Asilomar Coast Trail Managed Retreat and Restoration Project

Asilomar State Beach and Conference Grounds

Initial Study and Mitigated Negative Declaration

AUGUST 2017

California State Parks
Monterey District

Asilomar Coast Trail Managed Retreat & Restoration Project

Initial Study / Mitigated Negative Declaration

Prepared for:

California State Parks
Asilomar State Beach and Conference Grounds
804 Crocker Ave.
Pacific Grove, CA. 93950

Prepared by:

DUDEK
625 Front Street, Suite 400
Santa Cruz, California 95060

AUGUST 2017

TABLE OF CONTENTS

APPENDICES

A. Figures

TABLES

1 INTRODUCTION

1.1 Project Overview

The project consists of a trail management and restoration project at Asilomar State Beach and Conference Grounds along the existing Asilomar Coast Trail. The project purpose is to rehabilitate and enhance sections of the coast trail in order to protect sensitive coastal dune habitat and species while providing continued public use and enjoyment of the site. The existing trail and proposed rehabilitation project are part of the existing long-term dune restoration program initiated by California State Parks (CSP) in the late 1980s. The proposed project is intended to protect restored plant communities, reduce erosion and protect public access and includes the construction and restoration of a total of approximately 0.5 miles (2,712 linear feet) of existing trails within five segments that will result in:

- Construction of 1,127 linear feet of new boardwalk trail within new re-routed alignments;
- Construction of 165 linear feet of new decomposed granite (DG) trail that is part of the new alignment and connects to the new boardwalk trail;
- Removal and in-kind replacement of 100 linear feet of existing boardwalk trail;
- Installation of two drainage crossings; and Restoration of 1,220 linear feet of decommissioned trail.

All new trail sections will be built to comply with current Americans with Disability Act (ADA) standards. The project includes "Standard Project Requirements" regarding the installation of trails and native dune habitat restoration in areas where trails are removed. A full project description is provided in Section 3.

1.2 California Environmental Quality Act Compliance

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to evaluate the potential environmental effects of the proposed Asilomar Coast Trail Rehabilitation Project at Asilomar State Beach and Conference Grounds in the City of Pacific Grove in Monterey County. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et. seq*., and the State CEQA Guidelines, California Code of Regulations (CCR) Section 15000 *et. seq*.

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines Section 15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared in accordance with CEQA Guidelines Section 15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by or agreed to by the applicant mitigate the potentially significant effects to a less-than-significant level, a Mitigated Negative Declaration may be prepared instead of an EIR [CEQA Guidelines Section 15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not

have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines Section 15071.

Under CEQA, the lead agency for a project is the public agency with primary responsibility for carrying out or approving the project, and for implementing the requirements of CEQA. The lead agency for this project is California State Parks (CSP). The Asilomar State Beach and Conference Grounds within the Monterey District of CSP would carry out the project.

1.3 Public Review Process

The Initial Study and Mitigated Negative Declaration will be published and circulated for review and comment by the public and other interested parties, agencies, and organizations for a 30-day public review period from August 21, 2017 through September 19, 2017. Written comments may be submitted to the California State Parks at the address below or may be submitted by email to CPS representative Wes Gray at Wes.Gray@parks.ca.gov by 5:00 pm on September 19, 2017.

Wes Gray
Environmental Scientist
Asilomar State Beach and Conference Grounds
804 Crocker Ave.
Pacific Grove, CA. 93950

1.4 Report Organization

This document is organized as follows:

- **Section 1 - Introduction**
  This section includes an overview of the project and the environmental review process.

- **Section 2 - Summary of Findings**
  This section provides a summary of impacts and environmental determination.

- **Section 3 - Environmental Checklist**
  This section includes a description of the setting and a description of the project. A discussion of the environmental impacts is provided following the State CEQA Guidelines Appendix G checklist topics. Mitigation measures are identified to reduce the potentially significant impacts to a less-than-significant level.

- **Section 4 - References and Preparers**
  This section includes the references used in the preparation of this IS/MND, as well as persons contacted and identification of those involved in the preparation of this document.

- **Appendices**
  - **Appendix A – Figures.** This appendix includes all figures, including location, project maps, and pertinent resource maps and photos.
  - **Appendix B –** Standard Project Requirements**.** This appendix includes measures incorporated into the project construction and restoration by CSP.
  - **Appendix C – Biotic Resources Report. Measures.** This appendix includes the biotic resources report that was prepared as part of the Initial Study.
  - **Appendix D – Mitigation and Monitoring Reporting Program.** This appendix includes the program for monitoring and reporting the revisions required in the project and the measures imposed to mitigate or avoid significant environmental effects.

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2 SUMMARY OF FINDINGS

Chapter 3 of this document includes the Initial Study (IS) Environmental Checklist. This checklist identifies the potential environmental impacts by issue and a discussion of each impact that could result from the proposed project.

2.1 Potentially Significant Impacts

Based on the IS and supporting environmental analysis provided in this document, the proposed Asilomar Coast Trail Rehabilitation Project would result in significant or potentially significant impacts to cultural resources. With implementation of mitigation measures (BIO-1, BIO-2, and CULT-1), the proposed project would result in less-than-significant impacts.

- **Cultural Resources (Historical and Archaeological Resources).** Trail reconstruction and restoration will occur within or in proximity to recorded archaeological sites that are considered historical and archaeological resources under CEQA definitions, and will result in potentially significant impacts to these resources.

  Mitigation Measure CULT-1: Require that a California State Parks (CSP)-qualified archaeologist monitor all ground disturbing activities associated with trail relocation and subsequent restoration, revegetation or contouring at project site locations Gates 10-11, 14-15 (restoration), and 20-21 (restoration). If a cultural feature or other significant find is encountered, work shall be halted within a 50-foot radius of the find until a CSP-qualified archaeologist has had adequate time to evaluate the resource and determine an appropriate course of action. If the proposed project cannot avoid impacting the cultural resource then additional archaeological investigations will be necessary in order to mitigate the adverse effects to the resource. Locate construction staging areas outside areas of known archaeological sites. Limit the number of 1-gallon plantings in these areas to minimize disturbance of cultural deposits.

- **Recreation (Recreational Facilities Impacts).** The proposed project consists of trail replacement and rehabilitation at Asilomar State Beach and Conference Grounds with restoration. Potentially significant impacts have been identified regarding cultural resources, which can be mitigated to a less-than-significant level as indicated above.

2.2 Other Environmental Factors Potentially Affected

Less-than-significant impacts were identified for the following issues:

- Aesthetics (degradation of visual character of the area)
- Air Quality (emissions)
- Biological Resources (special status species, sensitive habitats, wetlands, nesting birds)
- Cultural Resources (unique paleontological resources, discovery of human remains)

- Tribal Cultural Resources
- Geology and Soils (seismic and geologic hazards, soil erosion)
- Greenhouse Gas Emissions
- Hydrology and Water Quality (water quality, flood hazard)
- Land Use and Planning
- Noise (construction)

No impacts were identified for the following issues:

- Aesthetics (scenic views, scenic resources, light and glare)
- Agriculture and Forestry Resources
- Air Quality (conflicts with plans, odors)
- Biological Resources (conflicts with plans and policies)
- Geology and Soils (expansive soils, soil suitability for septic systems)
- Hazards and Hazardous Materials
- Hydrology and Water Quality (groundwater, stormwater drainage)
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

2.3 Environmental Determination

In accordance with Section 15064(f) of the CEQA Guidelines, a Mitigated Negative Declaration (MND) can be prepared if the proposed project would not have a significant impact on the environment after the inclusion of mitigation measures. Based on the available information and the environmental analysis presented in this document, there is no substantial evidence that, after incorporation of the mitigation measures, the proposed project would have a significant impact on the environment. Therefore, California State Parks as the lead agency finds that the a Mitigated Negative Declaration can be prepared.

.

3 INITIAL STUDY CHECKLIST

3.1 Background and Project Description

1. **Project Title:** Asilomar Coast Trail Rehabilitation Project

2. **Lead Agency Name and Address:**
   California Parks Department
   Asilomar State Beach and Conference Grounds
   804 Crocker Ave.
   Pacific Grove, CA. 93950

3. **Contact Person and Phone Number:**
   Wes Gray, Environmental Scientist
   Phone: (831)-236-4546 Email: Wes.Gray@parks.ca.gov

4. **Project Location:** Asilomar State Beach and Conference Grounds [APN 007-081-006]

5. **Project Sponsor's Name and Address:** Same as Lead Agency

6. **General Plan Designation:** City of Pacific Grove General Plan: Open Space

7. **Zoning:** City of Pacific Grove Zone District: O-Open Space

8. **Environmental Setting and Surrounding Land Uses:** Asilomar State Beach and Conference Grounds, one of 279 units of California's State Park System, consists of 107 acres and fronts about one mile of open shoreline. The unit is located on the western extremity of the Monterey Peninsula within the City of Pacific Grove (see Figures 1 and 2). It is located on a relatively level marine terrace surface along the southwest coastline on the Monterey Peninsula, just south of Point Pinos. Asilomar Beach is bordered by the unincorporated Pebble Beach area on the south, Sunset Drive and the inland portion of the state park on the east, the coastal bluff with some residences in the city of Pacific Grove on the north, and the Pacific Ocean on the west. Single-family homes are found to the north and east of the state park within Pacific Grove, and visitor-serving and commercial uses are located to the southeast.

