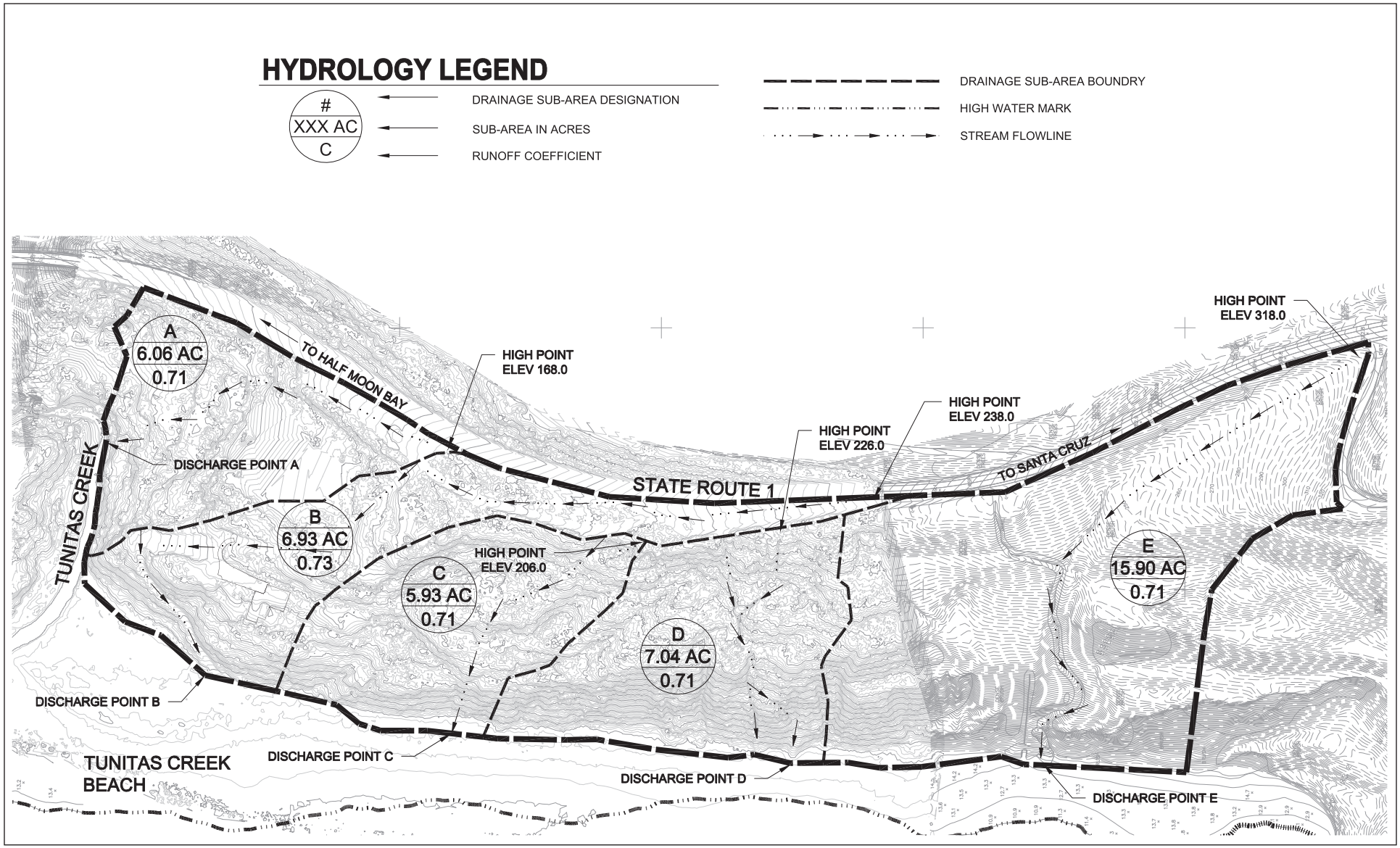

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FIGURE 10

NOT TO SCALE

Tunitas Creek Beach Improvement Project Initial Study
Existing Hydrology

SOURCE: CSW-ST2, 2021

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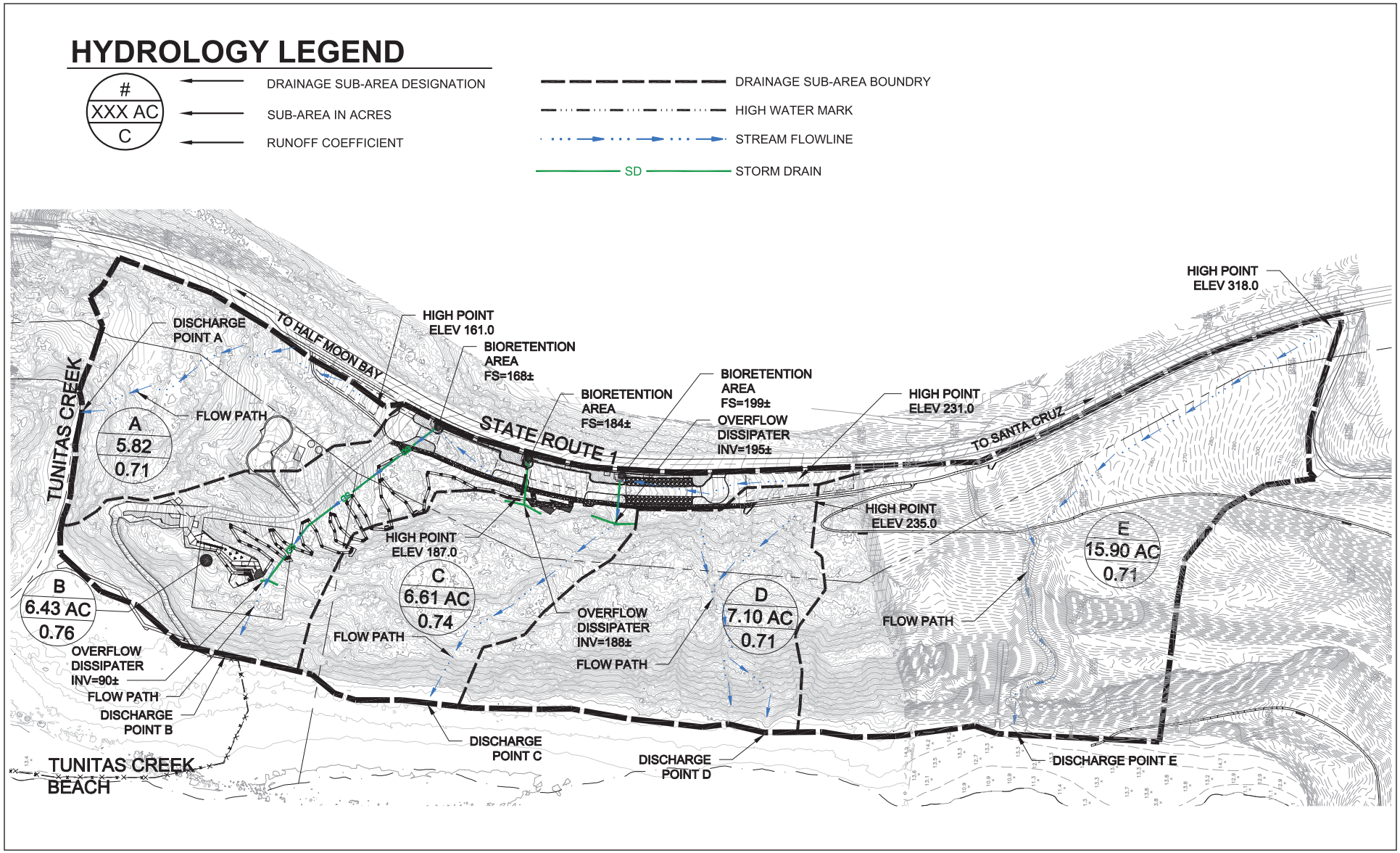

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FIGURE 11

NOT TO SCALE N

Tunitas Creek Beach Improvement Project Initial Study
Proposed Stormwater Improvements

SOURCE: CSW-ST2 2021

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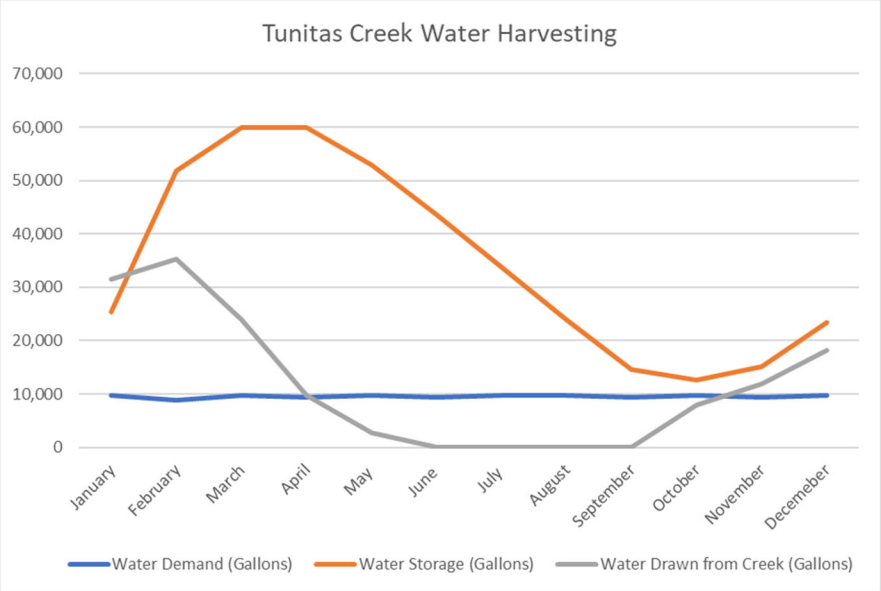
In accordance with LCP policies, the ranger residence would require approximately 315 gallons of potable water per day. Furthermore, in accordance with Section 4.68.190 of the San Mateo County Ordinance, the project site would need to store a minimum of 1,250 gallons of water at all times. In addition, approximately 2,355 gallons of water would need to be stored for emergency fire use, resulting in a total of 3,605 gallons of water for persistent storage.

According to the Water Supply and Demand Memorandum prepared by CSW,[2] a maximum of about 35,000 gallons of raw water would be taken from Tunitas Creek during the month of February and no water would be drawn from the creek during the dry season (June-September). The water taken is assumed to originate from the creek's ground water. An illustration of annual water consumption, storage, and draw from the creek assuming an initial storage in the month of January is 3,605 gallons is shown below.



From the well head, the raw water would be transported upslope via a pump system through a pipe anchored to the top of ground to an area adjacent to the residence where the water can be treated and stored. As the raw water may contain minerals, particles, bacteria, and or/ parasites, it would then be processed using a small treatment system. The treatment system would include a series of filters or reverse osmosis as well as either ultraviolet light or ozone to disinfect the raw water for potable use. The project would store the water for both fire and domestic use in two 30,000-gallon tanks that are about 30 feet in diameter and 15 feet tall (Figures 12A and 12B). The tanks are appropriately sized to store water during dry periods of the year. The fire water would serve as potable water to periodically flush the tanks.

Alternatively, the project may bring potable water to the site by truck. It is unclear, however, whether such uses is permissible under current California law. The project would require a maximum of two water trucks with a capacity of 5,000 gallon each to supply the residence each month.

2.6.4.3 Wastewater. The new public restrooms would include vaults for storage of wastewater. The wastewater would then be removed by truck and disposed of at the nearest wastewater treatment facility. The Parks Department currently provides this service for its restrooms at other parks within the County. On average, the Parks Department removes wastewater from a typical 500-gallon storage tank serving a restroom monthly. Wastewater generated by the public restroom would be variable and based upon visitors to the park. The Parks Department estimates the average wastewater demand to be 150 gallons per week for the public restrooms.

[2] CSW/Stuber-Stroeh Engineering Group, Inc. 2020. Water Supply and Demand for Tunitas Creek Beach Improvements. November 6.

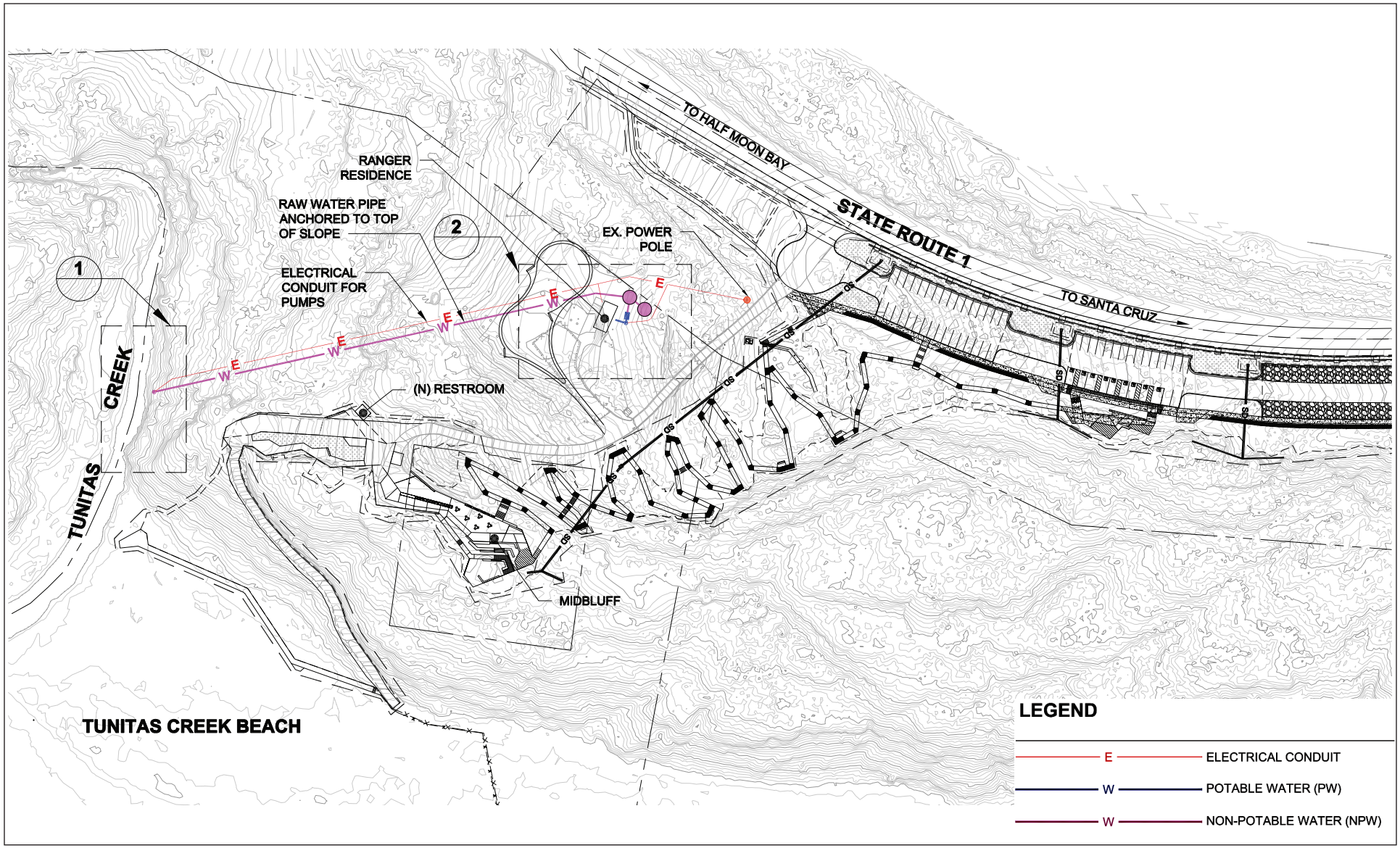


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FIGURE 12A

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SOURCE: CSW-ST2, 2021

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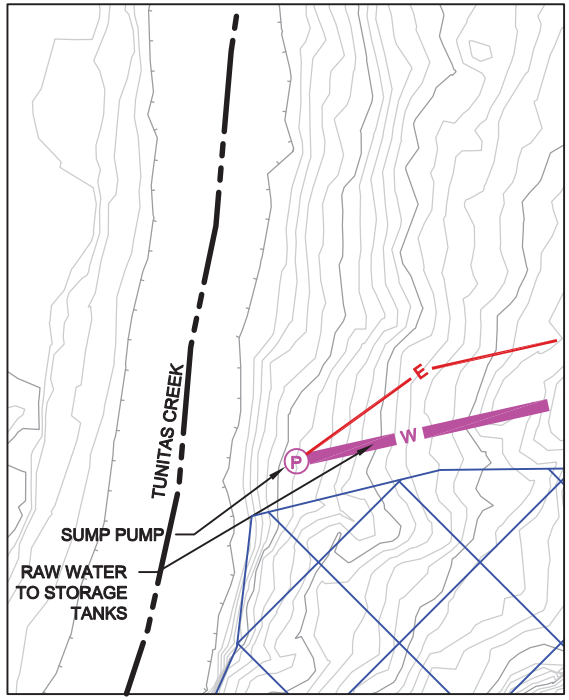
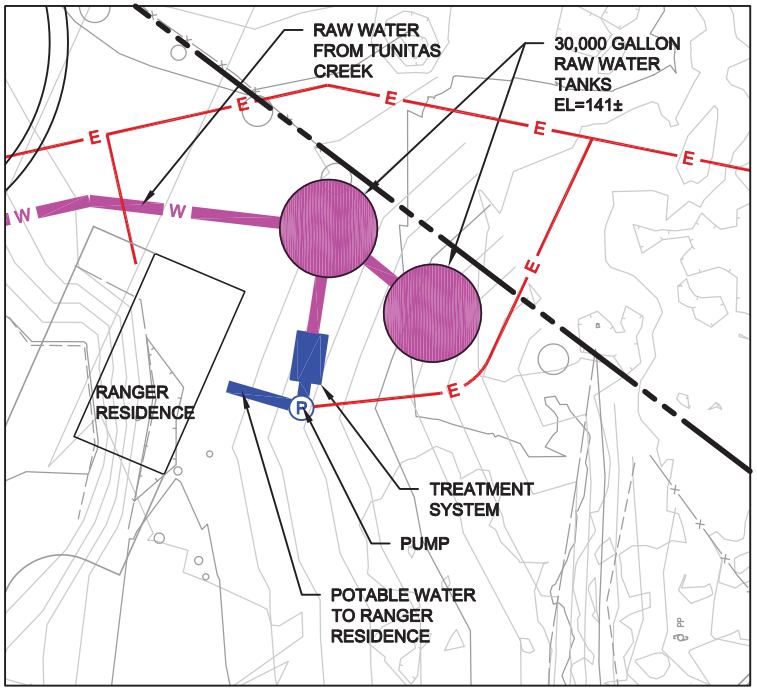
Tunitas Creek Beach Improvement Project Initial Study
Proposed Water Supply System



1 SUMP PUMP AT CREEK ENLARGEMENT



2 WATER TANK ENLARGMENT

LEGEND

- E — ELECTRICAL CONDUIT
- W — POTABLE WATER (PW)
- W — NON-POTABLE WATER (NPW)
- (P) — PUMP

LSA

FIGURE 12B

NOT TO SCALE

SOURCE: CSW-ST2, 2021

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Tunitas Creek Beach Improvement Project Initial Study
Proposed Water Supply System - Enlargement

The residence would generate approximately 315 gallons of wastewater daily. The County would consider installing a septic system to treat wastewater consistent with the requirements of San Mateo County's Environmental Health Department. If it is found infeasible to develop a septic system, the wastewater would be collected in a vault and disposed in a wastewater treatment facility similar to the public restroom. In this case, the total volume of wastewater generated by both the public restrooms and ranger residence are anticipated to be about 2,400 gallons per week.

2.6.4.4 Utility Undergrounding. The existing overhead electrical and communications lines along the top of the bluff would be relocated and placed underground to enhance scenic vistas at the project site.

2.6.4.5 Electrical Service. To accommodate the development, the project would install new electrical conductors to support vehicle charging stations, the ranger residence, shed, and lighting for the access path to the mid bluff. This may require either upsizing the existing 400 ampere 120/240 volt electrical service at the site or adding a secondary service from Pacific Gas and Electric.

2.6.5 Habitat Restoration

As part of the proposed project, invasive species would be removed within the project limits to the maximum extent feasible. A component of the invasive species removal includes Eucalyptus and Palm trees varying from less than 1 inch to more than three feet in diameter that are located within the project area. All areas disturbed by grading activities would be restored using a hydroseed with a seed mix appropriate for coastal San Mateo County. In addition, as described above in Section 2.6.1, as part of the proposed project, existing trails that have been cut into the bluff would be blocked from access with fences, installation of signage for habitat restoration, planting of native species, and installation of erosion control.

2.5.6 Project Construction

The duration of construction is anticipated to require approximately 6 months. However, due to environmental resources and other restrictions that limit the time of construction, the work may be completed over a two-year period. Construction would require use of standard equipment to complete the grading, slope stabilization, and related park amenities. The following summarizes the equipment used for the various elements and anticipated duration:

Site Clearing, Slope Stabilization, and Rough Grading – 12 week duration

- Bulldozer Caterpillar D5 or similar
- Excavator Caterpillar 325 or similar
- Soil Compactor Caterpillar 815 or similar
- Scraper Caterpillar 623k or similar
- Off highway truck Caterpillar 725 or similar
- Water truck

Utilities and General Site Work – 10 week duration

- Backhoe Caterpillar 415 or similar
- Skidsteer Caterpillar 289D3 or similar
- Mini Excavator Caterpillar 301.8 or similar
- 480 Trail Dozer Seco or similar
- Water truck

Final site preparation including installation of the prefabricated ranger residence, restroom, and ranger shed and paving – 4 week duration

- Motor Grader Caterpillar 120 or similar
- Aggregate base Compactor Caterpillar CS10GC or similar
- Asphalt Paver Caterpillar AP355F or similar
- Two Asphalt Rollers Caterpillar CB36B or similar
- Water truck

Construction would occur daily during daylight hours, from approximately 7:30 a.m. to 5:00 p.m. Construction staging would occur on the project site. Construction workers, equipment, and deliveries would access the site via Highway 1. During project construction, the top bluff would be closed to public access. Fencing would be installed along the perimeter of the construction area, including along portions of the beach that would be affected by construction activities. Although the park site is currently closed to the public, visitors currently access the beach from the informal parking area along Highway 1. However, the public would not be able to access the beach from the top of the bluff throughout the approximately 6-month construction period.

The project would require earthwork to facilitate construction of the parking lot, pathways and related amenities. If the pathway to the beach is repaired by grading, the total cut would be 14,500 cubic yards (CY) and the fill would be 10,500 CY, resulting in 4,000 CY of export requiring approximately 400 truck trips from the project site. If the pathway to the beach is repaired by retaining wall, the total cut would be 10,000 CY and the fill would be 3,500 CY resulting in 6,500 CY of export requiring approximately 650 truck trips from the project site. All volumes presented are in-place quantities.

The average depth of excavation to complete the trail and parking improvements would be 4 feet. If the project repairs the landslides along the trail to the beach by grading, this would result in cuts of 10, 12, and 15 feet for the slides labelled as 1, 2, and 3 in Figure 12C. The project would rebuild the slope in a series of compacted buttress fills that slightly extend the toe of the slope improving its stability. Buried within the fill, the project would install geogrids to help stabilize the slope. The geogrid would be composed of either high density polyethylene or steel coated in polyethylene.

For the landslide repair, the contractor would store a total of 5,000 cubic yards of soil in the beach area near the toe of slope in the area where invasive plants will be removed. Prior to stockpiling soil, the contractor would clear invasive vegetation from the area. . As the slides would be individually repaired, the maximum amount of soil stored on the beach at any one time would be as shown in Figure 12C for a period of about five days. Once removed, the beach would be re-graded to the existing condition.

2.6.7 Park Operation, Maintenance and Management

Parks Department staff would operate Tunitas Creek Beach Park consistent with current Parks Department regulations, as outlined in Chapter 3.68, County Park and Recreation Area Rules, of the San Mateo County Ordinance Code. Operating hours for the proposed park would be consistent with County Parks and Recreational Policy Number 400. Consistent with current Parks Department policies, the proposed park would open at 8:00 a.m. every day and close as follows:

- December to February: 5:00 p.m.
- March 6:00 p.m. (before Daylight Savings Time starts)
- March 7:00 p.m. (after Daylight Savings Time starts)
- April to August 8:00 p.m.
- September 8:00 p.m. (through Labor Day)
- September 7:00 p.m. (after Labor Day)
- October 7:00 p.m. (first week of October)

Parks Department staff would regulate access to the site. However, the beach area located below the Mean High Tide Line is public trust land, which cannot be closed to public access.

Parks Department staff would operate and maintain the park for the public's use consistent with the *Routine Maintenance Program Manual* (Maintenance Manual) dated July 2020. This manual provides guidance for protection of biological resources, vegetation management, and repairs to roads and trails. Primary maintenance activities include vegetation management and sediment removal along roads, trails, ditches, swales, and low impact development features; culvert repair/replacements; bank stabilization; and maintenance and cleaning of park facilities.

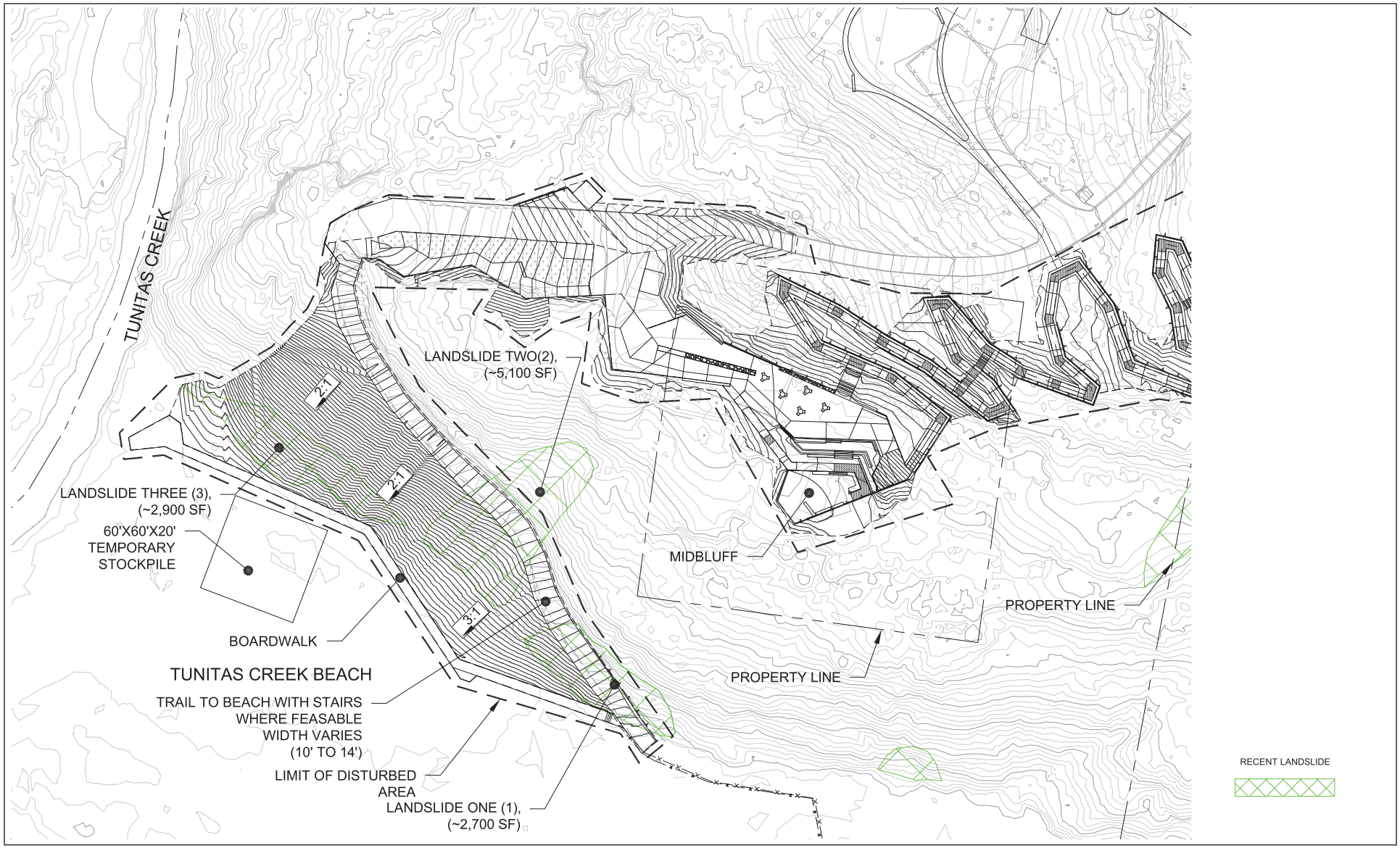

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FIGURE 12C

NOT TO SCALE

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Tunitas Creek Beach Improvement Project Initial Study
Proposed Slope Repair

SOURCE: CSW-ST2, 2021

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The Maintenance Manual identifies maintenance objectives, outcomes, and standards; describes natural resources in the Program area and specific conditions at sites where routine maintenance is anticipated; provides guidance and updated Best Management Practices (BMPs) to avoid and minimize potential environmental impacts during maintenance; describes countywide impact mitigation approaches; and details administration and reporting activities. The Maintenance Manual underwent CEQA review and the County certified the Final Environmental Impact Report in December 2020.

As described above, a full time Parks Department employee may reside on the site to act as a caretaker. Should it not be feasible to install the residence, a video surveillance system would be installed to notify the Parks Department staff of intrusion to the site during non-operating hours. Notification of intrusion would be routed to Parks Department staff and the County Sheriff's Office.

2.6.8 Best Management Practices and Conservation Measures

During construction, operation and maintenance of the proposed park, standard BMPs identified in the Maintenance Manual would be implemented to minimize impacts on environmental resources; these BMPs are incorporated by reference and included in Appendix A. Use of these preventative measures are an integral part of the maintenance procedures followed by the County.

In addition, the Parks Department and the project contractor would implement standard stormwater and erosion control BMPs, as outlined in the County of San Mateo Watershed Protection Program's Maintenance Standards (2004), the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) Construction BMPs (2021), the California Stormwater Quality Association Stormwater Best Management Practice Handbook (2003), and Caltrans' Construction Site Best Management Practices (BMPs) Manual and the Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual. Implementation of these BMPs would be in compliance with the State Water Resources Control Board's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWG and 2012-0006-DWQ, NPDES No. CAS000002) (Construction General Permit).

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CHAPTER 3. ENVIRONMENTAL EVALUATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

None of the environmental factors listed below would be potentially affected by this project; all impacts would be less than significant or less than significant with mitigation, as indicated by the checklist in Chapter 3. Sources used for analysis of environmental effects are cited in the checklist and listed in Chapter 4 References.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards/Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ 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 project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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

mario nastari
Signature

09/01/21
date

Mario Nastari
Printed Name

San Mateo County Parks Department
for

EVALUATION OF ENVIRONMENTAL IMPACTS

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

2. All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

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

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level mitigation measures.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.

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

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

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

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

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

9. The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL SETTING AND IMPACTS

The following section describes the environmental setting and identifies the environmental impacts anticipated from implementation of the proposed project. The criteria provided in the CEQA environmental checklist was used to identify potentially significant environmental impacts associated with the project. Sources used for the environmental analysis are cited in the checklist and listed in Chapter 4 of this Initial Study.

3.1. AESTHETICS

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Except as provided in Public Resources Code Section 21099, would the project:					
a) Have a substantial adverse effect on a scenic vista?			X		1, 2, 37
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway			X		1, 2, 37
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X		1, 2, 37
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X		1, 2

Explanation
The project site is located along a shoreline bluff, which affords panoramic views of the Pacific Ocean, Tunitas Creek Beach, and the natural landscape along this portion of the San Mateo County coast. Figures 13 through 17 illustrate the existing views from some key view corridors at the project site. As shown in Figure 13, the view from the existing vehicle turnout in the Top Bluff zone provides scenic views of the beach, as well as the bluffs to the north. The existing overhead utility lines and dense shrub vegetation along the bluff edge are also prominent visual features. Like View Corridor 1, View Corridor 2 (Figure 14) provides scenic views of the beach and the vegetation along the bluff edge.

View Corridor 3 (Figure 15) shows the existing viewshed, moving away from the Top Bluff to the Mid Bluff area along the existing paved driveway. The mixture of ornamental and native trees are visible in this portion of the project site, as well as the existing overhead utility lines. View Corridor 5 (Figure 16) represents the primary view from the Mid Bluff area to the north toward Tunitas Creek. This figure illustrates the views for visitors as they use the existing gravel path to move from the Mid Bluff area to the beach. View Corridor 8 (Figure 17) shows existing views to the north, south, and east from the beach.

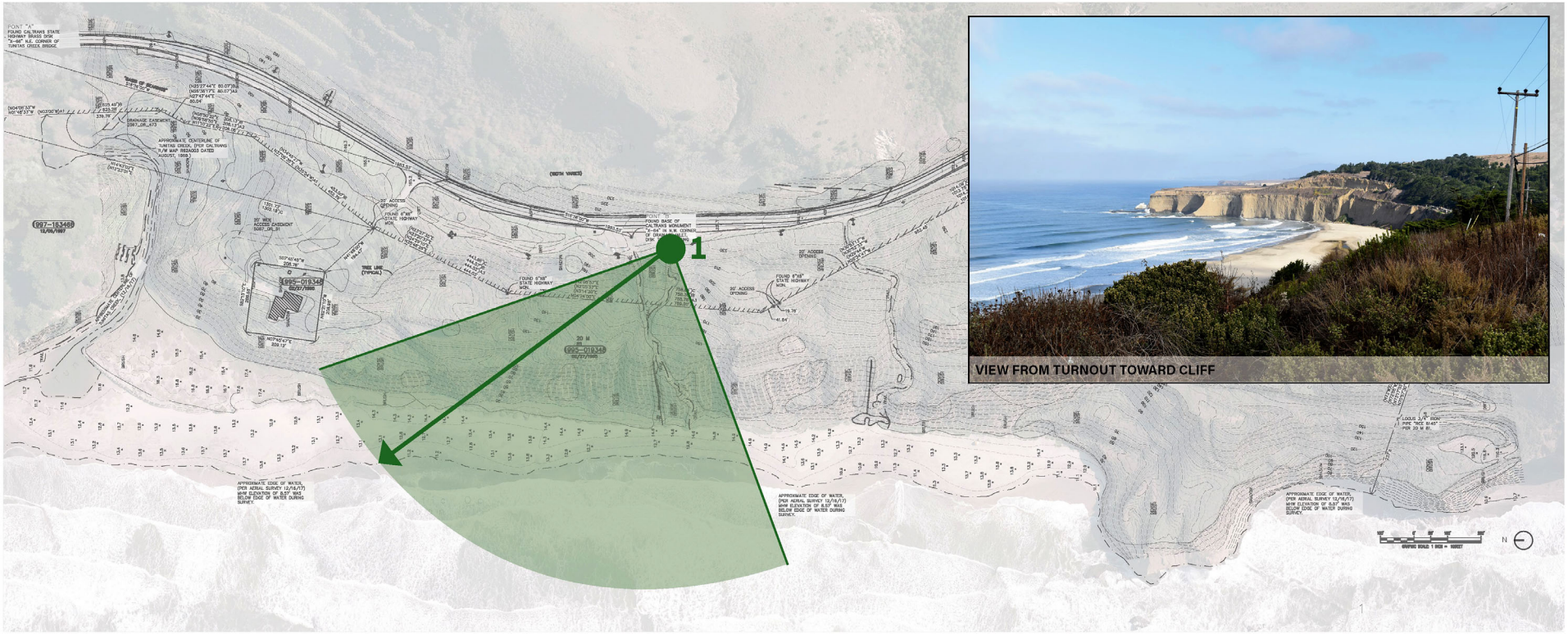

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FIGURE 13

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FEET

Tunitas Creek Beach Improvement Project Initial Study

View Corridor 1

SOURCE: CSW-ST2 2021

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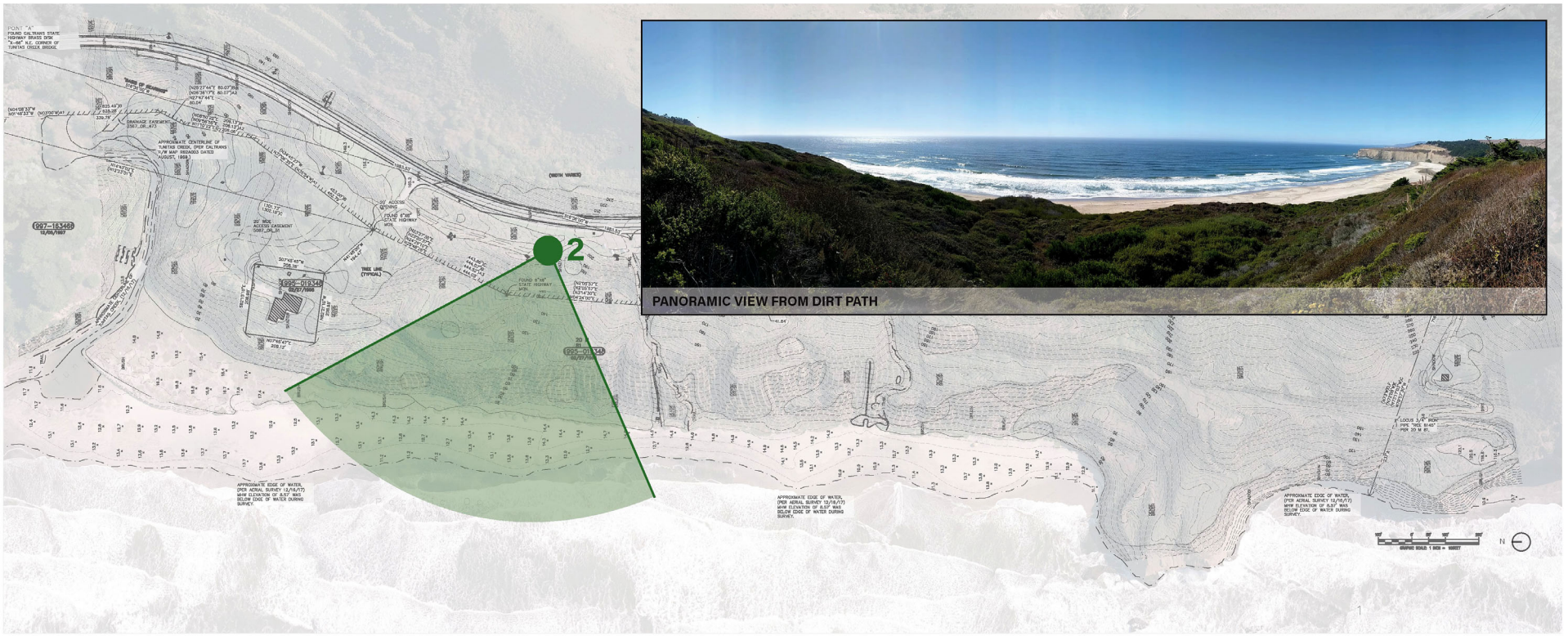