   The beach area is mostly a narrow one-mile strip of sandy beach and rocky coves and it is a very popular destination for residents and visitors. The coastal area is covered with windblown sand at depths greater than three feet and the shoreline is predominantly rocky with headlands and pockets of sand (California Department of Parks and Recreation, 2004).

   The project trail segments are located within a natural setting along the coast, located on the seaward side of Sunset Drive (see Figure 3). There are a total of 27 existing trail access gates along Sunset Drive to Asilomar Beach. The access gates (trailheads) are

currently numbered by CSP as Gates 1 through 27. The project sites generally are located along portions of the trail between Gates 10 and 23 (see Figure 3). The only parking available is along Sunet Drive which is owned by the City of Pacific Grove. The parking is mostly unpaved but reinforced with packed decompsed granite, and handicap parking spaces are provide near Gates 1 and 25.

The project area supports state and federally-listed endangered plant species, including Menzies wallflower and Tidestrums lupine. and species of special concern, most notably the the black legless lizard. The shoreline hosts a number of nesting shorebirds. Archaeological sites have been recorded in the coastal dune area.

California State Parks began restoration of the park's natural habitats, including the coastal bluffs, dunes and forest, in 1984 to reestablish the natural dune systems at Asilomar State Beach. Decades of uncontrolled foot-traffic and the introduction of various exotic species had virtually eliminated the native vegetation on the bluffs and sand dunes. Listed endangered plant species were very sparse and nearly eliminated from the coastal dunes. Habitat restoration coupled with providing boardwalks and trails for public access have brought the bluffs and dunes back to nearly their original condition (California Department of Parks and Recreation, 2004), including successful re-establishment of listed species. Fences, boardwalks and trails have been established in the dunes to provide beach access while protecting restored plant communities by reducing erosion and trampling (Ibid.). Over 50 acres of coastal dune habitat have been created and restored both inland and seaward of Sunset Drive. On the seaward side of Sunset Drive, dune restoration has been implemented by CSP pursuant to a Coastal Development Permit (3-87-258) approved by the California Coastal Commission (CCC) and provisions of the *Asilomar State Beach Dunes Restoration Plan*. This effort has resulted in rebuilding the foredune at Asilomar State Beach and Conference Grounds, installation of foot and boardwalk trails, eradication of non-native plants, and native plant restoration. Since 1989, CSP has created/restored approximately 25 acres of coastal dune habitat seaward of Sunset Drive, as well as approximately 25 acres that have been restored inland of Sunset Drive.

9. Description of Project:

Project Background. In 1984, the park's on-going dune restoration program began to re-establish natural dune plant communities. Fences, boardwalks and trails have been established in the sand dunes to protect restored plant communities, reduce erosion and trampling, and protect public access (California Department of Parks and Recreation, 2004). A continuous coastal trail, which is a mix of compacted decomposed granite and boardwalks, was established and is accessed from 27 separate entrances along Sunset Drive. Split rail fencing was installed to direct people to the designated entrances.

The Asilomar Coast Trail is highly popular and receives hundreds of visitors each day. It is a popular destination for locals and also for tourists who often visit Asilomar for its famed white sandy beaches and the coastal view on their way to 17 Mile Drive.

Over the years the Asilomar Coast Trail has primarily been maintained by the Asilomar Natural Resource Crew doing trail tread repair work, drain installations, fence installation, and boardwalk repair. Several significant additions include more boardwalk trails, a gazebo, and a bridge, which was completed with the aide of contractors, volunteers, and other district staff.

Project Need. There are several sections of the Asilomar Coast Trail that are now threatened by increased natural erosion. As a result several sections of boardwalk trail have been washed away and other segments are now compromised. As a result, park visitors are trampling native vegetation in an effort to find more suitable paths to access the site. This project to realign and rehabilitate segments of the coast trail at Asilomar State Beach and Conference Grounds is being proposed in the interest of resource conservation, public safety and accessibility for all park visitors. The project includes restoration of closed trail segments and associated degraded areas as part of Asilomar's ongoing State-approved dune restoration program. The approved Dunes Restoration Plan includes a long-term management component, which recognizes that future management may be necessary in response to effects of coastal erosion, as well as periodic replanting as needed and maintenance of pedestrian-control boardwalks and trails. The proposed project is being implemented as part of the overall restoration plan and will include removal of invasive, non-native plant species, which is also done as part of regular maintenance and revegetation with native species. The project is intended to provide additional management of sensitive resources by removing trail segments from eroding areas, restoring degraded areas, controlling public access and protecting endangered species.

Project Description. The project consists of trail replacement and rehabilitation at Asilomar State Beach and Conference Grounds at five locations along the existing Asilomar Coast Trail. The purpose is to rehabilitate and enhance sections of the coast trail for continued public use and enjoyment. The proposed project includes construction and rehabilitation of a total of approximately 0.5 miles (2,712 linear feet) of existing trails within five segments that will result in:

- Construction of 1,127 linear feet of new boardwalk trail within new re-routed alignments;
- Construction 165 linear feet of new decomposed granite (DG) trail that is part of the new alignment and connects to the new boardwalk trail;
- Removal and in-kind replacement of 100 linear feet of existing boardwalk trail;
- Installation of two drainage crossings; and
- Restoration of 1,220 linear feet of decommissioned trail.

Proposed improvements for each segment are summarized below and are indentified by the numbered entrance gates between which the segment is located. Details of the proposed work for each trail segment and accompanying photos of the proposed areas are shown on Figures 4A/3B through 8A/8B. A summary of the work for each segment is presented in Table 1, with further description provided in the next section.

The project will result in disturbance to a total area of approximately 15,165 square feet based on:

- New Boardwalk Footprint: 1,127 linear feet, 5 feet wide = 5,635 square feet
- New DG Trail Footprint: 165 linear feet, 6 feet wide = 990 square feet
- Restored Area Footprint: 1,220 linear feet, 7 feet wide = 8,540 square feet.

Table 1. Summary of Proposed Trail Improvements

	Re-route & New Boardwalk	New DG Trail	Replace	Remove Existing Boardwalk	Restore
Gates 10-12	325 linear feet		Remove and replace 100 linear feet of existing boardwalk in kind		351 linear feet
Gates 14-15	265 linear feet			Remove 240 linear feet of existing boardwalk	251 linear feet
Gates 18-19	225 linear feet	165 linear feet			265 linear feet
Gates 19-20	154 linear feet				253 linear feet
Gates 22-23	158 linear feet				100 linear feet
TOTAL In Linear Feet	**1,127**	**165**	**100**	**240**	**1,220**

Description by Trail Segment

Gate 10-12: Proposed work includes:

1) Installation of approximately 325 linear feet of new boardwalk trail in a re-routed trail alignment, which will include trimming existing vegetation and minor grading.
2) Replacement of 100 linear feet of existing boardwalk trail.
3) Restoration of approximately 351 linear feet of old trail.

Gate 14-15: Proposed work includes:

1) Installation of approximately 265 linear feet of new boardwalk trail in a re-routed trail alignment, which will include trimming existing vegetation and minor grading.
2) Removal of approximately 240 feet of existing boardwalk trail.
3) Restoration of approximately 251 linear feet of old trail.

Gate 18-19: Proposed work includes:

1) Installation of approximately 220 linear feet of new boardwalk trail in a re-routed trail alignment, which will include trimming existing vegetation and minor grading.
2) Installation of 125 linear feet of compacted DG trail, which will result in removal of existing common native vegetation.
3) Installation of a 12-foot puncheon[1] drainage crossing.
4) Installation of a 30-foot bridge crossing.
5) Restoration of approximately 165 linear feet of old trail.

Gate 19-20: Proposed work includes:

1) Installation of approximately 154 linear feet of new boardwalk trail in a re-routed trail alignment, which will include trimming existing vegetation and minor grading.
2) Restoration of approximately 253 linear feet of old trail.

Gate 22-23: Proposed work includes:

1) Installation of approximately 158 linear feet of new boardwalk trail in a re-routed trail alignment, which will include trimming existing vegetation and minor grading.
2) Removal of 100 linear feet of existing boardwalk trail.
3) Restoration of approximately 100 linear feet of old trail.

All new trail sections will be built to comply with current ADA standards. The new boardwalk trail segments will be approximately 5 feet wide, built on piers, and slightly raised to avoid grading. The new DG trail segment will be approximately 6 feet wide. For the trail segment between Gates 18 and 19, two short bridge/drainage crossings will be required: a 12-foot long "puncheon" walkway over one small drainage and a 30-foot long bridge over the second drainage. Construction techniques and Standard Project Requirements to be implemented during construction are summarized in the following section.

Habitat Restoration. Restoration activities will be conducted at all trail sites, except for the segment between gates 18-19 where no restoration is proposed. Successful habitat restoration of closed trails will result in a 1.5:1 habitat restoration to impact ratio, of

[1] A puncheon design is generally a low walkway over the ground that is installed with wood planks.

which a minimum of 1,500 square feet (0.03 acre) shall be occupied by the listed species (1:1 ratio). No soils will be removed, and any displaced soils will be utilized in the restoration effort. As the seeds of listed species may by present, the upper two inches of soil will be reapplied in rehabilitated areas. The realigned trail segments will be sited to avoid individual plants of the two state and federally-listed endangered species in the area. In limited cases, where an individual plant cannot be avoided, the plants will be salvaged, repotted in the Asilomar nursery, and ultimately replanted in the trail restoration area. State Parks will provide post-construction documentation that there is no net loss of the listed species' habitat (comparison of pre-and post-construction plant census data) and aerial extent of occupied habitat.

Restoration activities will generally consist of the following actions. Standard Project Requirements #16-26 provide further details of restoration actions.

a) Remove any wood or posts from old boardwalk.
b) Pulling in downslope soil to restore the natural slope.
c) Break up compacted DG soil bed (only at Gates 10-12 and Gates 14-15).
d) Plant with native dune plant species.
e) Temporarily fence until vegetation is established.

Restoration will be implemented in accordance with the existing restoration plan for the area, utilizing plants from Asilomar's onsite nursery. Generally, the proposed restoration will be completed as follows:

- Entrances to closed trail segments will be blocked off with post and cable fencing.
- Signs will be posted indicating that the fenced area is closed due to plant restoration.
- All old trail structures such as boardwalks, posts, or supports will be removed.
- Soil will be lightly raked to match natural contour. Any old compacted DG trails placed over sand will be broken up until native soil is reached.
- All bare areas will be planted with native plants from Asilomar's Nursery, consisting of one-gallon specimens and cells of beach sage wort, beach bur, coyote bush, mock heather, seaside daisy, sea thrift, and other suitable dune plants.
- Native brush cuttings will be spread over planting sites to aide in stabilization and protection from the wind.
- Non-native plants such as iceplant and New Zealand spinach will be removed.
- Native seed mixtures may be spread to site.

Project Construction. Trail construction and restoration will be conducted by CSP trail crews over an approximately two-year period or as schedules allow, commencing in early 2018. Construction and habitat restoration will adhere to the Standard Project Requirements proposed by CSP as part of the project, which are included in Appendix

B. The Standard Project Requirements include 25 measures that are specific to biological resources and are intended to avoid or minimize adverse impacts to sensitive biological resources during project construction.

Removal of boardwalk trails will be performed using hand tools, and removed sections will be transported on existing trails using carts. New boardwalk and decomposed granite trails will be installed using hand tools. The new boardwalk segments will be constructed of redwood decking, pressure-treated Douglas fir for the stringers, and will be a mix of styles—floating on flat ground and built on raised diamond piers when traversing uneven topography or areas with drainage issues. Raised boardwalk segments will be elevated approximately 24 to 30 inches. The floating boardwalks will require some grading of the ground surface (less than 40 cm [about 16 inches]). The boardwalk trail segment on piers will not require grading, but will involve excavation for each pier (approximately 10 by 10 inches in size and 6 inches deep) and 4 pins (24-36 inches deep) to anchor each pier. There will be 6 piers (3 on either side) every 12 feet. The use of structural pins is intended to minimize ground disturbance and disturbance to the existing vegetation.

The boardwalk will be aligned to reduce impact on sensitive plant species. Flagging and lay-out procedures will identify areas that will require some excavation for boardwalk footings. Excavation, for the purpose of leveling the piers, will be done by hand, and all excavated materials will be placed on geo-textile, woven fabric and contained by straw wattles for later use.

The existing trail corridor will be used for the storage of all excavated and construction materials with the intent to leave as much area as possible undisturbed. All lumber, tools, and required materials for construction of the boardwalk will be stored, when not in use, in designated areas to reduce impact. Stored aggregate material will be staged on geo-textile woven fabric in designated areas and contained by straw wattles. All wood dust produced while cutting lumber will be contained by the use of a geo-textile woven fabric ground-covering.

Excess sand and soil produced while excavating footings for the rock causeway will be used to backfill the new trail-bed. Material that needs to be stored will be placed on geo-textile fabric and contained by wattles. Rock shards and debris produced during construction will also be contained by geo-textile fabric to limit introduction of non-native materials to the project area. Rock shall be staged in designated areas to reduce impact.

The 30-foot pedestrian bridge will require the construction of two multi-tier rock wall abutments in order to span a seasonal drainage. A silt fence will be used during excavation for the rock footings to contain loose sediment. Excavated soil will be exported and contained by wattles and fabric when staged. After the bridge stringers are placed and anchored, geotextile fabric drop cloth will be installed under the area

where the bridge will be assembled in order to catch any debris that might fall from the bridge as it is being assembled. The fabric will catch wood chips and debris created while installing post sills, post, railing, and tread. Geotextile fabric is also especially effective in catching oil and gas residues produced by chainsaws and gas-powered drills. It also catches tools and other valuable items that might be lost. Once the bridge stringers are anchored and the drop cloth is installed, workers assembling the bridge must have a safe platform to work from. Standard stair tower scaffolding can be assembled in the channel if the channel morphology and water conditions allow. California State Parks has developed a bridge scaffolding system that hangs from the bridge stringers. Because it hangs from the bridge, there is no need to enter the stream channel or disturb the stream banks.

10. Other Agencies Whose Approval is Required (e.g., permits, financing approval, or participation agreement)

- California Coastal Commission (Amendment to Existing Coastal Permit)
- California Regional Water Quality Control Board (Potential Section 401 water quality certification for pedestrian bridges)
- U.S Army Corps of Engineers (Section 404 Nationwide Permit, pedestrian bridge)

3.2 Environmental Factors Potentially Affected

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

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

3.3 Determination: (To be completed by the Lead Agency)

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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Brent Marshall, Monterey District Superintendent

8/10/17

Date

3.4 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 a project-specific screening analysis).

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

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

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

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other 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 that 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.

I. Aesthetics

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

Setting

The existing visual character of Asilomar State Beach and Conference Grounds is determined by the attributes (color, form, texture) of specific site features and by the patterns that the features have assumed as a result of natural processes and human uses. Asilomar State Beach and Conference Grounds is a seaside retreat whose visual characteristics are largely defined by the Pacific Ocean, the dunes, and Monterey pine forest (California Department of Parks and Recreation, 2004). The Pacific Ocean provides a focal point for the park's scenic views. In the tidal zone, fine-textured sandy beaches are interspersed with rocky intertidal and subtidal areas providing dramatic variety in form and texture (Ibid.). The coastal dunes with a mosaic of dune vegetation add visual variety to the landscape, providing rough texture and seasonally varying color to the dunes. The vegetation

tends to be low-lying, promoting open ocean vistas. (See Figures 4B, 5B, 7B and 8B for representative views along the Asilomar Coast Trail.) The inland area of Asilomar State Beach and Conference Grounds is comprised of stabilized dunes, covered with Monterey pine forest. The forest canopy towers dramatically over the landscape, providing visual contrast to the low-lying coastal dune vegetation. These general landform and vegetation patterns are visible from the adjacent Pacific Grove neighborhoods and streets. Views of the natural habitat areas from the existing park trails are visually rewarding and generally consist of coastal dunes and scrub, wildflowers, native shrubs, and many wildlife species (Ibid.).

Viewsheds at Asilomar State Beach and Conference Grounds include: views of the Pacific Ocean and coastline from the Asilomar Conference Grounds and the beach areas; interior and exterior views of the architecture of Julia Morgan and others; and views of the scenic interface of coastal dunes and Monterey pine forest. Prominent views of the dunes and ocean are from Sunset Drive, which is designated as a scenic route in the Pacific Grove General Plan and is used by visitors to access shoreline trails. Asilomar State Beach and Conference Grounds is located less than a quarter mile west of Seventeen Mile Drive in Pacific Grove. Historic Seventeen Mile Drive is among the county's most scenic and famous stretches of road and is a popular destination route for area visitors. Seventeen Mile Drive offers medium to long-range views of Asilomar State Beach and Conference Grounds.

Asilomar State Beach and Conference Grounds is visible from many short-range, medium-range, and long-range vantage points, including views from residential areas and public parks in Pacific Grove as well as coastline views from the Pacific Ocean. From all vantage points the park appears as a natural landscape with sparse rustic style structures nestled in the dunes (California Department of Parks and Recreation, 2004).

Impact Discussion

a) Scenic Vistas. The project is located within a highly scenic area. Views of the Pacific Ocean and coastline are the prominent views in the area from and along the Asilomar Coast Trail site and along Sunset Drive, designated as a scenic drive in the Pacific Grove General Plan. The proposed project consists of the relocation of portions of the existing trail with addition of new boardwalk trail segments, and in one location, a small bridge crossing. The project will not result in structural development along the trail. The proposed improvements and dune restoration will not block, obstruct or otherwise affect scenic vistas of the ocean. Therefore, the project will not result in a substantial adverse impact to scenic vistas, and no impact will occur. Effects of the project on the visual character of the surrounding area are discussed in subsection (c) below.

b) Scenic Resources. As noted above, Sunset Drive (between Asilomar Avenue and Ocean View Boulevard) is designated as a scenic route in the Pacific Grove General Plan. The closest State Scenic Highway is Highway 1, which is designated a scenic highway from Highway 68 south to the San Luis Obispo County line (Caltrans, 2016). This segment of Highway 1 is located approximately five miles east of the project site. The proposed improvements at the five access gates and trail segments are not visible from or in the vicinity of Highway 1. Therefore, the project will not result in an impact to

or substantially damage scenic resources within a State Scenic Highway. Furthermore, the project will not affect any trees, significant rock outcroppings, or historic features that may be considered scenic resources.

c) Visual Character of Surrounding Area. The proposed trail rehabilitation and dune restoration will utilize natural materials and is designed to blend with the natural surroundings. Approximately 1,127 linear feet of new boardwalk trail and 165 linear feet of new decomposed granite trail will be installed within five new re-routed alignments. The new boardwalk trail will be approximately five feet wide and composed of redwood decking with pressure-treated Douglas fir stringers, similar to existing boardwalk trails. The low height and rustic wooden design of the boardwalk trail segments will blend with the adjacent sand dunes and vegetation and will be compatible with and similar to the style and appearance of existing boardwalk trails, which are intermittently visible from surrounding areas. Thus, the relocation and construction of new boardwalk trails will not substantially degrade the visual character of the site or surrounding area.