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FIGURE 14

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Tunitas Creek Beach Improvement Project Initial Study

View Corridor 2

SOURCE: CSW-ST2 2021

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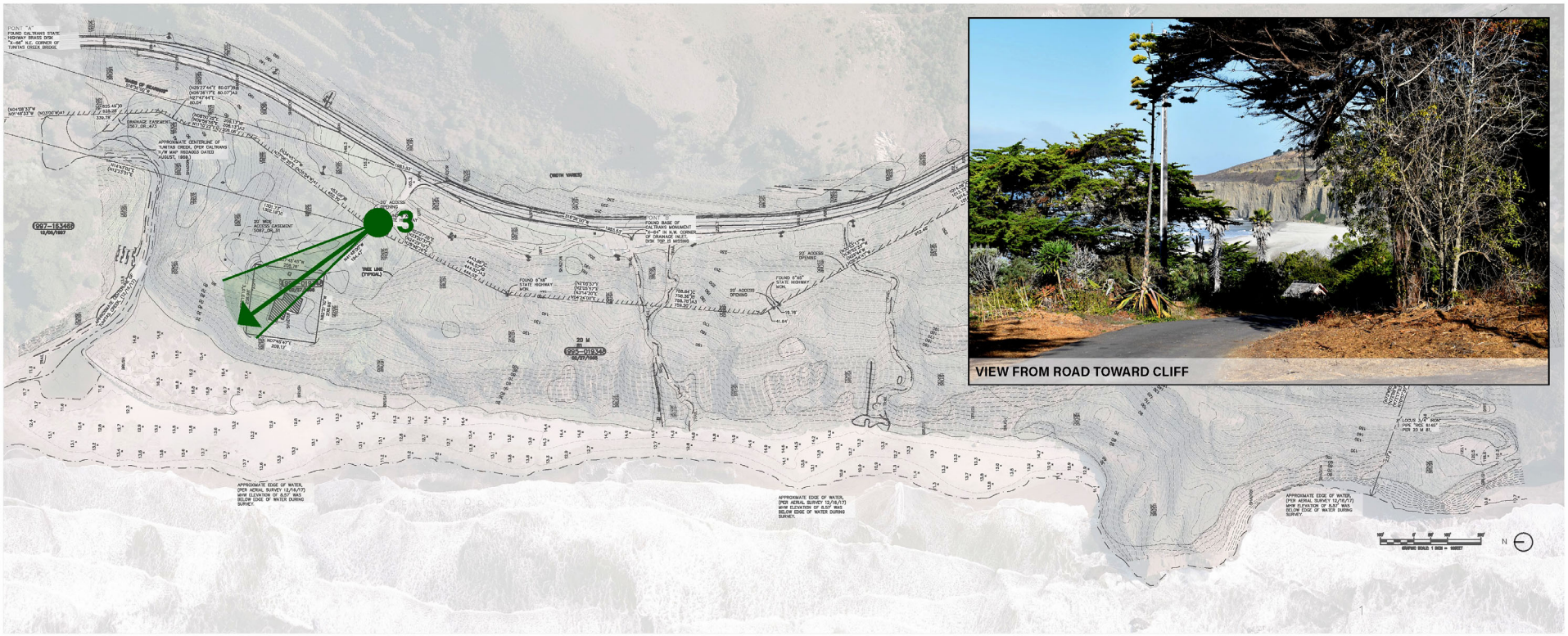

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FIGURE 15

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SOURCE: CSW-ST2 2021

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Tunitas Creek Beach Improvement Project Initial Study

View Corridor 3

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FIGURE 16

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Tunitas Creek Beach Improvement Project Initial Study

View Corridor 5

SOURCE: CSW-ST2 2021

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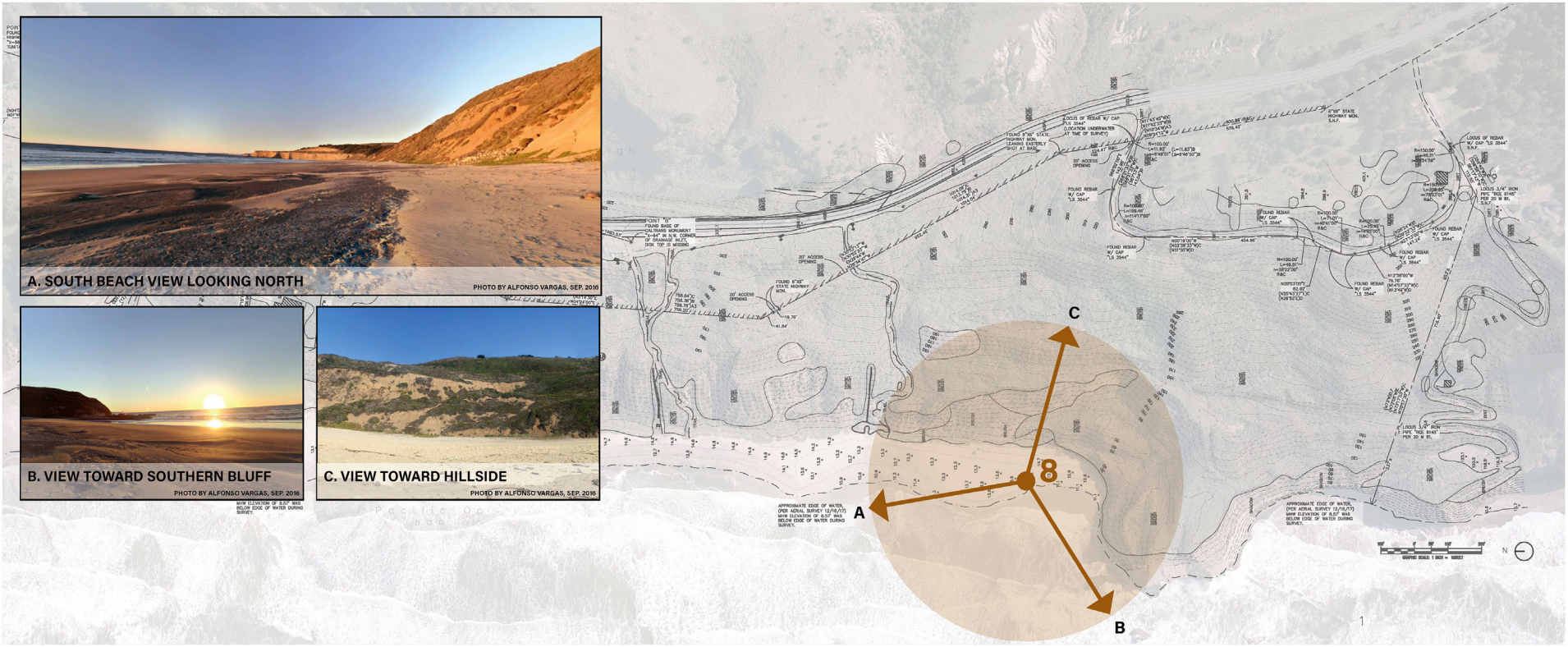

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FIGURE 17

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Tunitas Creek Beach Improvement Project Initial Study

View Corridor 8

SOURCE: CSW-ST2 2021

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The project site offers multiple viewsheds with scenic views of the Pacific Ocean, the beach and the shoreline bluffs. Existing features that detract from these scenic views include overgrown and invasive, non-native vegetation, unsafe or unsanctioned social trails that erode the bluff, overhead utilities such as telephone poles and wires, and cars parking near the edge of the bluff in the existing dirt pullout.

a) **Less-Than-Significant Impact**. A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. The San Mateo County General Plan contains goals and policies to protect the visual quality in the County, including preserving views of natural features, including shorelines and public ocean views, and regulating the location and siting of structures in rural areas to encourage positive visual quality in relation to the scenic character of the natural landscape. According to the San Mateo County General Plan, Highway 1 is a designated Scenic Corridor.

As described above, the project site is located along a shoreline bluff, which affords panoramic views of the Pacific Ocean, Tunitas Creek Beach, and the natural landscape along this portion of the San Mateo County coast. As required by the General Plan, these major scenic resources should be considered when evaluating nearby development proposals and treated as aesthetic opportunities, which should be incorporated into the design of any new development.

Above-grade improvements associated with the proposed project would include railings, a restroom, ranger shed, and landscaping; however, these improvements would be low-lying. The project also includes a proposed ranger residence, two large water tanks, and a large paved parking area along Highway 1. The majority of improvements (e.g., paved parking area, trails) would be at-grade. Due to site topography and dense vegetation, limited views of proposed improvements would be available from public vantage points. The water tanks and ranger residence may be visible from southbound Highway 1, north of the project site; however, because these facilities would be located downslope from the roadway and largely screened by vegetation, they are not anticipated to limit scenic views. Proposed improvements would not include any tall structures or landscaping that would reduce, obstruct, or degrade scenic vistas. In addition, the proposed project would include the removal of the existing structures and associated debris on the site and the undergrounding of existing overhead utility lines along the bluff, which would improve the project area's overall visual appearance. The proposed project has been designed to promote scenic views, by providing improved public access and overlooks to take advantage of existing view corridors. The proposed project would increase public access to the area, affording visitors scenic views from various locations within the project site. The proposed project would not result in substantial adverse effects on scenic vistas; this impact would be less than significant.

b) **Less-Than-Significant Impact**. California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. A highway may be designated as "scenic" based on the expanse of the natural landscape that can be seen by travelers, the scenic quality of that landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. A Scenic Corridor is described as the land generally adjacent to and visible from such a highway and is usually limited by topography and/or jurisdictional boundaries. In addition to State Highways, County roads are also eligible for scenic designation.

Access to the project site is provided by Highway 1, which is an officially-designated State scenic highway. Some of the project improvements would be constructed within the highway right-of-way. As described above, the proposed project would install various park improvements to improve public access to the beach. From Highway 1, visible elements of the proposed project would include the paved parking area, overlook, drop off area, and associated landscaping. As described above, the proposed ranger residence and water tanks may be visible from southbound Highway 1, north of the project site; however, because these facilities would be located downslope from the roadway and largely screened by vegetation, installation of these facilities is not anticipated to significant damage scenic resources along Highway 1. The proposed project would also include demolition of the existing residence and removal of the cabins on the site; however, as described further in Section 3.5, Cultural Resources, the existing structures on the site do not constitute a historical resource for the purposes of CEQA nor are they currently visible from Highway 1. Implementation of the project would not substantially damage scenic resources, including but not limited to trees, rock outcroppings,

and historic buildings, within scenic highway corridors. As part of the proposed project, existing earthen berms along the bluff would be removed and existing overhead utility lines would be undergrounded, which would enhance views from Highway 1. Therefore, impacts related to scenic resources would be less than significant.

c) **Less-Than-Significant Impact**. Goals and policies in the San Mateo County General Plan promote the preservation of the County's rural and natural character and the regulation of development in rural areas. The project site is located along the shoreline, west of Highway 1 in a rural area of the County. Publicly-accessible vantage points near the project site consist of turnouts and parking areas along Highway 1. Views of the beach, shoreline bluffs and the Pacific Ocean are available at the project site.

Implementation of the proposed project would include construction of passive park improvements to improve public access to Tunitas Creek Beach. Development of the proposed project would change the existing visual character of the project area by removing the existing structures and associated debris and redeveloping the project area with park improvements. The proposed project would result in the development of park facilities, including a paved parking area, trails, overlooks, restroom, picnic areas, restroom, and landscaping, enhancing the visual character of the project site.

The proposed project would represent an improvement to the visual quality and character of the project area through removal of existing structures, which are currently in disrepair, elimination of the earthen berms, which block existing views of the beach from the Top Bluff, and relocation/undergrounding of existing overhead utility lines that impair scenic views. Consistent with San Mateo County General Plan policies related to visual resources, structures and paved areas have been designed to conform with the natural vegetation, landforms and topography of the site, so that they are compatible with the pre-existing character of the site. Vegetation removal would be limited to the extent feasible, and would largely include removal of invasive, non-native species. In addition, landscaping would be provided in the parking area to provide screening of the parking area from Highway 1 and in other areas to enhance the visual quality of the site. Therefore, the proposed project would not degrade the existing visual character or quality of the project area and its surroundings, and this impact would be less than significant.

d) **Less-Than-significant Impact**. Surrounding land uses consist primarily of undeveloped open space, and rural residential uses. Light sources in the project vicinity include lights associated with nearby residences, streetlights on Highway 1, and vehicle headlights/taillights. Daytime sources of glare include reflections off light-colored surfaces and windows.

The proposed park would operate in accordance with County Parks and Recreational Policy Number 400, which is generally during daylight hours**.** As part of the proposed project, pedestrian-scaled lighting would be provided along the ADA-pathway to assist users exiting the park in the evening. Light levels in the park would be kept low after hours to provide for safety/security, but are not intended to promote use of the park after the park is closed. Motion sensors would be installed to intensify light levels when movement is detected. Light associated with the ranger residence would be similar to existing rural residential uses in the project vicinity.

Consistent with County requirements, all lighting would be cast downward and be at no more than both the minimum height required and the power necessary for the proposed use. Light fixtures would be directed downward, so that no on-site light fixture would directly illuminate any off-site areas. With adherence to these requirements, the proposed project would not create a new source of substantial light or glare, such that day or nighttime views in the area would be affected. This impact would be less than significant.

3.2. AGRICULTURAL AND FOREST RESOURCES

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X	2, 14, 37
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X	2, 14, 37, 40
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?				X	2
d) Result in the loss of forest land or conversion of forest land to non-forest uses?				X	2
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X	2

Explanation

a) **No Impact**. The project site is located along a shoreline bluff near existing rural residential and open space uses. No agricultural uses are located within the project site. As described in Section 2.4.3, lands to the east of Highway 1 consists of actively grazed public open space and lands to the south, and north include established ranches used primarily for beef cattle production and row crop production. The project area is classified as "Grazing Land" and "Other Land" by the State Department of Conservation; therefore, the proposed project would not involve the conversion of agricultural land to a non-agricultural use. The proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use and there would be no impact.

b) **No Impact**. The project site is zoned RM-CZ/CD **-** Resource Management-Coastal Zone District/Coastal Development District/Coastal Development District and PAD/CD - Planned Agriculture District/Coastal Development District on the County's zoning map. The project area is not subject to a Williamson Act contract. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and the proposed project would have no impact.

c) **No Impact**. The project site is located within a shoreline bluff area and is zoned RM-CZ/CD and PAD/CD on the County's zoning map. The proposed project would not conflict with the existing zoning for, or cause rezoning of, forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have no impact related to forest land, timberland, or timberland zoned Timberland Production.

d) **No Impact**. Refer to Section 3.2.c. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have no impact related to loss of forest land or conversion of forest land.

e) **No Impact**. Refer to Sections 3.2.a and 3.2.c. The project area is located within an existing shoreline bluff and would not result in the extension of infrastructure into an undeveloped area, the development of urban uses on a previously undeveloped greenfield site, or other physical changes that would result in the conversion of farmland to non-agricultural uses or forest land to non-forest uses. The proposed project would not adversely affect agricultural or forestry resources.

3.3. AIR QUALITY

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?			X		1, 5
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?		X			1, 5
c) Expose sensitive receptors to substantial pollutant concentrations?			X		1, 2, 5
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X		1, 2

Explanation
The proposed project is located in an unincorporated area of San Mateo County, and is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially. In San Mateo County, and the rest of the air basin, exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Within the BAAQMD, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM_{10}, $PM_{2.5}$), and lead (Pb) have been set by both the State of California and the federal government. The State has also set standards for sulfate and visibility. The BAAQMD is under State non-attainment status for ozone and particulate matter standards. The BAAQMD is classified as non-attainment for the federal ozone 8-hour standard and non-attainment for the federal $PM_{2.5}$ 24-hour standard.

a) **Less-Than-Significant Impact**. The applicable air quality plan is the BAAQMD 2017 Clean Air Plan, which was adopted on April 19, 2017. In addition, the Regional Climate Protection Strategy is included in the 2017 Clean Air Plan, which identifies potential rules, control measures, and strategies that the BAAQMD can pursue to reduce greenhouse gases throughout the Bay Area. The 2017 Clean Air Plan/Regional Climate Protection Strategy serves as a roadmap for the district to reduce air pollution and protect public health and the global climate. The 2017 Clean Air Plan also includes measures and programs to reduce emissions of fine particulates and toxic air contaminants.

Consistency with the 2017 Clean Air Plan is determined by whether or not the proposed project would result in significant and unavoidable air quality impacts or hinder implementation of control measures (e.g., excessive parking or preclude extension of transit lane or bicycle path). The proposed project, as indicated in the analysis that follows, would not result in significant operational or construction-period emissions. Further, the proposed project does not conflict with the goals of the Clean Air Plan in that the project would improve

the existing site to provide safe public access to the beach. The proposed project would not conflict with any of the control measures identified in the Clean Air Plan or measures designed to bring the region into attainment. Additionally, the proposed project would not increase the population, or result in a significant increase in vehicle trips or vehicle miles traveled, as described in Section 3.17, as the site is already accessed via the informal parking area along Highway 1. The proposed project would not hinder the region from attaining the goals outlined in the Clean Air Plan. Therefore, the proposed project would not inhibit or disrupt implementation of any control measures from the applicable Clean Air Plan and impacts would be less than significant.

b) **Less-Than-Significant Impact With Mitigation Incorporated**.. The following sections describe the proposed project's construction- and operation-related air quality impacts.

Construction Emissions. During construction activities, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by grading, clearing, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and toxic air contaminants (TACs), such as diesel exhaust particulate matter.

Construction of the proposed project would include site clearing, slope stabilization, and rough grading, utilities and general site work, and final site preparation and paving. Construction-related effects on air quality are typically the greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions (PM_{10}) would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The BAAQMD has established standard measures for reducing PM_{10} emissions. With the implementation of these Basic Construction Mitigation Measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts. Should the use of potable water not be possible due to drought conditions, the project would import recycled water from the wastewater treatment plant for use in dust control.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, VOCs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

The BAAQMD has developed screening criteria to provide lead agencies with a conservative indication of whether the proposed project would result in potentially significant air quality impacts. If all of the screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment of the proposed project's emissions. These screening levels are generally representative without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions.

For park land uses, the BAAQMD screening size for construction criteria pollutants is 67 acres. Since the total project site is approximately 58 acres, based on the BAAQMD's screening criteria, construction activities associated with the proposed project are not anticipated to exceed established thresholds. The BAAQMD also requires the implementation of BAAQMD Basic Construction Mitigation Measures (Best Management Practices) to reduce construction fugitive dust impacts to a less-than-significant level.

Mitigation Measure AIR-1: In order to meet the BAAQMD fugitive dust threshold, the following BAAQMD Basic Construction Mitigation Measures shall be implemented:

- Any exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the County of San Mateo Parks Department regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Construction emissions associated with the project would be less than significant with implementation of Mitigation Measure AIR-1. Therefore, construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standards.

Operational Emissions. Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project.

As discussed above, the BAAQMD has developed screening criteria to determine whether a project requires an analysis of project-generated criteria air pollutants. If all the screening criteria are met by a proposed project, then the lead agency does not need to perform a detailed air quality assessment.

For park land uses, the BAAQMD screening size for operational criteria pollutants is 2,613 acres. Since the total project site is approximately 58 acres, based on the BAAQMD's screening criteria, the potential increase in intensity of use on the site is not anticipated to exceed established thresholds. Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standards.

In summary, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

c) **Less-Than-Significant Impact**. Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks. Individuals participating in passive and active recreational activities can also be considered sensitive to air quality emissions, although exposure is temporary and of limited duration.

The project site is located in a remote, rural location. The closest sensitive receptors include residential uses located over 2,000 feet from where project construction activities would occur. Due to this distance, construction of the proposed project would not expose sensitive receptors to airborne particulates or construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). In addition, construction contractors would be required to implement BAAQMD Basic Construction Mitigation Measures, as required by Mitigation Measure AIR-1, which would further reduce construction emissions and exposure to visitors using the existing beach area. Once the project is constructed, the project would not be a source of substantial emissions. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during project construction or operation, and potential impacts would be considered less than significant.

d) **Less-Than-Significant Impact**. During construction, the various diesel-powered vehicles and equipment in use on the site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered to be less than significant. In addition, once the project is operational, it would not be a source of odors. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and potential impacts would be considered less than significant.

3.4 BIOLOGICAL RESOURCES

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X			1, 2, 6, 11, 15, 18, 19, 24, 25, 31, 32, 33, 35, 41, 44, 46, 52, 54, 55
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		X			1, 2, 11, 24, 25, 38, 42
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X			1, 2, 24, 25
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?		X			1, 2, 25
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X		1, 2, 25, 38, 40, 41
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?				X	1, 2

Explanation
The following vegetation and cover types are present at the project site:

Northern (Franciscan) Coastal Scrub. Northern (Franciscan) coastal scrub is situated along steeply sloped bluffs of the project site. Plants observed in this community include coyote brush *(Baccharis pilularis*), California sagebrush (*Artemisia californica*), poison oak (*Toxicodendron diversilobum*), California coffeeberry (*Frangula californica*), sticky monkeyflower (*Mimulus aurantiacus*), lizard tail (*Eriophyllum staechadifolium*), black mustard (*Brassica nigra*), milk thistle (*Silybum marianum*), vetch (*Vicia* sp.), yarrow (*Achillea millefolium*), sowthistle (*Sonchus* sp.), fescue (*Festuca* sp.), and redstem filaree (*Erodium cicutarium*). Northern (Franciscan) coastal scrub at the project site would have a State ranking of S5, which means this community is demonstrably secure because of its Statewide abundance.

Wildlife observed within this vegetation type include: western fence lizard (*Sceloporus occidentalis*), California scrub-jay (*Aphelocoma californica*), golden-crowned sparrow (*Zonotrichia atricapilla*), white-crowned sparrow (*Z. leucophrys*), chestnut-backed chickadee (*Poecile rufescens*), and black phoebe (*Sayornis nigricans*).

Central Coast Riparian Scrub. Central coast riparian scrub is associated with an intermittent stream that is situated downslope from Highway 1. This community is dominated by arroyo willow (*Salix lasiolepis*), stinging nettle (*Urtica dioica*), California blackberry (*Rubus ursinus*), and poison oak. The riparian scrub intergrades with northern (Franciscan) coastal scrub habitat. The central coast riparian scrub at the project site has a State ranking of S4, which means this community is demonstrably secure due its Statewide abundance. The only wildlife species observed in this habitat type at the project site was the western yellow-bellied racer (*Coluber constrictor mormon*).

Red Alder Riparian Forest. Red alder riparian forest is associated with Tunitas Creek and is dominated by red alder (*Alnus rubra*) and arroyo willow. This community occurs in the northeastern portion of the project site. Understory plants observed in this forest include English ivy (*Hedera helix*), cape ivy (*Delairea odorata*), bigleaf periwinkle (*Vinca major*), common horsetail (*Equisetum arvense*), California mugwort (*Artemisia douglasiana*), California blackberry, and stinging nettle. Red Alder Riparian Forest at the project site has a State ranking of S4, which means this community is secure due its Statewide abundance.

Wildlife observed within this vegetation type include: ruby-crowned kinglet (*Regulus calendula*), brown creeper (*Certhia americana*), yellow-rumped warbler (*Setophaga coronata*), Townsend's warbler (*S. townsendi*), hermit thrush (*Catharus guttatus*), Pacific wren (*Troglodytes pacificus*), fox sparrow (*Passerella il*iaca), song sparrow (*Melospiza melodia*), and San Francisco dusky footed woodrat (*Neotoma fuscipes annectens*).

Monterey Pine Forest. Monterey pine forest habitat is situated in the northeastern section of the project site near the unoccupied house. This forest is dominated by mature Monterey pine (*Pinus radiata*) and Monterey cypress (*Hesperocyparis macrocarpa*) trees with understory plants, including California bedstraw (*Galium californicum*), lupine (*Lupinus* sp.), California blackberry, bigleaf periwinkle, and poison oak. The Monterey pine forest that occurs at the project site was planted and is a non-native stand and therefore would not be considered sensitive under CEQA.

Wildlife observed within this vegetation type include: red-tailed hawk (*Buteo jamaicensis*; soaring above), turkey vulture (*Cathartes aura*; soaring above), red-breasted nuthatch (*Sitta canadensis*), pygmy nuthatch (*S. pygmaea*), and chestnut-backed chickadee.

Coastal Terrace Prairie. A small patch of coastal terrace prairie is located within the central coast riparian scrub. Plants observed in this community include Pacific reed grass (*Calamagrostis nutkaensis*), sour grass (*Oxalis pes-caprae*), cutleaf geranium (*Geranium dissectum*), Douglas iris (*Iris douglasiana*), and fescue. The coastal terrace prairie at the project site has a State ranking of S2, which means it is considered a sensitive community under CEQA.

Coastal Strand and Coastal Dunes. The coastal strand is dominated by invasive ice plant (*Carpobrotus chilensis*), which is situated between the northern (Franciscan) coastal scrub and the coastal dunes. This community is more heavily concentrated toward the northern end of the site south of the mouth of Tunitas Creek. Other plant species observed in the coastal strand include saltgrass (*Distichlis spicata*), coastal sand verbena (*Abronia latifolia*), and beach morning glory (*Calystegia soldanella*).

The coastal dunes community occurs between the coastal strand and the beach and shoreline. Plants observed within the dunes include scattered patches of American dune grass (*Elymus mollis*), beachgrass (*Ammophila arenaria*), sea rocket (*Cakile* sp.), beach morning glory, coastal sand verbena, and ice plant. Portions of the coastal dunes at the project site have a State ranking of S2, and are therefore considered a sensitive community under CEQA.

Wildlife observed within these vegetation types include: great egret (*Ardea alba*), great blue heron (*Ardea herodias*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), black phoebe, raccoon (*Procyon lotor*) tracks, and gray fox (*Urocyon cinereoargenteus*) tracks. Additionally, a dead gray fox was observed on Highway 1 along the Tunitas Creek Bridge.

Streams. Tunitas Creek is a perennial stream that flows from King's Mountain to Tunitas Creek Beach and the Pacific Ocean. The lower portions of Tunitas , including the mouth of Tunitas Creek (also referred to Tunitas Lagoon), are located on or adjacent to the project site. The red alder riparian forest community is associated with Tunitas Creek. Wildlife species observed in proximity to Tunitas Creek included: mallard (*Anas platyrhynchos*), belted kingfisher (*Megaceryle alcyon*), San Francisco common yellowthroat (*Geothlypis trichas sinuosa*), black phoebe, and great egret. As described further below, the Central California Coast steelhead (*Oncorhynchus mykiss*) distinct population segment is known to occur in Tunitas Creek, where they could migrate to potential spawning habitat upstream of the project site.

One intermittent stream (which is not Tunitas Creek) flows parallel to Highway 1 within the project site. This portion of the channel is associated with the central coast riparian scrub community, which is dominated by arroyo willow and stinging nettle, and becomes an ephemeral stream further downstream. Additionally, two ephemeral streams were detected on the project site. One occurs along the steep slope and the other bisects the project site and is a continuation of the above-mentioned intermittent stream. This stream when dry is being used as an ad hoc trail to access Tunitas Creek Beach from the parking area along Highway 1.

Species observed on Tunitas Creek Beach and shoreline included: western snowy plover (*Charadrius nivosus nivosus*), osprey (*Pandion haliaetus*; flying over beach), California brown pelican (*Pelecanus occidentalis californicus*; flying over beach), western gull (*Larus occidentalis*), California gull (*L. californicus*), ring-billed gull (*L. delawarensis*), Heermann's gull (*L. heermanni*), Herring gull (*L. smithsonianus*), whimbrel (*Numenius phaeopus*), marbled godwit (*Limosa fedoa*), Hudsonian godwit (*L. haemastica*), American pipit (*Anthus rubescens*), and surf scoter (*Melanitta perspicillata*).

Coastal and Valley Freshwater Marsh. A small coastal and valley freshwater marsh is located in the northeast section of the project site. This marsh is situated under dense canopy cover and is adjacent to a larger marsh that is located outside of the project site.

Landscaped. Landscaped plants are growing around the existing unoccupied house on the project site. The landscaping is primarily comprised of planted ornamental plant species, including Mexican fan palm (*Washingtonia robusta*), silver dollar gum (*Eucalyptus polyanthemos*), bottlebrush (*Callistemon viminalis*), Peruvian pepper tree (*Schinus molle*), pride of madeira (*Echium candicans*), privet (*Ligustrum* sp.), lily of the Nile (*Agapanthus africanus*), rosemary (*Rosmarinus officinalis*), rose (*Rosa* sp.), krantz aloe (*Aloe aborescens*), stonecrop (*Sedum* sp.), agave (*Agav*e sp.), and invasive pampas grass (*Cortaderia jubata*). Species observed in the landscaped area include: Anna's hummingbird (*Calypte anna*), song sparrow, and chestnut-backed chickadee.

Developed. Developed areas at the project site include the existing paved driveway, parking lot, unoccupied house, and old cabins that are situated near the landslide area and just south of Tunitas Creek. Wildlife species observed in the developed area include: Townsend's big-eared bat (*Corynorhinus townsendii*).

a) **Less-Than-Significant with Mitigation Incorporated.** Based on the results of the database searches and observed habitat conditions, 58 special-status species (24 plants, 34 wildlife species) were evaluated as potentially occurring on or in the vicinity of the site (Table A). The California Natural Diversity Database (CNDDB) and CNPS Inventory listed additional special-status plants or wildlife as occurring within 5 miles of the site or within the nine-quad search region, but these species were eliminated from consideration based on the lack of suitable habitat (e.g., chaparral, vernal pools, salt marsh, serpentine rock outcrops) in the vicinity of the site.

Special-Status Plants. Based on the results of the literature review and reconnaissance-level survey, 24 special-status plant species have the potential to occur at the project site (Table A). One of these species, the coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*), which is a California Rare Plant Rank List 1B species, has been observed on the project site. In 2004, approximately 500 plants were mapped within seven different areas, including near the mouth of Tunitas Creek, within the small landslide in the red alder riparian forest, and in open areas within the northern (Franciscan) coastal scrub. This plant thrives in disturbed or eroded areas, such as road cuts, gullies, landslides, cliffs, and trails.

The special-status coastal marsh milk-vetch has been identified on the project site and suitable habitat is present for several other special-status plant species. If present, these species could be impacted by ground disturbance, vegetation removal, water system development, and other project construction activities. Potential impacts to these species can be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-1. This measure was adapted from the County of San Mateo Routine Maintenance Program Environmental Impact Report.

> **Mitigation Measure BIO-1:** To the extent feasible, the previously mapped CNDDB occurrences of the coastal marsh milk-vetch should be avoided and set back from the proposed project development by at least 50 feet.
>
> Prior to the initiation of construction activities, a qualified botanist shall conduct protocol-level surveys to verify the absence of the special-status plant species listed on Table A: Special-Status Species Evaluated for the Project of the Initial Study. The surveys shall be conducted in accordance with the CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. A series of pre-construction special-status plant surveys shall be conducted multiple times during the growing season to account for both early and late-blooming plant species. The surveys shall be conducted by a qualified biologist within the proposed project footprint and within a 50-foot buffer to allow for assessment of required avoidance setbacks from any special-status plants identified. The proposed project shall be at least 50 feet away from any special-status plant detected during pre-construction surveys. The previously mapped occurrences of coastal marsh milk-vetch shall be avoided and set back from the proposed project development by at least 50 feet.
>
> If special-status plants are found in the project site, the population size and occupied area of special-status plant populations identified during the field survey, and with potential to be impacted, will be estimated. A "population" will be defined as the group of individuals of a species present within a 0.10-mile radius. In addition, the population shall be photographed and flagged to maximize avoidance, as well as to estimate the percentage of the population affected. If feasible, the project shall be redesigned or modified to avoid direct and indirect impacts on special-status plant species.
>
> Special-status plants to be avoided shall be protected from disturbance by installing environmentally sensitive area fencing (orange construction barrier fencing or a suitable alternative). Protective fencing shall be installed under the direction of a qualified biologist as necessary to protect the plant and its habitat; where feasible, the environmentally sensitive area fencing shall be installed at least 50 feet from the edge of the population. The location of the fencing shall be shown on the site plans and marked in the field with stakes and/or flagging. The specifications shall contain clear language that prohibits construction activities, vehicle operation, material and equipment storage, and other surface disturbing activities within the fenced environmentally sensitive area.
>
> If impacts to special-status plants are unavoidable and less than 5 percent of a population would be impacted, prior to any ground-disturbing activities, the County shall preserve the seedbank within the impact area by removing and retaining the topsoil prior to the implementation of construction activities. Following completion of construction, the County shall monitor the impact area for two years. Any non-native invasive plant species occurring within this area during the monitoring period shall be removed under the supervision of a qualified biologist.

Table A: Special-Status Species Evaluated for the Project

Species	Status[1]	Habitat/Blooming Period	Discussion[2]
PLANTS			
Agrostis blasdalei Blasdale bentgrass	1B	Coastal bluff scrub, coastal dunes, and coastal prairie; sandy and gravely soil. Elevation: 5-150 m. Blooms: May-Jun	Suitable habitat present.
Astragalus nuttallii var. *nuttallii* Nuttall's milkvetch	4	Coastal bluff scrub, coastal dunes. Elevation: 0-100 m. Blooms: Jan-Nov	Suitable habitat present.
Astragalus pycnostachyus var. *pycnostachyus* Coastal marsh milk-vetch	1B	Wet hollows of coastal dunes, coastal scrub, and in marshes and swamps of coastal salt marsh and streamsides. Elevation: 0-30 m. Blooms: Apr-Oct	Suitable habitat present. Recorded on the site. In 2004, approximately 500 plants mapped within seven areas, including near the mouth of Tunitas Creek, within the small landslide in the red alder riparian forest, and in open areas within the northern (Franciscan) coastal scrub. Thrives in disturbed or eroded areas, such as road cuts, gullies, landslides, cliffs, and trails.
Castilleja latifolia Monterey Indian paintbrush	4	Sand dunes, coastal strand and sandy bluffs. Elevation: 0-185 m. Blooms: Feb-Sep	Suitable habitat present.
Centromadia parryi ssp. *parryi* Pappose tarplant	1B	Vernally mesic, often alkaline sites in chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Elevation: 1-500 m. Blooms: May-Nov	Suitable habitat present.
Chorizanthe cuspidata var. *cuspidata* San Francisco spineflower	1B	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub Substrate: sandy. Elevation: Unknown Blooms: Apr-Aug	Suitable habitat present.
Collinsia multicolor San Francisco blue eyed mary	1B	Closed-cone coniferous forest, coastal scrub and grassland on decomposed shale (mudstone) mixed with humus; in moist and shady areas and sometimes on serpentinite. Elevation: 30-250 m. Blooms: Mar-May	Suitable habitat present.
Corethrogyne leucophylla Branching beach aster	3	Closed-cone coniferous forest, coastal scrub, chaparral, valley and foothill grassland, and coastal dunes; sometimes on serpentinite. Elevation: 3-60 m. Blooms: May-Dec	Suitable habitat present.
Glehnia littoralis ssp. *leiocarpa* American silvertop	4	Coastal dunes. Elevation: 0-20 m. Blooms: May-Aug	Suitable habitat present.
Grindelia hirsutula var. *maritima* San Francisco gumplant	3	Sandy or serpentinite soils in coastal bluff scrub, coastal scrub, and valley and foothill grassland. Elevation: 15-400 m. Blooms: Jun-Sep	Suitable habitat present.

Species	Status[1]	Habitat/Blooming Period	Discussion[2]
Hesperevax sparsiflora var. *brevifolia* Short leaved evax	1B	Sandy, grassy, or wooded coastal bluff scrub, terraces, coastal dunes. Elevation: 0-215 m. Blooms: May-Jun	Suitable habitat present.
Horkelia cuneata var. *sericea* Kellogg's horkelia	1B	Closed-cone coniferous forest, chaparral, coastal scrub, dunes and coastal sandhills; sandy or gravelly openings. Elevation: 10-200 m. Blooms: Unknown	Suitable habitat present.
Horkelia marinensis Point Reyes Horkelia	1B	Sandy flats and dunes near coast; in grassland or scrub plant communities. Elevation: 0-140 m. Blooms: May-Sep	Suitable habitat present.
Iris longipetala Central Coast iris	4	Coastal prairie, lower montane coniferous forest, meadows, seeps in mesic habitat. Elevation: 10-250 m. Blooms: Mar-May	Suitable habitat present.
Lasthenia californica ssp. *macrantha* Perennial goldfields	1B	Coastal bluff scrub, coastal dunes, coastal scrub. Elevation: 10-190 m. Blooms: Jan-Nov	Suitable habitat present.
Leptosiphon croceus Coast yellow leptosiphon	1B	Coastal bluff scrub, coastal prairie. Elevation: 10-15 m. Blooms: Apr-May	Suitable habitat present.
Leptosiphon rosaceus Rose leptosiphon	1B	Coastal bluff scrub. Elevation: Unknown Blooms: Apr-Jul	Suitable habitat present.
Lupinus arboreus var. *eximius* San Mateo tree lupine	3	Chaparral, coastal scrub. Elevation: Unknown Blooms: Apr-Jul	Suitable habitat present.
Lupinus tidestromii Tidestrom's lupine	FE, SE, 1B	Partially stabilized sand dunes, immediately near the ocean. Elevation: 4-25 m. Blooms: Apr-Jun	Suitable habitat present.
Microseris paludosa Marsh microseris	1B	Moist grassland, openings in closed-cone coniferous forest and cismontane woodland, coastal scrub. Elevation: 5-300 m. Blooms: Apr-Jul	Suitable habitat present.
Plagiobothrys chorisianus var. *chorisianus* Choris's popcorn flower	1B	Grassy and moist areas (ephemeral drainages) in chaparral, coastal prairie and coastal scrub. Elevation: 15-160 m. Blooms: Mar-Jun	Suitable habitat present. Closest CNDDB occurrences is approximately 1.7 miles from the site.
Polemonium carneum Oregon Polemonium	2B	Coastal prairie, coastal scrub, lower montane, coniferous forest. Elevation: 0-25 m. Blooms: Apr-Sep	Suitable habitat present.
Sidalcea malviflora ssp. *purpurea* Purple-stemmed checkerbloom	1B	Broadleafed upland forest, coastal prairie. Elevation: 15-85 m. Blooms: May-Jun	Suitable habitat present.
Silene verecunda ssp. *verecunda* San Francisco campion	1B	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland; sand, mudstone, shale or serpentine. Elevation: 30-645 m. Blooms: Mar-Jun	Suitable habitat potentially present.