The 31-foot long pedestrian bridge at Gates 18-19 will require the construction of two multi-tier rock wall abutments in order to span a seasonal drainage. The bridge will be constructed of wood with open hand railings. A representative design is shown below, although the bridge shown is in a different landscape type than the Asilomar Coast Trail. The structure will be visible from the street and some areas along the trail, but it will have low-profile appearance with the open side railings and will span a limited area (approximately 30 feet). This bridge will be similar in size, but with a more open design than another existing footbridge in the vicinity (located near Gate 25) north of the proposed project trail segments as shown below. A short puncheon crossing is planned south of the new bridge, which will be low to the ground and not highly visible. The proposed natural materials of both crossings will blend with the surrounding area. Therefore, this element of the trail will not substantially degrade the visual character of the area.

Typical Bridge Design

Existing Bridge North of Trail Segment

Four of the sites, excluding Gates 18-19, will undergo restoration activities. The activities will remove any wood or posts from the old boardwalk, restore a natural looking slope, and revegetate the removed trail bed, restoring the area to a natural appearance. Vegetation will be the same as is being used in the area as part of the Asilomar dune restoration program, and will visually blend in with the surrounding area.

Therefore, the proposed trail relocation, construction of new boardwalk trail segments with one low profile bridge crossing and restoration of removed trails will be similar to the existing Asilomar Coastal Trail in appearance and will not substantially degrade the visual character or quality of the site or surrounding area.

d) Light and Glare. The proposed project does not include any lighting and will not produce glare. No impact will occur.

II. Agriculture and Forestry Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. 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 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 a non-agricultural use?	❒	❒	❒	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	❒	❒	❒	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	❒	❒	❒	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	❒	❒	❒	■
e) Involve other changes in the existing environment, which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	❒	❒	❒	■

Setting

The project area is entirely situated within Asilomar State Beach and Conference Grounds, which is located within the City of Pacific Grove. The sites are part of a coastal open space and recreational area and are not in agricultural production. The California Department of Conservation Monterey County Important Farmland Map identifies the project area as "Urban and Built-up land". The existing Pacific Grove General Plan and zoning designation for Asilomar State Beach and Conference Grounds project sites is Open Space. Surrounding areas within Pacific Grove are zoned for Light Commercial and residential uses.

Impact Discussion

a) Conversion of Agricultural Land. The project includes improvements to an existing trail system along the coast that will not convert agricultural lands to a non-agricultural use. No impact to prime or unique farmland, or farmland of statewide importance will occur.

b) Conflict with Williamson Act. The project area is not subject to a Williamson Act contract. Therefore, no conflicts or impacts to agricultural zoning or Williamson Act contracts will occur as a result of the proposed project.

c-d) Timber Production and Conversion of Forest Land. The project sites are within the Asilomar State Beach and Conference Grounds and are not zoned for timber production in state or local plans. The vegetation type within the project area is predominantly coastal scrub and coastal dunes. No trees or forest resources exist within the project site. No impact to timber resources will occur.

e) Involve Changes that Could Lead to Conversion of Agricultural and Forest Lands. The proposed project involves trail replacement and rehabilitation of the coastline. No farmland or forest land is present within the project area. Thus, the project will not result in impacts that will lead to the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

III. Air Quality

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	❒	❒	❒	■
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❒	❒	■	❒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	❒	❒	❒	■
d) Expose sensitive receptors to substantial pollutant concentrations?	❒	❒	■	❒
e) Create objectionable odors affecting a substantial number of people?	❒	❒	❒	■

Setting

To protect public health, both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards (AAQS) that are the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety to protect public health and welfare. Criteria pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), inhalable particulates (PM_{10}), fine particulates ($PM_{2.5}$), and lead. In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants. An area is designated as "in attainment" when it is in compliance with the federal and/or state standards as further discussed below.

The North Central Coast Air Basin (NCCAB), in which the project site is located, is under the jurisdiction of the Monterey Bay Air Resources District[2] (MBARD) and includes Santa Cruz, Monterey and San Benito Counties. The NCCAB is currently in attainment for the federal PM_{10} and SO_2 standards, and is designated attainment/unclassified for the other federal standards. The basin is designated attainment for the state $PM_{2.5}$, NO_2, SO_2, and lead standards, and for CO in Monterey County. The basin is designated non-attainment for the one-hour state ozone standard and for the

[2] Formerly the Monterey Bay Unified Air Pollution Control District.

state PM_{10} standard. While the NCCAB does not meet the state PM_{10} standard, the basin is in attainment for the state $PM_{2.5}$ standard (Monterey Bay Air Resources District, 2015).

The MBUAPCD's 2017 AQMP identifies a continued trend of declining ozone emissions in the NCCAB primarily related to lower vehicle miles traveled. Therefore, the MBUAPCD determined progress was continuing to be made toward attaining the 8-hour ozone standard during the three-year period reviewed (Monterey Bay Air Resources District, March 2017).

Impact Discussion

a) Conflicts with AQMP. The project consists of trail improvements and habitat restoration within an existing State Park unit. The project will not result in construction of habitable structures or a stationary source of air emissions, and will not result in an increase in population. Therefore, the project will not result in new development that would conflict with or obstruct implementation of the current AQMP for the NCCAB. No impact will occur.

b-c) Project and Cumulative Air Emissions. The project consists of trail improvements and habitat restoration. Upon completion of construction, the project will not result in construction of a stationary source of emissions and will not result in structural development or generation of vehicular trips. Thus, the project will not result in direct or indirect emissions of any criteria air pollutant emissions at a level that would violate any local, state, or federal ambient air quality standards or contribute substantially to any air quality violations.

The removal of existing trails and the installation of relocated boardwalk trails and a footbridge will primarily be undertaken with hand tools, not mechanical equipment. The temporary use of equipment for construction and transport of materials will result in minor vehicular emissions. However, the trail reconstruction will not result in grading; excavation for the piers to support the boardwalk structure will be by hand. Information from the Monterey Bay Unified Air Pollution Control District (MBUAPCD) and its "CEQA Air Quality Guidelines," indicate that 8.1 acres could be graded per day with minimal earthmoving or 2.2 acres per day with grading and excavation without exceeding the PM_{10} threshold of 82 lbs/day. The total project site area that could potentially be disturbed totals approximately 0.4 acres, which is well below this threshold. Furthermore, the trail work will be completed in segments, intermittently, over a period of two years. Thus, the project will not significantly contribute to existing or projected air quality violations, and thus, will not result in a cumulatively considerable net increase for ozone or PM_{10}.

d) Sensitive Receptors. The project site is located within the state-owned and managed Asilomar State Beach and Conference Grounds. As indicated above, the project will not result in stationary emissions. Thus, the proposed project will not expose sensitive receptors to substantial pollutant concentrations. For CEQA purposes, a sensitive receptor is defined as any residence, including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes (Monterey Bay Air Resources District, February 2008). Single-family homes are located along Sunset Drive in the vicinity of some of the

project trail segments. The Asilomar State Beach and Conference Grounds General Plan also considers the park, as a whole, a sensitive receptor because it accommodates overnight stays and provides recreation facilities.

Diesel particulate matter was identified as a toxic air contaminant (TAC) by the State of California in 1998. Diesel exhaust is emitted from a broad range of on- and off-road diesel engines. Following the identification of diesel as a TAC, the California Air Resources Board (CARB) developed a comprehensive strategy to control diesel PM emissions. The "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (approved by CARB in September 2000) set goals to reduce diesel PM emissions in California by 75% by 2010 and 85% by 2020. This objective would be achieved by a combination of approaches (including emission regulations for new diesel engines and low sulfur fuel program). Since approval of the "Diesel Risk Reduction Plan," CARB has adopted regulations for in-use, off-road diesel vehicles that will significantly reduce particulate matter emissions.

The proposed project involves trail improvements that will not require use of heavy equipment. Vehicle use for transport of equipment and supplies and equipment exhaust emissions during construction will be minimal, and vehicles are subject to state regulations. CSP intends to implement the trail rehabilitation work in segments that will occur intermittently over a 1 to 2-year period, but park visitors and nearby residents will not be exposed to substantial pollutant concentrations from stationary or construction sources. Therefore, the indirect emissions during construction will be less-than-significant.

e) Odors. The project will not result in the long-term generation of odors. Reconstruction of existing trails with habitat restoration are uses that are not generally associated with the creation of objectionable odors.

IV. Biological Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. 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?	❒	■	❒	❒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	❒	❒	■	❒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	❒	❒	■	❒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	❒	❒	■	❒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	❒	❒	❒	■
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?	❒	❒	❒	■

Setting

The Coast Trail Rehabilitation Project area is located within the Asilomar dune complex, which has been subject to restoration and rehabilitation since the 1980s when dune restoration was first implemented by CSP inland and then seaward of Sunset Drive. Restoration has occurred in accordance with a Coastal Development Permit issued by the California Coastal Commission and the *Asilomar State Beach Dunes Restoration Plan*. Since 1989, State Park has created/restored approximately 25 acres of coastal dune habitat seaward of Sunset Drive and approximately 25 acres inland of Sunset Drive. Figure 9 provides photos with before and after restoration views of some of the coastal dune restoration areas at Asilomar.