Species	Status[1]	Habitat/Blooming Period	Discussion[2]
WILDLIFE			
Invertebrates			
Monarch butterfly *Danaus plexippus*	Sensitive Winter Roosting Sites	Winter roosts along the coast from northern Mendocino to Baja California, Mexico in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby.	Marginal roost sites present in the Monterey pine and riparian forest along Tunitas Creek. No known roost sites present in close proximity to the Project site. Closest CNDDB occurrence is approximately 3 miles from the site.
Western bumble bee *Bombus occidentalis*	Candidate CE	Variety of habitat types, supporting native flowering plants. Species has declined precipitously perhaps from disease.	May occur at site. Closest CNDDB occurrence is approximately 4.4 miles from the site in Pescadero State Beach.
Fish			
Tidewater goby *Eucyclogobius newberryi*	FE	Brackish shallow lagoons and lower stream reaches where water is fairly still but not stagnant.	No suitable habitat present. Closest CNDDB occurrence is approximately 1.4 miles from the site in San Gregorio Creek.
Steelhead (central California coast Distinct Population Segment) *Oncorhynchus mykiss*	FT, CSC	Coastal streams from Russian River south to Aptos Creek (Santa Cruz Co.), including streams tributary to San Francisco and San Pablo Bays.	Suitable habitat present. Known to occur in Tunitas Creek. Closest CNDDB occurrence is approximately 1.4 miles from the site in San Gregorio Creek.
Coho salmon (Central California Coast Evolutionary Significant Unit) *Oncoryhchus kisutch*	FE	Coastal streams from Punta Gorda in northern California down to and including the San Lorenzo River in central California, as well as tributaries to San Francisco Bay.	Tunitas Creek is within designated critical habitat. The National Marine Fisheries Service considers Tunitas Creek to have modest habitat potential to support species based on historical evidence in Tunitas Creek. Species unlikely to occur on the project site. Known to occur in Pescadero Creek, San Gregorio Creek, and Gazos Creek.
Amphibians and Reptiles			
California red-legged frog *Rana draytonii*	FT, CSC	Ponds, streams, drainages and associated uplands; requires areas of deep, still, and/or slow-moving water for breeding	Recorded on the Project site, just south of the Tunitas Creek bridge in ponds below a landslide.
Foothill yellow-legged frog *Rana boylii*	Candidate CT, CSC	Partly shaded streams with rocky or cobbly substrate that flow at least to May.	No suitable habitat present. Closest CNDDB occurrences approximately 4.7 miles from the site.
California giant salamander *Dicamptodon ensatus*	CSC	Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds; adults known from wet forests under rocks; known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County.	Suitable habitat present along Tunitas Creek and riparian habitat. Could disperse through Project site. Closest CNDDB occurrences approximately 2.5 miles from the site.
Santa Cruz black salamander *Aneides flavipunctatus niger*	CSC	Mixed deciduous woodland, coniferous forests, and coastal grasslands. Found under rocks near streams, damp logs, other objects, and in talus. Lays eggs in moist cavities below the ground.	Suitable habitat present along Tunitas Creek and riparian habitat. Could disperse throughout the Project site.

Species	Status[1]	Habitat/Blooming Period	Discussion[2]
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE, CE, FP	Occurs only in the vicinity of ponds and reservoirs in San Mateo County.	Suitable habitat present along Tunitas Creek where prey, such as frogs and fish and are present. Could disperse through the site. Known to occur in the region, but CNDDB records are suppressed by CDFW for this species.
Western pond turtle *Emys marmorata*	CSC	Ponds, streams, drainages, and associated uplands.	Suitable aquatic and basking habitat present along Tunitas Creek. Limited suitable nesting habitat present.
Birds			
California brown pelican *Pelecanus occidentalis californicus*	CFP	Coastal areas; nests on islands.	Forages in the Pacific Ocean adjacent to the Project site, but does not nest in the region. Species observed flying over Tunitas Creek Beach during LSA's survey.
Marbled murrelet *Brachyramphus marmoratus*	FT, CE	Nests in old growth and mature coniferous forests near the coast	No suitable nesting habitat present. May fly over the site while moving from foraging habitat within the Pacific Ocean to nesting habitat in forests east of the site. May forage in Pacific Ocean adjacent to the site. Species has been observed near the site, likely observed in Pacific Ocean next to Tunitas Creek Beach.
Golden eagle *Aquila chrysaetos*	CFP	Hunts over rolling foothills and mountain areas. Nests in cliff-walled canyons or large trees in open areas.	No suitable nesting habitat present on the Project site, but known to fly over the site.
American peregrine falcon *Falco peregrinus anatum*	CFP	Forages in open country, mountains, and sea coasts. Nests on high cliffs, bridges, and buildings.	No suitable nesting habitat present on the Project site, but could nest in cliffs nearby. Species has been observed near the site.
White-tailed kite *Elanus leucurus*	CFP	Open grasslands, meadows, or marshes. Require dense-topped trees or shrubs for nesting and perching.	May nest in trees and large shrubs on or adjacent to the site.
Northern harrier *Circus hudsonius*	CSC	Nests in wet meadows and marshes, forages over open grasslands and agricultural fields.	Species known to forage over the site but not likely to nest on the site due to lack of suitable habitat. Sightings have occurred outside of the nesting season, in October and November.
Western snowy plover *Charadrius alexandrinus nivosus*	FT	Nesting habitat includes upper areas of sandy beaches (above normal high tide line), barren dikes of salt ponds, and edges of alkali or brackish lakes in inland areas; forages along the water's edge and on exposed mud flats.	Species observed foraging within the coastal dunes and along Tunitas Creek Beach. Approximately 25 individuals were observed during the October 2019 survey. Numerous individuals observed in County snowy plover monitoring study in 2018, 2019, and 2020, but no nesting observed. Suitable nesting habitat present, but no nests observed since 2005.
Burrowing owl *Athene cunicularia*	CSC	Open habitats (e.g., grasslands, agricultural areas) with mammal burrows or other features (e.g., culverts, pipes, debris piles) suitable for nesting and roosting.	Migratory individuals may occasionally occur at the site for very brief periods but limited potential burrow surrogates (i.e., culverts, pipes) likely precludes long-term use. Closest CNDDB

Species	Status[1]	Habitat/Blooming Period	Discussion[2]
			occurrence is a wintering record approximately 2.6 miles from the site.
Vaux's swift *Chaetura vauxi*	CSC	Grasslands and agricultural fields; nests in large hollow trees near open water; forages in most habitats but prefers rivers and lakes.	Suitable foraging habitat present and suitable nesting habitat may be present in trees on the project site.
Black swift *Cypseloides niger*	CSC	Coastal belt of Santa Cruz and Monterey Counties, in the central and southern Sierra Nevada, and in the San Bernardino and San Jacinto Mountains; breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea bluffs above the surf.	May migrate over the project site. Suitable foraging habitat present, but no nesting habitat present.
Olive-sided flycatcher *Contopus cooperi*	CSC	Coniferous forests with open canopies.	Suitable nesting and foraging habitat present. Species observed during the breeding season at the site.
Loggerhead shrike *Lanius ludovicianus*	CSC	Grasslands and open shrub or woodland communities. Nests in dense shrubs or trees and forages in scrub, open woodlands, grasslands, and croplands. Frequently uses fences, posts, and utility lines as hunting perches.	Suitable nesting habitat present in trees and shrubs within or adjacent to site, but limited foraging habitat present near the project site.
Bank swallow *Riparia riparia*	CT	Riparian habitat; nests in banks associated with streams, rivers, and lakes.	Suitable nesting habitat present, but species is rare in the County. Closest CNDDB occurrence is approximately 3.8 miles from the site.
Yellow warbler *Dendroica petechia*	CSC	Nests in extensive willow riparian woodlands.	Suitable nesting habitat present, but species is a rare breeder in the County. May forage on the site during migration. Species observed near site from late August through October.
San Francisco common yellowthroat *Geothlypis trichas sinuosa*	CSC	Fresh- and saltwater marshes; nests in tall grasses, tule patches, and willows.	Suitable nesting and foraging habitat present. Species observed during October 2019 survey. eBird lists observations of this species during the nesting season. Closest CNDDB occurrence is approximately 1.1 miles from the site.
Grasshopper sparrow *Ammodramus savannarum*	CSC	Moderately open grasslands with scattered shrubs.	No suitable habitat present.
Tricolored blackbird *Agelaius tricolor*	CT, CSC	Nests in dense vegetation near open water, forages in grasslands and agricultural fields.	No suitable nesting or foraging habitat present.
Mammals			
Pallid bat *Antrozous pallidus*	CSC	Roosts in caves, tunnels, buildings, under bridges, and in tree hollows; forages over variety of habitats.	Suitable habitat present in house and possibly large trees on the project site.
Townsend's big-eared bat *Corynorhinus townsendii*	CSC	Wooded areas with caves or old buildings for roost sites.	Species observed in occupied house in March 2017 and October 2019.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	CSC	Primarily along riparian areas within chaparral and woodlands. Feeds mainly on woody plants but also eats	Woodrat house observed in tree on west side of Tunitas Creek during 2019 survey and 11 woodrat

Species	Status[1]	Habitat/Blooming Period	Discussion[2]
		acorns, grasses, and fungi. Builds conspicuous stick houses in trees and on the ground.	houses observed during 2017 survey. Suitable habitat present in forest and scrub communities on the project site.
American badger *Taxidea taxus*	CSC	Grassland, scrub, and woodland with loose-textured soils.	Could forage in the site, but suitable prey base of small mammals appears to be low. Closest CNDDB occurrence is at an unknown location mapped at Gordon Ridge, Toto Ranch; approximately 1.3 miles north-northwest to 1.9 miles northeast of San Gregorio.
Mountain lion, Central Coast Evolutionary Significant Unit *Puma concolor*	–/Candidate CT	Various habitats where deer are present, including grassland, woodland, and mountainous terrain.	Suitable habitat present. Could occur within the project site. Species not tracked by the CNDDB.

Source: H.T. Harvey (2017), LSA (2021)

[1] Status Codes:

FE =Federally-listed as an endangered species.
FT = Federally-listed as a threatened species.
CE = State-listed as an endangered species.
CT = State- listed as a threatened species.
CSC = California Species of Special Concern.
1A = California Rare Plant Rank (CRPR): species presumed extinct.
1B = CRPR: plant considered rare, threatened, or endangered in California and elsewhere.
2 = CRPR: plant considered rare, threatened, or endangered in California but more common elsewhere.
3 = CRPR: plants for which more information is needed.
4 = CRPR: Watch List: plants of limited distribution.

[2] Nearest records are based on CNDDB (CDFW 2019) occurrences unless otherwise noted.

If appropriately timed focused botanical surveys cannot be conducted prior to construction activities in areas identified by a qualified biologist as potentially supporting listed plants, then the County will assume presence of the plant species in question.

Of the 33 special-status wildlife species evaluated for the project (Table A), 14 wildlife species either have been observed or are more likely to occur at the project site. These species are discussed as follows.

Monarch Butterfly. The monarch butterfly (*Danaus plexippus*) is a sensitive species that overwinters from October through February along the California coast. Monarchs could roost in the Monterey pine forest on the project site, although no CNDDB occurrences have been recorded and no monarchs were observed during the October 2019 survey. The CNDDB lists a presumed extant record of roosting monarchs approximately 3 miles from the project site.

Suitable habitat may be present for monarch butterfly within the Monterey pine forest, which would be impacted by development of proposed park improvements, and possibly by on-going park operations and management. Implementation of Mitigation Measure BIO-2, which was adapted from the County of San Mateo Routine Maintenance Program Environmental Impact Report, would reduce potential impacts to monarch butterfly to less than significant.

Mitigation Measure BIO-2: If trees within the Monterey pine forest are impacted (trimmed or removed), a focused monarch butterfly survey shall be conducted to determine if monarchs roost in the on-site trees. If found, potential impacts to the trees should be avoided, especially during the winter when monarchs are more likely to be present. The following measures, as adapted from the County of San Mateo Routine Maintenance Program Environmental Impact Report, shall be considered in order to avoid potential impacts to existing or suitable roost sites:

- If, based on a review of current CNDDB records or the latest information available from the Xerces Society (https://xerces.org/state-of-the-monarch-butterfly-overwintering-sites-in-california/) historically or currently occupied overwintering habitat for the monarch butterfly is determined to exist in or adjacent to the work area where ground disturbing activities are planned to occur, the County shall implement applicable protection measures as follows:
    - Areas supporting overwintering habitat for the monarch butterfly shall be identified by a qualified biologist and maintenance activities during fall and winter months when monarch butterflies are present shall be avoided to the extent practicable.
    - Historically or currently occupied trees/groves shall be protected from disturbance by the establishment of a 100-foot buffer zone around the tree/grove. The buffer shall be measured from the outside edge of the dripline of the monarch grove. If maintenance activities within 100 feet of a historically or currently occupied tree/grove are unavoidable, the County shall prepare and implement an impact minimization plan in consultation with the USFWS.
    - No herbicides or pesticides shall be applied to the buffer area, and to the extent feasible, maintenance personnel and equipment shall not operate within such areas

Central California Coast Steelhead. The Central California Coast steelhead (*Oncorhynchus mykiss*) distinct population segment is a federally threatened species that is known to occur in Tunitas Creek, where they could migrate to potential spawning habitat upstream of the project site. Tunitas Creek within the project site is located within the San Mateo Hydrologic Critical Habitat Unit (2202).

If steelhead are present in the creeks or downstream of the creeks near the alignment during project construction, and construction activities release hazardous substances or excessive silt and sediment to enter these streams, steelhead could be negatively impacted. As described in Section 3.10, Hydrology and Water Quality, the proposed project would be required to implement best management practices (BMPs) to reduce the discharge of construction-related stormwater pollutants in compliance with State and local regulations, including the County of San Mateo Watershed Protection Program's Maintenance Standards (2004) and San

Mateo Countywide Water Pollution Prevention Program (SMCWPPP) Construction BMPs. Compliance with these measures would ensure steelhead would not be impacted during construction of project improvements.

As described in Chapter 2, Project Description, the project proposes to install a water system to draw water from Tunitas Creek. According to the Water Supply and Demand Memorandum, a maximum of 5.4 percent yield would be taken from Tunitas Creek during the month of October and no water would be drawn from the creek during the dry season (June-September). As described further in Section 3.19, Mitigation Measure UTIL-1 requires preparation of additional study to ensure sufficient water supply is available to support the proposed ranger residence, without impacting surface water levels in Tunitas Creek. If the study determines that insufficient supply is available, the ranger residence would not be included in the project design and no water would be extracted from Tunitas Creek. Ongoing monitoring would also be required to ensure pumping levels do not impact aquatic species, including steelhead. With implementation of Mitigation Measure UTIL-1, impacts associated with operation of the proposed project would be less than significant.

California Giant Salamander and Santa Cruz Black Salamander. The California giant salamander (*Dicamptodon ensatus*) and Santa Cruz black salamander (*Aneides niger*) are California Species of Special Concern that could occur on the project site. Tunitas Creek supports suitable aquatic breeding habitat for the California giant salamander, while the riparian habitat provides suitable breeding habitat for the Santa Cruz black salamander. The riparian forest and scrub and pine forest provide suitable habitat for both species.

California Red-legged Frog. The California red-legged frog (*Rana draytonii*) is a federally threatened species and California Species of Special Concern that has been recorded on the west side of the Tunitas Creek Bridge within the project site. Although Tunitas Creek provides limited potential breeding habitat, suitable nonbreeding aquatic habitat is present within the creek, and the entire project site, except for the buildings provides suitable dispersal habitat for this species. Critical Habitat (Unit SNM-2) for this species has been designated adjacent to the project site on the east side of Highway 1.

Western Pond Turtle. The western pond turtle (*Emys marmorata*) is a California species of special concern that could inhabit Tunitas Creek due to the presence of suitable plunge pools and basking sites. The project site is not likely to support nesting due to the surrounding upland areas being dominated by coastal scrub and deciduous forest, which provides limited nesting habitat.

San Francisco Garter Snake. The San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) is a federal and State endangered species that could occur along Tunitas Creek and the associated riparian forest and disperse through entire project site. The CNDDB lists several occurrences within 5 miles of the project site.

California red-legged frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, and western pond turtle are likely to occur in Tunitas Creek or adjacent riparian habitat. The project has been designed to largely avoid sensitive riparian habitat where these species could occur; however, construction of the proposed water system would require removal of riparian vegetation and disturbance to the creek/creek bank in order to place the pump, storage tank, and piping necessary to draw water from Tunitas Creek. In addition, clearing of vegetation and ground-disturbing activities in other habitat areas have the potential to impact these species, if present during project construction. Implementation of Mitigation Measure BIO-3 would reduce potential impacts to these species to a less than significant level.

> **Mitigation Measure BIO-3:** For ground-disturbing activities within and in proximity to creeks or within riparian woodlands or riparian scrub habitats, the following measures shall be implemented to reduce potential impacts to special-status amphibian and reptile species, including California red-legged frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, and western pond turtle. Where applicable, these measures were adapted from the County of San Mateo Routine Maintenance Program Environmental Impact Report.
>
> - The qualified biologist shall conduct employee education training for personnel working on construction or demolition activities. Personnel shall be required to attend the presentation, which shall describe the life cycles and ecology of the California red-legged-frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, western pond turtle,

and all other special-status species that could occur on the project site. The training shall also include materials concerning the following topics: sensitive resources, resource avoidance, permit conditions, and possible consequences for violations of State or Federal environmental laws. The training shall cover the mitigation measures, environmental permits, and regulatory compliance requirements, as well as the roles and authority of the monitors and biologists. Printed training material and an attendance sheet shall be provided at the session.

- Prior to implementation of construction work, the County or County's biologist shall submit to the USFWS and CDFW for its review and approval the qualifications of proposed wildlife biologists who will perform pre-activity surveys and on-site monitoring.
- No more than 24 hours prior to the date of initial ground disturbance, a pre-activity survey for the California red-legged frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, and western pond turtle shall be conducted by a qualified biologist in the construction area. The survey shall consist of walking the work area limits to ascertain the possible presence of the species. The qualified biologist shall investigate all potential areas that could be used by these species, including examination of mammal burrows. If any adults, subadults, juveniles, tadpoles, or eggs are found, the qualified biologist shall contact the USFWS and/or CDFW to determine if moving any of the individuals is appropriate. If the USFWS/CDFW approves moving animals, the biologist and USFWS/CDFW shall identify a suitable relocation site, and the County shall ensure the qualified biologist is given sufficient time to move the animals from the work site before ground disturbance is initiated. Only qualified biologists shall capture, handle, and monitor the California red-legged frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, and western pond turtle.
- To minimize harassment, injury, death, and harm to these species, one of the following two measures shall be implemented.
    - An approved, qualified biologist(s) shall be on-site during all initial construction activities, such as clearing and grubbing of vegetation that may result in take of or impacts to the California red-legged frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, and western pond turtle as determined by the biologist.

or

    - Prior to pre-activity surveys, personnel shall enclose the work area with an exclusion fence with a minimum height above grade of 42 inches. Where installation of exclusion fencing completely around the work area is not feasible, exclusion fencing shall be installed between the work area and any adjacent vegetation or sensitive habitat where special-status wildlife species could occur. The bottom of the fence shall either be buried a minimum of 6 inches below ground or otherwise secured in a manner approved by the USFWS/CDFW and shall remain in place during all construction activities in order to prevent special-status amphibians and reptiles from entering the work area. Escape ramps, funnels, or other features that allow animals to exit the work area, but which will prohibit the entry of such animals, shall be provided in the exclusion fencing. A qualified biologist shall conduct a pre-activity survey of the fence installation area immediately prior to (i.e., the day of) the commencement of installation and shall be present to monitor fence installation. The exclusion fencing shall be inspected daily by construction personnel and maintained for the duration of the project.
- The qualified biologist(s) shall be given the authority to freely communicate verbally, by telephone, electronic mail, or in writing at any time with construction personnel, any other person(s) at the work area, otherwise associated with the construction work, the USFWS, the CDFW, or their designated agents. The qualified biologist shall have oversight over implementation of all mitigation measures, and shall have the authority and responsibility to stop work activities if they determine any of the associated requirements are not being fulfilled.

If the qualified biologist(s) exercises this authority, the USFWS/CDFW shall be notified by telephone and electronic mail within 24 hours.

- The project shall minimize adverse impacts to the California red-legged frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, and western pond turtle by limiting, to the maximum extent possible, the number of access routes, ground disturbance area, equipment staging, storage, parking, and stockpile areas. Prior to initiating construction work that involves ground-disturbing activities, equipment staging areas, site access routes, sediment removal, and transportation equipment and personnel parking areas, debris storage areas, and any other areas that may be disturbed shall be identified, surveyed by the qualified biologist, and clearly identified with fencing. The fencing shall be inspected by construction personnel and maintained daily until construction is complete.

- To the extent feasible, construction activities shall be conducted from April through October during the dry season when these semi-aquatic species are less likely to be found in a work area. To the extent practicable, ground-disturbing activities shall be avoided from October through April because that is the time period when California red-legged frogs other semi-aquatic species are most likely to be moving through upland areas. When ground-disturbing activities occur between November 1 and March 31, the County shall ensure that daily monitoring by the qualified biologist is completed for California red-legged frogs and other special-status amphibians and reptiles.

- To avoid harassment, injury, death, and harm to individual San Francisco garter snakes, immediately prior to (i.e., the day of) the initiation of construction e activities that have potential for take of the San Francisco garter snake, a USFWS and CDFW-approved biologist shall conduct daytime surveys throughout the project site. The approved biologist shall be present during initial ground-disturbing activities (i.e., clearing and grubbing) within 250 feet of the work area to monitor for individual garter snakes. If a San Francisco garter snake is observed within the work area, either during the pre-activity survey or at any time, activities that could potentially harm the individual shall cease and the USFWS and CDFW shall be contacted immediately. Work shall not re-commence without written approval from CDFW. The on-site biologist shall be the contact for any employee or contractor who might inadvertently kill or injure a garter snake or anyone who finds a dead, injured, or entrapped San Francisco garter snake.
- For vegetation removal in suitable San Francisco garter snake habitat, vegetation shall be cut down to 3 inches by hand-tools (weedwhacker, etc.). Once the ground is visible, a visual survey for San Francisco garter snakes shall be conducted. If no special-status amphibians or reptiles are found in the area, removal of vegetation may continue very slowly with a biological monitor walking in front of the equipment to observe.

- When a California red-legged frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, or western pond turtle is encountered in the work area, all activities that have the potential to result in the harassment, injury, or death of the individual shall be immediately halted. The qualified biologist shall then assess the situation in order to select a course of action that shall avoid or minimize adverse impacts to the animal. To the maximum extent possible, contact with the animal shall be avoided and the individual shall be allowed to move out of the work area to a secure location on its own volition.

- California red-legged frogs, San Francisco garter snakes, California giant salamanders, Santa Cruz black salamanders, and western pond turtles that are in danger shall be relocated and released by the qualified biologist outside the work area within the same riparian area or watershed. If relocation of the individual outside the work area is not feasible (i.e., too many individuals are observed per day), the biologist shall relocate the animals to a USFWS/CDFW pre-approved location. Prior to the initial ground disturbance, the County shall obtain approval of the relocation protocol from the USFWS/CDFW in the event that a California red-legged frog, San Francisco garter snake, California giant salamander, Santa Cruz black salamander, or western pond turtle is encountered and needs to be moved away from the work site. Under no circumstances shall the animal be released on a site unless the written permission of the

landowner has been obtained by the County. The qualified biologist shall limit the duration of the handling and captivity of the animals to the minimum amount of time necessary to complete the task. If the animal must be held in captivity, it shall be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. The County shall immediately notify the USFWS and CDFW once the animal and the site is secure.

- If California red-legged frog egg masses are present and work cannot be postponed until after hatching, a buffer of vegetation at least 10 feet in diameter shall be left around any egg masses found. The County shall keep a record of any sites where egg masses are found and will conduct vegetation removal between June 15 and October 15. Work within the channel shall avoided in order to avoid dislodging egg masses. Construction activities shall be performed from the banks.
- If California giant salamander eggs or larvae are found, the qualified biologist shall establish a buffer around the location of the eggs/larvae and work may proceed outside of the buffer zone. No work shall occur within the buffer zone. Work within the buffer zone shall not occur until the time that eggs have hatched and/or larvae have metamorphosed, or the County shall contact CDFW to develop site appropriate avoidance and minimization measures.
- If an active western pond turtle nest is detected within the activity area, a 10-foot buffer zone around the nest shall be established and maintained during the breeding and nesting season (April 1 – August 31). The buffer zone shall remain in place until the young have left the nest, as determined by a qualified biologist.
- To minimize harassment, injury, death, and harm in the form of temporary habitat disturbances, all vehicle traffic shall be restricted to established roads, sediment removal and access areas, equipment staging, storage, parking, and stockpile areas. These areas shall be included in pre-activity surveys and, to the maximum extent possible, established in locations disturbed by previous activities to prevent further adverse impacts. Vehicles shall observe a 20-mile per hour speed limit within work areas, except on Highway 1. Off-road traffic outside of designated and fenced work areas shall be prohibited.
- A litter control program shall be instituted at the project site. All workers shall ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed trash containers. The trash containers shall be removed from the site at the end of each working day.
- For on-site storage of pipes, conduits and other materials that could provide shelter for special-status amphibians and reptiles, materials shall be securely capped prior to storage or an open-top trailer will be used to elevate the materials above ground. This method is intended to reduce the potential for animals to climb into the conduits and other materials.
- To the maximum extent practicable, no construction activities shall occur during rain events or within 24-hours following a rain event. Prior to maintenance activities resuming, a qualified biologist shall inspect the work area and all equipment/materials for the presence of special-status amphibians and reptiles. The animals shall be allowed to move away from the work site of their own volition or moved by the qualified biologist.
- To the maximum extent practicable, night-time construction activities shall be minimized or avoided by the County. Because dusk and dawn are often the times when the California red-legged frog most actively moving and foraging, to the maximum extent practicable, earth-moving and other project activities shall cease no less than 30 minutes before sunset and shall not begin again prior to 30 minutes after sunrise. Artificial lighting in the work area shall be prohibited during the hours of darkness.
- Plastic monofilament netting (erosion control matting), loosely woven netting, or similar material in any form shall not be used at the project site because amphibians and reptiles can become entangled and trapped in them. Any such material found on site shall be immediately removed by the qualified biologist, maintenance personnel, or County contractors. Materials

utilizing fixed weaves (strands cannot move), polypropylene, polymer or other synthetic materials shall not be used.

- Trenches or pits 1-foot or deeper that are going to be left unfilled for more than 48 hours shall be securely covered with boards or other material to prevent special-status amphibians and reptiles from falling into them. If this is not possible, the County shall ensure wooden ramps or other structures of suitable surface that provide adequate footing for the animal are placed in the trench or pit to allow for their unaided escape. Auger holes or fence post holes that are greater than 0.1-inch in diameter shall be immediately filled or securely covered so they do not become pitfall traps for the animal. The qualified biologist or trained construction personnel shall inspect the trenches, pits, or holes prior to their being filled to ensure no animals are in them. The trench, pit, or hole also shall be examined by the qualified biologist each workday morning at least one hour prior to initiation of work and in the late afternoon no more than one hour after work has ceased to ascertain whether any individuals have become trapped. If the escape ramps fail to allow the animal to escape, the qualified biologist shall remove and transport it to a safe location, or contact the USFWS/CDFW for guidance.
- As part of the U.S. Army Corps of Engineers (Corps) permit application, a USFWS take permit (Biological Opinion) may be needed for the California red-legged frog and San Francisco garter snake, since they are federally listed species. CDFW may recommend a Section 2081 Incidental Take Permit if the proposed project has the potential to impact the San Francisco garter snake, since this species is listed by the State of California. The Parks Department shall comply with all conditions of incidental take permits issued for the project. Conditions may include, but are not limited to, development of revegetation and restoration plans and procedures, environmental awareness training, pre-construction wildlife surveys, and/or biological monitoring, some or all of which are already included as part of the mitigation measures described herein. (None of the other remaining special-status species are State-listed).

Western Snowy Plover. The western snowy plover is a federally threatened species that occurs within the coastal dunes and beach at the project site. Approximately 25 western snowy plovers were observed during the October 2019 survey in the coastal dune community south of the Tunitas Creek mouth. Snowy plovers were also observed in January and February 2018. California Department of Parks and Recreation volunteers conducted winter and breeding surveys at Tunitas Creek Beach off and on since 2004, which resulted in snowy plover observations during the winter but none during the breeding season within the last ten years. Surveys completed in 2018, 2019, and 2020 resulted in numerous snowy plovers observed between January and April and then again between August and April, but no snowy plovers observed during May, June, and July when snowy plovers typically nest. The year 2005 was the last year when they were recorded nesting at Tunitas Creek Beach. Critical habitat is located approximately 8 miles north of the project site. Snowy plovers were recorded as breeding at Tunitas Creek Beach in 1998, 2000, and 2005, but their current nesting status on the beach is uncertain.

As shown in Figure 3, the proposed project would include establishment of a snowy plover protection area where suitable habitat for snowy plover exist. Consistent with the recommendations outlined in the Snowy Plover Avoidance and Minimization Plan, seasonal restrictions would be established during the breeding season for these areas and signage would be installed to alert beach visitors to the potential presence of western snowy plover.

San Francisco Common Yellowthroat. The San Francisco common yellowthroat is a California Species of Special Concern that forages and likely breeds at the project site. Suitable breeding habitat is present within the red alder forest, riparian scrub, and coastal scrub. A foraging common yellowthroat was observed at the mouth of Tunitas Creek during the October 2019 survey. This species has also been observed during the breeding season at the project site.

White-tailed Kite. White-tailed kites (*Elanus leucurus*) is a California Fully Protected species that could nest in the large shrubs and trees on or adjacent to the site. No stick nests were observed in any of the trees during the October 2019 survey.

Nests of all native bird species are protected under Section 3503 of the California Fish and Game Code, which prohibits the take, possession, or needless destruction of the nest or eggs of any bird. The federal Migratory Bird Treaty Act also protects nesting birds. The project site provides suitable nesting habitat for resident bird species such as white-tailed kite (a California Fully Protected Species), California scrub-jay, and black phoebe, among others. If conducted during the nesting season (typically defined by as February 1 to August 31), project activities could impact nesting birds by removing vegetation or structures containing active nests and/or causing nest abandonment and subsequent reproductive failure due to prolonged loud construction noise. This impact can be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-4. With implementation of Mitigation Measure BIO-4, impacts to snowy plover, San Francisco common yellowthroat, white-tailed kite and other nesting birds would also be less than significant.

> **Mitigation Measure BIO-4A:** If construction activities occur between February 1 and August 31, pre-activity survey for nesting birds (special-status and common bird species) shall be conducted by a qualified biologist to ensure that no nests would be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of construction activities. During this survey, the biologist shall inspect all trees and other potential nesting habitats (e.g., trees, shrubs, coastal strand, coastal dunes, structures) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the biologist shall determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the Migratory Bird Treaty Act and/or California Fish and Game Code would be disturbed during project implementation. The boundary of each buffer zone shall be marked with fencing, flagging, or other easily identifiable marking if construction work occurs immediately outside the buffer zone. No trees or shrubs shall be disturbed that contain active bird nests until all eggs have hatched, and young have fully fledged (are no longer being fed by the adults and have completely left the nest site), or if the nest is determined by the biologist to no longer be active.
>
> If possible, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are planned for removal as part of the project shall be removed prior to the start of the nesting season (e.g., prior to February 1).
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> **Mitigation Measure BIO-4B:** To the extent feasible, construction activities within 600 feet of suitable snowy plover breeding habitat shall occur outside the plover breeding season of March 1 through September 14. If construction activities occur within 600 feet of suitable snowy plover breeding habitat during the nesting season (March 1 through September 14), a pre-activity survey shall be conducted by a qualified biologist within 7 days prior to the start of the activity to determine whether active nests are present. If an active snowy plover nest is detected within 600 feet of the construction area, the qualified biologist, in coordination with USFWS personnel, shall determine an appropriate buffer that should remain free from construction activities. The buffer shall be determined based on the sensitivity of the nest, the presence of visual barriers (such as dunes) between the construction activities and the nest, and the level and proximity of existing human activity around the nest when it was established. The buffer shall remain in place until the nest is no longer active. If broods of unfledged snowy plover young are present, no construction activities shall occur within 300 feet (or as otherwise determined by a qualified biologist in coordination with the USFWS) of a brood.
>
> As part of the Corps permit application, a USFWS take permit (Biological Opinion) may be needed for the western snowy plover, since this species is federally listed. The Parks Department shall comply with all conditions of incidental take permits issued for the project.

San Francisco Dusky-Footed Woodrat. The San Francisco dusky-footed woodrat (SFDFW) is a California Species of Special Concern that occurs on the project site. One woodrat house was observed near the site along the north side of Tunitas Creek within the red alder riparian forest during the October 2019 survey and 11 woodrat houses were observed on the project site in 2017, some of which exhibited signs of current use.

Construction of the proposed project and ongoing maintenance activities could adversely impact SFDFW if they are present during project construction or if construction impacts their houses. Implementation of the following mitigation measure, as adapted from the County of San Mateo Routine Maintenance Program Environmental Impact Report, would reduce potential impacts to SFDFW to a less-than-significant level.

Mitigation Measure BIO-5: No more than two weeks prior to the beginning of ground disturbance that could disturb SFDFW houses, a qualified biologist shall survey the work areas. If SFDFW houses are found, the houses shall be flagged and construction fencing or flagging that will not impede the movement of the SFDFW shall be placed around the nest to create a 10-foot buffer (where feasible). If a SFDFW house is identified in a work area, the following shall be implemented:

- Physical disturbance of the house shall be avoided if feasible. If possible, a minimum 10-foot buffer shall be maintained between maintenance construction activities and each nest to avoid disturbance. In some situations, a smaller buffer shall be allowed if in the opinion of a qualified biologist removing the nest would be a greater impact than that anticipated as a result of the project.

- If a dusky-footed woodrat nest cannot be avoided, prior to the beginning of construction activities, a qualified biologist shall disturb the SFDFW house to the degree that all SFDFW leave the house and seek refuge outside of the maintenance activity area. Relocations efforts shall avoid the nesting season (February - July) to the maximum extent feasible. Disturbance of the SFDFW house shall be initiated no earlier than one hour before dusk to minimize the exposure of woodrats to diurnal predators. Subsequently, the biologist shall dismantle and relocate the house material by hand. All material from dismantled houses shall be placed in a pile, preferably against a log or tree trunk, in suitable habitat located at least 20 feet from, but otherwise as close as possible to, the original house locations, to provide material for SFDFW to construct new houses. During the deconstruction process, the biologist shall attempt to assess if juveniles SFDFW are present 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 nest until the juveniles are mobile. The house may be dismantled once the biologist has determined that adverse impacts on the juveniles would not occur. All disturbances to SFDFW houses shall be documented in a construction monitoring report and submitted to CDFW.

- A qualified biologist shall set two traps around each of the SFDFW houses to be relocated. Traps shall be set within one hour prior to sunset, and baited with a mixture of peanut butter, oats, and apples, or other suitable bait. Traps shall also be equipped with cotton bedding and covered with cardboard. The traps shall be checked the following morning, within one-and-a-half hours of sunrise. If a SFDFW is captured, it shall be placed in a quiet area while its house material is relocated; the SFDFW will then be released at the relocated structure. If no SFDFW are captured after the first night, the biologist shall set the traps for one additional evening to increase the probability of capturing the SFDFW and ensuring a safe relocation. If no SFDFW are captured at a given house after two nights, it shall be assumed that the house is not currently occupied. Trapping shall only be conducted outside the breeding season, which for SFDFW is from February through the end of July. If a litter of young is found or suspected while dismantling a house for relocation, the house material shall be replaced, any trapped SFDFW shall be returned to the house, and the house shall be left alone for 2 to 3 weeks, after which time the house shall be rechecked to verify that the young are capable of independent survival, as determined by the qualified biologist, before proceeding with dismantling of the house.

Townsend's Big-Eared Bat. The Townsend's big-eared bat is a California Species of Special Concern that was observed roosting in the unoccupied house during surveys conducted in March 2017 and October 2019. Although no abundant sign indicating historical presence of a maternity colony (i.e., large amounts of guano) was observed during either site visit, March is a transition month between the winter hibernation season and the maternity season in this region, and October is during the winter season. The house appears to provide a winter roost for a few individual bats but could also support a maternity colony.

Pallid Bat. The pallid bat (*Antrozous pallidus*) is a California Species of Special Concern that could roost in the unoccupied house and in the large trees on the project site and could forage on the site. No pallid bats were detected during a focused search of the two structures on the project site and none were recorded by the bat acoustic detector used for the 2017 surveys. No pallid bats were observed in the house, but some bat guano was observed, which may been guano from pallid bats, but the lack of large amounts of guano indicates that no large pallid bat maternity colonies occupy, or have occupied, the house.

Western Red Bat. The western red bat (*Lasiurus blossevillii*) is a California Species of Special Concern that roosts in large trees, often associated within riparian habitat. This species could roost in the trees within and adjacent to the project site. This species could roost on the site, but would not breed at or near the project site.

The proposed project would impact a known bat roost within the unoccupied house. In addition, construction and maintenance activities could directly impact roosting bats if these activities result in the removal of trees or structures with bat roosts or result in the disruption or abandonment of nearby active bat roosts. Implementation of Mitigation Measures BIO-6A and BIO-6B, as adapted from the County of San Mateo Routine Maintenance Program Environmental Impact Report, would reduce potential impacts to roosting bats to less than significant.