A biological resources study was conducted as part of the preparation of this Initial Study by the Biotic Resources Group. The study is included in Appendix C, and the findings are summarized in this section.

Vegetation Types

The Coast Trail Rehabilitation Project area supports the following plant community types: coastal bluff scrub, coastal dune scrub, dune sedge meadow, rush seep meadow, and ice plant mat. Further description is provided in the following sections. The location of habitat types along the project trail segments is shown on Figures 10A through 10E. Common wildlife species occur in the coastal bluff scrub and coastal dune scrub.

The bluff scrub and coastal dune scrub vegetation have been established by CSP over the past 27 years as part of the restoration program in which large swaths of non-native ice plant (*Carpobrotus spp.)* were removed and the areas replanted with native bluff vegetation; sand was imported to create the foredune formations. Vegetation in these areas is a result of this restoration effort, as well as natural recruitment of plant species. CSP continues to implement on-site dune restoration. Native plants are routinely grown in the Asilomar State Beach and Conference Grounds nursery and out planted into the scrub habitat. Invasive, non-native plant species are also routinely removed/controlled.

Coastal Bluff Scrub. The seaward edge of the project area supports coastal bluff scrub, which is characterized by shrubs and herbs on the bluff faces and terraces. Plant species commonly observed within the bluff scrub habitat include coastal sagewort (*Artemisia pycnocephala)*, lizard tail (*Eriophyllum staechadifolium)*, seacliff buckwheat (*Eriogonum parvifolium)*, and seaside daisy (*Erigeron glaucus)*. The bluff scrub habitat also supports small patches of invasive non-native plant species, most commonly ice plant and sea rocket (*Cakile maritima)*.

Coastal Dune Scrub, The inland edge of the project area, primarily abutting Sunset Drive, supports coastal dune scrub, which is characterized by open sand deposits, with a sparse to dense growth of shrubs and herbs.

Shrubs commonly observed within the dune scrub habitat include coastal sagewort, lizard tail, coyote brush (*Baccharis pilularis)*, and seacliff buckwheat. Yellow bush lupine (*Lupinus arboreus)* is also present. In some areas, such as near Site 19-20, the scrub supports a dense stands of coyote brush, with scattered yellow bush lupine, lizard tail, and California blackberry (*Rubus ursinus)*. Sub-shrubs and herbaceous species are numerous; species observed within the project area include common yarrow (*Achillea millefolium)*, seaside daisy, milk vetch (*Astragalus nuttallii)*, sand verbena (*Abronia sp.)*, peach primrose (*Cammissoniopsis cheiranthifolia)*, sea pink (*Armeria maritima)*, dune sedge (*Carex pansa)*, and Pacific gumplant (*Grindelia stricta)*. Individual plants of Tidestom's lupine (*Lupinus tidestromii)*, an endangered species, were observed in some dune scrub areas. Hybrids between Tidestrom's lupine and the locally non-native silver beach lupine (*Lupinus chamissonis)* also occur in the project area (Gray, personal communication, December 2016). Non-native species observed in the scrub include cut-leaved plantain (*Plantago coronopus)* and common groundsel (*Senecio vulgaris)*. Invasive non-native plant species were also observed; the most commonly observed species were ice plant, New Zealand spinach (*Tetragonia tetragonoides),* Bermuda buttercup (*Oxalis per-caprae),* and sea rocket (*Cakile maritima)*.

Dune Sedge Meadow. Patches of dune sedge meadow occur in openings within the coastal dune scrub, often in low areas that receive more moisture than the surrounding scrub. These small meadows are characterized by the presence of the native perennial dune sedge (*Carex pansa)*. Other plant species include lizard tail, coastal sagewort, sea rocket, seaside daisy, common yarrow (*Achillea millefolium)*, and scattered ice plant. One dune sedge area occurs at Site 14-15.

Rush Seep Meadow. Patches of rush (*Juncus spp.)* occur in a mesic area/swale in the project area at Site 18-19. Bog rush (*Juncus effusus)*, iris-leaved rush (*J. xiphioides)* and creeping wild rye (*Leymus*

triticoides) forms dense stands. Other herbaceous species include Olney's bulrush (*Schoenoplectus americanus),* Pacific silver-weed (*Potentilla anserina ssp. pacifica),* common yarrow, velvet grass (*Holcus lanatus)*, and scattered ice plant. Surface water was observed in the lowest portion of the swale as well as along the upslope edge of the existing trail in December 2016.

Ice Plant Mat. Small mats of non-native ice plant occur in the project area. These patches occur adjacent to coastal bluff scrub and coastal dune scrub. The mats are typically a monoculture of ice plant; however, in some areas other plant species are found, such as beach primrose, lizard tail, sea rocket, seaside daisy, and New Zealand spinach. Ice plant mats also support additional non-native species, such as cut-leaved plantain.

Sensitive Habitats

Sensitive habitats are defined by local, state, or federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. The California Department of Fish and Wildlife (CDFW) classifies and ranks the State's natural communities to assist in determining the level of rarity and imperilment. Vegetation types are ranked between S1 and S5. For vegetation types with ranks of S1-S3, all associations within the type are considered to be highly imperiled. If a vegetation alliance is ranked as S4 or S5, these alliances are generally considered common enough to not be of concern; however, it does not mean that certain associations contained within them are not rare (Biotic Resources Group, February 2017).

The project area supports two vegetation types with an imperiled status. Dune sedge meadow and associations of dune scrub (i.e., dune mats with sand verbena, sagewort, and/or sea pink) are ranked S3. Additionally, CSP recognizes the presence of sensitive habitat within this park unit. The Asilomar State Beach and Conference Grounds General Plan identifies central dune scrub and Monterey pine forest as two sensitive plant communities that exist at Asilomar State Beach and Conference Grounds.

The project is located within the coastal zone in the City of Pacific Grove. The California Coastal Commission (CCC) certified the City of Pacific Grove's 1989 Coastal Land Use Plan (LUP). An updated LUP was adopted by the City in February 2017 and is pending review by the CCC. Within the coastal zone, Environmentally Sensitive Habitat Areas", or "ESHAs," are defined as any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. These areas include, but are not limited to, dune, wetland, stream and rookery areas. Pacific Grove's updated LUP identifies coastal bluff and coastal sand dunes as environmentally sensitive habitats (City of Pacific Grove, February 2017).

The CCC also found that the entire dune restoration area is considered an ESHA (Asilomar State Beach Permit 3-87-258-A6, 1989). In addition, the dune sedge and rush seep areas may meet the definition of coastal review wetlands due to the presence of seasonal surface water and/or wetland indicator plant species (e.g., bog rush and bulrush).

Special Status Species

Special status plant and wildlife species are those listed or proposed for listing as endangered or threatened by federal and/or state governments, as well as species identified in California as state species of special concern. Special status plant species also include those identified as rare (on List 1B) by California Native Plant Society (CNPS). Special status species searched for within the project area were identified based on review of species recorded in the region by California Natural Diversity Data Base (CNDDB) and CNPS. The biological evaluation did not include a spring/summer season survey for special status plant species; however, CSP has conducted seasonal surveys and the occurrence of species status plant species have been mapped, (see Figure 10). In addition, all raptor nests are protected by the California Fish and Game Code, and all migratory bird nests are protected by the Federal Migratory Bird Treaty Act.

Two special status plant species, Tidestrom's lupine and Menzies wallflower, both of which are state and federally listed as endangered, and one special status wildlife species, the black legless lizard, occur in the project area (see Figure 11A-E). The U.S. Fish and Wildlife Service (USFWS) has not designated Critical Habitat for Menzies' wallflower or Tidestrom's lupine. The USFWS prepared a Recovery Plan in 1998, which addresses recovery actions to protect these species. These plants are used in Asilomar's dune restoration program and annual reports provided to the state.

Tidestrom's Lupine. Occurrences of Tidestrom's lupine (*Lupinus tidestomii)* (listed as endangered by State and Federal Endangered Species Acts) were observed during the December 2016 site visits. This species, a member of the Pea Family (Fabaceae), is a creeping perennial herb, typically growing 4-12 inches tall. It has dense hairs on its leaflets and produces purplish-pink flower May-June. The plant is short-lived, yet produces large, long-lived seeds. The species is found in clustered colonies at three sites along the California coastal dunes: the southernmost population is found from Carmel Beach to Asilomar State Beach and Conference Grounds. The species also occurs at Point Reyes National Seashore and on the Sonoma Coast State Beach (Goat Rock Beach). According to USFWS's 5-year review of the species, the populations on the Monterey Peninsula are highly threatened by hybridization with silver bush lupine (*Lupine chamissonis)*.

Within Asilomar State Beach and Conference Grounds, Tidestrom's lupine occur both inland and seaward of Sunset Drive, where the species inhabits relatively open, sparsely vegetated dunes. The primary threats are trampling from hikers, dune stabilization from invasive, non-native plant species, hybridization effects, and flower/seed predation (USFWS, 2009 as cited in Biotic Resources Group, March 2017). CSP has successfully propagated and planted this species since the 1980s as part of the dune restoration project at Asilomar State Beach and Conference Grounds. The current population within the project area is approximately 1,167 plants (California State Parks, 2016). The species is found near Gates 10-12, 14-15, and 19-20 and close to Gates 18-19.