> **Mitigation Measure BIO-6A:** Prior to demolition, a qualified biologist should conduct an additional survey during the summer maternity season (ideally June) to determine whether the unoccupied house supports a Townsend's big-eared bat maternity colony or whether the site is only used by wintering bats or by males. If the roost is occupied, and can be avoided, a qualified biologist should develop a plan to preserve and secure the roost for future use by bats.
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> Prior to building demolition or modification, a qualified biologist should conduct a focused survey for bats within any structures to be demolished. If any bats are found, but they do not represent an active maternity roost, they shall be excluded from the building through installation of one-way doors, closure of potential entry points, or use of acoustic deterrents. Alternatively, opening up the structure (i.e., removal of boards from windows and doors, removal of roof sections) should increase wind flow through the structure and may also deter bats from roosting. A qualified biologist should consult on the methods used to exclude bats.
>
> If a maternity colony is present, then no demolition or modification of the roost site, nor of any areas within 100 feet of the roost site and any points of ingress or egress, should occur during the period April 1 to August 31 (or until young are demonstrated to be flying well). After August 31 (or after the young are flying), then bat exclusion can proceed. No exclusion should occur during rainy or cold conditions.
>
> If a Townsend's big-eared bat maternity colony is confirmed in the unoccupied house, and demolition or modification (to the point that bats no longer use the building) of this structure cannot be avoided, replacement maternity roost habitat should be provided on the site. Note that bat boxes and bat condominiums do not provide suitable replacement habitat for Townsend's big-eared bats. Rather, larger, more cavernous bat structures are required to replace maternity roost habitat for this species. The replacement roost structure should be designed and sited in consultation with a qualified biologist. The structure should be monitored for a period of 5 years to determine whether it is occupied. Success of the habitat replacement should be achieved if the roost structure is determined by a qualified biologist to provide similar thermal and light conditions to those that exist in the unoccupied house that is currently being used as a roost site.

Mitigation Measure BIO-6B: A qualified biologist shall conduct a survey to look for evidence of bat use within two weeks prior to the onset of work activities. If evidence of bat occupancy is observed, or if high-quality roost sites are present in areas where evidence of bat use might not be detectable (such as a tree cavity), an evening survey and/or nocturnal acoustic survey may be necessary to determine if roosting bats are present and to identify the specific location of the bats. If no active maternity colony or non-breeding bat roost is located, project work can continue as planned. If an active maternity colony or non-breeding bat roost is located, the construction work shall be redesigned to avoid disturbance of the roosts, if feasible. If an active maternity colony is located, and the project cannot be redesigned to avoid removal or disturbance of the occupied tree or structure, disturbance shall not take place during the maternity season (March 15 – July 31), and a disturbance-free buffer zone (determined by a qualified bat biologist) shall be established during this period. If an active non-breeding bat roost is located, and the project cannot be redesigned to avoid removal or disturbance of the occupied tree or structure, the individual bats shall be safely evicted between August 1 and October 15 or between February 15 and March 15 (as determined in consultation with CDFW). Bats may be evicted through exclusion only after notifying and obtaining approval from CDFW. Trees with roosts that need to be removed shall first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.. Roosts may only be removed once the bats are no longer occupying the roost, at which time, a plan approved by CDFW may be implemented for removal of the roost. The plan shall describe appropriate methods for the removal of the roost. As part of CDFW's approval, a new roost site may be required to be created on the project site. Active day roosts of tree-foliage bats may be removed upon permission of CDFW.

If feasible, trees planned for pruning or removal as a part of the project, shall be pruned or removed during the fall to avoid the maternity roosting period of resident bats (mid-April to August season). Western red bats are less likely to be present and roosting in the trees on and adjacent to the project site during the spring and summer, but other bats may be roosting during this period. Because bats may be present at any time, a pre-construction survey by a qualified biologist shall be required as outlined above regardless of timing of tree or structure removal and a suitable buffer zone established around detected roosts.

Pruned limbs or cut trees shall be left on the ground in place for at least 24 hours after cutting to allow any bats that may be roosting in the trees to leave the roosts prior to chipping the branches or removing the cut material from the site. Before any construction activities begin in the vicinity of the identified bat roosts on the project site, an approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the bats and their habitat, the specific measures that are being implemented to conserve the bat roosts for the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. A qualified biologist shall conduct the training session.

b) **Less-Than-Significant with Mitigation Incorporated.** The CDFW tracks the occurrences of natural plant communities that are of limited distribution Statewide or within a county or region and are often vulnerable to environmental effects of projects. A Manual of California Vegetation, lists vegetation alliances with State rarity rankings of S1-S3 as considered "highly imperiled" and project impacts to "high-quality occurrences" of these alliances could be considered significant under CEQA. Most types of wetlands and riparian communities are also considered sensitive natural communities due to their limited distribution in California.

The CNDDB does not identify any sensitive natural communities on or adjacent to the site. However, the riparian forest and scrub, streams, wetlands, and coastal dunes would be considered sensitive habitat under CEQA. The Monterey pine forest that occurs at the project site is not considered a native stand and therefore would not be considered sensitive under CEQA.

In addition, all riparian forest and scrub, wetlands, and streams on the project site are considered jurisdictional coastal wetlands by the California Coastal Commission. The project site is located within the coastal zone

limits of an existing County Local Coastal Program (LCP). The LCP for this project location includes riparian corridors, wetlands, marine habitats, sand/coastal dunes, sea cliffs, coastal bluffs, and special-status species habitat as sensitive habitat. Since these sensitive habitat types are present on the project site, future development would require approval of a coastal development permit.

The proposed project has been designed to avoid impacts to sensitive communities, including riparian areas, to the extent possible. However, the proposed project would result in impacts to Tunitas Creek and its associated riparian vegetation, as well as intermittent and ephemeral streams at the project site.

Construction of the proposed water system would require removal of riparian vegetation and placement of structures within Tunitas Creek and atop the creek bank, including a well head, pump and pipe to draw water from the creek and transport it to the holding tanks at the top/mid bluff. Impacts to riparian habitat are considered significant.

As shown in Figure 8, a loop trail is proposed from the parking area at the Top Bluff to the beach, extending through the southern portion of the project site. The loop trail would require a stream crossing, which could impact the stream, depending on the method of crossing. If a rock ford was constructed within the streambed for the crossing, then the stream would be impacted and impacts would need to be mitigated. If a bridge crossing is proposed that fully spans the stream, then impacts would be minimal (perhaps only minor shading of the stream), and no mitigation would likely be required. The loop trail may also impact riparian scrub vegetation associated with the intermittent and ephemeral streams.

Impacts to Tunitas Creek, the intermittent and ephemeral streams, and the freshwater marsh and associated riparian vegetation would require a U.S. Army Corps of Engineers (Corps) Nationwide Permit, Regional Water Quality Control Board (RWQCB) Water Quality Certification, and/or CDFW Streambed Alteration Agreement, which would require mitigation, annual monitoring, and reporting as part of permit compliance. If riparian vegetation is impacted during project construction or ongoing maintenance activities, implementation of the following mitigation measures would reduce potential impacts to riparian habitat to a less-than-significant level.

> **Mitigation Measure BIO-7A:** If native riparian trees or shrubs are impacted during project construction, the impacted trees shall be replaced at a minimum 1.5:1 ratio (meaning 1.5 acres of riparian habitat shall be restored/created for every 1 acre of riparian habitat impacted by the project. The native riparian species shall be replaced in-kind preferably from phytophthera-free container stock as appropriate, propagated from local genetic stock (i.e., San Francisco Bay region). Any temporarily disturbed areas within the riparian woodland shall be seeded with an appropriate native seed mix. Appropriate permits from CDFW and possibly RWQCB would need to be obtained and any monitoring and reporting requirements stated within the permits, including preparation and implementation of a mitigation and monitoring plan would have to be completed.
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> **Mitigation Measure BIO-7B:** If needed, the project shall design and construct low impact stream crossings that would include a wooden walkway/boardwalk, or similar structure to avoid potential impacts to the streams. The crossings shall be designed to accommodate high flows and be regularly maintained. Footings for the crossings shall be sited fully outside of the banks and channel of the streams.
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> **Mitigation Measure BIO-7C:** The project contractor shall implement applicable BMPs and conservation measures detailed in the County of San Mateo Watershed Protection Program's Maintenance Standards and the San Mateo Countywide Pollution Prevention Program Construction BMPs during construction**.**
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> **Mitigation Measure BIO-7D:** To protect water quality during construction and maintenance, the following measures shall be included on the construction specifications, with construction oversight by a qualified biologist or biological monitor:

- Stationary equipment such as motors, generators, and welders located within 100 feet of the stream shall be stored overnight at staging areas and shall be positioned over drip pans.

- Any hazardous or toxic materials deleterious to aquatic life that could be washed into a basin shall be contained in watertight containers or removed from the project site.

- All construction debris and associated materials stored in staging areas shall be removed from the work site upon completion of the project.

- Whenever possible, refueling of equipment shall take place within turnouts or staging areas at least 50 feet from the top of bank or other wetland.

- All refueling shall be conducted over plastic bags filled with sawdust or other highly absorbent material. Clean-up materials for spills shall be kept on hand at all times. Any accidental spills of fuel or other contaminants shall be cleaned up immediately. The project contractor shall install protective fencing prior to and during construction to keep construction equipment and personnel from impacting riparian vegetation outside of work limits. A qualified biologist or biological monitor with the education and experience necessary to delineate riparian vegetation shall supervise the installation of protective fencing.

Mitigation Measure BIO-7E: The Parks Department shall obtain a Coastal Development Permit as required for project activities. The Parks Department shall comply with all conditions of permit issued for the project. Conditions may include, but are not limited to, development of revegetation and restoration plans and procedures, environmental awareness training, pre-construction wildlife surveys, and/or biological monitoring, some or all of which are already included as part of the mitigation measures described above.

Mitigation Measure BIO-7F: A Revegetation Plan shall be prepared by a qualified biologist to revegetate and restore impacted habitat. This plan shall include a list of appropriate species, planting specifications, monitoring procedures, success criteria, and a contingency plan if success criteria are not met.

c) **Less-Than-Significant with Mitigation Incorporated**. Potential wetland features subject to Corps jurisdiction pursuant to Section 404 of the federal Clean Water Act within the site consist of Tunitas Creek, the unnamed ephemeral stream, two unnamed intermittent streams, and the freshwater marsh. The proposed project has been designed to avoid impacts to Tunitas Creek, the streams, and freshwater marsh, to the extent feasible. Tunitas Creek, the intermittent and ephemeral streams, and freshwater marsh would be considered waters of the U.S. and would fall under the jurisdiction of the Corps, RWQCB, and CDFW. The beach habitat on or adjacent to the project site that extends west of the high tide line would be considered waters of the U.S./State. As described above, impacts to these water features would require a Corps Nationwide Permit, CDFW Streambed Alteration Agreement, and RWQCB Water Quality Certification.

As described above, the proposed domestic water system would require construction work and placement of structures within Tunitas Creek and atop the creek bank. In addition, the proposed trail crossing may require placement of fill within the intermittent stream on the project site. Construction, operation, and maintenance of these proposed improvements would result in impacts to wetlands and other waters. Implementation of standard Best Management Practices (BMPs), as described above and outlined in Section 2.0, Project Description, would minimize potential indirect impacts caused from erosion, construction materials, wastewater discharges, and other potential impacts to water quality of these features during and after construction. However, impacts to wetlands and other waters would be a potentially significant impact. This impact can be reduced to a less-than-significant level through implementation of mitigation measures BIO-9C through BIO-9F, identified above. With implementation of these mitigation measures, impacts to wetlands and other waters would be less than significant.

Mitigation Measure BIO-8A: Impacts to areas of wetland and other water shall be avoided to the greatest extent possible. If impacts to areas of wetlands and other water is unavoidable, the area impacted shall be confined to the smallest area possible.

Mitigation Measure BIO-8B: For project activities that impact wetlands or other waters requiring permits from the Corps, RWQCB, and/or CDFW, the project proponent shall obtain permits and comply with all permit requirements. For on-site, in-kind mitigation, the County shall mitigate impacts to wetlands by restoring, preserving, and managing wetlands and aquatic habitats, or substantially improve the quality of highly degraded wetlands and aquatic habitats at a ratio of 1.5:1 (meaning 1.5 acres of wetlands or other waters shall be restored/created for every 1 acre of wetlands and other waters permanently impacted by the project). For off-site, in-kind mitigation, the County shall acquire, preserve, enhance, and manage lands that provide similar ecological functions and values to the wetlands and other waters impacted by project. The acquisition and preservation/enhancement of these higher quality lands shall occur at a ratio of 3:1 (meaning 3 acres of wetlands or other waters shall be acquired, preserved, and enhanced for every 1 acre of wetlands and other waters impacted by the project). Enhancement may include modification of existing management, limited planting, or invasive plant removal, or other activities to enhance wetland/aquatic habitat functions and values.

d) **Less Than Significant with Mitigation Incorporated**. The project area consists of open space and provides habitat for local and regional wildlife movement. Implementation of the proposed project would not create any significant new permanent barriers to terrestrial or aquatic wildlife movement. The primary wildlife movement corridor at the site is Tunitas Creek and its associated riparian habitat. Tunitas Beach and the associated coastal scrub also provides habitat for the movement of several species. The project site currently contains a driveway and building. Proposed improvements at the project, including trails, restroom, ranger station, ranger residence, and gathering areas, are not expected to significantly impact existing movement of wildlife.

The project would impact a potential wildlife nursery site for Townsend's big-eared bat, within the unoccupied building. Mitigation Measure BIO-6A and BIO-6B would reduce potential impacts to roosting Townsend's big-eared bat. Mitigation Measure BIO-4 would also reduce potential impacts to nesting birds. No other wildlife nursery sites, such as heron rookeries, are not known to occur at the site. Tunitas Creek supports habitat for steelhead and other fish species that may use the creek as a nursery site, but the water level and habitat within the creek would not be significantly impacted by the project with implementation of Mitigation Measure UTIL-1. Therefore, with implementation of these mitigation measures, potential impacts to wildlife nursery sites would be less than significant with mitigation incorporated.

e) **Less-Than-Significant Impact.** All riparian forest and scrub, wetlands, and streams on the project site are considered jurisdictional coastal wetlands by the California Coastal Commission. The project site is located within the coastal zone limits of the San Mateo County Local Coastal Program (LCP). The LCP for this project location includes riparian corridors, wetlands, marine habitats, sand/coastal dunes, sea cliffs, and special-status species habitat as sensitive habitat.

The proposed project, which is a public project being undertaken by the County, would be subject to the policies, requirements, standards and conditions of the General Plan and the County's LCP, given its location in the Coastal Zone. Therefore, the proposed project would be required to comply with Chapter 16.30 Riparian Corridor and Wetland Protection, Chapter 16.32 Sensitive Habitat Protection, and Chapter 16.34 Significant Tree Protection of the LCP and obtain a Coastal Development Permit prior to development.

Several mature trees on the project site are protected by the County's tree protection ordinance. The County typically requires a permit for the trimming or removal of "significant trees" and may require an arborist report with the permit application for trees that may need to be trimmed or removed. Replacement of impacted trees at a minimum 1:1 ratio would likely be required as part of the permit. The ordinance defines "significant trees" as any live woody plant rising above the ground with a single stem or trunk of a circumference of 38 inches or more measured at 4.5 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.

Compliance with these ordinances would ensure that implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources. This impact would be less than significant.

f) **No Impact**. The project site is not subject to the provisions of any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

3.5. CULTURAL RESOURCES

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?		X			1, 2, 26, 27, 30, 34, 47
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X			1, 2, 26, 27, 30, 34, 47
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			X		1, 2, 26, 27, 30, 34, 47

Explanation
CEQA defines a "historical resource" as a resource which meets one or more of the following criteria:

- Listed in, or eligible for listing in, the California Register of Historical Resources (California Register);
- Listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k);
- Identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code; or
- Determined to be a historical resource by a project's lead agency (PRC Section 21084.1 and State CEQA Guidelines Section 15064.5[a]).

The California Register defines a "historical resource" as a resource that meets one or more of the following criteria: (1) associated with events that have made a significant contribution to the broad patterns or local or regional history of the cultural heritage of California or the United States; (2) associated with the lives of persons important to local, California, or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; or (4) has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation. Under CEQA, historical resources can include precontact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts.

LSA conducted a cultural resources study for the proposed project consisting of background research and a field survey. The results of the study are summarized below.

Background Research. Background research consisted of a records search, aerial imagery and map review, and coordination with potentially interested parties to identify cultural resources at the project site. A records search at the Northwest Information Center of the California Historical Resources Information System in Rohnert Park was conducted on March 3, 2019. The Northwest Information Center is the official state repository of cultural resource records and reports for San Mateo County.

The records search identified two previously recorded precontact-period cultural resources on the project site that are likely the same site. CA-SMA-2 was recorded in 1949 as the Tunitas Glen Shellmound, a deposit of midden and shell detritus. The record states it is likely the same site as CRHL-375, recorded in 1940 as the "Tunitas Beach Indian Village Site on Portola Route." In 2006, no evidence of the site was observed during an archaeological survey of the

area. The Tunitas Beach Indian Village Site on the Portola Route is designated as California Historical Landmark #375. The landmark application was submitted in 1940. The plaque was not observed during a 1959 Historical Landmark inventory survey, and the site was not visited during a 1982 Historical Landmark inventory survey due to being located on private property. Four studies have been conducted within or in proximity to the project site, including two large-scale reconnaissance reports.

Native American Heritage Commission (NAHC) Sacred Lands File. On October 11, 2019, a request was submitted to the NAHC to review its Sacred Lands File for the project site. LSA also requested a list of geographically affiliated tribal groups that may be interested in the project and may request consultation pursuant to Assembly Bill 52 (AB 52). On October 23, 2019, the NAHC provided negative search results and a list of tribal members who may have interest in the project.

Historical Society Outreach. In late 2019, outreach to various historic societies, including the Half Moon Bay Historical Association, and the San Mateo Historical Society was conducted to request any information or concerns about the existing residence on the project site, including information pertaining to past ownership of the property. Both of these organizations responded that a search of their records was negative for any information regarding past owners or occupants of the building.

Native American Outreach. County sent a consultation letter to the currently recognized Native American representatives for the County in accordance with AB 52. To date, no tribes have requested consultation pursuant to Public Resources Code section 21080.3.1

Historic-Period Aerial Photograph and Map Review. A review of historic-period aerial imagery and maps was conducted to determine the age of the extant structures and buildings observed on the project site. A 1953 aerial image depicts a building and structures along a dirt road on the project site, as well as one building near Tunitas Creek. A 1960 aerial image depicts the residence and four other buildings. A 1980 aerial image depicts the dirt road nearly overgrown and it is unclear if the buildings and structures depicted on the 1953 aerial image are present. By 1995, the only buildings depicted on the topographical map include the existing residence and two buildings.

Field Survey. A pedestrian survey of the project was conducted on October 14, 2019. The field survey did not identify any archaeological cultural resources on the project site. Remnants of the concrete trestle supports for the bridge that carried the Ocean Shore Railroad over Tunitas Creek were observed on the north side of Tunitas Creek, outside of the project site. Two drainage pipes with concrete box catch tanks were observed extending from Highway 1 to the beach.

Buried Archaeological Site Potential. Assessing the potential for buried archaeological site deposits on the project site requires an understanding of landform age and overlying soils. Fundamentally, there is an inverse relationship between landform age and the potential for buried archaeological deposits. Some landforms predate human occupation of the region (e.g., Pleistocene-aged alluvial deposits) and, as such, archaeological deposits on these landforms, if present, would be located at or near the surface. In contrast, those landforms that were formed during the Holocene (circa 11,700 years ago to the present) have a potential for containing buried surfaces (paleosols) that would have been available for human habitation during prehistory. Sediment profiles in the South Bay indicate that a warming event occurred between 17,000 and 7,000 years ago, causing the sea level to rise to its current level by 6,000 years ago during the Middle Holocene. The majority of coastal archaeological sites identified to date are less than 6,000 years old.

The project site contains unstable and/or aeolian[3] landforms consisting of coastal beach (7 percent), terrace escarpments (approximately 30 percent), and rough broken land (approximately 33 percent). The rough broken land identified at the project site typically contains a 0-10 inch H horizon over bedrock. Soil types present include steep eroded soils (Lobitos loam, Gazos loam, Tierra loam) and mixed alluvium that altogether make up 30 percent of the project site. Based on the landforms, slope, and soil types present on the project site, the potential for buried archaeological deposits is moderate.

California Register of Historical Resources Evaluation. Two historic-period cultural resources over 50 years old, were identified at the project site. The resource at 20775 Cabrillo Highway South consists of a 1958 residence with

[3] Relating to or arising from the action of the wind.

associated lampposts, a pump house, and landscaping. The Tunitas Glen Depot workers' cabins consist of the remains of three circa-1920 buildings once used as cabins. LSA evaluated both resources for their eligibility for listing in the CRHR. The evaluation concluded that neither 20775 Cabrillo Highway South nor the Tunitas Glen Depot workers' cabins qualify as historical resources for the purposes of CEQA as defined at PRC Section 21084.1, as defined in Section 5020.1(k), or deemed significant pursuant to criteria set forth in Section 5024.1(g).

a) **Less-Than-Significant with Mitigation Incorporated**. Under CEQA, historical resources can include precontact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts. As described above, the existing structures on the site do not appear eligible for listing in either the National Register of Historic Places or the CRHR, nor do they otherwise constitute a historical resource for the purposes of CEQA. However, precontact-period cultural resources have been identified at the project site and the geomorphology of the project site indicate that buried archaeological deposits could be present at the project site. The proposed project has the potential to unearth previously unidentified archaeological historical resources. Disturbance of such remains could result in a substantial adverse change in the significance of a historical resource. Implementation of Mitigation Measures CULT-1A and CULT-1B would reduce potential impacts to unrecorded archaeological historical resources that may be unearthed during construction to a less-than-significant level. This mitigation measure would require monitoring of construction activities and would ensure that work would temporarily stop at the location of a significant archaeological discovery to allow for recordation of the deposit and recovery of important information from the site.

Mitigation Measure CULT-1A: Archaeological Monitoring. During project construction, archaeological monitoring shall be conducted for any ground-disturbing activities in the project site, including grubbing or removal of vegetation. A qualified archaeologist shall (1) identify any archaeological resources that may be present; and (2) ensure that if human remains are identified they are treated in an appropriate and respectful manner and provisions outlined in Section 7050.5 of the California Health and Safety Code are followed. If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archaeologist can assess the significance of the find. If major adjustments are made to the horizontal or vertical extent of the project site, then an archaeologist shall be consulted to determine if further identification efforts are recommended.

Mitigation Measure CULT-1B: Unidentified Archaeological Resources. The potential for encountering previously unidentified buried archaeological cultural resources in the project site is moderate based on the geological landforms and on the presence of previously recorded archaeological sites identified within and adjacent to the project site. If deposits of prehistoric or historical archaeological materials are encountered during project activities that are not monitored, all work within 50 feet of the discovery shall be redirected and a qualified archaeologist contacted to assess the situation, and make recommendations regarding the treatment of the discovery. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. Archaeological cultural resources shall be avoided by project activities. If such resources cannot be avoided, they shall be evaluated for their CRHR eligibility, under the direction of a qualified professional archaeologist, to determine if they qualify as a historical resource under CEQA. If the deposit is not eligible, a determination shall then be made as to whether it qualifies as a unique archaeological resource under CEQA.

If the deposit is not a historical, unique archaeological or tribal cultural resource, avoidance is not necessary. If the deposit is eligible for the CRHR or is a unique archaeological resource and cannot be avoided by project actions that may result in impacts, such impacts must be mitigated. Mitigation may consist of, but is not limited to, recording the resource; recovery and analysis of archaeological deposits; preparation of a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach may also be appropriate. Upon completion of the study, the archaeologist shall prepare a report documenting the methods and results of the investigation, and provide recommendations for the treatment of the archaeological materials discovered. The report shall be submitted to the County and to the Northwest Information Center.

Likewise, during operation and maintenance activities at the proposed park, impacts to cultural resources may occur as a result of ground disturbing activities. Implementation of BMPs CUL-4, CUL-5, and CUL-6 in the Maintenance Program Manual (see Appendix A) would reduce potential impacts to a less than significant level.

b) **Less-Than-Significant with Mitigation Incorporated**. According to the CEQA Guidelines, "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource" (CEQA Guidelines Section 15064.5(c)(1)). Those archaeological sites that do not qualify as historical resources shall be assessed to determine if these qualify as "unique archaeological resources" (California PRC Section 21083.2).

Archaeological deposits identified during project construction, operation and maintenance (if any) shall be treated by the County—in consultation with a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology—in accordance with Mitigation Measures CULT-1A and CULT-1B. With implementation of Mitigation Measures CULT-1A and CULT-1B, identified above, and BMPs CUL-4, CUL-5, and CUL-6 identified in the Maintenance Program Manual (appendix A), impacts to archaeological resources would be less than significant.

c) **Less-Than-Significant Impact**. Based on previous archaeological investigation and analysis, there is a moderate potential for project activities to disturb archaeological cultural resources or human remains. However, if human remains are encountered at the project site, State Health and Safety Code Section 7050.5 and State CEQA Guidelines Section 15064.5(e)(1) state that no further disturbance shall occur to the area of the find until the County Coroner has made a determination of origin and disposition of the human bone pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately and shall make a determination within two working days of being notified. If the remains are determined to be Native American, the County Coroner shall notify the NAHC by phone within 24 hours, and the NAHC shall then immediately determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment of the remains within 48 hours of being granted access to the site. MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.

Compliance with Section 7050.5 of the California Health and Safety Code and Public Resources Code Section 5097.98 regarding the treatment of human remains would ensure that potential impacts to human remains would be less than significant.

3.6 ENERGY

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X		1, 2, 5
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X		1, 2, 5

Explanation

a) **Less-Than-Significant Impact**. This analysis evaluates energy consumption for both construction and operation of the proposed project, including diesel fuel use for construction off-road equipment.

Construction. Construction of the proposed project would include site clearing, slope stabilization, and rough grading, utilities and general site work, and final site preparation and paving. The construction phase would require energy for the manufacture and transportation of building materials, and preparation of the site (e.g., excavation, and grading). Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. That is because equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited. The proposed project does, however, include several measures that would improve the efficiency of the construction process. Implementation of the BAAQMD Basic Construction Mitigation Measures, as required by Mitigation Measure AIR-1, would restrict equipment idling times to five minutes or less and would require the applicant to post signs on the project site reminding workers to shut off idle equipment. The project would also recycle or salvage construction waste where possible. With implementation of the BAAQMD Basic Construction Mitigation Measures, the short-term energy impacts associated with use of fuel or energy related to construction would be less-than-significant.

Operation. Typically, energy consumption is associated with fuel used for vehicle trips, and residential electricity and natural gas use. As discussed in Section 3.17, Transportation, the proposed project would generate approximately 86 new vehicle trips per day, which would result in a minimal increase in gasoline and diesel fuel consumption. In addition, operation of the proposed project would use minimal electrical power for the residence, water pumps, and pathway lighting. Therefore, operational energy impacts would be less than significant.

In summary, the project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

b) **Less-Than-Significant Impact**. See discussion in Section 3.6.a, above. The project would not result in the conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

3.7 GEOLOGY AND SOILS

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X	1, 2, 16
ii) Strong seismic ground shaking?			X		1, 2, 4, 12, 16, 17, 36, 53
iii) Seismic-related ground failure, including liquefaction?			X		1, 2, 17, 36
iv) Landslides?			X		1, 2, 17, 36
b) Result in substantial soil erosion or the loss of topsoil?			X		1, 2
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?			X		1, 2, 17, 36
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X		1, 2, 17, 36
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 waste water?			X		1, 2
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X			1, 2

Explanation
The project site is located within the California Coast Range geomorphic province, west of the Santa Cruz Mountains, on a narrow coastal plain along the Pacific Coast. Geologic mapping indicates that the site is underlain by sedimentary bedrock materials of the Purisima Formation, which consist of fine sandstone, siltstone, and mudstone. Locally these bedrock materials are overlain by a colluvial soil mantle that appears to be relatively thin along the top of the bluff (i.e., less than 5 feet thick), to thick (5- to 15 feet in thickness within topographic swales). Graded portions of the bluff top contain artificial fill that appears to be from 2 to approximately 8 feet thick. The toe of the bluff face is partially protected from wave attack by a back beach bar that is 3 to 6 feet higher than the active beach. This back beach bar is approximately 120 feet wide where the access trail meets the beach, but widens to nearly 300 feet near Tunitas Creek. The back beach bar contains established vegetation which indicates that this area experiences infrequent inundation and wave attack.

Regional landslide maps of the area identify a probable landslide encompassing parts of Highway 1, the majority of the property where the residence is located, and down to the beach. Site-specific mapping was completed by Romig Engineers and Cotton, Shires and Associates, Inc. Mapping by these consultants identifies a large active slide along the northeast side of the property with the right lateral margin encroaching on Highway 1 and the left lateral margin extending close to the entrance of the existing beach access trail, with the toe of the slide encroaching on Tunitas Creek, and the headscarp located near the maintenance area along the existing driveway. Additional slides were mapped across the existing beach access trail along the bluffs. Active sliding along the bluffs was also identified south of the existing residence. Recent and less active sliding was identified extending up to the Mid Bluff and Top Bluff zones, as well as to the cut slope above Highway 1. Many of these slides are large and deep, rendering them irreparable. Furthermore, some of these slides have no evidence of movement in the last 30 years.

a.i) **No Impact**. The State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972, requiring the State Geologist to delineate Earthquake Fault Zones (EFZ) along known active faults that have high potential for fault rupture. Active faults are defined as a fault that has surface displacement within the last 11,000 years. State regulations prohibit habitable structures from being sited within 50 feet of an active fault. The project site is not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone. Therefore, the project would have no impact on people and structures related to fault rupture.

a.ii) **Less-Than-Significant Impact**. The project site and the entire San Francisco Bay Area are located in a seismically active region subject to strong seismic ground shaking. Ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground-shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. The magnitude of a seismic event is a measure of the energy released by an earthquake; it is assessed by seismographs that measure the amplitude of seismic waves. The intensity of an earthquake is a subjective measure of the perceptible effects of a seismic event at a given point. The Modified Mercalli Intensity (MMI) scale is the most commonly used scale to measure the subjective effects of earthquake intensity. It uses values ranging from I to XII.

The San Gregorio Fault is located under the Pacific Ocean, approximately 0.5 to 1 mile southwest of the project site. Other active faults in the vicinity of the project site include the San Andreas Fault, located approximately 8 miles northeast of the site, and the Hayward and Calaveras faults, located approximately 26 and 33 miles northeast of the project site, respectively.

Mapping has been compiled by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) for the likely shaking intensities in the Bay Area that would have a 10 percent chance of occurring in any 50-year period. A large earthquake (magnitude 6.7 or greater) on one of the major active faults in the region would generate violent (MMI 9) ground shaking at the project site.

The most significant adverse impact associated with strong seismic shaking is potential damage to structures and improvements. Implementation of the proposed project would increase the use of the project site and result in the construction of improvements in areas subject to seismic shaking. The risk of ground shaking impacts is reduced through adherence to the design and materials standards set forth in building codes. The

County has adopted the 2019 California Building Code (Title 24, Part 2 of the California Code of Regulations [CBC]), which provides for stringent construction requirements on projects in areas of high seismic risk. The design and construction for the proposed project would be required to conform with, or exceed, current best standards for earthquake resistant construction in accordance with the most recent CBC adopted by the County and with the generally accepted standards of geotechnical practice for seismic design in Northern California. Incorporation of seismic construction standards in accordance with the California Building Code would reduce the potential for catastrophic effects of ground shaking, such as complete structural failure, and would reduce the impact of strong seismic ground shaking to a less-than-significant level.

a.iii) **Less-Than-Significant Impact**. Soil liquefaction is a phenomenon in which a saturated, cohesionless or non-plastic, near surface soil layer loses strength during cyclic loading (e.g. loading typically generated by earthquakes). During the loss of strength, the soil develops mobility sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are loose, saturated, fine-grained sands and non-plastic silts and clays that are generally located within 50 feet of the ground surface. Due to the shallow bedrock encountered in the borings, there is a low liquefaction potential at the project site.

Lateral spreading is a type of ground instability that results in ground displacements that occur when liquefaction of a soil layer causes insufficient strength for lateral stability. This phenomenon occurs when either the ground surface or the soil layer subject to liquefaction is sloped, or when there is an open slope face or stream channel adjacent to a potentially liquefiable soil layer. These conditions are not known to be present at the site. The potential for lateral spreading to occur at the site is low.

Seismically induced ground shaking can cause vertical subsidence of specific types of soils. Seismically related settlement generally results from the densification of loose sands and sandy silts due to vibrations or liquefaction. Ground lurching is a phenomenon whereby strong seismic shaking causes cracking and deformation of the ground surface in areas underlain by soft weak soils. The cracking and deformation are the result of the disruption of the passing earthquake waves. Due to the stiff and low hardness consistency of the near-surface materials encountered in the near-surface materials, there is a low potential for lurching and/or differential densification (settlement) of the bedrock and landslide materials at the project site. Therefore, impacts related to seismic-related ground failure, including liquefaction, would be less than significant.

a.iv) **Less-Than-Significant Impact**. The project site is located on steeply sloping terrain and coastal bluffs that are known to contain both active and dormant landslides. The majority of proposed improvements would be located along the Top Bluff and the Mid Bluff, outside of identified landslide areas. Finished floor elevations of all permanent structures and paved surfaces would be constructed above and set back from the Cliff Erosion projected elevation of 90 feet above mean sea level. In addition, as outlined in Chapter 2, Project Description, the proposed project would include features to control stormwater, including vegetation management and plantings, and stabilize slopes in order to minimize the potential for earth movement. Proposed improvements located within an area of potential ground movement would require minimal development (e.g., trails) and could be relocated in the event of landslide. Proposed water lines from the well head to the storage tank would be placed primarily above ground; the underground portion of the pipeline would be located outside of landslide areas. Landslide areas present along the existing gravel pathway from the Mid Bluff down to the beach would be stabilized by either: 1) removing the slide material and rebuilding the slope; or 2) installing a wood retaining wall supported by anchors. If the slope is rebuilt, the bluff would be rebuilt from its base, extending it into the beach by approximately 5 feet in order to reduce the slope to 3:1 (horizontal: vertical). Therefore, implementation of the proposed project would improve slope stability in the project area.

Implementation of the proposed project would likely result in an increase in visitation to the site; however, as outlined in Chapter 2.0, the project site is already being accessed via the informal parking area along Highway 1 and the unauthorized, social trail that cuts down the bluffs. The proposed project would provide safer access for visitors from the top of the bluffs to the beach. Maintenance activities would be conducted in compliance with the BMPs identified in the Maintenance Program Manual, including site stabilization, erosion control, and other measures to prevent slope failure. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects from landslides. This impact would be

less than significant.

b) **Less-Than-Significant Impact**. As outlined in the Chapter 2.0, Project Description, a history of use, prior to ownership by the County, has facilitated the development of visitor-created unauthorized trails and shortcuts down the bluffs. Steep trails without adequate ground cover are heavily eroded with cutting and compaction along their edges. These trails act as drainage ditches carrying water during storm events. Implementation of the proposed project, including the closure and rehabilitation of unauthorized trails would reduce erosion by revegetating steep trails that exacerbate conditions that are conducive to erosion.

Development of proposed park facilities would include grading activities that could result in short-term soil erosion during the construction period. The potential for soil erosion exists during the period of earthwork activities and between the time when earthwork is completed and new vegetation is established or hardscape is installed. Exposed soils could be entrained in stormwater runoff and transported off the project site. Construction specifications require the preparation of a Stormwater Pollution and Prevention Plan (SWPPP) prior to any ground disturbance activities as required by the National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Construction (Order 2009-009-DWQ). The SWPPP would provide the details of the erosion control measures to be applied on the project site during the construction period, including Best Management Practices (BMPs) for erosion control that are recognized by the RWQCB. In addition, the project contractor would be required to implement construction BMPs to minimize the potential for release of hazardous materials during construction, including a concrete containment plan, in accordance with the County of San Mateo Watershed Protection Program's Maintenance Standards (2004) and SMCWPPP Construction BMPs. Refer also to the discussion in Section 3.10, Hydrology and Water Quality of this Initial Study. With implementation of these BMPs, potential impacts related to soil erosion would be less than significant.

c) **Less-Than-Significant Impact**. Please refer to Section 3.7.a. The proposed project would be designed and constructed in accordance with standard engineering practices and the CBC. The project site not anticipated to become unstable as a result of the proposed project, or potentially result in on- or off-site landslides, liquefaction, or lateral spreading. This impact would be less than significant.

d) **Less-Than-Significant Impact**. Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. According to the Geotechnical Investigation and Geologic Feasibility Study, the near-surface soils at the site have a moderate to high expansion potential. The proposed project would be designed and constructed using standard construction methods and in compliance with the CBC. Adherence to the CBC requirements would ensure that geotechnical design of the proposed project would reduce potential impacts related to expansive soils to a less-than-significant level. Therefore, expansive soils, would not pose a risk to life or property, and this impact would be less than significant.

e) **Less-Than-Significant Impact**. The new public restrooms would include vaults for storage of wastewater. The wastewater would then be removed by truck and disposed of at the nearest wastewater treatment facility. The Parks Department currently provides this service for its restrooms at other parks within the County.

As described in Section 2.6.4, the County would consider installing a septic system to treat wastewater for the proposed ranger residence. The septic system would be required to be designed, installed and maintained in accordance with the County's Onsite Wastewater Treatment Systems Ordinance (Chapter 4.84 of the San Mateo County Ordinance Code) and permitted by County of San Mateo Environmental Health. Compliance with these regulatory requirements would ensure that the proposed septic system would be consistent with the Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems, adopted by the State Water Resources Control Board on June 19, 2012 and with California Regional Water Quality Control Board standards and basin plans. If it is found infeasible to develop a septic system, wastewater would be collected in a vault and disposed in a wastewater treatment facility similar to the public restroom. With compliance with County of San Mateo Environmental Health requirements, implementation of the proposed project would not result in impacts to soils associated with the use of such wastewater treatment systems. This impact would be less than significant.

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f) **Less-Than-Significant with Mitigation Incorporated.** No known paleontological resources or unique geologic features are known to exist within the project site; however, as described above, the project site is underlain by sedimentary bedrock materials of the Purisima Formation, which is considered to have high paleontological sensitivity. Although ground disturbance associated with implementation of a majority of proposed improvements would not extend below a depth of 4 feet, the grading repair of the landslide would result in a cut of as much as 15 feet in depth. Ground disturbance has the potential to impact scientifically important paleontological resources. Implementation of Mitigation Measure GEO-1, described below, would mitigate direct or indirect impacts to unique paleontological resources or unique geologic features in the event such resources are encountered during ground disturbance associated with project construction, operation and maintenance. With implementation of Mitigation Measure GEO-1, impacts to paleontological resources would be less than significant.

Mitigation Measure GEO-1: If paleontological resources are encountered during the course of ground disturbance, work in the immediate area of the find shall be redirected and a paleontologist shall be contacted to assess the find for scientific significance. If determined to be significant, the fossil shall be collected from the field. The paleontologist may also make recommendations regarding additional mitigation measures, such as paleontological monitoring. Scientifically significant resources shall be prepared to the point of identification, identified to the lowest taxonomic level possible, cataloged, and curated into the permanent collections of a museum repository. If scientifically significant paleontological resources are collected, a report of findings shall be prepared to document the collection.