Menzies Wallflower. The Asilomar Coast Trail project area supports Menzies wallflower (*Erysimum menziesii ssp. menziesii)* (listed as endangered by State and Federal Endangered Species Acts). Menzies wallflower is a perennial plant in the mustard family (Brassicaceae). Although it flowers and produces

fruit (seed) only once during its life (after which it dies), its basal rosette of leaves may persist for up to eight years before flowering. The plant typically blooms from March through April and is identifiable by the stalk of yellow flowers. Seeds are produced in June and slowly disperse through the summer and fall. The seed is short-lived in the soil. In Monterey County, Menzies wallflower occurs in open, sparsely vegetated dunes, typically in loose sand that lacks organic matter and minerals (USFWS, 2008). The species is known from four isolated dune areas extending from Point Pinos in the north to Cypress Point in the south.

The colony at Asilomar State Beach and Conference Grounds was reported to support over 5,000 plants in 2003 (USFWS, 2008, as cited in Biotic Resources Group, March 2017). The current population within the project area is approximately 2,206 plants (State Parks, 2016). CSP has successfully propagated and planted this species since the 1980s for habitat enhancement at Asilomar State Beach and Conference Grounds.

Black legless Lizard. Black legless lizards (*Anniella pulchra nigra*), a State Species of Special Concern, require coastal dune habitats and edges of other adjacent habitats (such as oak woodlands) with very loose, sandy soils with dense vegetative cover and dense leaf litter. They live primarily in the upper soil layers and hunt for invertebrates at the surface, especially amongst dense leaf litter. The dense leaf litter and dense shrub (particular lupines and mock heather) create moist soil conditions that are critical to this lizard's survival. They can rapidly burrow deep into the sand if disturbed. This lizard has been found in marginal habitats at the edges of preferred dune scrub habitats. Although the coastal bluff and dune scrub habitat at the project sites are relatively small in size and fragmented by the adjacent road and residential developments to the east, the black legless lizard may be found in the coastal dune and scrub habitats. The species is not expected to occur in the meadow habitats at the project sites. The species has been found during revegetation efforts within the project area by State Parks personnel.

Smith's Blue Butterfly. The coastal scrub and coastal bluff scrub supports seacliff buckwheat which can be habitat for the Smith's Blue butterfly, a federally-listed endangered species as it provides an adult and larval food source for the species. The Smith's blue butterfly is considered extirpated from this portion of the Monterey Peninsula, including Asilomar State Beach and Conference Grounds based on a 2006 USFWS evaluation (Biotic Resources Group, March 2017. The relatively small areas of coastal bluff and dune habitat with buckwheat in the project area are fragmented by development to the east, and the occurrence of buckwheat within these habitats is sparse. This butterfly has low movement and dispersal capability. The sparse occurrence of buckwheat plants, the fragmented habitat, and the lack of any records of Smith's blue butterfly within the general vicinity (Pacific Grove to Pebble Beach) reduce the likelihood that this butterfly currently inhabits any portion of the project area.

Marine Habitats

The southern sea otter (*Enhydra lutris*) frequents the nearshore along the entire Asilomar State Beach and Conference Grounds coastline. The gray whale can be sighted off the Monterey Peninsula headlands during its annual migration (California Department of Parks and Recreation, 2004). The

portion of Monterey Bay that borders Asilomar State Beach and Conference Grounds on the west is part of the Monterey Bay National Marine Sanctuary (MBNMS), managed by the National Oceanic and Atmospheric Administration (NOAA). The MBNMS incorporates over 276 miles of shoreline and 5,322 square miles of ocean, encompassing a region from Marin County south to Cambria. NOAA has been assigned responsibility for managing the Nation's thirteen National Marine Sanctuaries and has developed regulations uniquely suited to protect the resources at each sanctuary.

Impact Discussion

a) Special Status Species.

Plant Species. The proposed trail realignment will result in construction of approximately 0.13 acres of raised boardwalks and trail closure/habitat restoration on approximately 0.20 acres. The project includes restoration of closed trail segments and associated degraded areas as part of Asilomar's approved ongoing dune restoration program. These activities will occur within and/or in proximity to individual plants of Tidestrom's lupine and Menzies wallflower, both federally- and state-listed endangered plant species. Project activities could result in take or harm to individual plants of both species and their habitat. However, the proposed restoration in combination with implementation of CSP's proposed Standard Project Requirements #11-14 (see Appendix B) will avoid take of the two listed species and their habitat. In limited areas where individual plants cannot be avoided, implementation of Standard Project Requirement #15 requires that the plant(s) and/or seed be salvaged to minimize impacts. Where an individual is salvaged, it will be repotted in the Asilomar nursery and ultimately replanted in the trail restoration area pursuant to a Scientific, Educational and Management Permit issued to CSF. With the proposed restoration and implementation of Standard Project Requirements, impacts to these species will be less than significant.

The occurrences of Tidestrom's lupine and Menzies wallflower are in locations that have been planted over the past 25+ years and have since naturally re-established within portions of the dune scrub as part of the CSP's implementation of the *Asilomar State Beach Dunes Restoration Plan.* CSP has successfully collected seed, grown plants, and planted both species as part of the dune restoration plan since the 1980s, and holds a Section 2081(a) Scientific, Educational, and Management Permit with CDFW that allows CSP to "take" the two species for habitat management purposes. This includes seed collection and growing plants for out planting in the dune scrub as part of ongoing habitat restoration and dune management.

Individuals of Tidestrom's lupine grow within the dune scrub in/adjacent to the proposed trail re-alignments at Site 10-12, Site 14-15, and Site 19-20. Trail construction (installation of raised boardwalks, approximately 270 linear feet) will occur within and/or in close proximity to several individuals. Given the small footprint of the supports to be used for the boardwalk (structural pins) and the ability of CSP to site the supports to avoid plant occurrences, it is likely that direct take of Tidestrom's lupine plants can be avoided during trail construction with implementation of Standard Project Requirements #11-14 that call for avoidance and protection of individual plants during construction. In the event that the placement of the boardwalk supports cannot avoid impacting a plant, CSP will implement Standard Project Requirements #15 that requires plant salvage and

replanting with additional propagation of plants from collected seed in accordance with Asilomar's Scientific Collection Permit such that there is no net loss of individual plants. In addition, the proposed trail work will leave any disturbed soils on site to prevent loss of potential seeds in the soil.

The new boardwalk trails will be 5 feet wide and elevated above the dune scrub approximately 24 to 30 inches. Some shading of the listed species may occur from the raised boardwalk, particularly beneath the mid-section of the boardwalk where sunlight cannot reach. This may result in indirect impacts to listed species if such plants are present. The new raised boardwalk may indirectly impact up to 1,350 square feet (0.031 acre) of habitat supporting Tidestrom's lupine. However, indirect impacts to the species habitat will be compensated by the proposed on-site habitat restoration and implementation of Standard Project Requirements, particularly #10 and #15. Approximately 8,540 square feet (0.20 acre) of rehabilitated dune scrub habitat will be created as part of the project, which will include plantings of Tidestrom's lupine.

Individuals of Menzies wallflower grow within the dune scrub in/adjacent to the proposed trail re-alignments at Site 19-20. As discussed for the Tidestom's lupine, trail rehabilitation (installation of raised boardwalks, will occur within and/or in proximity to individuals at this location. Approximately 150 square feet (0.003 acre) of habitat supporting this species may be impacted. Given the small footprint of the supports to be used for the boardwalk (structural pins) and the ability of State Parks to site the supports to avoid plant occurrences, it is likely that direct take of Menzies wallflower plants can be avoided with implementation of proposed Standard Project Requirements #11-14. In the event that the placement of the boardwalk supports cannot avoid impacting a plant, CSP will implement Standard Project Requirements #15 that requires salvage and replanting individuals, such that there is no net loss of individuals. Standard Project Requirement #15 calls for growing 100-200 Tidestrom's lupine and Menzies wallflower. In addition, as indicated above, disturbed soils will be retained on site to prevent loss of potential seeds in the soil.

CSP developed and has been implementing the *Asilomar State Beach Dunes Restoration Plan* since the 1980s, which has successfully included replanting and re-establishment of the two affected special status species. The proposed project is intended to provide additional management of sensitive resources by removing trail segments from eroding areas, restoring degraded areas, removing invasive, non-native plant species, and controlling public access in accordance with provisions of the Restoration Plan's long-term management component. The Asilomar State Beach and Conference Grounds General Plan emphasizes the conservation of sensitive dune species and their habitat, and CSP has a steady funding source, mandated by language in the concessionaire contract for the Asilomar Conference Center, a portion of which goes to resource management, including funding a native plant nursery and some State Park personnel.

Additionally, the project area is dedicated to open space and conservation of natural resources, is protected from development, and provides a benefit to listed species and other native plant and wildlife species. As outlined in the Asilomar State Beach and Conference Grounds General Plan, State Parks will maintain the State Park in a natural state where the native habitats will be maintained and remain mostly undisturbed over the long-term, thereby serving as a refuge for

special status species where suitable habitat exists. The General Plan's commitment and funding mechanism for resource management and restoration and enhancement of listed species habitats further promotes the conservation and recovery of these species by providing future areas for each of these species to expand its current range once habitat has been restored or enhanced (Biotic Resources Group, March 2017).