3.8 GREENHOUSE GAS EMISSIONS

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		1, 2, 5, 37
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X		1, 2, 5, 37

Explanation

Greenhouse gas emissions (GHGs) are present in the atmosphere naturally, and are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. However, over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global climate change. The gases that are widely seen as the principal contributors to human-induced global climate change are: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6).

While GHGs produced by human activities include naturally occurring GHGs such as CO_2, CH_4, and N_2O, some gases, such as HFCs, PFCs, and SF_6, are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the atmosphere compared to those GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this analysis, the term "GHGs" will refer collectively to the six gases identified in the list provided above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e). For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than carbon dioxide.

a) **Less-Than-Significant Impact**. This section describes the proposed project's construction- and operational-related GHG emissions and contribution to global climate change.

Construction GHG Emissions. Construction of the proposed project would include site clearing, slope stabilization, and rough grading, utilities and general site work, and final site preparation and paving. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. The BAAQMD does not have an adopted threshold of significance for construction-

related GHG emissions. Although not required to reduce a significant impact, implementation of the BAAQMD's Basic Construction Mitigation Measures, as required by Mitigation Measure AIR-1, would reduce GHG emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment. Therefore, project construction impacts associated with GHG emissions would be less than significant.

Operational Emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., cars, trucks and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution).

As discussed in Section 3.3, Air Quality, the BAAQMD has developed screening criteria to provide lead agencies with a conservative indication of whether the proposed project would result in potentially significant air quality impacts. If all of the screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment of the proposed project's emissions. These screening levels are generally representative of new development without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions.

For park land uses, the BAAQMD screening size for operational GHG emissions is 600 acres. Since the total project site is approximately 56 acres, based on the BAAQMD's screening criteria, operation of the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment and impacts would be less than significant.

b) **Less-Than-Significant Impact**. The County has two Climate Action Plans currently in place – a Government Operations Climate Action Plan and a Community Climate Action Plan. In 2012, the Board of Supervisors adopted the County's Government Operations Climate Action Plan, which focuses on the County's facilities and operations. This Plan outlines GHG reduction measures to implement in the areas of energy, transportation, and solid waste in order to meet our goal of a 15 percent reduction in GHG emissions by the year 2020. In 2013, the County's Planning and Building Department completed the Community Climate Action Plan (also known as the Energy Efficiency Climate Action Plan, which includes a GHG inventory of all the emissions that resulted from the unincorporated areas and a list of various proposed measures to reduce these emissions).

As discussed above, the proposed project is intended to provide safe access for the public to visit Tunitas Creek Beach. It would also restore native habitat, protect the sensitive bluff landscape, and ameliorate erosion conditions created by use of unsanctioned social trails that descend from the top of the bluff to the beach. In addition, vehicular safety along Highway 1 would be improved with the addition of controlled entry/exit points along the roadway at safe sight distances. The proposed project would generate minimal GHG emissions that would not have a significant impact on the environment. As such, the proposed project is not expected to conflict with the County's Climate Action Plans, and would therefore not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts would be less than significant.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X			1, 2, 3, 20
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X			1, 2, 3, 20
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	1, 2
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X	1, 2, 3, 20
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X	1, 2
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X		1, 2
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X	1, 2, 37

Explanation

A Phase 1 Environmental Site Assessment prepared by Erler & Kalinowski, Inc. (2017) identified the potential presence of lead-based paint (LBP) and asbestos-containing materials (ACM) in the existing residence and the six cabins. Surface soil around the base of the cabins may also contain elevated concentrations of lead due to flaking of LBP from the exterior walls. Arsenic may be present in the soils along the alignment of the former railroad that

traverses the property. Historically, the use of arsenic for vegetation maintenance (herbicide) along rail lines was common.

Several small-scale and scattered debris or disposal areas were identified on the project site, primarily in the northern portion of the site. No evidence of ground surface contamination was identified in association with the debris piles. In addition, a pole-mounted electrical transformer on the project site was determined to potentially contain polychlorinated biphenyls (PCBs). The transformer has subsequently been removed by Pacific Gas and Electric (PG&E).

The Asbestos, Lead, and Hazardous Building Materials Investigation prepared by Acumen Industrial Hygiene, Inc. confirmed the presence of friable and non-friable asbestos and LBP at the existing residence and one of the nearby cabins; the other five cabins were not surveyed, but are presumed to contain similar materials. The field investigation concluded that the texture on the drywall and ceiling located throughout the residence contains friable asbestos. At the residence, the vinyl floor tiles, pink coating on the exterior wood, and roof penetration mastic contain non-friable asbestos. In addition, the field investigation found that both the residence and cabin contain LBP.

a) **Less-Than-Significant with Mitigation Incorporated.** Hazardous substances include chemicals regulated under both the United States Department of Transportation and the U.S. Environmental Protection Agency (USEPA) "Hazardous Materials" regulations. Hazardous waste requires specific handling and disposal procedures because of potential damage to public health and the environment. The proposed project would be located on lands owned by the Parks Department. As described above, the existing structures contain both LBP and ACM. Project construction would require demolition of the existing site structures. In addition, demolition activities would likely disturb soils around these structures, which likely contain lead. If these hazardous building materials were not appropriately abated and disposed of, demolition of existing structures could result in the release of these hazardous building materials into the environment and exposure of construction workers and the public.

The removal of hazardous building materials prior to demolition of structures is governed by federal and State laws and regulations. Federal regulations require that lead-based paint be removed prior to demolition if the paint is loose and peeling. Loose and peeling paint must be disposed of as a State and/or federal hazardous waste, if the concentration of lead exceeds applicable waste thresholds. State and federal construction worker health and safety regulations require air monitoring and other protective measures during demolition activities where lead-based paint is present, and notification to the California Division of Occupational Safety and Health (DOSH) for abatement activities.

Workers who conduct hazardous materials abatement and demolition activities must be trained in accordance with Occupational Health and Safety Administration (OSHA) and California OSHA (Cal-OSHA) requirements. Hazardous building materials removed during construction must be transported in accordance with U.S. Department of Transportation (DOT) regulations and disposed of in accordance with the federal Resource Conservation and Recovery Act (RCRA), the California Code of Regulations, and/or the California Universal Waste Rule at a facility permitted to accept the wastes.

Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. BAAQMD Regulation 11-2-401.3 requires notification to be made to BAAQMD prior to demolition activities. Compliance with these regulations would ensure that demolition and removal of existing structures on the project site would be less than significant.

As described above, contaminated soil is likely to occur in proximity to the existing structures on the site and the historic railroad corridor that traverses the project site from north to south. The disturbance and improper management of contaminated soil during construction could cause the release of contaminants into the environment, and could result in exposure of the public and construction workers to hazardous materials. Implementation of Mitigation Measure HAZ-1, which requires preparation and implementation of a Health and Safety Plan would ensure impacts to construction and maintenance workers during any disturbance of contaminated on-site soils would be less than significant.

Mitigation Measure HAZ-1: The Parks Department shall hire a qualified contractor to prepare a site-specific Health and Safety Plan (HSP). The HSP shall establish soil management and control specifications for excavation, grading, and construction activities, including procedures for evaluation of soil disposal options, and health and safety provisions for monitoring the exposure of construction workers to contaminants. The HSP shall be submitted to the County for review and approval. The County shall review and approve the HSP and the project contractor shall implement the recommended soil management and control specifications.

During construction of proposed park improvements, and during park operation and maintenance, hazardous materials (e.g., fuel, oils, and paints) would be routinely transported, stored, and used at the project site. Because the proposed project would result in soil disturbance greater than 1 acre, management of hazardous materials during construction activities would be subject to the requirements of the Stormwater Construction General Permit (described in detail under Section 3.10, Hydrology and Water Quality), which requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes hazardous materials storage requirements. In addition, the project contractor would be required to implement construction BMPs to minimize the potential for release of hazardous materials during construction, including a concrete containment plan, in accordance with the County of San Mateo Watershed Protection Program's Maintenance Standards (2004) and SMCWPPP Construction BMPs. These measures are identified in Chapter 2, Project Description.

The proposed project would result in the development of park improvements. Normal operations would not introduce potentially hazardous materials. California law requires all facilities that use or store more than certain quantities of hazardous materials on-site to file hazardous materials business plans that list and map the location of onsite hazardous materials storage and use and that describe procedures in the event of an accident.

Compliance with existing regulations described above and implementation of the HSP, required by Mitigation Measure HAZ-1, would ensure that potential impacts from the routine transport, use, or disposal of hazardous materials during construction and operation of the proposed project would be less than significant.

b) **Less-Than-Significant with Mitigation Incorporated**. As described above, construction of the proposed project would require demolition and removal of existing structures and contaminated soil from the project site, as well as use of hazardous materials (e.g., oils, fuels, solvents, paints) associated with construction of proposed park improvements. An accidental release of these hazardous materials during project construction could result in exposure of construction workers, the public, and/or the environment to hazardous materials.

As discussed above, the proposed project would be subject to the requirements of the Construction General Permit, which requires preparation and implementation of a SWPPP to reduce the risk of spills or leaks from reaching the environment, including procedures to address minor spills of hazardous materials. In addition, the proposed project would be required to implement BMPs in compliance consistent with County of San Mateo Watershed Protection Program's Maintenance Standards (2004) and SMCWPPP Construction BMPs, as outlined in Chapter 2, Project Description.

The transportation of hazardous materials is subject to both RCRA and DOT regulations. Hazardous materials would be transported by a licensed hazardous waste hauler and disposed of at facilities that are permitted to accept such materials. If a discharge or spill of hazardous materials occurs during transportation, the transporter is required to take appropriate immediate action to protect human health and the environment (e.g., notify local authorities and contain the spill), and is responsible for the discharge cleanup.

As described above, an HSP would be prepared and implemented consistent with Mitigation Measure HAZ-1, to ensure contaminated soils and materials are appropriately handled, removed from the site and disposed of, in compliance with federal, State and local regulations. The HSP would address potential impacts to construction workers per Cal OSHA requirements. With implementation of Mitigation Measure HAZ-1 and compliance with regulatory requirements, impacts associated with the accidental release of hazardous materials would be less than significant.

The proposed project would not involve storage or use of hazardous materials (except for small quantities for landscape maintenance as described above) or generation of significant hazardous wastes. As such, potential significant impacts related to a foreseeable upset associated with operation of the proposed park would not be expected. This impact would be less than significant.

c) **No Impact**. The project is not located within 0.25 miles of a school. The closest schools to the project site are the El Granada Elementary School and the Wilkinson School, located approximately 10 miles north of the project site. In addition, the proposed project would not routinely emit hazardous emissions, and handling of hazardous or acutely hazardous materials, substances, or waste on the project site (if any) would be temporary and cease upon project completion. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school. No impact would occur.

d) **No Impact**. The project site is not located on or near a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would not create a significant hazard to the public or the environment. No listed sites are located in proximity to the proposed project. No impact would occur.

e) **No Impact**. The project site is not located within an airport land use plan, or within 2 miles of a public airport or public use airport. The closest airport to the project site are the Half Moon Bay Airport/Eddie Andreini Sr. Airfield, located approximately 10 miles north of the project site and Palo Alto Airport, located approximately 13 miles to the east of the project site. The proposed project would include development and operation of a County park, with passive recreation uses. Proposed improvements would be largely at-grade. The proposed project would not increase residential density, would not be an incompatible land use, would not increase the height such that it would create a hazard or obstruction, and would not result in the addition of a characteristic that would create a hazard to air navigation. Therefore, the proposed project would have a less-than-significant impact related to airport safety hazards.

f) **Less-Than-Significant Impact**. The proposed project would not result in inadequate emergency access, but would provide improved parking, as well as safe ingress and egress from Highway 1, compared to existing conditions. In addition, the proposed project would include a portion of the California Coastal Trail, which would improve access for pedestrians and bicyclists during an emergency. Emergency vehicle access to the project site would continue to be provided via Highway 1.

The County's Emergency Operations Center (EOC) is coordinated and maintained by the San Mateo County Fire Department's Office of Emergency Services (OES). OES coordinates planning, training and preparation for response to major emergencies or natural disasters including the preparation and implementation of the San Mateo County Local Hazard Mitigation Plan. The proposed project would construct park improvements to provide improved access to Tunitas Creek Beach from Highway 1, which is likely a primary evacuation route for areas along the coast during an emergency. The proposed project would not block Highway 1, nor would it interfere with an adopted emergency response plan or emergency evacuation plan. Because the proposed project would not substantially alter or block roadways in the project area, the proposed project would not be expected to impair the function of nearby emergency evacuation routes. Therefore, the proposed project would have a less than significant impact on implementation of an adopted emergency response plan or emergency evacuation plan.

g) **No Impact**. A wildland fire is a fire occurring in a suburban or rural area, which contains uncultivated land, timber, range, brush, or grasslands. Wildland fires are primarily a concern in areas where there is a mix of developed and undeveloped lands. The project site is located within a Local Responsibility Area (LRA), as mapped by the California Department of Forestry and Fire Protection (CAL FIRE). The California Department of Forestry, acting as the San Mateo County Fire Department provides fire protection and emergency services to the unincorporated areas of the County, including the project site. The project site is located within a Non-Very High Fire Hazard Severity Zone (Non-VHFHSZ). Therefore, the proposed project would not expose people or structures to a significant loss, injury or death involving wildland fires. No impact would occur.

3.10 HYDROLOGY AND WATER QUALITY

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X		1, 2
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X	1, 2, 42
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:					
i) Result in substantial erosion or siltation on- or off-site;			X		1, 2
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X		1, 2
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X		1, 2
iv) Impede or redirect flood flows?			X		1, 2, 21
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X		1, 2, 4, 21, 45
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X	1, 2

Explanation

Tunitas Creek consists of approximately 6.6 stream miles and has a watershed of approximately 15 square miles. It flows southwest, entering the Pacific Ocean at Tunitas Creek Beach. The existing watershed drains from west of Highway 1 and discharges into the Pacific Ocean via natural drainage swales. Watershed slopes vary from approximately 30 percent to up to 60 percent. Within the project site, the Tunitas Creek Beach watershed consists of five sub-tributaries. The existing tributaries and drainage paths, as well as the 100-year peak discharge rates for each of the sub-tributaries are shown on Figure 11.

a) **Less-Than-Significant Impact**. The State Water Resources Control Board (State Water Board) and nine Regional Water Quality Control Boards regulate water quality of surface water and groundwater bodies throughout California. In the Bay Area, including the project site, the Water Board is responsible for implementation of the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses for waterways and water bodies within the region.

Runoff water quality is regulated by the NPDES Program (established through the federal Clean Water Act). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. The project site would be under the jurisdiction of the San Francisco RWQCB, and the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), of which the County is a participant. SMCWPPP is a group of local government agencies that operate under one common NPDES Municipal Regional Stormwater Discharge Permit. Compliance with the Municipal NPDES Permit is required by State and federal law, and new construction projects must comply with the NPDES Construction General Permit.

Construction activities associated with the proposed project would cause disturbance of soil during excavation work, which could adversely impact water quality. Contaminants from construction vehicles and equipment and sediment from soil erosion could increase the pollutant load in runoff being transported to receiving waters during development. Although surface runoff from the site would likely decrease with the proposed project (due to the proposed stormwater treatment measures), runoff from the proposed landscaped areas may contain residual pesticides and nutrients (associated with landscaping) and sediment and trace metals (associated with atmospheric deposition) during operation of the project.

Construction Activities. Any construction activities, including grading, that would result in the disturbance of 1 acre or more would require compliance with the State Water Resources Control Board's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWG and 2012-0006-DWQ, NPDES No. CAS000002) (Construction General Permit). The project site is approximately 56 acres and as such, would be required to comply with the Construction General Permit. On-site construction activities subject to the Construction General Permit include clearing, grading, excavation, and soil stockpiling. The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. A SWPPP identifies all potential pollutants and their sources, including erosion, sediments, and construction materials and must include a list of Best Management Practices (BMPs) to reduce the discharge of construction-related stormwater pollutants. A SWPPP must include a detailed description of controls to reduce pollutants and outline maintenance and inspection procedures. Typical sediment and erosion BMPs include protecting storm drain inlets, establishing and maintaining construction exits and perimeter controls to avoid tracking sediment off-site onto adjacent roadways. A SWPPP also defines proper building material staging and storage areas, paint and concrete washout areas, describes proper equipment/vehicle fueling and maintenance practices, measures to control equipment/vehicle washing and allowable non-stormwater discharges, and includes a spill prevention and response plan.

In addition, the project contractor would be required to implement BMPs, conservation measures, and other techniques to minimize impacts on environmental resources during construction and ongoing maintenance activities, in accordance with the Maintenance Manual, County of San Mateo Watershed Protection Program's Maintenance Standards (2004) and SMCWPPP Construction BMPs.

Compliance with the requirements of the Construction General Permit and local regulations related to stormwater management would ensure that the proposed project would result in less-than-significant impacts to water quality during construction.

Operation Activities. The proposed project improvements would include design features that would protect water quality and control potential runoff on-site, including bioretention areas in the Top Bluff parking area. The proposed project would be considered a "regulated project" under the Regional Water Quality Control Board Municipal Regional Permit (MRP) implemented in November 2015 by Order R2-2015-0049, indicating that the State Water Board has determined the size and nature of the project has the potential to discharge a significant pollutant load to stormwater runoff and receiving waters. Provision C.3 of the MRP

requires new development and redevelopment projects that would replace more than 10,000 square feet of existing impervious surfaces to include post-construction stormwater control in project designs. Under the C.3 requirements, the preparation and submittal of a Stormwater Control Plan (SCP) would be required for the project site. The purpose of a SCP is to detail the design elements and implementation measures necessary to meet the post-construction stormwater control requirements of the MRP. In particular, SCPs must include Low Impact Development (LID) design measures, which reduce water quality impacts by preserving and recreating natural landscape features, minimizing imperviousness, and using stormwater as a resource, rather than a waste product. The proposed project would also be required to prepare a Stormwater Facility Operation and Maintenance Plan to ensure that stormwater control measures are inspected, maintained, and funded for the life of the project. Compliance with the C.3 requirements of the MRP would ensure that operation-period impacts to water quality would be less than significant.

b) **No Impact**. The proposed project is not located within a California Department of Water Resources (DWR) recognized Groundwater Basin and does not contain a recognized groundwater aquifer of any size or depth. An abandoned well is located on the project site. The County does not proposed to use any groundwater as part of the proposed project. Water to serve the proposed ranger residence and restrooms would be drawn from Tunitas Creek and captured from the proposed parking area.

The increase in the amount of impervious surface area associated with implementation of the proposed project is relatively low compared to the size of the project area (approximately 2.1 acres dispersed over the 56-acre project area [less than 4 percent of the total project area]), and all runoff from paved trails and parking/staging areas would be dispersed to adjacent undeveloped areas for infiltration and would not be collected within a storm drain system. Therefore the proposed project would not substantially interfere with groundwater recharge and would not impede sustainable groundwater management (see also Section 3.10.e.). No impact on groundwater would occur.

c.i) **Less-Than-Significant Impact**. During construction activities, soil would be exposed and disturbed, and drainage patterns would be temporarily altered, resulting in an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. As discussed above in Section 3.10.a above, the Construction General Permit requires preparation of a SWPPP and implementation of construction BMPs to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. In addition, the project contractor would be required to implement BMPs, conservation measures, and other techniques to minimize impacts on environmental resources during construction, in accordance with the County of San Mateo Watershed Protection Program's Maintenance Standards (2004) and SMCWPPP Construction BMPs. Therefore, adherence to the requirements of the Construction General Permit and local stormwater regulations would ensure that construction of the project would result in a less than significant impact related to this topic.

Implementation of the proposed park project would not result in a significant increase in impervious surface area or an associated increase in the volume and rate of runoff during a storm. Additionally, the proposed project would implement design features to protect existing drainage patterns and avoid impacts to drainage areas. Therefore, no significant change to the existing drainage pattern would occur resulting in on-site or off-site effects from erosion and siltation. This impact would be less than significant

c.ii) **Less-Than-Significant Impact**. Construction activities associated with implementation of the proposed project would temporarily alter on-site drainage patterns and compact soil, which can increase the volume and velocity of stormwater runoff. However, construction activities would be temporary, and the increase in runoff would not be substantial. As discussed in Section 3.10.a above, construction BMPs to be implemented as part of the project to reduce impacts to water quality during construction, including those impacts associated with flooding. Therefore, adherence to State and local regulations related to stormwater runoff would ensure that construction activities would result in a less than significant impact.
Implementation of the proposed project would not result in a significant increase in impervious surface area or an associated increase in the volume and rate of runoff during a storm. No significant change to the existing drainage pattern which would result in on-site or off-site flooding would occur. This impact would be less than significant.

c.iii) **Less-Than-Significant Impact**. The proposed project would not create or contribute runoff that would exceed the existing or planned stormwater drainage systems. The proposed project could result in additional sources of polluted runoff; however, compliance with State and County requirements for preparation of a SWPPP and a SCP would ensure that potential impacts associated with runoff and stormwater drainage systems would be less than significant

c.iv) **Less-Than-Significant Impact**. The project site is located within three zones as identified in FEMA's Flood Insurance Rate Map, as follows:

Zone AE — Special Flood Hazard Zone (100-Year Flood). The northernmost portion of the project site, along Tunitas Creek is located within this zone. Proposed improvements in this zone include water infrastructure to serve the ranger residence and restrooms.

Zone VE — Special Flood Hazard Area (100-Year Flood) subject to coastal high hazard flooding. Most of the beach area at the project site, including the proposed loop trail and the boardwalk, is located within this zone.

Zone X — Area of Minimal Flood Hazard subject to the 0.2-percent annual-chance (500-year) flood or 1 percent annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. The majority of the project site, including proposed improvement in the Top Bluff and Mid Bluff zones are located in this area.

As described above, the proposed project would place water infrastructure, the loop trail, and the proposed beach boardwalk within the 100-year flood-hazard areas AE and VE. However, these features would be largely at grade and would not impede or redirect flood flows. Other proposed improvements would be located in Zone X, outside of identified flood hazard areas; therefore, the proposed project would not place within a 100-year flood hazard area structures, which would impede or redirect flood flows. This impact would be less than significant.

d) **Less-Than-Significant Impact**. The project site is located outside the inundation area of both the Johnston and Pilarcitos Dams and no seismically induced seiche waves have ever been documented in the San Francisco Bay area. As described above, portions of the project site are located within a flood hazard area mapped by FEMA. In addition, the project site is located within a mapped tsunami inundation area for San Mateo County. The County LCP include policies related to tsunami and seiche risks, including requiring the development and maintenance of a Tsunami Warning Plan, and policies to avoid placement of critical facilities within the tsunami hazard zone. The proposed project would include construction of park improvements, which would not be considered critical facilities. Consistent with the County LCP policies, modularized construction is proposed for all site structures, including the proposed ranger residence, which would allow facilities to be moved inland as coastal erosion occurs. In addition, finished floor elevations of all permanent structures and paved surfaces would be constructed above and set back from the Cliff Erosion projected elevation of 90 feet above mean sea level. With the exception of the ranger residence, park users would be at the project site for limited durations of time. As described in Section 3.10.a, BMPs would be implemented during construction activities and stormwater management would be incorporated into the project design to ensure that no release of pollutants would occur due to project inundation. Therefore, this impact would be less than significant.

g) **No Impact**. The proposed project would not conflict with the Regional Water Quality Control Board's Basin Water Quality Control Plan or the California Sustainable Groundwater Management Act (SGMA), which took effect on January 1, 2015. SGMA established a framework of priorities and requirements to facilitate sustainable groundwater management throughout the State. The intent of SGMA is for groundwater to be managed by local public agencies (e.g., water districts, irrigation districts, etc.) and newly formed Groundwater Sustainability Agencies (GSAs) to ensure a groundwater basin is operated within its sustainable yield (no long term overdraft) through the development and implementation of Groundwater Sustainability Plans (GSPs). As described in Section 3.10.b. above, the project area is not located within a designated

groundwater basin. Therefore, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

3.11 LAND USE

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Physically divide an established community?				X	1, 2
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?		X			1, 2, 37, 38, 40

Explanation
The project area is located within the Coastal Zone and subject to the California Coastal Act, administered through the California Coastal Commission (CCC). The Coastal Act requires that local governments lying partly or wholly within the Coastal Zone develop, adopt, and implement Local Coastal Plans. The project would require coordination with and final permitting approval by the CCC.

The Tunitas Creek Beach Park site includes three assessor parcel numbers (APN) including APN 081-060-030 (1 acre) and 081-060-020 (9.1 acres), which are zoned RM-CZ/CD, and 081-060-130 (48 acres) is zoned PAD/CD. According to the San Mateo County Coastal Zoning Regulations, RM-CZ/CD is the Resource Management-Coastal Zone/Coastal Development District and PAD/CD is a Planned Agriculture Coastal Development District. In addition, the project includes a portion of the State of California Department of Transportation's (Caltrans) right of way as well as the beach located to the east and west, respectively of the project parcels.

a) **No Impact**. The physical division of an established community typically refers to the construction of a feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

The project area is located in a rural area, along the existing shoreline. The proposed project would result in the construction of improvements at an existing beach to facilitate safe public access. Access to the site would be via an improved parking area and trail off Highway 1. The proposed project would not result in the realignment or closure of any existing roads. Therefore, the proposed project would not result in the physical division of an established community or adversely affect the continuity of land uses in the vicinity. No impact would occur.

b) **Less-Than-Significant with Mitigation Incorporated**. The project site is located within a shoreline area in unincorporated San Mateo County. The project site is comprised of three separate parcels, which are currently developed with an abandoned single-family residence, gravel shoulder/parking area, and paved access driveway. A portion of the site improvements (mainly parking) would be located within the Caltrans right-of-way. The site is bounded by Highway 1 to the east, the Pacific Ocean to the west, and undeveloped land to the north and south.

The project site is located within unincorporated San Mateo County and is subject to the land use and zoning designations of the San Mateo County General Plan (2013), the San Mateo County Zoning Regulations (2020), and the San Mateo County Local Coastal Program (2013).

Following is an evaluation of the proposed project's consistency with the applicable goals and policies of the General Plan, Zoning Ordinance, and Local Costal Program. In reviewing this section, it is important to understand that the determination of whether a project is consistent with a specific policy can be subjective, and that consistency determinations are best made with a broad understanding of the often-competing policy objectives in a planning document. As a result, policy consistency determinations are ultimately made by the local decision-making body. As previously discussed, the Parks Department is the lead agency for environmental review. The County of San Mateo Board of Supervisors would determine the proposed project's consistency with the County's applicable plans and policies, as part of the project approval. The analysis in this section is intended to provide decision-makers with a list of the goals and policies that are pertinent to the proposed project and the project site, and a recommendation regarding whether or not the proposed project would directly conflict with relevant planning directives. These recommendations are intended to supplement decision-makers' own understanding of the various policy considerations. A conflict with an applicable policy is not itself a significant impact unless it results in a significant environmental impact, as described below.

Per CEQA Guidelines, policy conflicts do not, in and of themselves, constitute significant environmental impacts. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. As such, associated physical environmental impacts are discussed in this Initial Study under specific topical sections.

General Plan. The project site is designated in the San Mateo County General Plan as "Agriculture." The Agriculture designation allows for resource management production uses, including but not limited to agriculture and uses considered accessory and ancillary to agriculture.

The proposed project would be consistent with the following applicable General Plan policies related to parks and recreation as discussed below.

6.4 Environmental Compatibility
a. Protect and enhance the environmental quality of San Mateo County when developing park and recreation facilities.
b. Mitigate, to the extent feasible, the impacts of those recreation uses which may adversely affect the environment and adjoining private ownership.

6.5 Access to Park and Recreation Facilities
a. Attempt to provide appropriate access and conveniences for all people in park and recreation facilities.
b. Encourage access to the park and recreation system by transportation means other than private automobiles, where feasible.
c. Attempt to provide adequate access for emergency services.

6.10 Locate Suitable Park and Recreation Facilities in Rural Areas
Generally, encourage all providers to locate passive park and recreation facilities in rural areas in order to protect and preserve environmentally sensitive and open space lands. Consider the following activities to be generally compatible with passive park and recreation facilities such as camping, hiking, picnicking, horseback riding, and nature study.

6.11 Coastal Recreation and Access
a. Regulate coastal development to delineate appropriate locations and development standards for recreation and visitor serving facilities.
b. Regulate development to increase public access to the shoreline and along the coast through measures which include, but are not limited to, establishing criteria for when and where access will be provided and how the access will be developed and maintained.

c. Develop programs to increase and enhance public access to and along the shoreline.

6.13 Development Plans
a. Encourage all providers to prepare development plans for proposed facilities which contain provisions that easily adapt to changing conditions.
b. Encourage all development plans to include restroom facilities and ensure that these correspond in size and detail to the type of park and recreation facility proposed.

6.14 Site Planning for Public and Private Facilities
a. Encourage all providers to design sites to accommodate recreation uses that minimize adverse effects on the natural environment and adjoining private ownership.
b. Encourage all providers to design, where feasible, park and recreation sites that accommodate a variety of recreational activities.

6.37 Coastal Beaches
Promote and be actively involved in State or Federal acquisition of lands for coastal beaches. Explore the possibility of establishing contractual agreements, which would allow the County to develop, maintain and operate these facilities with reimbursed funds.

6.39 Trail System Coordination
a. Support, encourage and participate in the development of a system of trails that link existing and proposed park and recreation facilities within this County and adjacent counties.
b. Particularly encourage the development of: trails that link park and recreation facilities on San Francisco Bay to those on the Pacific Coast; multi-use trails where appropriate and trails in County lands under management by other public agencies. Ensure that these trails do not adversely affect adjacent land uses.

6.50 Provision of Countywide Facilities
Provide and maintain, either independently or through joint agreements, park and recreation facilities which are of Countywide significance (i.e., serving more than one city and/or unincorporated community).

6.51 Outdoor Recreation and Programs
Provide County park and recreation facilities for primarily outdoor rather than indoor recreation. Facilities should emphasize the enjoyment and appreciation of natural outdoor settings.

6.52 Park and Recreation Facilities for Unincorporated Areas
Encourage the provision of park and recreation facilities for use by local residents in unincorporated areas consistent with community plans.

The proposed project would involve the development of new park improvements to provide public access to Tunitas Creek Beach, and the operation, maintenance and management of the park. The proposed project would develop the site with a variety of passive, accessible recreational facilities (e.g., amphitheater, trails, restroom) to serve County residents and visitors. An on-site residence for a ranger is also part of the project. Although the site is designated for Agriculture, it is not currently in agricultural production, nor does it contain farmland. Therefore, the proposed project would be consistent with the County's General Plan land use designation.

Zoning Regulations. The project site is located within the RM-CZ/CD (Resource Management-Coastal Zone/Coastal Development District) and the PAD/CD (Planned Agriculture Coastal Development District). The RM-CZ District is intended to conserve natural features and scenic values and to ensure that areas hazardous to development or life are left in open or limited use. Public recreation is a permitted use in the RM-CZ District.

The PAD District is intended to 1) preserve and foster existing and potential agricultural operations in San Mateo County in order to keep the maximum amount of prime agricultural land and all other lands suitable for agriculture in agricultural production, and 2) minimize conflicts between agricultural and non-agricultural land uses. On lands suitable for agriculture and other lands, public recreation/shoreline access trail is a permitted use with the issuance of a Planned Agricultural Permit. The CD Overlay District is coterminous with the Coastal Zone; therefore, development within the CD District must obtain a Coastal Development Permit.

The proposed project would construct and operate a County park, which is permitted under the County's zoning ordinance with a Planned Agricultural Permit and a Coastal Development Permit. Therefore, the proposed project would be consistent with the County's zoning regulations.

Local Coastal Program Policies. According to the County of San Mateo Local Coastal Program (LCP) Policies dated June 2013, the project site is located within a rural area. New development in rural areas is allowed only if it will not: 1) have significant adverse impacts, either individually or cumulatively on coastal resources and 2) diminish the ability to keep all prime agricultural, land and other land suitable for agriculture in agricultural production.

The LCP Policies utilize a density credit analysis for all new or expanded non-agricultural land uses in rural areas, including all residential uses, except affordable housing, farm labor housing, and solid waste facilities. Expanded or additional non-agricultural uses are only permitted on a parcel when there are sufficient density credits available for that parcel to meet the density credit requirements for both existing uses and any expanded or additional uses and only where such development meets all other applicable policies of the LCP. Development of the proposed ranger residence and all parking improvements must not result in the consumption of more density credits than have been calculated for the property.

For new or expanded non-agricultural uses, except visitor-serving, commercial recreation, and public recreation uses, each 315 gallons, or fraction thereof, of projected average daily water use during the two months of highest water use in a year is the equivalent of one density credit. For new or expanded visitor-serving, public recreation uses, the first 945 gallons, or fraction thereof, of projected average daily water use during the two months of highest water use in a year is also equivalent to one density credit. Each 630 gallons, or fraction thereof, of projected average daily water use during the two months of highest water use in a year is equivalent to one additional density credit. This requirement applies to water use by or resulting from the visitor-serving, commercial recreation, and public recreation use, including landscaping, and all other uses. The 945-gallon water use allowance per density credit may be applied one time only on a parcel.

Based upon the LCP Policies, when calculated under Table 1.3, APNs 081-060-020, 081-060-030 and 081-060-130 have at least one density credit each. The proposed ranger residence would consume at least one of the three density credits. Accordingly, the proposed project is within the allowable density for these RM-CZ zoned parcels under the LCP's density credit analysis for purposes of zoning conformity. Independent of the question of the calculated allowable density of development above, an actual water source of suitable supply to support the proposed use would also be required, and would need to be adequate for Environmental Health standards, which are not necessarily identical to the projected daily use calculations above for zoning density purposes. However, the proposed project falls well under the maximum allowable density for these three RM-CZ zoned parcels. As required per Mitigation Measure UTIL-1, identified in Section 3.19 Utilities and Service Systems, prior to issuance of the Coastal Development Permit, the Parks Department shall determine if there is adequate water to supply the ranger residence and whether the water quality meets potable water standards. If the study determines that insufficient water supply is available, then the proposed ranger residence shall be removed from the project design.

In addition, the Parks Department shall coordinate with the State of California Water Resources Control Board to secure an approval of the right to extract water from Tunitas Creek. If approval is denied and another water source cannot be secured, the ranger residence shall be removed from the project design

In addition, the proposed project would be required to comply with LCP Policies related to Public Works, Housing, Energy, Aquaculture, Sensitive Habitats, Visual Resources, hazards, Shoreline Access and Recreation/Visitor Serving Facilities. Project conformance and/or potential conflicts with these policies are further described below.

Public Works. The Public Works Component includes policies that require adequate provision of water and wastewater services, transportation facilities and solid waste disposal consistent with protection of resources in the coastal zone. New or increased well production must have adequate water quality, be installed in compliance with State and County Department of Public Health Requirements, and the amount pumped must be limited such that is does not impact sensitive species and habitats including streams, riparian habitats, and wetlands. Monitoring must be conducted to determine the impact of the well on groundwater and surface water levels and water quality and plant species and animals of water-dependent sensitive habitats. The proposed water supply system would need to meet this requirement, as identified in Mitigation Measure UTIL-1 in Section 3.19.

Sensitive Habitats. The Sensitive Habitats component includes policies that prohibit any land use or development which would have a significant adverse impact on sensitive habitat areas, including riparian corridors, wetlands, marine habitats, sand dunes, sea cliffs and habitats supporting rare, endangered and unique species. As described in Section 3.4, the proposed park project has been designed to avoid impacts to sensitive habitats to the extent possible. Mitigation measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6A, BIO-6B, BIO-7A, BIO-7B, BIO-7C, BIO-7D, BIO-7E, BIO-7F, BIO-8A, and BIO-8B, would reduce potential impacts to special-status species, wetlands, riparian areas, and other sensitive habitats to less than significant.

Visual Resources. The Visual Resources component includes policies that regulate development in scenic areas, including beaches, sand dunes, cliffs and bluffs, streams and estuaries, and skylines and ridgelines. As described in Section 3.1, the proposed park project has been designed to avoid impacts to visual resources, but would enhance scenic views by undergrounding existing overhead utility lines, providing safe access for visitors to enjoy scenic vistas from the coastal bluff, and closing and restoring existing unauthorized trails that are creating bluff erosion.

Hazards. The Hazards component includes policies to regulate development in hazard areas including high fire hazard areas, bluff and cliffs, shorelines and floodplains. As described in Sections 3.7, 3.9, and 3.10, the proposed project has been designed to ensure structural integrity, including appropriate setbacks from hazard areas, control of stormwater runoff, and geotechnical remediation to ensure proposed park improvements do not create or contribute significantly to erosion or geologic instability of the site or surrounding area.

Shoreline Access. The Shoreline Access component requires provision of shoreline access as a condition for coastal development. As outlined in Chapter 2.0, the proposed project would provide convenient and safe parking and access for the public to visit Tunitas Creek Beach as well as enjoy vistas of the Pacific Ocean.

Recreation/Visitor Serving Facilities. The Recreation/Visitor Serving Facilities component permits commercial recreation and public recreation facilities which (a) are designed to enhance public opportunities for coastal recreation, (b) do not substantially alter the natural environment, and (c) do not subvert the unique small town, rural character of the individual communities on the coastside. As described in Chapter 2 and throughout this document, the proposed project would improve the site for coastal recreation use and has been designed to minimize impacts to the natural environment. The proposed project would restore and enhance areas to promote native habitat.

Conclusion. The proposed project would construct and operate a County park, which is permitted under the County's zoning ordinance with a Planned Agricultural Permit and a Coastal Development Permit. Further, the proposed project would contribute to implementing the County's General Plan goals and policies related to the provision of parks and recreation facilities.

Additional relevant policies relate to the protection of natural resources, water quality, cultural resources, visual resources, air quality, public safety from natural and human-caused hazards, provision of public

services, noise and traffic. Many of the project impacts related to these topics are less than significant or are limited to the short-term construction phase of the project as described in the relevant sections of this document. With implementation of the mitigation measures contained in this document, the proposed project is consistent with all the relevant regulations and policies contained in these documents. This impact would be less than significant.

3.12 MINERAL RESOURCES

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X	1, 2, 37
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X	1, 2, 37

Explanation

a-b) **No Impact**. The State Mining Reclamation Act of 1975 (SMARA) identifies and protects California's mineral resources. Numerous State-designated mineral resources sectors are located within San Mateo County, containing regionally significant mineral resources. However, none of these State-designated resources is located within the project area.

The County General Plan includes policies for conserving and utilizing the County's mineral resources for current and future development, while ensuring that adverse environmental effects resulting from surface mining operations are minimized. According to the San Mateo County General Plan Overview Background and Issues (1986), three active quarries are located in unincorporated areas: (1) Langley Hill Quarry located in the Santa Cruz Mountains, (2) Guadalupe Valley Quarry (Brisbane Quarry) located on San Bruno Mountain, and (3) Pilarcitos Quarry located in the Coastal Zone. None of these mapped mineral resources are located within the project area. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or of a locally-important mineral resources recovery site delineated on a local general plan, specific plan, or other land use plan. No impact would occur.

3.13 NOISE AND VIBRATION

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project result in					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X		1, 2, 37
b) Generation of excessive groundborne vibration or groundborne noise levels?			X		1, 2
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X	1, 2

Explanation

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent human sensitivity to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on dBA. CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within 1 dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

A project would have a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of applicable regulatory agencies, including, the County of San Mateo.

The County outlines noise standards within Chapter 4.88, Noise Control of the Municipal Code. The noise ordinance sets exterior noise level standards for receiving land uses, as identified in Table B below. In addition, as identified in the Municipal Code, construction noise is exempt from the County's noise standards when activities occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday and between the hours of 9:00 a.m. to 5:00 p.m. on Saturdays. Construction is not allowed on Sundays, Thanksgiving, or Christmas.

Table B: Receiving Land Use – Noise Level Standards, dBA

Category	Cumulative Number of Minutes in Any One Hour	Daytime (7:00 a.m. – 10:00 p.m.)	Nighttime (10:00 p.m. – 7:00 a.m.)
Single or Multiple-Family Residential, School, Hospital, Church, or Public Library Properties			
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	65
5	0	75	70

Source: San Mateo County, Code of Ordinances, Title 4 – Sanitation and Health. Chapter 4.88 Noise Control (March 2021).

Certain land uses are considered more sensitive to noise than others. Examples of these land uses include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. As described further below, the project site is located in a remote, rural area. The closest sensitive receptors consist of rural residence located more than 2,000 feet from the project site.

a) **Less-Than-Significant Impact**. The following section addresses the short-term construction and long-term operational noise impacts of the proposed project.

Short-Term (Construction) Noise Impacts. Project construction would result in short-term noise impacts on the surrounding sensitive receptors. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase of construction. The level and types of noise impacts that would occur during construction are described below.

Short-term noise impacts would occur during grading and site preparation activities. Table C lists typical construction equipment noise levels (L_{max}) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the project area but would no longer occur once construction of the project is completed.

Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to the site, which would incrementally increase noise levels on roads leading to the site. As shown in Table C, there would be a relatively high single-event noise exposure potential at a maximum level of 84 dBA L_{max} with trucks passing at 50 feet.

The second type of short-term noise impact is related to noise generated during grading and construction on the project site. Construction is performed in discrete steps, or phases, each with its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety

in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Table C lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor.

Table C: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet[1]
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Pick-up Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Welder	40	73

Source: Roadway Construction Noise Model (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
L_{max} = maximum instantaneous sound level

Typical maximum noise levels range up to 87 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, including excavation and grading of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

As discussed in the Chapter 2, Project Description, the contractor would employ the use of heavy construction machinery, likely including the following: bulldozer, excavator, soil compactor, scraper, off-highway trucks, water trucks, backhoe, skidsteer, grader, compactor, paver, and rollers. Therefore, this analysis assumes that a bulldozer, excavator, compacter, scraper, and two trucks would be operating simultaneously during construction of the proposed project. Based on the typical construction equipment noise levels shown in Table C, noise levels associated with these pieces of construction equipment operating simultaneously would be approximately 88 dBA L_{max} at 50 feet.

The project site is located in a remote, rural location. The closest sensitive receptors include residential uses located over 2,000 feet from the project site. At 2,000 feet, there would be a decrease of approximately 33 dBA from the increased distance compared to the noise level measured at 50 feet from the active construction

area. Therefore, the closest sensitive receptor may be subject to short-term maximum construction noise reaching 55 dBA L_{max} during construction, which would be well below the County's noise ordinance criteria. Individuals participating in passive and active recreational activities can also be considered sensitive to noise, although exposure is temporary and of limited duration. Construction noise is permitted by the County of San Mateo when construction occurs between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday and between the hours of 9:00 a.m. to 5:00 p.m. on Saturdays. Construction is not allowed on Sundays, Thanksgiving or Christmas. Therefore, short-term construction noise impacts would be less than significant.

Operational Noise Impacts. A characteristic of sound is that a doubling of a noise source is required in order to result in a perceptible (3 dBA or greater) increase in the resulting noise level. The proposed project would improve the existing site to provide safe public access to the beach. Outdoor activity typically generates maximum noise levels of 70 dBA L_{max} at 50 feet. Once operational, the project would not generate a significant number of new vehicle trips, as described in Section 3.17, as the site is already currently accessed via the informal parking area along Highway 1; and therefore would not result in a doubling of traffic volumes along any roadway segment in the project vicinity and would not result in a perceptible increase in traffic noise levels at receptors in the project vicinity. Operation of the proposed project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, since the project is not expected to generate substantial vehicular traffic or other operational noise. Therefore, the proposed project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance. This impact would be less than significant.

b) **Less Than Significant Impact.** Common sources of groundborne vibration and noise include trains and construction activities such as blasting, pile driving, and operating heavy earthmoving equipment. Construction of the proposed project would involve site preparation, and construction activities but would not involve the use of construction equipment that would result in substantial groundborne vibration or groundborne noise on properties adjacent to the project site. No pile driving, blasting, or significant grading activities are proposed. Furthermore, operation of the proposed project would not generate substantial groundborne noise and vibration. Therefore, the project would not result in the exposure of persons to or generation of excessive groundborne noise and vibration impacts are considered less than significant.

c) **No Impact.** The project area is not located within an airport land use plan, or within 2 miles of a public airport or public use airport. Aircraft noise is occasionally audible at the project site; however, no portion of the project site lies within the 60 dBA CNEL noise contours of any public airport nor does any portion of the project site lie within 2 miles of any private airfield or heliport. Therefore, the proposed project would not result in the exposure of people residing or working in the project area to excessive noise levels. There would be no impact.

3.14 POPULATION AND HOUSING

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X	1
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X		1

Explanation

a) **No Impact**. The proposed project would improve the project site as a County park to provide safe access to the existing beach. A ranger residence is proposed by the project to replace the existing residence; however, the residence would be staffed by a ranger currently employed by the Parks Department. The proposed project would not result in the conversion of adjacent land uses, or open access to previously inaccessible areas. It would not provide additional major infrastructure or increase the capacity of the existing water system to promote population growth in the area. Therefore, the proposed project would not directly or indirectly induce substantial population growth.

b) **Less-Than-Significant Impact**. As outlined in Chapter 2, Project Description, the project site is currently developed with a single-family residence, which would be demolished prior to commencement of park construction. Although the proposed project would result in the removal of one residence at the project site, the house is currently vacant and in disrepair. Moreover, the proposed project would include construction of a ranger residence. Therefore, the project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, this impact would be less than significant.

3.15 PUBLIC SERVICES

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:					
a) Fire protection?			X		1, 2
b) Police protection?			X		1, 2
c) Schools?				X	1
d) Parks?			X		1
e) Other public facilities?				X	1, 2

Explanation

a) **Less-Than-Significant Impact**. The County contracts with the California Department of Forestry for structural fire protection and general rescue services in the unincorporated areas of the County. These services are provided by CDF, as the San Mateo County Fire Department. The nearest fire station to the project site is Coastside Fire Station 40 located at 1191 Main Street in Half Moon Bay.

Implementation of the proposed project would improve the site as a County park to serve County residents and visitors. Use of the site could increase as a result of proposed improvements. However, because proposed improvements would be for recreation, and would include one ranger residence and a small ranger shed, the incremental increase in demand for fire protection services would not be significant and would not exceed the physical and financial capabilities of the San Mateo County Fire Department resulting in the need for new or expanded fire services. In addition, proposed improvements would be located within a park facility, which would be clearly marked and signed to aid in access and timely response in medical emergencies. Therefore, impacts to fire protection would be less than significant.

b) **Less-Than-Significant Impact**. The San Mateo County Sheriff's Office provides police protection services in the unincorporated areas of the County, including the project site. The nearest sheriff station to the project site is the Half Moon Bay Substation located at 537 Kelly Avenue in Half Moon Bay.

Implementation of the proposed project would improve the site as a County park to serve County residents and visitors. Use of the site could increase as a result of proposed improvements. However, public use of the proposed park is not expected to generate a significant increase in calls for police services or emergency rescue beyond the existing baseline level of use and would not generate the need for additional officers or equipment. Furthermore, the proposed project would improve safety and access in the area, likely reducing the potential occurrence of accidents associated with use of social trails and parking within the highway shoulder area. Therefore, the proposed project would result in a less-than-significant impact on police and emergency services in the area and would not result in the need for additional or altered police protection facilities.

c) **No Impact**. The project site is served by the Cabrillo Unified School District, which serves approximately 3,200 students in four elementary, one middle and two high schools. Implementation of the proposed project

would not result in any local or regional population increase. Therefore, the project would not require construction of new schools, or result in schools exceeding their capacities. No impact would occur.

d) **Less-Than-Significant Impact**. Implementation of the proposed project would improve the site as a County park to serve County residents and visitors. Therefore, the proposed project would not result in substantial adverse physical impacts associated with new parks or the need for new parks, which could cause environmental impacts. This impact would be less than significant.

e) **No Impact**. Other public facilities would include facilities such as libraries, post offices, meeting rooms, or hospitals. The proposed project would improve the project site as a County park. Because it would not result in any local or regional population increase, it would not result in substantial adverse physical impacts associated with the provision of other public facilities. No impact would occur.

3.16 RECREATION

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X		1
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?		X			1

Explanation

a) **Less-Than-Significant Impact**. The proposed project would develop the existing site as a County park to improve public access and safety to this segment of the San Mateo County shoreline. Implementation of the proposed project would provide public access to the project site, alleviating some recreation needs along this portion of the San Mateo County coast. The proposed project would have a beneficial impact to existing recreational facilities, as use at other existing beach facilities may be reduced. In addition, the project would reduce deterioration of the bluffs at the site by eliminating the informal, social trails that are currently used to access the beach. Therefore, this impact would be less than significant.

b) **Less-Than-Significant with Mitigation Incorporated**. Refer to Section 3.16.a. The proposed project would improve the project site for use as a County park. The intent of the planning process was to minimize adverse physical effects on the environment. As described above, implementation of the proposed project would protect site resources, including the bluffs and sensitive habitats, by providing safe and accessible access to the beach and eliminating informal, social trails that create bluff erosion. Potential adverse effects on the environment related to the development of the proposed project have been evaluated in this Initial Study. Implementation of Mitigation Measures AIR-1,BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6A, BIO-6B, BIO-7A, BIO-7B, BIO-7C, BIO-7D, BIO-7E, BIO-7F, BIO-8A, BIO-8B, CULT-1A, and CULT-1B contained in this Initial Study would reduce potential impacts to less than significant.

3.17 TRANSPORTATION

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project:					
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X		1
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			X		1, 39
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X		1, 2
d) Result in inadequate emergency access?			X		1, 2

Explanation
The proposed project would create a parking area that provides safe ingress and egress from Highway 1. Currently, visitors to the site park informally in the unpaved area between State Route 1 and the bluff's edge. The proposed parking lot would include a passenger loading and unloading zone as well as parking for up to 80 vehicles including providing the required number of accessible and electric vehicle charging stalls. Additionally, the project includes bicycle parking at the top of bluff.

According to the County of San Mateo's Local Coastal Program Policies, lands designated low-intensity public recreation shall not have parking exceeding one auto space per 100 linear feet of beach or 50 acres of upland recreation. In addition, lands designated medium-intensity public recreation shall not have parking exceeding one auto space per 25 linear feet of beach or 10 acres of upland recreation. This project would fall into the medium intensity category as it includes restrooms. As the beach within the project area is 3,000 feet, the project can have a maximum of 120 vehicle stalls, although only 80 are currently proposed and evaluated in this analysis.

To determine the number of existing visitors to the site, 24-hour parking data was collected on Wednesday, October 9, 2019 to Sunday, October 13, 2019. Table D summarizes total daily visits.

Table D: Daily Vehicle Parking Counts

Count Date	Weather	Daily Totals
Wednesday, 10/9	Mostly Sunny/62º	140
Thursday, 10/10	Partly Cloudy/72º	178
Friday, 10/11	Mostly Sunny/78º	346
Saturday, 10/11	Mostly Sunny/68º	356
Sunday, 10/13	Partly Cloudy/60º	372

Source: CSW/Stuber-Stroeh Consulting Engineers (2019)

The peak hourly parking demand of 63 parked vehicles occurred on Friday October 11 between of 11 am to 12 noon. The observed data indicates the peak visitors remained at the beach for approximately two (2) hours.

a) **Less-Than-Significant Impact**. The proposed project would provide improved access for vehicles, pedestrians and bicyclists, as well as improved access emergency and maintenance purposes. The proposed project would include parking for approximately 80 cars, accessible trails, and improvements that provide safe access for both vehicles and pedestrians down to the beach. In addition, a portion of the California Coastal Trail would be provided along the site's frontage. Primary vehicle access to the site is provided from Highway 1. The proposed project would improve ingress and egress from Highway 1 to the proposed parking area. Some of these improvements are located within the Highway 1 right-of-way, as shown in Figure 2. As outlined in the Chapter 2, Project Description, the Parks Department would negotiate an airspace lease agreement to use the land for proposed parking and access improvements. In addition, the Parks Department would need to secure approval from Caltrans through either an encroachment permit or approval from the Division of Design for proposed improvements within the Caltrans right-of-way.

   The project would be consistent with the San Mateo County General Plan, the LCP and the Unincorporated San Mateo County Active Transportation policies that promote alternative transportation modes. Therefore, the proposed project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

b) **Less-Than-Significant Impact**. With the current CEQA Guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled (VMT). The San Mateo County Interim VMT Analysis Guidelines provide screening criteria to determine if proposed projects in urban/suburban areas should be expected to prepare a detailed VMT analysis. The County guidelines acknowledge that rural areas have fewer opportunities to reduce VMT; therefore, significance thresholds for projects in these areas would be set on a case-by-case basis based on available data.

   As described above, although there is no designated parking at the site, visitors currently park on the bluff within an informal parking area within the highway right-of-way and descend to the beach via a series of informal, steep social trails. Based on counts conducted in October 2019, the site currently accommodates up to 372 daily trips during the weekends, with fewer trips on weekdays and a peak parking demand of approximately 63 parked vehicles. As outlined in Chapter 2, Project Description, the proposed project would include provision of 80 parking spaces, as well as a loading/unloading zone and a portion of the California Coastal Trail.

While neither the San Mateo County Interim VMT Analysis Guidelines nor the State's Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) provides specific guidance for recreation projects, the Technical Advisory does provide some guidance helpful in addressing this question. First, the Technical Advisory suggests that projects generating 110 or fewer new daily trips would have a less than significant impact on VMT. Second, related to retail projects, the Technical Advisory states that improving destination proximity tends to shorten trips and reduce VMT.

The proposed improvements would provide safer access and formalized parking for visitors already traveling to Tunitas Creek Beach. These improvements, including providing a paved parking lot, would serve the existing visitors and may attract new visitors. Surveys of parking demand show that at least 63 unmarked parking spaces are present in the existing condition. The improvements would provide 80 marked parking spaces, which is an increase of 27 percent. The surveys also showed a total of 140 visitor vehicles on one typical weekday and 178 visitor vehicles on another typical weekday, for an average of 159 visitor vehicles per typical weekday. If visitors were to increase proportionately with parking supply (27 percent), then approximately 43 new visitor vehicles per day could result. These new visitors would generate 86 new daily trips (one inbound and one outbound trip per vehicle). This is less than the 110 daily trips suggested as a screening threshold by the Technical Advisory.

Some beach visitors may previously have traveled past Tunitas Creek Beach due to its lack of formal facilities. Some of the new visitors to Tunitas Creek Beach resulting from the proposed project may be redistributed from another, more distant beach, rather than being newly generated beach trips. For these beach visitors, the proposed project may result in improved proximity and shorter trips.

Because the proposed project is anticipated to generate fewer than 110 new trips on a typical day and could improve proximity and reduce trip length for some visitors, the project is anticipated to have a less than significant impact related to CEQA Guidelines Section 15064.3, subdivision (b).

c) **Less-Than-Significant Impact**. The proposed project involves construction of park improvements (e.g., parking, amphitheater, trails, and restroom) and ongoing park operation and management to provide public access to Tunitas Creek Beach. Implementation of the proposed project would not alter public roadways, but would provide improved parking within the highway right-of-way and safer ingress and egress to the beach from Highway 1. Formalized points of ingress and egress between the parking and highway would reduce the potential for traffic hazards as compared to the current condition. These egress points have been selected and designed to account for highway speed of travel and are consistent with Caltrans line of sight requirements. In addition, the proposed project would provide accessible trail access from the Top Bluff down to the Mid Bluff and to the Beach. The project would improve and enhance an existing beach access point along Highway 1. It would be compatible with surrounding land uses and consistent with other beach access points along the San Mateo County coast. As such, the proposed project would not result in hazards due to incompatible uses (e.g., farm equipment). Therefore, the proposed project would result in a less-than-significant impact related to hazards associated with a design feature or incompatible uses.

d) **Less-Than-Significant Impact**. The proposed project would not result in inadequate emergency access, but would provide improved parking, as well as, safe ingress and egress from Highway 1, compared to existing conditions. In addition, the proposed project would include a portion of the California Coastal Trail, which would improve access for pedestrians and bicyclists during an emergency. Emergency vehicle access to the project site would continue to be provided via Highway 1. Therefore, the project's impact would be less than significant.

3.18 TRIBAL CULTURAL RESOURCES

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
ai) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X			1
aii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X			1

Explanation

a.i-ii) **Less-Than-Significant with Mitigation Incorporated**. AB 52, which became law on January 1, 2015, provides for consultation with California Native American tribes during the CEQA environmental review process, and equates significant impacts to "tribal cultural resources" with significant environmental impacts. PRC Section 21074 states that "tribal cultural resources" are:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and are one of the following:
- Included or determined to be eligible for inclusion in the California Register of Historical Resources.
- Included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

A "historical resource" (PRC Section 21084.1), a "unique archaeological resource" (PRC Section 21083.2(g)), or a "nonunique archaeological resource" (PRC Section 21083.2 (h)) may also be a tribal cultural resource if it is included or determined to be eligible for inclusion in the California Register.

The consultation provisions of the law require that a public agency consult with local Native American tribes that have requested placement on that agency's notification list for CEQA projects. Within 14 days of determining that a project application is complete, or a decision by a public agency to undertake a project, the lead agency must notify tribes of the opportunity to consult on the project, should a tribe have previously

requested to be on the agency's notification list. California Native American tribes must be recognized by the California Native American Heritage Commission as traditionally and culturally affiliated with the project site and must have previously requested that the lead agency notify them of projects. Tribes have 30 days following notification of a project to request consultation with the lead agency.

The purpose of consultation is to inform the lead agency in its identification and determination of the significance of tribal cultural resources. If a project is determined to result in a significant impact on an identified tribal cultural resource, the consultation process must occur and conclude prior to adoption of a Negative Declaration or Mitigated Negative Declaration, or certification of an Environmental Impact Report (PRC Sections 21080.3.1, 21080.3.2, 21082.3).

As part of the cultural resources evaluation for the project, the Native American Heritage Commission (NAHC) was contacted to request a search of the NAHC's Sacred Lands File. This search did not identify tribal cultural resources in the project impact area. As described in Chapter 1, Background Information, on July 8, 2020, the County sent a consultation letter to the currently recognized Native American representatives for the County in accordance with AB 52. To date, no tribes have requested consultation pursuant to Public Resources Code section 21080.3.1.

As discussed in Section 3.5, Cultural Resources, the NWIC records search and the archaeological survey completed for the project did not identify evidence of Native American archaeological deposits or ancestral remains. The proposed project would not impact known tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources, nor has the County identified a tribal cultural resource at the project sites. As noted in Section 3.5, Cultural Resources, implementation of Mitigation Measure CULT-1 would ensure that potential impacts related to previously undiscovered historic or archaeological resources and human remains, including tribal cultural resources, would be less than significant.

3.19 UTILITIES AND SERVICE SYSTEMS

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?		X			1, 2
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?		X			1, 2
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X		1, 2
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X		1, 2
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X		1, 2

Explanation
The proposed project is located in a rural area of San Mateo County that is not currently served by either potable water or sanitary sewer service. PG&E provides electrical service to the project site via existing overhead utility lines.

a) **Less-Than-Significant with Mitigation Incorporated**. The project would require some utility relocations; however, these relocations would not result in significant environmental effects, as further described below. As described below, if water can be obtained from Tunitas Creek, the proposed project would install a tank and water treatment system to supply potable water for the ranger residence.

Water. As described above, the project site is not currently served by either potable water or sanitary sewer service. The existing house on the project site (currently vacant and in disrepair) was previously supplied through a water line from a well on an adjacent property. This water line is no longer operational and previous investigations conducted in the area of the mid bluff did not identify a groundwater supply. If water can be obtained from groundwater adjacent to Tunitas Creek, the proposed project would install two tanks and a water treatment system to store and supply potable water to the ranger residence. Water would be supplied

for this system from Tunitas Creek. The proposed ranger residence is anticipated to require about 150,000 gallons of water per year. Potential adverse effects on the environment related to the construction of the proposed water system at the project site have been evaluated in this Initial Study. The impacts associated with water supply are discussed below in Section 3.19.b. Implementation of the mitigation measures contained in this Initial Study would reduce potential impacts to less than significant. No additional water infrastructure would be required.

Wastewater. As outlined in Chapter 2, Project Description, a vault toilet would be installed in the Mid Bluff area for visitors to the project site. The ranger residence would have a wastewater storage vault. The vault toilet tanks would be evacuated and the waste hauled to a wastewater treatment facility for disposal. The volume of wastewater generated is anticipated to be approximately 2,400 gallons per week for both the restrooms (150 gallons per week) and residence (2,200 gallons per week), which is negligible and can be accommodated by existing wastewater treatment facilities. Therefore, implementation of the proposed project would not require or result in construction of new wastewater treatment facilities or require the expansion of existing facilities, which could cause significant environmental effects. This impact would be less than significant.

Stormwater. As described in Section 3.10, Hydrology and Water Quality, the proposed project would be required to comply with the MRP that requires implementation of measures for site design, source control, runoff reduction, stormwater treatment, and baseline hydromodification management. Hydromodification is the alteration of the natural flow of water through a landscape, and often takes the form of creek channel erosion. Hydromodification is one of the leading sources of impairment in streams, lakes, and estuaries. The MRP also requires implementation of LID Standards.

Per the MRP, regulated projects (which includes implementation of the proposed project) to include facilities designed to evapotranspire, infiltrate, harvest/use and biotreat stormwater to meet at least one of the hydraulic sizing criteria included in the MRP. As part of the project, the County would prepare a Storm Water Mitigation Plan (to identify permanent stormwater controls) and an SWPPP (to identify temporary construction of stormwater controls) in compliance with existing stormwater protection requirements. The project proposes to install bioretention basins \ to capture and filter stormwater runoff prior to discharge via three outfalls. Dissipators would be used to slow the flow of stormwaer runoff to less than 1 foot per second. No additional stormwater drainage facilities would be required. This impact would be less than significant.

Electricity. PG&E provides electricity to the project site and existing infrastructure would be undergrounded as part of the project. Operation of the proposed park would result in no change to existing natural gas or telecommunications usage, as no such facilities would be constructed or required as part of park development. Electricity would be required to serve electric vehicle charging stations, as well as, the proposed ranger residence and operate the pump for the proposed water system. However, these facilities are not anticipated to generate substantial additional demand such that new facilities or expansion of facilities would be required. Therefore, the proposed project would not require or result in the construction of new or expanded gas, electricity or telecommunications facilities. This impact would be less than significant.

b) **Less-Than-Significant Impact with Mitigation Incorporated**. As noted in Section 3.19.a, the proposed project would include a water system to draw water from Tunitas Creek to serve the proposed ranger residence. As outlined in Section 2.6.4, as required by County regulations, the ranger residence must have a reliable potable water supply in order to be occupied. There is no municipal potable water source at the project site. The existing wells on the site no longer provide potable water. Previous investigations completed at the site identified no groundwater to depths as much as 400 feet bgs.

To provide potable water for the proposed ranger residence, water would be extracted from Tunitas Creek. The proposed water system would include installation of a well head either adjacent to or within the creek to sufficient depth to provide the minimum water supply. Alternatively, the project would install an intake to extract water directly from the creek. The intake would have screens to prevent the entrapment of debris or fish.

In accordance with Local Coastal Program policies, the ranger residence would require approximately 315 gallons of potable water per day. Furthermore, in accordance with Section 4.68.190 of the San Mateo County Ordinance, the project site would need to store a minimum of 1,250 gallons of water at all times.

From the well head, potable water would be and transported upslope via a pump system to two 30,000-gallon tanks that are about 30 feet in diameter and 15 feet tall upslope (Figure 10). These tanks would provide storage for water during the dry periods of the year. The water would then be treated using a small treatment system. The treatment system would include a series of filters or reverse osmosis and either ultraviolet light or ozone to treat the water for potable use. It has not yet been determined if sufficient water is available in Tunitas Creek to provide adequate water supply for the proposed ranger residence. Implementation of Mitigation Measure UTIL-1 would be required to reduce potential impacts related to water supply to a less than significant level.

> **Mitigation Measure UTIL-1:** Prior to issuance of the Coastal Development Permit, the Parks Department shall prepare a study examining the hydrologic conditions of the site to determine if there is adequate water to supply the residence and if the water extracted will not adversely affect a water-dependent sensitive habitat or result in depletion of the aquifer. The study shall also determine whether the water quality meets potable water standards. If the study determines that insufficient water supply is available, then the proposed ranger residence shall be removed from the project design.
>
> In addition, the Parks Department shall coordinate with the State of California Water Resources Control Board to secure an approval of the right to extract water from Tunitas Creek. This approval would likely be through a small domestic use permit, which allows a maximum draw of 4,500 gallons per day. If approval is denied and another water source cannot be secured, the ranger residence shall be removed from the project design.
>
> If the ranger residence is constructed, for the first three years, the County shall monitor the impact of the water extraction on groundwater and surface levels, water quality, and plant and animal species of water-dependent sensitive habitats to determine if the preliminary pumping restrictions adequately protect the sensitive habitats and what measures should be taken if and when adverse effects occur. If monitoring shows impacts to water-dependent sensitive habitats, the pumping rate shall be reduced until it is clear that such impacts will not occur.

c) **Less-Than-Significant Impact**. As noted above, the proposed project would include installation of vault toilets for visitor use and the ranger residence. The vault toilet tanks would be evacuated and the waste hauled to a wastewater treatment facility for disposal. The volume of wastewater generated is anticipated to be approximately 2,400 gallons per week, which would have minimal impact on the capacity of nearby wastewater treatment facilities. Therefore, impacts to wastewater treatment services would be less than significant.

d) **Less-Than-Significant Impact.** Project construction would generate solid wastes including construction materials, vegetative matter, surplus soil, demolition debris (e.g., broken or removed concrete, masonry, paving), wood, scrap metal, and general refuse, and these wastes would need to be disposed of in local or regional facilities. Non-hazardous metal and non-metal waste would be hauled to local disposal centers for recycling or taken to landfills. Surplus soils would be reused to the maximum extent possible. The disposal demand is reasonable relative to the solid waste disposal capacities of area landfills. Solid waste disposal off-site would comply with all local, State, and federal requirements. The project would generate limited solid waste once completed. Impacts related to solid waste disposal are considered less than significant.

Operation of the proposed project is not anticipated to generate a significant amount of solid waste. Users of the proposed park improvements at the project site would dispose of garbage, but not in amounts that would greatly exceed average per capita garbage generation rates. In addition recycling receptacles would be located throughout the site, allowing the proposed project to be in full compliance with waste diversion goals mandated by the California Integrated Waste Management Act. Therefore, the proposed project would be

served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and this impact would be less than significant.

e) **No Impact**. The California Integrated Waste Management Act of 1989 (AB 939) reorganized solid waste disposal planning within the State of California. The legislation required every county to adopt a Countywide Integrated Waste Management Plan (CoIWMP) describing local waste diversion and disposal conditions as well as create programs to meet State goals for diverting waste from landfills. A mandatory diversion goal was established diverting 25 percent of waste from landfills by 1995 and 50 percent by 2000 and maintaining 50 percent thereafter.

The County is currently conducting a review of its Countywide Integrated Waste Management Plan (CIWMP), including the Source Reduction and Recycling Element (SRRE), Household Hazardous Waste Element (HHWE), and the Nondisposal Facility Element (NDFE) for each jurisdiction in the County, and a Countywide Siting Element (SE) and Summary Plan (SP) for the County. The CIWMP addresses waste management conditions and policies to achieve mandatory diversion requirements and maintain disposal capacity. The proposed project would comply with all regulations outlined in the ColWMP, as well as any other federal, State, and local statutes and regulations related to solid wastes, including waste diversion programs. No impact related to this topic would occur as a result of implementation of the proposed project. Please refer to Section 3.19.d.

3.20 WILDFIRE

Thresholds per CEQA Checklist

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X		1, 2
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X		1, 2
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X		1, 2
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X		1, 2

Explanation
The project site is located on a coastal bluff along the Pacific Ocean and is within a Non-Very-High Fire Hazard Severity Zone (Non-VHFHSZ) for wildland fires, as designated by the California Department of Forestry and Fire Protection (Cal Fire, Fire Hazard Severity Maps).

a) **Less-Than-Significant Impact**. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. As stated above in Section 3.9, Hazards and Hazardous Materials, the project would not create any barriers to emergency or other vehicle movement in the area and final design would incorporate all Fire Code requirements. Therefore, this impact would be less than significant.

b) **Less-Than-Significant Impact**. The project would not exacerbate wildfire risks due to slope, prevailing winds, and other factors due to the project's urbanized location away from natural areas susceptible to wildfire. The project involves the replacement of an existing pedestrian bridge and the installation of bank stabilization. The project site is not located within an area of moderate, high, or very high fire hazard severity for the Local Responsibility Area nor does it contain any areas of moderate, high, or very high fire hazard severity for the State Responsibility Area. This represents a less-than-significant impact.

c) **Less-Than-Significant Impact**. The project would not require the installation or maintenance of infrastructure that may exacerbate fire risk or result in impacts to the environment. This represents a less-than-significant impact.

d) **Less-Than-Significant Impact**. See above discussion. The project would not expose people or structures to significant wildfire risks given its highly urban location away from natural areas susceptible to wildfire. This represents a less-than-significant impact.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Source(s)
Does the project:					
a) 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?		X			1, 2, 6, 11, 15, 18, 19, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 37, 38, 41, 42, 43, 44, 47, 52, 54, 55
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.		X			1, 2
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X			1, 2

Explanation

a) **Less-Than-Significant with Mitigation Incorporated**. Based on the analysis provided in this Initial Study, the project may result in significant impacts on the environment in the areas of biological and cultural resources. Mitigation and standard practices have been identified to reduce these impacts to a less-than-significant level. The project would not 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.

b) **Less-Than-Significant with Mitigation Incorporated**. The CEQA Guidelines require a discussion of significant environmental impacts that would result from project-related actions in combination with "closely related past, present, and probable future projects: located in the immediate vicinity (CEQA Guidelines Section 15130[b][1][A]). Cumulative environmental impacts are those impacts that by themselves are not significant, but when considered with impacts occurring from other projects in the vicinity would result in a cumulative impact. Related projects considered to have the potential of creating cumulative impacts in association with the proposed project consist of projects that are reasonably foreseeable and that would be constructed or operated during the life of the proposed project.

The proposed project would be located in a rural area along the San Mateo County coast. No other construction projects are anticipated in the immediate area of the project within the same timeframe. As described in this Initial Study, the majority of environmental impacts associated with the proposed project would be temporary, construction-related and would be reduced to less than significant with implementation of the mitigation measures contained herein. Therefore, the proposed project would not make a considerable contribution toward a cumulative impact related to construction. Additionally, the proposed project would not generate a significant amount of greenhouse gas emissions and would therefore not result in a cumulatively considerable impact to global climate change. The proposed park is not located in proximity to other development such that ongoing operation of the proposed park and periodic maintenance activities would contribute to cumulative impacts. Operation and maintenance activities would be conducted in compliance with the adopted Maintenance Manual, as required for all operation and maintenance activities conducted by the Parks Department. Therefore, cumulative impacts would be less than significant, the project's contribution to cumulative impacts would not be cumulatively considerable, and no mitigation is required.

c) **Less-Than-Significant with Mitigation Incorporated**. Based on the analysis provided in this Initial Study, the project would not cause substantial adverse effects on human beings, either directly or indirectly. The impacts of the project would be reduced to a less-than-significant level with measures and standard practices identified herein.

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CHAPTER 4. REFERENCES

4.1 LEAD AGENCY

County of San Mateo Parks Department
Mario Nastari, Park Ranger

4.2 REPORT PREPARATION

LSA Associates, Inc. – Environmental Planner
CSW|ST2 – Project Engineer and Manager
Wallace Roberts and Todd – Planner and Landscape Architect
Cal Engineering and Geology – Geotechnical Engineering

4.3 LIST OF CEQA SOURCES

1. CEQA Guidelines and Professional Expertise of Consultant

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APPENDIX A

BEST MANAGEMENT PRACTICES

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Table 9-1. Maintenance Program Best Management Practices

BMP Number	BMP Title	BMP Description
General Avoidance and Minimization Measures		
GEN-1	Staging and Access	▪ Staging, access, and parking areas will be located outside of sensitive habitats to the extent feasible. ▪ Staging areas will be located 30 feet from the top of bank (or as far as feasibly possible) or on the outboard side of levees. ▪ Vegetation removal shall be limited to the minimum amount necessary to provide access.
GEN-2	Minimize Area of Disturbance and Site Maintenance	▪ Areas of disturbance will be limited to the smallest footprint necessary and a single access pathway, where feasible. For maintenance activities near waterways or other sensitive habitat, the designated work area shall be clearly identified in the field using highly visible material, and work will not be conducted outside this area. ▪ Keep excavated soil and materials on the site where they will not collect into the street or get transported to storm drains or nearby water bodies by rainfall or runoff in order to avoid deleterious effects to fish, wildlife, and beneficial uses. ▪ Transfer excavated materials to dump trucks on the site, not in the street.
GEN-3	Construction Entrances and Perimeter	▪ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site. ▪ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking. ▪ When in-channel work is required, where available use existing ingress or egress points or perform work from the top of the stream banks.
GEN-4	Salvage/Reuse of Plant and Woody Material	▪ Large wood or weed-free topsoil displaced by project activities may be stockpiled for use during site restoration. Native vegetation displaced by project activities will be stockpiled if it would be useful during site restoration. ▪ Stockpiled material shall not be placed over riparian or wetland vegetation. Stockpiled material shall not be placed in areas where it could enter the stream, riparian or wetland areas. ▪ To the extent feasible, all other woody material that is not re-usable should be disposed at a composting facility.
GEN-5	Non-Hazardous Materials	▪ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
GEN-6	Hazardous Materials Storage/ Disposal	▪ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state, and federal regulations. ▪ Store hazardous materials and wastes in watertight containers, store in appropriate secondary containment, and cover them at the end of every workday or during wet weather or when rain is forecast. ▪ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours. ▪ Arrange for appropriate disposal of all hazardous wastes.

BMP Number	BMP Title	BMP Description
GEN-7	Spill Prevention and Control	• Keep spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times. • Inspect vehicles and equipment frequently for and repair leaks promptly. On-site monitor should insect beneath all vehicles that have been parked more than 15 minutes before they leave the work area. Use drip pans to catch leaks until repairs are made. • Clean up spills or leaks immediately and dispose of cleanup materials properly. • Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags). • Sweep up spilled dry materials immediately. Do not try to wash them away with water or bury them. If water must be used, the Contractor shall collect the water and spilled fluids and dispose of it as hazardous waste. • Clean up spills on dirt areas by digging up and properly disposing of contaminated soil. • Small spills (less than 18 inches in diameter) including small quantities of oil, gasoline, paint or other materials should be controlled by the first responder (maintenance staff) and do not necessarily require an emergency response team. Medium spills (greater than 18 inches but less than 6 feet in diameter) are typically controlled by the first responder (maintenance staff) but police or fire department HAZMAT teams may be called based on conditions. Report significant spills (larger than 6 feet in diameter and any "running" spill) immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill, contact the San Mateo County Environmental Health Services Division, or other emergency office (e.g., local fire or police department) as warranted, immediately and document the spill using the spill documentation form . Alternatively, 1) dial 911, the local emergency response number, 2) the National Response Center at (800) 424-8802; or 2) call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours). As appropriate, contact other agencies including California Occupational Safety and Health Administration or the Regional Water Quality Control Board. All chemical spills shall be reported as soon as possible to the emergency site contact.
GEN-8	Waste Management	Cover waste disposal containers securely at the end of every workday and during wet weather. ▪ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site. ▪ Ensure that portable toilets have a secondary containment plan (e.g., a containment pan). ▪ Clean or replace portable toilets and inspect them frequently for leaks and spills. ▪ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.) ▪ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
GEN-9	Vehicle Maintenance and Parking	▪ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage. ▪ Perform major maintenance, repair jobs, and vehicle and equipment washing off site. ▪ Conduct vehicle and equipment cleaning at County corporation yards and ensure that rinse water does not run into gutters, streets, storm drains, or surface waters.