Wildlife Species. Direct impacts to black legless lizards may occur if any are present in the work area during construction. Relocation of individuals may cause temporary impacts, and the loss of coastal dune bluff and dune habitat may cause temporary impacts until the closed trails segments are revegetated with native plants. Successful implementation of CSP's proposed Project Standard Project Requirements #1-3 will avoid and minimize any direct impacts to black legless lizards, and reduce any indirect impacts to a less-than-significant level. The proposed Standard Project Requirements will remove leaf litter in advance of construction to allow any individuals to move out the area and carful construction with hand tools to minimize direct impacts to individuals if present. Therefore, project construction will result in a less-than-significant impact with implementation of Standard Project Requirements.

b) Riparian and Sensitive Habitats. Project activities will result in removal of habitat considered to be ESHA, which is considered a potentially significant impact. Project features will occur within three sensitive vegetation types considered to be ESHA: coastal dune scrub, coastal bluff scrub, and rush seep meadow. New boardwalk construction will affect up to approximately 5,635 square feet (0.13 acre) of ESHA. This represents the entire footprint of the boardwalk; however, in most areas the boardwalk will be elevated 24-30 inches above the habitat and direct impacts will be limited to the supports (structural pins). In addition, new decomposed granite-surfaced trail will affect approximately 990 square feet (0.02 acre) of ESHA. The rehabilitation of closed trails and habitat restoration of these areas will create approximately 0.20 acre of new habitat. The restoration to impact ratio is approximately 1.5:1. Successful implementation of CSP's proposed Standard Project Requirements #7-10 and #16-25 (see Appendix C) will minimize and compensate for the impact to ESHA, resulting in a less-than-significant impact, and no additional mitigation is required. In addition, in approving the coastal development permit for restoration, the California Coastal Commission determined that the installation of the existing trail and boardwalk system with protective fencing along Sunset Drive would be conducted in a manner that would disruption of remnant dunes and special status species, and concluded that the trail would not result in a significant disruption to ESHAs. As previously indicated, the proposed project is consistent with, and part of, the ongoing dune restoration program.

c) Wetlands. The project will not alter the flow of any watercourse or affect in-stream wetlands. Boardwalk and bridge abutments will be placed outside the top of bank of swales and wetlands at Site 18-19. The footbridge and puncheon crossing will not require any alteration of the creek or creek flow. All bridges will avoid permanent impacts to in-stream vegetation (wetlands).

Construction of the new footbridge at Gate 18-19 may cause temporary impacts to wetland resources if workers access the waterway. Construction of the bridge and puncheon at Site 18-19 may cause temporary impacts to water resources if workers access the waterway. Successful

implementation of State Park Standard Project Requirements # 7-10, #16-25 and the Standard Project Requirements identified for bridge construction will minimize and compensate for the impact to water resources. The watercourses may be subject to jurisdiction by the Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and the CDFW. Implementation of the proposed BMPs will reduce impacts to waters of the US and Waters of the State to a less-than-significant level. No additional mitigation is required.

d) Wildlife Movement and Nesting Birds. Construction activities may cause short-term impacts to nesting birds if they are present during construction, or result in injury or death to eggs and chicks if the nest is impacted. Successful implementation of State Park Standard Project Requirements# 4-6 (see Appendix C) will avoid impacts to nesting birds. No additional mitigation is required.

e-f) Conflicts with Policies or Plans. The project will not conflict with local plans, policies or ordinance protecting biological resources, such as tree preservation policies. The project includes restoration for degraded habitats through the removal/control of invasive non-native plant species and rehabilitation of closed/removed trails and protection of special status species. This is consistent with the Asilomar State Beach and Conference Grounds General Plan and Asilomar State Beach Dunes Restoration Plan.

The project area is not within the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other habitat conservation plan.

V. Cultural Resources

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

Setting

Native American Setting. For thousands of years, hunter-gatherer-fisher populations lived in the Monterey Bay Area. Occupation by hunter-gatherer societies in the Monterey Bay area first appears about 8,000 years ago (Alta Archaeological Consulting, May 2017). Currently six periods have been proposed for the Central Coast: Paleo-Indian, Millingstone, Early, Middle, Middle/Late, Late and Historic (Ibid.). The Asilomar State Beach and Conference Grounds area is included in an important culture area, the home country of the ethnographic Rumsen (California Department of Parks and Recreation, September 2004).

Although a number of early studies had revealed many long-term shellfish processing sites along the Monterey coast, no clear chronology of cultural change had been developed from these highly stratified sites). Ultimately, the results of early excavations were distilled into two patterns that designate the archaeological manifestations of the Monterey-Carmel area: the Sur Pattern and the Monterey Pattern (Breschini and Haversat 1980 as cited in California Department of Parks and Recreation, September 2004). The Sur Pattern (~3,000 B.C. – 500 B.C.) is associated with the ancestors of the Esselen, a tribal group who inhabited a small region south of the Monterey Peninsula. The evidence from the Monterey Pattern (ca. 500 B.C.) indicates connections to the Costanoans, who, ethnographically, held much of the Monterey Bay and San Francisco Bay Area. Indeed, some sites began to show a replacement of the Esselen by the Costanoans by 500 B.C. (California Department of Parks and Recreation, September 2004).

"Costanoan" is derived from the Spanish word *Costaños* ("people of the coast"), used by the Spanish colonists to refer to the native people who inhabited the Central Coast of California from the San Francisco to Monterey Bay areas, and who spoke similar languages. In spite of having a common language base, they were not bound together in any sociopolitical sense. Today, the descendants of these people sometimes use a native language term "Ohlone" to designate themselves (California Department of Parks and Recreation, September 2004), but more often, use a term designating the specific sociopolitical group from which they descended or the language spoken by that group.

Rumsen is the sociopolitical group that controlled the Monterey Peninsula and lower Carmel Valley when the Spanish arrived. Achasta (designated San Carlos by the Spanish) was one of the five villages that formed the multi-village tribelet of Rumsen (Milliken 1987). The location of this village was probably either in the vicinity of Monterey or the mouth of the Carmel River and it is likely that people from this village utilized the area that represents present day Asilomar State Beach and Conference Grounds (California Department of Parks and Recreation, September 2004).

Historical Setting. The earliest exploration of the Monterey region was the discovery of the Carmel River by Sebastian Vizcaíno in 1603. By 1770, Gaspar de Portola's expedition, in essence, founded Monterey with the landing of the *San Antonio* in Monterey Bay to initiate the colonization and mission building process. Junipero Serra was on board to assist with the building of the mission and presidio of San Carlos de Borromeo de Monterey. Throughout much of the early to mid-19th

Century, the presidio housed much of the population of Monterey (California Department of Parks and Recreation, September 2004).

During much of the 19th century, Pacific Grove remained relatively isolated, given the lack of viable transportation to and from the area. However, in 1875, David Jacks, a local businessman, donated 100 acres of land to the Methodist Episcopal Church to establish a "Christian Seaside Resort" in Pacific Grove. From these beginnings, the Pacific Grove Retreat Association was formed. In 1889, the Southern Pacific Railroad extended service to the town, and, with it, the development of Pacific Grove Retreat continued to grow (California Department of Parks and Recreation, September 2004).

Project Area. Portions of the proposed trail segments lie within or are near four recorded archaeological sites: CA-MNT-135, -139, -141, and -143. All are shell midden sites, likely Late Period coastal collecting and processing sites, all updated in 1992; MNT-143 was updated again in 2009 and tested and evaluated by Albion Environmental in 2009. Radiocarbon dates are available for MNT-139 (AD1149) and MNT-143 (AD1460 and 1820) (California State Parks, December 2016). Sites CA-MNT-135 and CA-MNT-141 were tested and evaluated in May 2017 by Alta Archaeological Consulting. The evaluations indicate that CA-MNT-135 is not eligible for listing in the California Register of Historic Resources (CRHR) and is not an important resource as defined by CEQA, but that CA-MNTA-141 and -143 are eligible for listing. CA-MNT-139 has not been evaluated and must therefore be assumed to be potentially eligible under Criterion 4 (California State Parks, December 2016).

Impact Discussion

a-b) Historical and Archaeological Resources. Trail reconstruction and restoration would occur within or in proximity to recorded archaeological sites that are considered to be historical and archaeological resources under CEQA definitions, and would result in potentially significant impacts to these resources. Pursuant to Public Resources Code 5020.1(j), an "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript, which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. As set forth in Public Resources Code section 5024.1(c), a resource may be listed as an historical resource in the California Register if it meets any of the following National Register of Historic Places criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history.

CEQA applies to effects on archaeological sites that are considered a historical resource, as defined above, or if the site meets the definition of a unique archeological resource. If an archaeological

resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. CEQA defines a "*unique archaeological resource*" as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (Public Resources Code section 21083.2(g)).

Based on the evaluations and testing of recorded sites within or in proximity to the project sites, all sites meet the definition of historical and archaeological resources, except for CA-MNT-135. The sites are characterized primarily as shell midden sites. Trail rehabilitation includes removal of some existing boardwalk trails and installation of new boardwalk structural pins that will require excavations of 24 to 36 inches in depth, which could compromise subsurface archaeological deposits, a potentially significant impact.

At CA-MNT-143, the testing and evaluation found that the upper 40 cm of the deposit lack integrity and do not contribute to the site's significance, so any disturbance to the upper 40 cm (approximately 16 inches) will not be considered a significant impact (California State Parks, December 2016). Since excavation for boardwalk piers could extend to 75 cm, there could be some penetration into deposits at this location. Review by CSP archaeologists indicate that further excavations at this site for data recovery as a potential mitigation could result in more significant impacts than trail installation (Ibid.). Therefore, archaeological monitoring during construction is recommended.