BMP Number	BMP Title	BMP Description
		▪ If refueling or vehicle maintenance must be done on-site, work in a bermed area (e.g., sandbags, gravel bags, compost socks, or other barrier material) at least 150 feet away from creek channels, away from storm drains and over a drip pan big enough to collect fluids. ▪ Refuel vehicles at least 150 feet away from the active stream channel. ▪ Keep an ample supply of spill clean-up materials near fueling, vehicle maintenance and hazardous materials/hazardous waste storage areas. Inventory clean-up materials monthly and restock as needed. ▪ Post proper fueling and spill clean-up instructions at fueling areas. Never leave the area while equipment is being filled. ▪ Recycle or dispose of fluids as hazardous waste. ▪ Do not clean vehicle or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc. ▪ Perform vehicle and mobile equipment steam cleaning, pressure washing or degreasing only over a containment designed to collect any generated wash water. Collect wash water and discharge to sewer via an oil water separator. Do not pour wash water down storm drains or sewers connected to septic systems.
GEN -10	Equipment Maintenance & Fueling	▪ A separate area should be designated for equipment maintenance and fueling, away from any slopes, watercourses, or drainage facilities. ▪ Equipment should not be stored in areas that will potentially drain to watercourses or drainage facilities. If equipment must be stored in areas with the potential to generate runoff, drip pans, berms, gravel bags, or absorbent booms should be employed to contain any leaks or spills. ▪ Equipment should be inspected daily for leaks or damage and promptly repaired. ▪ Fueling and maintenance of vehicles should take place at least 65 feet away from waterways. ▪ In the event of a spill, follow procedures outlined in BMP GEN-7.
GEN-11	Paving and Asphalt Work	▪ Avoid paving and seal coating in wet weather or when rain is in the forecast, to prevent materials that have not cured from contacting stormwater runoff. ▪ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal or fog seal; and when saw cutting asphalt or concrete. ▪ Collect and recycle or appropriate dispose of excess abrasive gravel or sand. Do not sweep this material into gutters. ▪ Do not use water to wash down fresh asphalt concrete pavement. ▪ Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system. ▪ Shovel, absorb or vacuum saw-cut slurry and dispose of all waste as soon as work is complete in one location or at the end of the workday. ▪ If sawcut slurry enters a catch basin, clean it up immediately.
GEN-12	Concrete, Grout and Mortar Application	▪ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff and wind. ▪ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.

BMP Number	BMP Title	BMP Description
		▪ When washing exposed aggregate, prevent wash water from entering storm drains. Block any inlets and vacuum gutters, hose wash water onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.
GEN-13	Exclude Concrete from Channel	▪ For maintenance activities that involve concrete pouring, the County shall ensure that poured concrete be excluded from the wetted channel for a period of 30 days after it is poured. During that time, the poured concrete shall be kept moist, and runoff from the concrete shall not be allowed to enter a stream. Containment structures should be installed to control the placement of wet concrete and to prevent it from entering the channel outside of those structures. ▪ Commercial sealants may be applied to the poured concrete surface where difficulty in excluding water flow for a long period may occur. If sealant is used, water shall be excluded from the site until the sealant is dry. ▪ No dry concrete shall be placed on the banks or in a location where it could be carried into the channel by wind or runoff.
GEN-14	Concrete Washout Facilities	▪ Concrete washout facilities should be established for maintenance activities that require on-site preparation and use of Portland cement concrete, asphalt concrete or cement mortar, establish concrete washout facilities. These facilities capture wash water, concrete and aggregate flushed from concrete mixers, chutes, etc. Concrete washouts may be contained settling basins dug into the ground, raised and contained structures, trailers, etc. They are also applicable for projects that require equipment washouts. ▪ An appropriate area for the washout must be identified at least 50 feet away from watercourses and storm drains in case of accidental breaching. The storage capacity of the basin must be sized correctly for the job. <u>Construction Guidelines:</u> ▪ The location of the concrete washout should be clearly labeled and all employees should be educated about proper concrete disposal. ▪ Avoid mixing excess amounts of fresh concrete or cement mortar on-site. ▪ Wash out concrete mixers only in designated washout areas where the water will flow into temporary sealed basins or onto stockpiles of aggregate base or sand. Use as little water as possible to reduce hardening and evaporation time of waste products. ▪ Construct a basin large enough to contain all liquid and waste concrete materials generated during washout procedures. A minimum basin size is 9 feet x 9 feet and 2 feet deep. Plastic liner materials shall be a minimum of 60-mil polyethylene sheeting free of holes and defects. ▪ Recycle washout by pumping back into mixers for reuse when possible. <u>BMP Maintenance:</u> ▪ The concrete washout should be checked frequently to ensure proper use and effectiveness. ▪ At 75 percent capacity, the washout must be cleaned or new facilities must be constructed and ready for use. <u>BMP Removal:</u> ▪ The hardened concrete and materials related to the washout must be broken up, removed, and disposed of in accordance to local regulations. ▪ Area disturbed by the concrete washout must be repaired.

BMP Number	BMP Title	BMP Description
GEN-15	Painting and Paint Removal	▪ Never clean brushes or rise paint containers into a street, gutter, storm drain, or stream. ▪ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain. ▪ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste. ▪ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash. ▪ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.
GEN-16	Timing of Work	▪ In general, routine maintenance and construction activities that take place in sensitive habitat and/or in channels below ordinary high water will be conducted during the dry season (June 15 through October 15). Maintenance activities that are in upland areas and that would not affect streams may occur during low rainfall years at times when there is no predicted rainfall (chance of precipitation is less than 30 percent chance of rain). Activities that are subject to permit requirements will be conducted during the period authorized by the permits.
GEN-17	Maintain Traffic Flow	▪ To the extent feasible, work shall be staged and conducted in a manner that maintains two-way traffic flow on roadways in the vicinity of the work site. ▪ Heavy equipment and haul traffic shall be prohibited in residential areas to the greatest extent feasible. When no other route to and from the site is available, heavy equipment and haul traffic through residential areas shall be restricted to the hours of 8 a.m. to 5:30 p.m., Monday through Friday. ▪ If heavy equipment or hauling is required beyond the hours above, the County or their contractor would provide notice to adjacent property owners 48 hours in advance of such activities.
GEN-18	Traffic Control and Public Safety	▪ In the event that work activities require the temporary closure of any traffic lanes, the County shall implement measures to guide traffic (such as signage and flaggers), safeguard construction workers, provide safe passage of vehicles, and minimize traffic impacts through the duration of work activities. The County also shall notify local emergency service providers regarding any planned lane closures. ▪ For any other work within or near the roadway that could pose a hazard to the public, the County shall install/implement appropriate measures, such as fences, barriers, flagging, guards, and/or signs, to give adequate warning and provide protection from the potentially dangerous condition. ▪ For work activities along or near roadways with sidewalks and bike lanes, the County shall implement measures to ensure the safe passage of pedestrians and bicyclists around the work site. ▪ Where work is proposed at a recreational park or trail, warning signs will be posted several feet beyond the limits of work. Signs will also be posted if trails will be temporarily closed. ▪ Public transit access and routes will be maintained in the vicinity of the work site. If public transit will be affected by temporary road closures and require detours, affected transit authorities will be consulted and kept informed of project activities.

BMP Number	BMP Title	BMP Description
GEN-19	Dust Management Controls	The County will implement the Bay Area Air Quality Management District (BAAQMD) Basic Dust Control Measures. Current measures stipulated by the BAAQMD Guidelines include the following: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
GEN-20	Firearms	No firearms (except for federal, State, or local law enforcement officers and security personnel) will be permitted at the project site to avoid harassment, killing or injuring of wildlife.
GEN-21	Domestic Animals	No animals (e.g., dogs or cats) can be brought to the project site to avoid harassment, killing or injuring of wildlife.
GEN-22	Site Stabilization	Earthwork will be completed as quickly as possible, and where practical, site restoration will occur immediately following maintenance. If site restoration involves planting, such activities may commence in late fall or early winter during the onset of rainy season. Bare soil surfaces resulting from maintenance and/or construction activities shall be covered with suitable erosion controls (seed or plant vegetation, fabrics, hydroseeding, mulch, etc.): ▪ Within 12 hours of any break in work unless project activities will resume within 7 days. ▪ No later than 3 days following the disturbance during the rainy season (approximately October through April). ▪ No later than 7 days following the disturbance during the dry season (approximately May through September).Every effort shall be made to immediately cover bare soil surfaces resulting from maintenance and/or construction activities prior to storms. Revegetation activities will include only local plant materials native to the San Francisco Peninsula region.
GEN-23	Fire Prevention	1. All earthmoving and portable equipment with internal combustion engines will be equipped with spark arrestors. 2. During the high fire danger period (April 1–December 1), work crews will: ▪ Have appropriate fire suppression equipment available at the work site. ▪ Keep flammable materials, including flammable vegetation slash, at least 10 feet away from any equipment that could produce a spark, fire, or flame.

BMP Number	BMP Title	BMP Description
		▪ Not use portable tools powered by gasoline-fueled internal combustion engines within 25 feet of any flammable materials unless a round-point shovel or fire extinguisher is within immediate reach of the work crew (no more 25 feet away from the work area).
GEN-24	Investigation of Utility Line Locations	An evaluation of the locations of utility lines that could be affected by maintenance activities will be conducted annually as part of the preparation of the Annual Notification. Utilities will be avoided as much as possible. For maintenance areas with the potential for effects on utility services, the following measures will be implemented: 1. Utility excavation or encroachment permits will be required from the appropriate agencies. These permits include measures to minimize utility disruption. The County and its contractors will comply with permit conditions. Such conditions will be included in construction contract specifications. 2. Utility locations will be verified through a field survey (potholing) and use of the Underground Service Alert services. 3. Detailed specifications will be prepared as part of the design plans to include procedures for the excavation, support, and/or fill of areas around utility cables and pipelines. All affected utility services will be notified of the County's maintenance plans and schedule. Arrangements will be made with these entities regarding protection, relocation, or temporary disconnection of services. 4. Residents and businesses in the project area will be notified of planned utility service disruption 2 to 4 days in advance, in conformance with state standards. 5. Disconnected cables and lines will be reconnected promptly.
GEN-25	Retention of Tree Stumps / Rootwads	▪ Objects embedded/anchored in the bank, such as tree stumps, shall not be removed if removal could result in release of sediment into the channel. Stumps and rootwads that potentially serve as basking sites or that encourage pool formation should be left in place whenever possible. Protruding objects that could capture additional debris and result in obstruction of the channel (e.g. the branches and trunk of a downed tree) may be trimmed. If an embedded object must be removed to prevent a debris jam, turbidity control practices shall be used, and the bank shall be reseeded, re-vegetated and/or mulched following removal.
GEN-26	Decontamination of Project Equipment and Vehicles	▪ Equipment, boots and waders used for in-water maintenance activities will be decontaminated prior to entering and exiting the maintenance site and/or between each use in different water bodies to avoid the introduction and transfer of organisms between water bodies. Methods to be employed may include: drying, using a hot water soak, or freezing, as appropriate to the type of gear or equipment. The County shall begin the decontamination process by thoroughly scrubbing equipment, paying close attention to small crevices such as boot laces, seams, net corners, etc., with a stiff-bristled brush to remove all organisms. To decontaminate by drying, the County shall allow equipment to dry thoroughly (i.e., until there is a complete absence of water), preferably in the sun, for a minimum of 48 hours. To decontaminate using a hot water soak, the County shall immerse equipment in 140°F or hotter water and soak for a minimum of 5 minutes. To decontaminate by freezing, the County shall place equipment in a freezer 32°F or colder for a minimum of 8 hours. Repeat decontamination is required only if the equipment/clothing is removed from the site, used within a different waterbody, and returned to the project site.

BMP Number	BMP Title	BMP Description
		▪ Vehicles, watercraft, and other maintenance equipment used for in-water maintenance activities that are too large to immerse in a hot water bath shall be decontaminated by pressure washing with hot water (minimum of 140°F at the point of contact or 155°F at the nozzle or by using other effective techniques). Watercraft engines and all areas that could contain standing water (e.g., live wells, bilges, etc.) shall be flushed for a minimum of 10 minutes. Following the hot water wash, vehicles, watercraft and equipment shall be dried as thoroughly as possible. ▪ A bleach solution shall be used to decontaminate vehicles, watercraft and other maintenance gear and equipment at a designated location where runoff can be contained and not allowed to enter streams or other sensitive habitat areas.
GEN-27	Vegetation and Tree Removal	▪ The disturbance or removal of vegetation shall not exceed the minimum necessary to complete maintenance activities. The use of bulldozers, backhoes, or other heavy equipment to remove vegetation along stream banks shall be avoided wherever feasible. ▪ The County may remove up to two non-hazardous trees greater than 12 inches in diameter per year from natural channels below ordinary high water if the trees are restricting the capacity of the channel, causing erosion or flooding, or limiting access to perform maintenance work. Trees will be cut at ground level and the root mass left in place to maintain bank stability. No non-hazardous trees greater than 36 inches in diameter will be removed under this program. This measure does not apply to trees considered a hazard as defined by the International Society of Arboriculture, which may include dead or dying trees, dead parts of live trees, or unstable live trees (due to structural defects or other factors) that are within striking distance of people or property (a target) that have the potential to cause death, injury, or substantial property damage. ▪ Removed vegetation shall be placed directly into a disposal vehicle and removed from the site, and shall not be permitted to remain onsite overnight. However, if removed vegetation will be used onsite for erosion control or slash and will not be moved or disturbed, it may be stockpiled onsite for longer than an overnight. Stockpiled vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist.
GEN-28	Herbicide Application	▪ Herbicide application shall only be conducted when the climate is dry and when wind speeds do not exceed 7 miles per hour. Herbicides shall not be used in or adjacent to any fish-bearing stream, lake, pond or other water bodies supporting suitable habitat for California red-legged frog or other listed species.
Erosion Control Measures		
EC-1	Brush Layering	Brush layering is a technique used to stabilize shallow slope failures or rebuild fill slopes with live brush cuttings (usually willows or other types of branches) with soil backfill or soil lifts. Live brush layers act as horizontal drains and improve slope stability by providing tensile strength and natural revegetation. Brush layering may include the use of synthetic geogrids or fabric soil wraps, large vegetated boulder revetments, or other structural toe support. For a more detailed description of this BMP, refer to Appendix A.
EC-2	Brush Packing	Brush packing is a biotechnical gully and slump repair technique. Brush packing utilizes alternating layers of live branch cuttings (from rootable plant species) and soil to repair large rills, gullies, and slumps. The brush packing technique is more

BMP Number	BMP Title	BMP Description
		appropriate for the repair of gullies on slopes, and it can be implemented with hand labor. For a more detailed description of this BMP, refer to Appendix A.
EC-3	Live Staking	Live staking involves the insertion of live, vegetative cuttings into the ground in a manner that allows the cutting (stake) to take root and grow. This BMP is used to reduce the potential for soil to become water borne, to reduce water velocity and erosive forces, and to aid in habitat protection. Poles used in willow walls and through rip rap may be a structural application. Sprigs may be used in individual planting spots along a streambank. For a more detailed description of this BMP, refer to Appendix A.
EC-4	Live Pole Drain	Live pole drains are a biotechnical technique intended to drain excess moisture away from an unstable site. Plants (typically willows) are used to construct bundles which will sprout and grow, with the moisture continuing to drain from the lower end. The bundles are placed in shallow trenches in a manner that they intersect and collect excessive slope moisture. See Appendix A for additional description about this BMP.
EC-5	Wattles/ Fascines	Wattles and fascines are live branch cuttings, usually willows, bound together into long, tubular bundles used to stabilize slopes and stream banks. Both wattles and live fascines are true biotechnical practices. The live branches and live stakes provide the biological element while the stems, rope ties and wedge-shaped wooden stakes all combine to provide the structural elements. Fascines differ from wattles in that the branch cuttings all point in the same direction in fascines, where they may point in either direction in wattles. Wattles are typically aligned on contour, where fascines are angled slightly upslope and thus tend to produce more vigorous growth. For a more detailed description of this BMP, refer to Appendix A.
EC-6	Hand Seeding	Hand seeding is broadcasting grass seed on disturbed or bare soil areas by hand or a hand seeding device. This BMP is used to reduce the potential for soil to become water or air borne, reduce erosion after vegetation establishment, provide for vegetative buffers and aid in habitat protection. Seeding with appropriate seed mixes also helps discourage colonization by non-native and invasive plant species. For a more detailed description of this BMP, refer to Appendix A.
EC-7	Hydroseeding	Hydroseeding is broadcasting grass seed, tackifier, wood fiber mulch and water on disturbed areas using a hydroseeding machine. This BMP is used to reduce the potential for soil becoming water or air borne, to reduce erosion after vegetation is established, provide vegetative buffers and to aid in habitat protection. Seeding with appropriate seed mixes will also help discourage colonization by non-native and invasive plant species. Hydroseeding may be used after soil disturbance is completed at construction/maintenance sites and/or on bare slopes. For a more detailed description of this BMP, refer to Appendix A.
EC-8	Mulching	Mulching is the application of rice or sterile straw, wood chips, leaf litter, redwood duff, or other suitable materials on the soil surface applied manually or by machine. This BMP is used to reduce the potential for soil becoming water or air borne, and to encourage vegetation establishment. This BMP is used to protect the soil surface and to protect newly seeded areas. For a more detailed description of this BMP, refer to Appendix A.
EC-9	Vegetative Buffer	A vegetative buffer is a strip of vegetation adjacent to sensitive areas, ditches, pavement and water bodies. This BMP prevents soil from becoming water borne and may help restore shallow slope failures by trapping soil and debris. For a more detailed description of this BMP, refer to Appendix A.
EC-10	Erosion Control Blankets & Mats	Erosion control blankets and mats are installed to protect the prepared soil surface of a steep slope. This BMP may be used at maintenance sites to provide stabilization/protection on steep slopes or stream banks. Erosion control blankets and mats

BMP Number	BMP Title	BMP Description
		are available in a variety of materials including jute, excelsior, blanket material, straw, wood fiber blanket, coconut fiber blanket, coconut fiber mesh, and straw coconut fiber blanket. Material selection should be based on the size of area, slope, surface conditions, revegetation plans, and channel velocity. Coir fabric/netting is a geo-textile product made from coconut fibers loosely woven into a fabric usually packaged in roll form. This fabric can be used to provide a reduction in water velocity/erosive forces and/or habitat protection and topsoil stabilization. Erosion control blankets and mats may be used in combination with seeding and/or vegetation. For a more detailed description of this BMP, refer to Appendix A.
EC-11	Surface Roughening	Surface roughening is a technique for roughening a bare soil surface with furrows running across the slope, stair stepping, or tracking with construction equipment. Surface roughening is intended to aid the establishment of vegetative cover from seed, to reduce runoff velocity and increase infiltration, and to reduce erosion and provide for sediment trapping. This BMP is typically applied on slopes steeper than 3:1. For a more detailed description of this BMP, refer to Appendix A.
EC-12	Rolling Dip	Rolling dips are ridges or ridge-and-channels constructed diagonally across a sloping road or utility right-of-way that is subject to erosion to limit the accumulation of erosive volumes of water on roads by diverting surface runoff at designated intervals. Rolling dips are appropriate to use on low and moderate grades and on both high or low traffic roads. For a more detailed description of this BMP, refer to Appendix A.
EC-13	Slope or Bank Stabilization	Where biotechnical methods are unsuitable for stabilizing streambanks due to site specific conditions such as steep slopes or limited right-of-way width, hardened engineered solutions such as rock slope protection, solider pile walls, retaining walls, or slope soil nailing may be utilized along a failed portion of slope to provide a buttress against additional failure. To the extent feasible, this BMP should be combined with biotechnical solutions through installation of vegetated rock slope protection. Refer to Appendix A for a more detailed description of this BMP.
EC-14	Energy Dissipator	An energy dissipator is a structure designed to control erosion at the outlet of a channel or conduit by reducing the velocity of flow and dissipating the energy. This BMP is recommended at the outlet of any new or replacement drainage culvert, which are points of high erosion potential. Energy dissipators are effective in absorbing the impact of flow and reducing the velocity to non-erosive levels. For a more detailed description of this BMP, refer to Appendix A.
Sediment/Water Quality Control Measures		
SC-1	Gravel Bags	Gravel bags can be used to keep water away from work areas and unstable slopes or for constructing cofferdams and clean water bypasses. This BMP is also typically used at construction or maintenance sites to protect storm drain outlets, gutters, ditches, and drainage courses. For a more detailed description of this BMP, refer to Appendix A.
SC-2	Silt Fence	A silt fence is a temporary sediment barrier consisting of fabric stretched across and attached to supporting posts and entrenched into soil. This BMP is generally used for perimeter protection (around construction/maintenance sites, stockpile areas). It may also be installed perpendicular to the flow direction to slow or stop water and to allow perimeter filtration, settling of soil particles, and to reduce water velocity. For a more detailed description of this BMP, refer to Appendix A.
SC-3	Straw Log, Straw Roll, Coir Log	Straw rolls/logs or coir logs may be used for temporary soil stockpile protection; protection of storm drains, gutters, and drainage courses; temporary check dams; bank or slope stabilization; and streambank toe protection. Alternatives to straw rolls/logs and coir logs include compostable filter socks/berms comprised of natural fibers and other bio-based materials. For a more detailed description of this BMP, refer to Appendix A.

BMP Number	BMP Title	BMP Description
SC-4	Inlet Protection	Storm drain inlets can be protected through installation of temporary barriers such as silt fences, gravel bags, and other proprietary barriers like geotextile inserts, biofilter bags, or compost socks. These barriers are intended to prevent and reduce the sediment discharged into storm drains by ponding runoff and allowing sediment to settle out. For a more detailed description of this BMP, refer to Appendix A.
SC-5	Stormwater Separation Systems	Stormwater separation systems are engineered devices installed in storm drain facilities to remove solids, grease and other pollutants. These may be installed where deep structures allow for their placement and maintenance, or where sufficient quantities of pollutant materials require regular removal in order for the storm drains to operate correctly. For a more detailed description of this BMP, refer to Appendix A.
SC-6	Diversion Berm	A diversion berm is a temporary ridge of compacted soil or aggregate base material, or contiguous bag berm constructed at the top or base of a disturbed slope. It may also consist of asphalt concrete or "cutback" at the top of a disturbed slope. This BMP is intended to direct stormwater runoff away from an unstable slope. For a more detailed description of this BMP, refer to Appendix A.
SC-7	Silt Curtain	The County shall install silt curtains or other appropriate silt filtering devices around excavation sites to prevent heavily silted water from impacting areas around the work site. The silt curtain or silt filtering device shall be maintained throughout all phases of excavation.
SC-8	Turbidity Monitoring	During in-water maintenance activities, the County will monitor turbidity levels up and downstream of the maintenance work area prior to conducting maintenance. The County will maintain a log of turbidity data and ensure that activities do not result in increases in turbidity of the stream of more than 20 percent of upstream sampling locations, as measured visually or by nephelometric turbidity units (NTU). Work will be halted if turbidity/siltation levels exceed 20 percent of upstream sampling levels and CDFW will be contacted for further guidance to ensure activities do not harm aquatic life.
Dewatering Measure		
DW-1	Channel Dewatering	• When in-water construction is unavoidable, streamflow shall be diverted around work areas by either installing cofferdams and/or clean water bypass systems. A cofferdam is a temporary structure built into a waterway to enclose a construction area and reduce sediment pollution from construction work in or adjacent to water. A clean water bypass is typically used for short-term diversion of small amounts of water over short distances to enable dewatering of a maintenance site. Depending on site conditions, these systems may be either gravity driven or require use of a pump to divert water around a construction area. For a more detailed description of this BMP, refer to Appendix A. • No dewatering will be conducted at sites with recent document occurrences of coho salmon within the past 5 years.
Sediment Testing and Disposal Measure		
ST-1	Testing and Disposal of Sediment	Depending on the location of the sediment removal site and upstream and adjacent land uses, the County will test the sediment prior to removal to determine suitability for disposal or reuse based on its chemical qualities. The test results and proposed disposal or reuse locations will be submitted to the RWQCB for review and approval. Samples will be analyzed according to the Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines (RWQCB 2000), as appropriate for the proposed disposal or reuse site. The results will be compared against federal and state environmental screening levels (ESLs) for protection of human health, groundwater quality, and terrestrial receptors. If hazardous levels of

BMP Number	BMP Title	BMP Description
		contaminants (as defined by federal and state regulations) are present, the material will be taken to a permitted hazardous waste facility.

Sources: San Mateo Countywide Water Pollution Prevention Program, 2014; County of San Mateo, 2004 and 2013.

Table 9-2. Cultural Resources Best Management Practices

BMP Number	BMP Title	BMP Description
CUL-1	Review Cultural Resources Sensitivity Map Data and County Baseline Maps to Determine if the Work Area Has Been Subject to a Previous Cultural Resource Study	During the early phases of Annual Work Plan development, the County will review the Cultural Sensitivity Map Data and County Baseline Maps (Appendix I) for all locations where ground-disturbing activities are proposed where excavation would be required beyond the facility's as-built design or otherwise reach previously undisturbed soils beyond existing engineered depths or extent. If the foregoing conditions are not applicable to the maintenance activity being performed, only BMPs CUL-4 and CUL-5 will be required. Based on the location of projects, and whether or not excavation or ground disturbance will occur beyond existing engineered depths or extent, BMPs CUL-2 through CUL-4 shall be implemented as follows: ▪ High Sensitivity: BMPs CUL-2, CUL-3, and CUL-4 ▪ Moderate Sensitivity: BMP CUL-2 and CUL-3 ▪ Low Sensitivity: BMPs CUL-2 through CUL-4 not required ▪ Unknown Sensitivity: BMP CUL-2 and CUL-3 ▪ BMPs CUL-5 and CUL-6 are applicable to all ground-disturbing activities in natural channels or native soils, regardless of the sensitivity level of the work area.
CUL-2	Record Search and Field Inventory for Highly or Moderately Sensitive Areas (Sensitivity Ratings 3-5), and Areas of Unknown Sensitivity	▪ The County will retain a qualified cultural resources specialist to conduct a review and evaluation of locations that involve soil disturbance/excavation in natural channels or native soils identified as Highly to Moderately Sensitive to determine the potential for these activities to affect significant cultural resources. ▪ The initial evaluation will be based on a review of archival information provided by the Northwest Information Center (NWIC) of the California Historical Resources Information System in regard to the project area based on a 0.25-mile search radius. This initial archival review will be completed by the professional archaeologist who will be able to view confidential site location data and literature to arrive at a preliminary sensitivity determination. ▪ It is recommended that the County conduct a review of the Sacred Lands Inventory of the Native American Heritage Commission (NAHC) and due diligence outreach with individuals identified by the NAHC and/or local historical societies or groups. This outreach would involve sending a letter with a request for pertinent information about cultural resources within the project area and to identify any concerns. This outreach is in addition to notification under PRC 21080.3.1 (i.e., CUL-3), and may be appropriate for projects that would not otherwise require Assembly Bill 52 notification. Such outreach is also encouraged under Section 106 implementing regulations at 36 CFR 800.4(a)(3) for identification of historic properties. ▪ The qualified archaeologist will conduct field inventory of the project area to determine the presence/absence of surface cultural materials. The results, along with any mitigation and/or management recommendations, will be presented to the County in an appropriate report format that includes any necessary maps, figures, and correspondence with interested parties. The report will also include a summary of the records search and archival research data, and pertinent geoarchaeological overviews and studies, and regional research designs, as appropriate. ▪ A summary table indicating appropriate management actions (e.g., monitoring during construction, presence/absence testing for subsurface resources, and data recovery) will be developed for each project work area reviewed.

BMP Number	BMP Title	BMP Description
		▪ The maintenance activities will be implemented to avoid significant impacts to cultural resources, if possible. **EXCEPTIONS**: After the NWIC record search and NAHC sacred lands search have been conducted, the qualified archaeologist may determine that a field review is not necessary under the following circumstances: ▪ Locales that have previously been subject to cultural resource studies where no previously identified cultural resources or historical resources were documented. ▪ Locales that have previously been subject to cultural resources studies, but identified cultural resources have been determined by a qualified archaeologist/resource specialist as not eligible for listing in the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP). ▪ A short report would be required to document the decision not to conduct a field study.
CUL-3	Consult with Native American Tribes	▪ The County, as the lead CEQA agency, has notified Native American tribes about the Maintenance Program according to PRC 21080.3.1 (also referred to as Assembly Bill 52); *only Native American tribes that have previously requested notification from the County pursuant to PRC 21080.3.1(b) require notification*. For tribes that request consultation under PRC 21080.3.1(b)(2), the County will consult with those tribes pursuant to PRC 21080.3.2 for projects in areas of high, moderate, and unknown sensitivity.
CUL-4	Construction Monitoring	▪ The County will retain a qualified archaeologist to be present on-site during ground-disturbing activities within areas identified as highly sensitive for cultural areas, unless the qualified archaeologist determines otherwise after the field inventory conducted under CUL-2. Similarly, after conducting the field study under CUL-2, the qualified archaeologist may determine that areas originally identified as moderately sensitive for cultural resources warrant monitoring during construction. The reasons for conducting monitoring in areas initially considered of moderate sensitivity would be discussed in the inventory report. ▪ The qualified archaeologist will have the authority to stop work if cultural resources are discovered. ▪ If any cultural resources are discovered during construction monitoring, BMP CUL-6 would be implemented as appropriate.
CUL-5	Conduct Pre-Maintenance Educational Training	At the beginning of each maintenance season, and in concert with implementing BMP BIO-1, as well as before conducting activities subject to BMP CUL-2 through CUL-4, all maintenance personnel will participate in an educational training session conducted by a qualified cultural resources specialist. This training will include instruction on how to identify historic and prehistoric resources that may be encountered, and will describe the appropriate protocol to be followed if resources are discovered during maintenance work.
CUL-6	Address Discovery of Cultural Remains or Historic or Paleontological Artifacts Appropriately	Unanticipated discoveries of cultural and paleontological resources may occur during maintenance construction activities. Examples of cultural remains are obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or significant areas of tool-making debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period artifacts may include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. Paleontological artifacts are fossilized remains of plants and animals. Work will be restricted or stopped in areas where remains or artifacts are found until proper protocols are met.

		Protocol for treatment of prehistoric or historic cultural resources: 1. Work at the location of the find will halt immediately within 50 feet of the find. A "no work" zone will be established utilizing appropriate flagging to delineate the boundary of this zone, which will measure at least 50 feet in all directions from the find. 2. The County will retain the services of a consulting archaeologist, who will visit the discovery site as soon as practicable and perform minor hand excavation to describe the archaeological or paleontological resources present and assess the amount of disturbance. 3. The consulting archaeologist will provide to the County and USACE, at a minimum, written and digital-photographic documentation of all observed materials, utilizing the CRHR and NRHP guidelines for evaluating archaeological resources. Based on the assessment, the County and USACE will identify the CEQA and Section 106 cultural resources compliance procedures to be implemented. 4. If the consulting archaeologist determines that the find appears not to meet the CRHR or NRHP criteria of significance, and a USACE archaeologist concurs with the consulting archaeologist's conclusions, construction may continue while monitored by the consulting archaeologist. The authorized maintenance work will resume at the discovery site only after the County has retained a consulting archaeologist to monitor and the Maintenance Manager has received notification from USACE allowing work to continue. 5. If the find appears significant, avoidance of additional impacts is the preferred alternative. The consulting archaeologist will determine if adverse impacts to the resources can be avoided. 6. Where avoidance is not practical (e.g., maintenance activities cannot be deferred or must be completed to satisfy the Maintenance Program objective), the County will develop an action plan (also known as a data recovery plan) and submit it to USACE within 48 hours of determining that maintenance activities cannot be deferred. The action plan will be submitted by email to the appropriate archeological/cultural resources contact at the USACE. The action plan is equivalent to a data recovery plan. It will be prepared in accordance with the current professional standards and state guidelines for reporting the results of the work, and will describe the services of a Native American consultant and a proposal for curation of cultural materials recovered from a non-grave context. 7. The recovery effort will be documented in a report prepared by the consulting archaeologist in accordance with current archaeological standards. Any non-grave artifacts will be placed with an appropriate repository. 8. In the event of discovery of human remains (or if a find consists of bones suspected to be human), the field crew supervisor will take immediate steps to secure and protect such remains from vandalism during periods when work crews are absent.) 9. The maintenance crew supervisor will immediately notify the San Mateo County Coroner and provide any information that identifies the remains as Native American. If the remains are determined to be those of a prehistoric Native American or a Native American from the ethnographic period, the Coroner will contact NAHC within 24 hours of being notified about the remains. NAHC will designate and notify a Most Likely Descendant (MLD) within 24 hours. The MLD will have 24 hours to consult and provide recommendations for the treatment or disposition, with proper dignity, of the human remains and grave goods. 10. Preservation in situ is the preferred option for human remains. Human remains will be preserved in situ if continuation of the maintenance work, as determined by the consulting archaeologist and MLD, will not cause further damage to the remains. The remains and artifacts will be documented, the find location carefully backfilled (with protective geo-fabric if desirable), and the information recorded in County Maintenance Program files.

BMP Number	BMP Title	BMP Description
		11. If human remains or cultural items are exposed during maintenance that cannot be protected from further damage, they will be exhumed by the consulting archaeologist at the discretion of the MLD and reburied, with the concurrence of the MLD, in a place mutually agreed upon by all parties. <u>Protocol for treatment of paleontological resources:</u> 1. Work at the location of the find will halt immediately within 50 feet of the find. A "no work" zone will be established utilizing appropriate flagging to delineate the boundary of this zone, which will measure at least 50 feet in all directions from the find. 2. The County shall retain the services of a consulting paleontologist. The consulting paleontologist will meet the Society for Vertebrate Paleontology's criteria for a qualified professional paleontologist (Society of Vertebrate Paleontology 2010). 3. The consulting paleontologist shall visit the discovery site as soon as practicable and perform minor hand-excavation to describe the paleontological resources present and assess the amount of disturbance. The consulting paleontologist will follow the Society for Vertebrate Paleontology's guidelines (2010) for treatment of the artifact. Treatment may include preparation and recovery of fossil materials for an appropriate museum or university collection, and may include preparation of a report describing the finds. The County will be responsible for ensuring that the consulting paleontologist's recommendations for treatment are implemented.

Table 9-3. Biological Resources Best Management Practices

BMP Number	BMP Title	BMP Description
BIO-1	Environmental Awareness Training	Prior to commencing maintenance activities in a given year, all participating maintenance personnel will attend a worker environmental awareness training program. The training will include a brief review of special-status species, sensitive habitats, and other sensitive resources that may exist in the project area, including field identification, habitat requirements, and the legal status and protection of each relevant species, as well as locations of sensitive biological resources. The training will include materials concerning the following topics: sensitive resources, resource avoidance, permit conditions, and possible consequences for violations of State or Federal environmental laws. The training will cover the maintenance activity's conservation measures, environmental permits, and regulatory compliance requirements, as well as the roles and authority of the monitors and biologist(s). It will include printed material and an oral training session by a qualified biologist.
BIO-2	Minimize Injury or Mortality of Fish and Amphibian Species during Dewatering	Prior to dewatering a construction site, all reasonable efforts shall be made to capture and relocate native fish and amphibian species if necessary to avoid direct mortality and minimize take. Streams that support a sensitive species (e.g., steelhead, California red-legged frog) will require a relocation effort led by a qualified biologist (see also BMPs BIO- 3 through BIO-5). The following measures are consistent with those defined as *reasonable and prudent* by NMFS for projects concerning several central California Evolutionarily Significant Units for coho salmon and steelhead trout. ▪ Fish relocation activities will be performed only by qualified fisheries biologists that have experience with fish capture and handling. ▪ Perform relocation activities during morning periods when air temperatures are coolest. ▪ Periodically measure air and water temperatures. Cease activities when water temperatures exceed temperatures allowed by CDFW and NMFS. ▪ Capture methods may include fish landing nets, dip nets, buckets and by hand. ▪ Exclude fish from re-entering work area by blocking the stream channel above and below the work area with fine-meshed net or screens. Mesh will be no greater than 1/8 inch (3.1mm). The bottom edge of net or screen will be completely secured to the channel bed to prevent fish from re-entering work area. Exclusion screening will be placed in areas of low water velocity to minimize impingement of fish. Screens will be checked periodically and cleaned of debris to permit free flow of water. ▪ Prior to capturing fish, the qualified biologist will determine the most appropriate release location(s). Captured aquatic life shall be released immediately in the closest suitable body of water adjacent to the work site, taking into consideration the following when selecting release site(s): A. Similar water temperature as capture location B. Ample habitat for captured fish C. Low likelihood of fish re-entering work site or becoming impinged on exclusion net or screen. D. Avoid areas with large concentrations of potential predators in immediate vicinity. ▪ Minimize handling of salmonids. However, when handling is necessary, always wet hands or nets prior to touching fish.

BMP Number	BMP Title	BMP Description
		▪ Temporarily hold fish in cool, shaded, aerated water in a container with a lid or in a live–car (i.e., a net enclosure that can be placed in a pond to temporarily hold the fish). ▪ If fish are held in a container, provide aeration with a battery-powered external bubbler. Protect fish from jostling and noise and do not remove fish from this container until time of release. ▪ Place a thermometer in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature. If water temperature reaches or exceeds those allowed by CDFW and NMFS, fish should be released and rescue operations ceased. ▪ Avoid overcrowding in containers. Have at least two containers and segregate young-of-year fish from larger age-classes to avoid predation. Place larger amphibians, such as Pacific giant salamanders, in container with larger fish. ▪ If fish are abundant, periodically cease capture, and release fish at predetermined locations. ▪ Visually identify species and estimate year-classes of fish at time of release. ▪ Count and record the number of fish captured. Avoid anesthetizing or measuring fish. ▪ Submit reports of fish relocation activities to CDFW and NMFS in a timely fashion. ▪ If feasible, plan on performing initial fish relocation efforts several days prior to the start of construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional passes immediately prior to construction. In many instances, additional fish will be captured that eluded the previous day's efforts. The biological monitor or qualified biologist shall check daily for stranded aquatic life as the water level in the dewatering area drops. ▪ If mortality during relocation exceeds the amount authorized by the applicable permits or, if no amount is specified, 5 percent, stop efforts and immediately contact the appropriate agencies (CDFW and NMFS).
BIO-3	California Red-legged Frog Protection Measures	If suitable habitat for California red-legged frog is determined to exist in or around the work area where maintenance activities are planned to occur, the County will implement applicable protection measures as follows: ▪ No more than twenty-four (24) hours prior to the date of initial ground disturbance or mowing, a pre-activity survey for the California red-legged frog will be conducted by a qualified biologist at the work site. The survey will consist of walking the work area limits to ascertain the possible presence of the species. The qualified biologist will investigate all potential areas that could be used by the California red-legged frog for feeding, breeding, sheltering, movement, and other essential behaviors. This includes an adequate examination of mammal burrows, such as those of California ground squirrels (*Spermophilus beecheyi*) or gophers (*Thomomys bottae*). If any adults, subadults, juveniles, tadpoles, or eggs are found, the qualified biologist will contact the USFWS to determine if moving any of the individuals is appropriate. If the USFWS approves moving animals, the biologist and USFWS will identify a suitable relocation site, and the County will ensure the qualified biologist is given sufficient time to move the animals from the work site before ground disturbance is initiated. Only qualified biologists will capture, handle, and monitor the California red-legged frog. ▪ To minimize harassment, injury, death, and harm to individual California red-legged frogs, one of the following two measures will be implemented. 1. An approved, qualified biologist(s) will be on-site during all activities that may result in take of the California red-legged frog, as determined by the biologist taking into account all information gathered during the desktop audit of the site as well as the preconstruction survey. Qualified biologists must be approved by the USFWS.

BMP Number	BMP Title	BMP Description
		or 2. Prior to pre-activity surveys, personnel will enclose the work area with an exclusion fence with a minimum height above grade of 42 inches. The bottom of the fence will either be buried a minimum of six inches below ground or otherwise secured in a manner approved by the USFWS and will remain in place during all maintenance activities in order to prevent California red-legged frogs from entering the work area. Escape ramps, funnels, or other features that allow animals to exit the work area, but which will prohibit the entry of such animals, will be provided in the exclusion fencing. A qualified biologist will conduct a pre-activity survey of the fence installation area immediately prior to (i.e., the day of) the commencement of installation and will be on-hand to monitor fence installation. The exclusion fencing will be inspected daily by maintenance personnel and maintained for the duration of maintenance implementation. ▪ The qualified biologist(s) will be given the authority to freely communicate verbally, by telephone, electronic mail, or in writing at any time with maintenance personnel, any other person(s) at the work area, otherwise associated with the maintenance work, the USFWS, the CDFW, or their designated agents. The qualified biologist will have oversight over implementation of all the conservation measures in this programmatic biological opinion, and will have the authority and responsibility to stop work activities if they determine any of the associated requirements are not being fulfilled. If the qualified biologist(s) exercises this authority, the USFWS will be notified by telephone and electronic mail within twenty-four (24) hours. The USFWS contact is the Coast Bay Foothills Division Chief of the Endangered Species Program at the Sacramento Fish and Wildlife Office at telephone (916) 414-6600. ▪ The County will minimize adverse impacts to the California red-legged frog by limiting, to the maximum extent possible, the number of access routes, ground disturbance area, equipment staging, storage, parking, and stockpile areas. Prior to initiating maintenance work that involve ground-disturbing activities, equipment staging areas, site access routes, sediment removal and transportation equipment and personnel parking areas, debris storage areas, and any other areas that may be disturbed will be identified, surveyed by the qualified biologist, and clearly identified with fencing. The fencing will be inspected by the qualified biologist and maintained daily until the last day that equipment is at the site. ▪ To the extent practicable, ground-disturbing activities will be avoided from October through April because that is the time period when California red-legged frogs are most likely to be moving through upland areas. When ground-disturbing activities must take place between November 1 and March 31, the County will ensure that daily monitoring by the qualified biologist is completed for the California red-legged frog. ▪ If egg masses are present and work cannot be postponed until after hatching, a buffer of vegetation at least 10 feet in diameter shall be left around any egg masses found. Staff will keep a record of any sites where egg masses are found and will conduct vegetation removal at these sites between June 15 and October 15. Staff shall avoid entering the channel to avoid dislodging egg masses. Activities shall be performed from the banks. ▪ To minimize harassment, injury, death, and harm in the form of temporary habitat disturbances, all maintenance-related vehicle traffic will be restricted to established roads, sediment removal and access areas, equipment staging, storage, parking, and stockpile areas. These areas will be included in pre-activity surveys and, to the maximum extent possible, established in locations disturbed by previous activities to prevent further adverse impacts. Maintenance-

BMP Number	BMP Title	BMP Description
		related vehicles will observe a 20-mile per hour speed limit within work areas, except on County roads, and State and Federal highways. Off-road traffic outside of designated and fenced work areas will be prohibited. ▪ When a California red-legged frog is encountered in the work area, all activities which have the potential to result in the harassment, injury, or death of the individual will be immediately halted. The qualified biologist will then assess the situation in order to select a course of action that will avoid or minimize adverse impacts to the animal. To the maximum extent possible, contact with the frog will be avoided and the individual will be allowed to move out of the potentially hazardous situation to a secure location on its own volition. This procedure applies to situations where a California red-legged frog is encountered while it is moving to another location. It does not apply to animals that are uncovered or otherwise exposed or in areas where there is not sufficient adjacent habitat to support the species should the individual move away from the hazardous location. ▪ California red-legged frogs that are in danger will be relocated and released by the qualified biologist outside the work area within the same riparian area or watershed. If relocation of the individual outside the work area is not feasible (i.e., there are too many individuals observed per day), the biologist will relocate the animals to a USFWS preapproved location. Prior to the initial ground disturbance, the County will obtain approval of the relocation protocol from the USFWS in the event that a California red-legged frog is encountered and needs to be moved away from the work site. Under no circumstances will a California red-legged frog be released on a site unless the written permission of the landowner has been obtained by the County. The qualified biologist will limit the duration of the handling and captivity of the California red-legged frog to the minimum amount of time necessary to complete the task. If the animal must be held in captivity, it will be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. ▪ The County will immediately notify the USFWS once the California red-legged frog and the site is secure. The USFWS contact for this situation is the Coast Bay Foothills Division Chief of the Endangered Species Program by email and at telephone (916) 414-6600. ▪ A litter control program will be instituted at each activity site. All workers will ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed trash containers. The trash containers will be removed from the site at the end of each working day. ▪ The County will comply with all herbicide application requirements mandated by the USEPA and stipulated injunctions pertaining to California red-legged frog. For example, herbicides will be limited for controlling state-designated invasive species and noxious weeds, will not be used within 15 feet of aquatic breeding critical habitat or non-breeding aquatic critical habitat areas or within 15 feet of aquatic features within non-critical habitat sections subject to the 2006 Court-ordered injunction; precipitation is not occurring or forecast to occur within 24 hours; herbicide is limited to localized spot treatment using hand-held devices; and herbicide will be applied by a certified applicator or person working under the direct supervision of a certified applicator. ▪ For on-site storage of pipes, conduits and other materials that could provide shelter for California red-legged frogs, materials will be securely capped prior to storage or an open-top trailer will be used to elevate the materials above ground. This is intended to reduce the potential for animals to climb into the conduits and other materials. ▪ To the maximum extent practicable, no maintenance activities will occur during rain events or within 24-hours following a rain event. Prior to maintenance activities resuming, a qualified biologist will inspect the work area and all

BMP Number	BMP Title	BMP Description
		equipment/materials for the presence of California red-legged frogs. The animals will be allowed to move away from the work site of their own volition or moved by the qualified biologist. ▪ To the maximum extent practicable, night-time construction activities will be minimized or avoided by the County. Because dusk and dawn are often the times when the California red-legged frog most actively moving and foraging, to the maximum extent practicable, earthmoving and other project activities will cease no less than 30 minutes before sunset and will not begin again prior to 30 minutes after sunrise. Except when necessary for driver or pedestrian safety, to the maximum extent practicable, artificial lighting at a work site will be prohibited during the hours of darkness. ▪ Plastic monofilament netting (erosion control matting), loosely woven netting, or similar material in any form will not be used at the project site because California red-legged frogs can become entangled and trapped in them. Any such material found on site will be immediately removed by the qualified biologist, maintenance personnel, or County contractors. Materials utilizing fixed weaves (strands cannot move), polypropylene, polymer or other synthetic materials will not be used. ▪ Trenches or pits one (1) foot or deeper that are going to be left unfilled for more than forty-eight (48) hours will be securely covered with boards or other material to prevent the California red-legged frog from falling into them. If this is not possible, the County will ensure wooden ramps or other structures of suitable surface that provide adequate footing for the California red-legged frog are placed in the trench or pit to allow for their unaided escape. Auger holes or fence post holes that are greater than 0.10 inch in diameter will be immediately filled or securely covered so they do not become pitfall traps for the California red-legged frog. The qualified biologist will inspect the trenches, pits, or holes prior to their being filled to ensure there are no California red-legged frogs in them. The trench, pit, or hole also will be examined by the qualified biologist each workday morning at least one hour prior to initiation of work and in the late afternoon no more than one hour after work has ceased to ascertain whether any individuals have become trapped. If the escape ramps fail to allow the animal to escape, the qualified biologist will remove and transport it to a safe location, or contact the USFWS for guidance.
BIO-4	California Tiger Salamander Protection Measures	In the limited area in which the California tiger salamander might occur (i.e., in the vicinity of Alpine Trail), the measures described for California red-legged frog above will be implemented for California tiger salamander as well. In addition, the CDFW will be included in any agency coordination, as well as the USFWS, for issues involving the salamander.
BIO-5	San Francisco Garter Snake Protection Measures	In areas within one mile of a documented occurrence of the San Francisco garter snake, onsite habitat shall be evaluated by a qualified biologist or biological monitor for the potential to support this species. If suitable habitat for San Francisco garter snake is determined to exist in or around the work area where ground disturbing activities or mowing are planned to occur, the following measures will be followed: ▪ To the extent feasible, maintenance activities should be conducted from April through October during the dry season when these semi-aquatic species are less likely to be found in a work area. ▪ Prior to implementation of maintenance work, the County will submit to the USFWS and CDFW for its review and approval the qualifications of proposed wildlife biologist(s) who will perform pre-activity surveys and on-site monitoring. ▪ To avoid harassment, injury, death, and harm to individual San Francisco garter snakes, immediately prior to (i.e., the day of) the initiation of maintenance activities that have potential for take of the San Francisco garter snake, a USFWS

BMP Number	BMP Title	BMP Description
		and CDFW-approved biologist will conduct daytime surveys throughout the project site. The approved biologist will be present during initial ground-disturbing activities (i.e., clearing and grubbing) within 250 ft of the work area to monitor for individual garter snakes. The biologist will also be present during any other maintenance activities that could potentially result in take, as determined by the biologist taking into account all information gathered during the desktop audit of the site as well as the preconstruction survey. If a San Francisco garter snake is observed within the maintenance work area, either during the pre-activity survey or at any time, activities that could potentially harm the individual will cease and the USFWS and CDFW will be contacted immediately. Work will not re-commence without written approval from CDFW. The on-site biologist will be the contact for any employee or contractor who might inadvertently kill or injure a garter snake or anyone who finds a dead, injured, or entrapped San Francisco garter snake. The on-site biologist shall possess a working cellular telephone whose number shall be provided to the USFWS and CDFW. ▪ For vegetation removal on berms or other sites with suitable San Francisco garter snake habitat, vegetation shall be cut down to 3 inches by hand tools (weedwhacker, etc.). Once the ground is visible, a visual survey for San Francisco garter snakes shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. ▪ Maintenance-related vehicles will observe a 20 mile per hour speed limit while in the work area. ▪ San Francisco garter snakes may be attracted to structures that provide cavities such as pipes; therefore, all pipes, culverts, or similar structures that are stored at the site for one or more overnight periods will be either securely capped prior to storage or thoroughly inspected by the on-site biologist and/or the maintenance foreman/manager before the pipe is buried, capped, or otherwise used or moved. If a San Francisco garter snake is discovered inside a pipe, the biologist (or a member of the maintenance crew, if the biologist is not on-site) will watch the individual until it has moved out of the maintenance work area. ▪ A litter control program will be instituted at each activity site. All workers will ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed trash containers. The trash containers will be removed from the site at the end of each working day.
BIO-6	Measures to Protect the Foothill Yellow-legged Frog, California Giant Salamander, Santa Cruz Black Salamander, and Western Pond Turtle	In areas within one mile of documented foothill yellow-legged frog, California giant salamander, Santa Cruz black salamander, or western pond turtle occurrences, or where suitable habitat for one or more of these species is determined to exist in or around the work area where ground disturbing activities or mowing are planned to occur, the County will implement applicable protection measures as follows: ▪ The qualified biologist will conduct a special-status species survey on each morning of and within 48 hours prior to the scheduled work commencing. 1. If no foothill yellow-legged frog, California giant Salamander, Santa Cruz black salamander, or western pond turtle is found, the work may proceed. 2. If eggs or larvae of the foothill yellow-legged frog, California giant salamander, Santa Cruz black salamander, are found, the qualified biologist will establish a buffer around the location of the eggs/larvae and work may proceed outside of the buffer zone. No work will occur within the buffer zone. Work within the buffer zone will be rescheduled until the time that eggs have hatched and/or larvae have metamorphosed, or the Permittee shall contact CDFW to develop site appropriate avoidance and minimization measures.

BMP Number	BMP Title	BMP Description
		3. If an active western pond turtle nest is detected within the activity area, a 10-foot buffer zone around the nest will be established and maintained during the breeding and nesting season (April 1 – August 31). The buffer zone will remain in place until the young have left the nest, as determined by a qualified biologist. 4. If adult or non-larval juvenile foothill yellow-legged frogs, California giant salamanders, Santa Cruz black salamanders, or western pond turtles are found, one of the following two procedures will be implemented: a. If, in the opinion of the qualified biologist, capture and removal of the individual to a safe place outside of the work area is less likely to result in adverse effects than leaving the individual in place and rescheduling the work (e.g., if the species could potentially hide and be missed during a follow-up survey), the individual will be captured and relocated by a qualified biologist to suitable habitat at least 100 meters away and work may proceed. b. If, in the opinion of the qualified biologist, the individual is likely to leave the work area on its own, and work can be feasibly rescheduled, a buffer will be established around the location of the individual(s) and work may proceed outside of the buffer zone. No work will occur within the buffer zone until the turtle has left the work area. Work within the buffer zone will be rescheduled if necessary.
BIO-7	Check for Wildlife in Pipes/Construction Materials	For maintenance activities that involve pipes or culverts, the County will visually check all sections of pipe for the presence of wildlife sheltering within them prior to moving any pipe or culvert sections that have been stored on the site overnight, or the pipes will have the ends capped while stored on site so as to prevent wildlife from entering. After attachment of the pipe/culvert sections to one another, the exposed end(s) of the pipe/culvert will be capped at the end of each day during construction to prevent wildlife from entering and being trapped within the pipeline/culvert.
BIO-8	Minimize Impacts on Dusky-footed Woodrat Nests	If suitable habitat for San Francisco dusky-footed woodrat is determined to exist in the work area, the following measure will be followed: ▪ No more than two weeks prior to the beginning of ground disturbance or other routine maintenance activities that could disturb woodrat nests, a qualified biologist will survey the work areas scheduled for maintenance. If any dusky-footed woodrat nests are found, the nests shall be flagged and construction fencing or flagging that will not impede the movement of the SFDW shall be placed around the nest to create a 10-foot buffer (where feasible). If the nest is located adjacent to a road or trail, the nest shall be clearly flagged so equipment/truck drivers accessing sites can see the nest. If a dusky-footed woodrat nest is identified in a work area, the following measure will be implemented by the County. ▪ The County will avoid physical disturbance of the nest if feasible. Ideally, a minimum 10-foot buffer should be maintained between maintenance construction activities and each nest to avoid disturbance. In some situations, a smaller buffer may be allowed if in the opinion of a qualified biologist removing the nest would be a greater impact than that anticipated as a result of maintenance activities. ▪ If a dusky-footed woodrat nest cannot be avoided and the nest is located in urban or bayside areas where woodrat populations are small and isolated from larger populations, the County will consult with CDFW regarding the appropriate measures to minimize impacts.

BMP Number	BMP Title	BMP Description
		▪ If a dusky-footed woodrat nest cannot be avoided and the nest is located in more rural or natural areas and/or where woodrat populations are large and have connectivity to large populations, one of the following two relocation measures will be implemented by the County: 1. If the woodrat nest site and the proposed relocation area are connected by suitable dispersal habitat for the woodrat, as determined by a qualified biologist, the following relocation methodology will be used: Prior to the beginning of construction activities, a qualified biologist will disturb the woodrat nest to the degree that all woodrats leave the nest and seek refuge outside of the maintenance activity area. Relocations efforts will avoid the nesting season (February - July) to the maximum extent feasible. Disturbance of the woodrat nest will be initiated no earlier than one hour before dusk to minimize the exposure of woodrats to diurnal predators. Subsequently, the biologist will dismantle and relocate the nest material by hand. All material from dismantled nests will be placed in a pile, preferably against a log or tree trunk, in suitable habitat located at least 20 feet from, but otherwise as close as possible to, the original nest locations, to provide material for woodrats to construct new nests. During the deconstruction process, the biologist will attempt to assess if there are juveniles in the nest. If immobile juveniles are observed, the deconstruction process will be discontinued until a time when the biologist believes the juveniles will be fully mobile. A 10-foot wide no-disturbance buffer will be established around the nest until the juveniles are mobile. The nest may be dismantled once the biologist has determined that adverse impacts on the juveniles would not occur. All disturbances to woodrat nests will be documented in a construction monitoring report and submitted to CDFW. 2. If a qualified biologist determines that the woodrat relocation area is separated from the nest site by major impediments, or a complete barrier, to woodrat movement, trapping for woodrats will be conducted prior to relocation of nest material. Prior to the start of nest relocation activities, artificial pine box shelters will be placed at each of the sites selected for relocation of nest materials. The dimensions of the artificial shelters will be approximately 8” long x 8” wide x 6” high. Each shelter will include two interior chambers connected by an opening. At the relocation sites, the artificial pine box shelters will provide basement structures for the relocated woodrat nest materials, allowing woodrats to enter, use, and modify the relocated nests. A qualified biologist will set two traps around each of the woodrat nests to be relocated. Traps will be set within one hour prior to sunset, and baited with a mixture of peanut butter, oats, and apples. Traps will also be equipped with cotton bedding and covered with cardboard. The traps will be checked the following morning, within one-and-a-half hours of sunrise. If a woodrat is captured it will be placed in a quiet area while its nest material is relocated; the animal will then be released at the relocated nest. If no woodrats are captured after the first night, the biologist will set the traps for one additional evening to increase the probability of capturing the animal and ensuring a safe relocation. If no woodrats are captured at a given house after two nights, it will be assumed that the house is not currently occupied. 3. Trapping will only be conducted outside the breeding season, which for woodrats is from February through the end of July. If a litter of young is found or suspected while dismantling a nest for relocation, the nest material will be replaced, any trapped woodrats will be returned to the nest, and the nest will be left alone for 2 to 3 weeks,

BMP Number	BMP Title	BMP Description
		after which time the nest would be rechecked to verify that the young are capable of independent survival, as determined by the lead woodrat biologist, before proceeding with nest dismantling.
BIO-9	Measures to Protect Nesting Migratory Birds	▪ To the extent possible, conduct vegetation removal activities prior to nesting bird season (February 1 through August 31). ▪ For maintenance activities or tree removal that are scheduled to occur between February 1 and August 31, a qualified biologist will survey the work area and a minimum of 300 feet surrounding the work area for raptor nests and 100 feet for nests of non-raptors. This survey will occur no more than three days prior to starting work. If a lapse in maintenance-related work of 7 days or longer occurs, another focused survey will be conducted before maintenance work can be reinitiated. ▪ If nesting birds are found, a no-work buffer will be established around the nest and maintained until the young have fledged. A qualified biologist will identify an appropriate buffer based on a site specific-evaluation. Typical appropriate buffers are 300 feet for raptors, herons, and egrets (though larger for bald and golden eagles, as discussed in BIO-14); 100 feet for non-raptors nesting on trees, shrubs and structures, and 25 feet for ground-nesting non-raptors. ▪ The boundary of each buffer zone will be marked with fencing, flagging, or other easily identifiable marking if work will occur immediately outside the buffer zone. ▪ Install physical barriers to nesting where appropriate (e.g., install netting over entryways to cavities, bridge ledges, culverts) and check regularly for any trapped birds. Work will not commence within the buffer until fledglings are fully mobile and no longer reliant upon the nest or parental care for survival. ▪ No trees or shrubs shall be disturbed that contain active bird nests until all eggs have hatched, and young have fully fledged (are no longer being fed by the adults and have completely left the nest site). To avoid potential impacts to tree or shrub-nesting birds, any project-specific trimming or pruning of trees or shrubs shall be conducted during the time period of September 1 to February 14 unless a preconstruction nesting bird survey has been conducted by a qualified biologist. No habitat removal or modification shall occur within the Ecologically Sensitive Area fenced nest zone even if the nest continues to be active beyond the typical nesting season for the species, until the young have fully fledged and will no longer be adversely affected by the project. ▪ Within areas subject to CDFW regulation under Section 1600 of the Fish and Game Code, nesting bird protection measures required as conditions of the Streambed Alteration Agreement will be implemented.
BIO-10	Measures to Protect Nesting Marbled Murrelet	▪ During marbled murrelet breeding/nesting season (March 24 to September 15), if suitable marbled murrelet nesting trees are present within 300 feet of the project area or if a marbled murrelet nest is detected, Permittee shall consult with CDFW before proceeding. If habitat trees are present within ¼- mile of the project site but are greater than 300 feet from the work area, Permittee may proceed with the following conditions: ○ Work within the ¼-mile buffer shall be confined to the period of September 15 to October 15. ○ If activities cannot be performed during this window and would thus occur during the marbled murrelet breeding season (March 25 to September 15), seasonal disturbance minimization buffers as listed the USFWS document, *Estimation of the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California* (2006) shall be followed. Permittee shall measure ambient noise and estimate construction activity noise to calculate seasonal buffer widths using that reference.

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		○ Alternatively, if protocol-level surveys are conducted and do not indicate that the habitat is occupied by marbled murrelet, seasonal and distance work restrictions may be lifted with written approval from CDFW. Protocol level survey procedures and information can be found at: http://www.pacificseabirdgroup.org/publications/PSG_TechPub2_MAMU_ISP.pdf
BIO-11	Non-native Aquatic Plant Removal	Any aquatic non-native plants found while performing maintenance activities will be disposed of properly and will not be placed back into the tributaries where work is being conducted or any other drainages, creeks, or streams.
BIO-12	Measures to Protect Special-Status Butterflies	If suitable habitat for Bay checkerspot, Mission blue, San Bruno elfin, or Callippe silverspot butterflies is determined to exist in or around the work area where ground disturbing activities are planned to occur, the County will implement applicable protection measures as follows: ▪ Areas supporting larval host plants for the Bay checkerspot, Mission blue, San Bruno elfin, or Callippe silverspot will be identified by a qualified biologist and protected from disturbance by establishing buffer zones around individual plants or populations. The size of the buffer will be determined by a qualified botanist; the actual distance will depend on the plant species potentially affected and the type of disturbance. If impacts on larval host plants of federally listed butterflies are unavoidable and are within occupied or potentially occupied habitats, then the County will stop work in the vicinity of the host plant(s) and consult with the USFWS. ▪ No herbicide will be applied to the buffer area, and to the extent feasible, maintenance personnel and equipment will not operate within such areas. If, based on a review of current CNDDB records or the latest information available from the Xerces Society (https://xerces.org/state-of-the-monarch-butterfly-overwintering-sites-in-california/) historically or currently occupied overwintering habitat for the monarch butterfly is determined to exist in or adjacent to the work area where ground disturbing activities are planned to occur, the County will implement applicable protection measures as follows: ▪ Areas supporting overwintering habitat for the monarch butterfly will be identified by a qualified biologist and maintenance activities during fall and winter months when monarch butterflies are present will be avoided to the extent practicable. ▪ Historically or currently occupied trees/groves will be protected from disturbance by the establishment of a 100-foot buffer zone around the tree/grove. The buffer will be measured from the outside edge of the dripline of the monarch grove. If maintenance activities within 100 feet of a historically or currently occupied tree/grove are unavoidable, the County will prepare and implement an impact minimization plan in consultation with the USFWS. ▪ No herbicides or pesticides will be applied to the buffer area, and to the extent feasible, maintenance personnel and equipment will not operate within such areas.
BIO-13	Measures to Protect the California Ridgway's Rail	If suitable breeding habitat for California Ridgway's rails is determined to exist in or around the work area where maintenance activities are planned to occur, the County will implement applicable protection measures as follows: ▪ If work will occur during the Ridgway's rail breeding season (February 1 through August 31), the County will conduct

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		pre-activity surveys for the Ridgway's rail in the late winter and early spring of the year maintenance activities are scheduled to occur. Surveys will be conducted per the current USFWS protocol. ▪ If the surveys confirm there are no breeding rails within 700 feet of the project area, or the area where heavy equipment, ground disturbance, or vegetation removal would occur, work activities may proceed during the breeding season. ▪ If surveys identify the presence of breeding rails, no maintenance activities will occur within 700 feet of occupied nesting habitat during the breeding season (February 1 to August 31). For work occurring within 300 feet of potential nonbreeding habitat for California Ridgway's rails which provides habitat that occasional nonbreeding California Ridgway's rails may use for foraging or cover, or other identified suitable California Ridgway's rail habitat locations, the County will implement applicable protection measures as follows: ▪ Prior to the initiation of work each day, if suitable habitat occurs within the immediate work area, a qualified biologist will conduct a preconstruction survey of all suitable habitat that may be directly or indirectly impacted by the day's activities (work area, access routes, staging areas). Specific habitat areas are vegetated areas of cordgrass (*Spartina* spp.), marsh gumplant (*Grindelia* spp.), pickleweed (*Salicornia pacifica*), alkali heath, (*Frankenia* sp.), and other high marsh vegetation, brackish marsh reaches of creek with heavy accumulations of bulrush thatch (old stands), and high water refugia habitat that may include annual grasses, and shrubs immediately adjacent to channels. ▪ If during the initial daily survey or during work activities a Ridgway's rail is observed within or immediately adjacent to the work area (50 feet), initiation of work will be delayed until the Ridgway's rail leaves the work area. ▪ Mowing using heavy equipment (e.g., tractors, boom mowers, or rider mowers) will not be conducted in habitat areas or within 50 feet of habitat areas. If mowing with hand equipment is necessary within 50 feet of habitat areas, an on-site monitor will observe the area in front of the mower from a safe vantage point while it is in operation. If Ridgway's rails are detected within the area to be mown, the mowing will stop until the individual(s) have left the work area. ▪ If visual observation cannot confirm the Ridgway's rail(s) left the work area, then it is assumed that the individual(s) remains in the work area and the work will not resume until the area has been thoroughly surveyed (and absence confirmed) or the USFWS has been contacted for guidance.
BIO-14	Measures to Protect Bat Colonies	▪ If high-quality habitat for roosting bats (i.e., large trees with cavities of sufficient size to support roosting bats, or buildings providing suitable roost sites, as determined by a qualified bat biologist) is present within 100 feet of a maintenance site, a qualified bat biologist will conduct a survey to look for evidence of bat use within two weeks prior to the onset of work activities. If evidence of bat occupancy is observed, or if high-quality roost sites are present in areas where evidence of bat use might not be detectable (such as a tree cavity), an evening survey and/or nocturnal acoustic survey may be necessary to determine if a bat colony is present and to identify the specific location of the bat colony. ▪ If no active maternity colony or non-breeding bat roost is located, project work can continue as planned. ▪ If an active maternity colony or non-breeding bat roost is located, the project work will be redesigned to avoid disturbance of the roosts, if feasible.

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		▪ If an active maternity colony is located, and the project cannot be redesigned to avoid removal or disturbance of the occupied tree or structure, disturbance will not take place during the maternity season (March 15 – July 31), and a disturbance-free buffer zone (determined by a qualified bat biologist) will be observed during this period. ▪ If an active non-breeding bat roost is located, and the project cannot be redesigned to avoid removal or disturbance of the occupied tree or structure, the individuals will be safely evicted between August 1 and October 15 or between February 15 and March 15 (as determined by a Memorandum of Understanding with CDFW). Bats may be evicted through exclusion after notifying CDFW. Trees with roosts that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.
BIO-15	Nesting Bald Eagle and Golden Eagle Avoidance	In areas within 0.5 mile of known bald or golden eagle nesting areas, the following measures will be implemented: ▪ To the extent feasible, conduct vegetation removal activities prior to the nesting season (January 15 through August 1). ▪ For maintenance activities or tree removal that are scheduled to occur between January 15 and August 1, a qualified biologist will survey the work area and a minimum 0.5 mile surrounding the work area for eagle nests. This survey will occur no more than seven days prior to starting work. ▪ No maintenance activities will occur within a 0.5-mile viewshed buffer zone (areas that can be seen by an eagle on the nest), around any active eagle nest during the breeding season, unless a qualified biologist determines late in the season that nesting activity has been completed for the year. No breeding-season maintenance activities will occur within 0.25 mile of the nest site a, regardless of whether or not those activities can be seen from the nest, while nesting activity is occurring.
BIO-16	Avoid Special-Status Plant Species	For projects located in areas where special-status plants have been identified as potentially occurring (see Table 4-1), a qualified biologist will assess habitat suitability for the potential occurrence of special-status plant species within the work area. If determined to be warranted, a qualified botanist will conduct appropriately timed surveys for the focal plant species in accordance with CDFW's special-status plant survey methodology. If a special-status species is observed in or near the project site, the County will follow the measures below as well as any additional measures that might be contained in the forthcoming Biological Opinion issued by the USFWS for the Maintenance Program. ▪ If discovered, the population size and occupied area of special-status plant populations identified during the field survey, and with potential to be impacted, will be estimated. A "population" will be defined as the group of individuals of a species present within a 0.10-mile radius. In addition, the population will be photographed and flagged to maximize avoidance, as well as to estimate the percentage of the population affected. If feasible, the project shall be redesigned or modified to avoid direct and indirect impacts on special-status plant species. ▪ Special-status plants to be avoided will be protected from disturbance by installing environmentally sensitive area fencing (orange construction barrier fencing or a suitable alternative). Protective fencing will be installed under the direction of a qualified biologist as necessary to protect the plant and its habitat; where feasible, the environmentally sensitive area fencing will be installed at least 50 ft from the edge of the population. The location of the fencing will be shown on the maintenance design drawings and marked in the field with stakes and/or flagging. The design specifications will contain clear language that prohibits maintenance-relate activities, vehicle operation, material and equipment storage, and other surface disturbing activities within the fenced environmentally sensitive area. For non-ground disturbing vegetation management activities conducted using only hand-held equipment, the non-disturbance

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		buffer may be reduced to a minimum of 3 feet and flagging of the population may be used in place of environmentally sensitive fencing. ▪ Vegetation management activities in sensitive plant areas will be conducted under the guidance of a qualified botanist. These activities will be timed following the blooming periods of potentially occurring listed species. ▪ If any impacts to individual state-listed plants are unavoidable, or if more than 5 percent of a population of a federally listed plant species or species with California Rare Plant Ranks of 1 or 2 would be impacted, then the County will stop work in the vicinity of the plant(s) and consult with the appropriate regulatory agencies. ▪ If impacts to state or federally listed plants are unavoidable and less than 5 percent of a population would be impacted, prior to any ground-disturbing activities the County will preserve the seedbank within the impact area by removing and retaining the topsoil prior to the implementation of maintenance activities. Following completion of the maintenance activity, the County will monitor the impact area for two years. Any non-native invasive plant species occurring within this area during the monitoring period will be removed under the supervision of a qualified biologist. ▪ If appropriately timed focused botanical surveys cannot be conducted prior to maintenance activities in areas identified by a qualified biologist as potentially supporting listed plants, then the County will assume presence of the plant species in question.
BIO-17	Sudden Oak Death Controls	▪ Before entering maintenance sites located in areas infested with *Phytophthora*, field workers will receive training that includes information on *Phytophthora* pathogens and how to prevent the spread of these and other soil-borne organisms by following approved phytosanitary procedures. ▪ The exterior and interior of all vehicles, construction equipment, and tools should be clean and free of debris, soil and mud (including mud on tires, treads, wheel wells and undercarriage) prior to arrival at a new job site, especially during the wet season. ▪ Work shoes should be kept clean by inspecting shoe soles and removing mud, debris and soil off treads before moving to a new job site. ▪ Do not collect or transport host plants from an infested or quarantined area. ▪ Vehicles should stay on established roads whenever possible. ▪ To minimize the potential for spreading potentially contaminated soil and time required for decontamination, if possible, avoid vehicle traffic and field work when soils are wet enough to stick readily to shoes, tools, equipment and tires. ▪ Delivered nursery plants that will be held before planting will be transferred to cleaned and sanitized raised benches and maintained in accordance with the "Guidelines to Minimize *Phytophthora* Pathogens for holding (non-production) nurseries at restoration sites, Section 3." ▪ A portion of purchased nursery plants will be tested for *Phytophthora* using the pear-baiting methodology in which pear baits are placed in soil samples, water samples and root samples of nursery purchased plants. Incubation temperatures with diurnal fluctuations from 21 degrees Celsius to 27 degrees Celsius are generally suitable for detecting *Phytophthora* species using pear baits. If dark lesions appear on pears, the sample likely has *Phytophthora* inoculum. For additional information for the pear-baiting methodology, see: phytosphere.com/BMPsnursery/test3_2bait.htm

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		▪ Nursery plants will be transported on or in vehicles or equipment that have been cleaned before loading the stock. ▪ Nursery stock will not be placed on the soil or other potentially contaminated surfaces until they are placed at their specific planting sites. ▪ Minimize unnecessary movement of soil and plant material within a planting area, especially from higher to lower risk areas. ▪ On-site or off-site collection of plant materials, including seed and cuttings for direct planting, will be conducted in a phytosanitary manner. ▪ Only uncontaminated water or water that has been effectively treated to remove or kill *Phytophthora* should be used for rinsing or irrigating plant material.
BIO-18	Invasive Plant Control	▪ In order to minimize the spread of invasive plants, all equipment (including personal gear) will be cleaned of soil, seeds, and plant material prior to arriving on the project site to prevent introduction of undesirable plant species. ▪ Prior to implementation of Program activities at a given site, the proposed staging area, as well as any areas to be graded, will be surveyed for the presence of invasive weed species. Invasive weed species occurring within locations of construction clearing and grubbing shall be flagged for removal by the biological monitor or qualified biologist. Any invasive weeds with a Cal-IPC rating of "moderate" or "high" found within the survey area will be removed and disposed of in a sanitary landfill, incinerated off-site, or disposed in a high-temperature composting facility that can compost using methods known to kill weed seeds, taking care to prevent any seed dispersal during the process by bagging material or covering trucks transporting such material from the site. ▪ Suitable onsite disposal areas should be identified to prevent the spread of weed seeds. Invasive plant material should be rendered nonviable (partially decomposed, very slimy or brittle) when being treated onsite. Maintenance staff shall desiccate or decompose invasive plant material until it is nonviable. Depending on the type of plant, disposed plant material can be left out in the open as long as roots are not in contact with moist soil, or can be covered with a tarp to prevent material from blowing or washing away. Permittee shall monitor all sites where invasive plant material is disposed onsite and treat any newly emerged invasive plants. Invasive plant material removed during work activities shall be bagged and appropriately incinerated or disposed of in a landfill or permitted composting facility. ▪ No invasive plants shall be planted at maintenance work areas. Prohibited exotic plant species include those identified in the California Invasive Plant Council's Inventory Database, which is accessible at: https://www.cal-ipc.org/plants/inventory/.
BIO-19	Restore Channel Features	▪ Following completion of bank stabilization activities, any temporary modifications to the low-flow channels will be reversed so that the channel is contoured to facilitate fish passage at least as well following the activity as it did prior to the stabilization activity.
BIO-20	Avoidance of Mammal Pupping Sites	▪ Work within 250 feet of an active harbor seal or sea lion haul out will be conducted outside of the pupping season (i.e., June – February).
BIO-21	General Wildlife Protection Measures	▪ If any wildlife is encountered during project activities, said wildlife shall be allowed to leave the area unharmed and on their own volition, except in cases where relocation by a qualified biologist is permitted by conditions below.

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BIO-22	Measures to Protect Nesting Western Snowy Plover	▪ To the extent feasible, maintenance activities within 600 feet of suitable snowy plover breeding habitat will occur outside the plover breeding season of March 1 through September 14. ▪ If maintenance activities are scheduled to occur within 600 feet of suitable snowy plover breeding habitat during the nesting season (March 1 through September 14), a pre-activity survey will be conducted by a qualified biologist within 7 days prior to the start of the activity to determine whether active nests are present. ▪ If an active snowy plover nest is detected within 600 feet of maintenance areas, the qualified biologist, in coordination with USFWS personnel, will determine an appropriate buffer that should remain free from new activities (i.e., those that were not ongoing when the nest was established). The buffer will be determined taking into account visual barriers (such as dunes) between the activities and the nest and the level and proximity of human activity around the nest when it was established. The buffer will remain in place until the nest is no longer active. ▪ If broods of unfledged snowy plover young are present, no maintenance activities will occur within 300 feet (or as otherwise determined by a qualified biologist in coordination with the USFWS) of a brood.
BIO-23	Burn Pile Measures	▪ The County would coordinate burn pile activities with CAL FIRE. ▪ Burning will only occur on days when danger of wildfire is low (e.g., it will not occur on windy days or in very hot, dry conditions). ▪ No burn piles will be located within 200 feet of known occurrences of special-status plants, suitable habitat for special-status butterflies and their hostplants, or high-quality aquatic or wetland habitat for the California red-legged frog, California tiger salamander, or San Francisco garter snake. ▪ Prior to the initiation of burning, the burn pile will be physically disturbed (e.g., with a stick or shovel) to encourage any animals taking refuge within the pile to move out of the pile.
BIO-24	Pathogen Control	▪ In order to minimize the spread of plant and animal pathogens, all equipment (including personal gear such as boots) will be cleaned of soil, seeds, and plant material prior to arriving on a maintenance site. All organic matter will be removed from nets, traps, boots, vehicle tires and all other surfaces that have come into contact with water or potentially contaminated sediments. ▪ Equipment, including maintenance equipment and field gear used to capture and relocate special-status species such as frogs, will be disinfected after exiting one aquatic habitat and before entering the next aquatic habitat, unless the waters are hydrologically connected to one another. Cleaning equipment in the immediate vicinity of aquatic habitats will be avoided (e.g., clean in an area at least 100 feet from aquatic features). ▪ Boots, nets, gloves, and any other equipment used to handle amphibians or aquatic organisms will be scrubbed with a bleach solution (0.5 to 1.0 cup per 1.0 gallon of water), Quat-128™ (1:60), or a 3 to 6 percent sodium hypochlorite solution and thoroughly rinsed clean with water between maintenance sites. Care will be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat. ▪ When working at sites with known or suspected disease problems, disposable gloves will be worn and changed between handling each animal. Gloves will be wetted with water from the site or distilled water prior to handling any

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		amphibians. Gloves will be removed by turning inside out with hands cleaned using a hand cleaner and water rinse to minimize cross-contamination.
BIO-25	Eelgrass Surveys at Coyote Point Marina	In the event that the County plans to conduct in-water maintenance activities to the north of the jetty forming the northern boundary of Coyote Point Marina (identified as "potential eel grass patch #1 in Appendix J), the County will retain a biologist to conduct an eelgrass survey in this area. Survey results would be provided to CDFW and other appropriate permitting agencies prior to commencing maintenance work in this area.