The testing and evaluation at CA-MNT-135 determined that the resource is located outside the boundary of the proposed new trail segment and due to heavy impacts in the past, does not appear to contain significant intact archaeological deposits. At CA-MNT-141, a locus of concentrated shell midden along the coastal bluff in the western portion of the site was found to contain significant intact archaeological deposits capable of adding to our understanding of prehistoric adaptation in the region and therefore eligible for listing on the CRHR under Criterion 4 per Section 5024.1(c). This locus includes the existing trail. Other areas of the site located outside this locus, including the proposed new trail segment, do not contain important data sets that contribute to the eligibility of the site for listing in the CRHR. The evaluation concluded that the proposed new trail segment will not have an adverse effect on significant cultural properties at either site (Alta Archaeological Consulting, May 2017). However, archaeological monitoring was recommended for the revegetation and restoration component of the project.

CA-MNT-139 is located outside the path of the proposed new trail, so no impacts were anticipated and the site was not evaluated. While restoration of the existing trail, which runs through the site,

involves minor ground disturbance, the overall benefits of restoration in reducing the current erosion at this site and at CA-MNT-135, -141, and -143 will offset any minor impacts on the sites. Archaeological monitoring will ensure that if any potentially significant resources are encountered during the restoration they will be evaluated and treated appropriately and in accordance with environmental law (California State Parks, December 2016).

Implementation of the following mitigation measures will reduce impacts to historical and archaeological resources to a less-than-significant level if encountered during installation of the new trail segments.

> **Mitigation Measure CUL-1:** Require that a California State Parks (CSP)-qualified archaeologist monitor all ground disturbing activities associated with trail relocation and subsequent restoration, revegetation or contouring at project site locations Gates 10-11, 14-15 (restoration), and 20-21 (restoration). If a cultural feature or other significant find is encountered, work shall be halted within a 50-foot radius of the find until a CSP-qualified archaeologist has had adequate time to evaluate the resource and determine an appropriate course of action. If the proposed project cannot avoid impacting the cultural resource then additional archaeological investigations will be necessary in order to mitigate the adverse effects to the resource. Locate construction staging areas outside areas of known archaeological sites. Limit the number of 1-gallon plantings in these areas to minimize disturbance of cultural deposits.

c) Paleontological Resources. No paleontological sites have been recorded within the boundaries of Asilomar State Beach and Conference Grounds, although a number of sites have been identified in upland areas of Monterey. Given the dynamic state of the beach and due to coastal erosion, it is unlikely that there are significant deposits of fossil material at Asilomar State Beach and Conference Grounds. Nevertheless, potential discovery of unknown fossil remains is possible even in areas designated as having low-potential for resources (California Department of Parks and Recreation, September 2004).

The proposed trail reconstruction and restoration will involve minimal excavation. As part of the adoption of the Asilomar State Beach and Conference Grounds General Plan and accompanying EIR, the State agreed to Mitigation Measure Cul-2 that requires review by a qualified paleontologist in the event of an unanticipated discovery of fossils or other paleontological resources during construction and shall temporarily halt excavation within 100 feet of the find until the discovery is examined by a qualified paleontologist. Therefore, potential impacts will be less than significant.

d) Human Remains. Human remains or funereal goods are not anticipated to occur within the Asilomar State Beach and Conference Grounds (California Department of Parks and Recreation, September 2004). The testing at recorded sites did not yield evidence of burial sites. The proposed trail reconstruction and restoration will involve minimal excavation. Furthermore, as part of the adoption of the Asilomar State Beach and Conference Grounds General Plan and accompanying EIR, the State agreed to Mitigation Measure Cul-3 that requires stopping excavation, contacting the

coroner of Monterey County and complying with state laws regarding contacting the Native American Heritage. Therefore, potential impacts will be less than significant.

VI. Geology and Soils

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	❒	❒	❒	■
ii) Strong seismic ground shaking?	❒	❒	■	❒
iii) Seismic-related ground failure, including liquefaction?	❒	❒	❒	■
iv) Landslides?	❒	❒	❒	■
b) Result in substantial soil erosion or the loss of topsoil?	❒	❒	■	❒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	❒	❒	■	❒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	❒	❒	❒	■
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	❒	❒	❒	■

Setting

The Asilomar State Beach and Conference Grounds are located on a relatively level marine terrace along the southwest coastline on the Monterey Peninsula, just south of Point Pinos. Asilomar State Beach and Conference Grounds lies within the geologic region of California referred to as the Coast Ranges geomorphic province that is between the Pacific Ocean and the Great Valley, from the

Oregon border to the San Ynez River near Santa Barbara. Discontinuous northwest-trending mountain ranges, ridges, and intervening valleys characterize this province. The Sierra de las Salinas and Santa Lucia Range lie southeast and south, respectively, of the Asilomar State Beach and Conference Grounds, while the Salinas River Valley is to the north. Asilomar State Beach and Conference Grounds lie within a geologic unit called the Salinian Block, an elongated northwest-southeast segment of the Coast Ranges, bounded to the east by the Sur Naciemento fault and the San Andreas Fault to the west. The Salinian Block is characterized by basement rocks, such as granite, that are overlain by more recently deposited marine sediments. Asilomar State Beach and Conference Grounds is underlain by granitic bedrock and sand deposits (California Department of Parks and Recreation, 2004).

The Asilomar State Beach and Conference Grounds shoreline is predominantly exposed granite with pockets of sand, bordered on the landward side by a low coastal terrace or bluff. Asilomar State Beach and Conference Grounds is composed of partially stabilized sand dunes that form wide and gentle slopes ranging from 5 to 25 percent. The coastal area is covered with windblown sand at depths greater than three feet and the shoreline is predominantly rocky with headlands and pockets of sand (California Department of Parks and Recreation, 2004).

There are three principle fault zones in the region: the San Andreas and Monterey Bay Fault Zones to the northeast, and San Gregorio Fault Zone to the southwest. All three of the fault zones trend northwest to southeast. These fault zones are defined by the State of California as being “active” since they have had surface displacement within the last 10,000 years (California Department of Parks and Recreation, 2004). Asilomar State Beach and Conference Grounds is located approximately 24 miles southwest of the San Andreas Fault. The San Gregorio Fault Zone is made up of several shorter faults and extends roughly parallel to the coast of California. The Palo Colorado Fault, part of the San Gregorio Fault Zone, extends from a point that is roughly in the center of Monterey Bay to the Big Sur area and is considered to be a part of the greater San Gregorio Fault System. The Palo Colorado Fault is approximately 2.5 miles off the coast of Asilomar and has not shown evidence of displacement (Ibid.). The Monterey Bay Fault Zone begins in the northwestern part of Monterey Bay and consists of a series of discontinuous northwest-trending faults, many less than one mile in length. The Monterey Bay Fault Zone is bisected by the Monterey Canyon and comes onshore in the Big Sur Area (Ibid.).

The most significant natural hazards along the Pacific Grove coastline are severe winter storms and waves and ongoing bluff and shoreline erosion (City of Pacific Grove, February 2017). Wave erosion of the beach is common during storms of moderate intensity and is an integral part of the natural coastal process. Eroded sand is deposited offshore but is returned to the beach by waves during periods of calm weather. Rip-rap has been as a temporary remedy to reduce ongoing erosion caused by wave action along sections of Asilomar State Beach and Conference Grounds, particularly in areas that threaten to undermine Sunset Drive (California Department of Parks and Recreation, 2004). Pacific Grove is susceptible to both dune and cliff erosion. While the average dune erosion rate is approximately 2.6 feet per year, the rocky cliffs only erode at 2-4 inches annually (Monterey County, June 2015).

The rock outcrops, coastal beach and dune soils that underlie the Asilomar State Beach and Conference Grounds are also highly susceptible to wind erosion. Cut and fill operations or removal of vegetation, which results in exposure of sandy soils can result in dune erosion as ocean winds scour away at loose, unconsolidated sands. Trampling of sand dune vegetation causes blowouts in which the destabilized sand is carried away by the wind (California Department of Parks and Recreation, 2004).

Asilomar's dunes are susceptible to slope failure under certain conditions (earthquakes, construction activity) especially when vegetation is removed or nonexistent. However, the sand dune slopes would fail in the form of shallow, localized shallow failures, which would not present major hazards to structures or property (California Department of Parks and Recreation, 2004).

Impact Discussion

a-i-iii, c) Seismic and Geologic Hazards. Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Ground rupture is considered more likely to occur along active faults. There is a low potential for fault rupture at Asilomar State Beach and Conference Grounds as no known active faults are located under or immediately adjacent to the site (California Department of Parks and Recreation, 2014).

The project site is located in a seismically active region of California and the region is considered to be subject to very intense shaking during a seismic event. The proposed trail rehabilitation project will not result in construction of new habitable structures or expose people to potential risk of loss or injury. Thus, the exposure to seismic shaking will be less than significant.

The proposed trail sites are within the Asilomar dunes that are subject to coastal waves and coastal erosion, although off-shore reefs along the Asilomar State Beach and Conference Grounds coastline dissipate the wave energy (City of Pacific Grove, February 2017). The proposed inland relocation of some segments and restoration of removed trails will provide protection to coastal trails from long-term coastal bluff erosion.

b) Soil Erosion. The project primarily involves relocating trail segments at risk of erosion further inland with the revegetation and restoration of removed trail segments. Thus, trail closure and relocation with revegetation of existing eroded trail segments will minimize trail exposure to erosion. A limited amount of soil will be excavated to install the boardwalk trail foundation piers, and soil will be excavated by hand and safely stored and used in the revegetation areas. Therefore, the project will not result in substantial erosion or loss of topsoil, and the impact is considered less than significant.

See section IX(f) for discussion of potential impacts during construction.

d-e) Soils. Due to the high percentage of coarse-grained materials that underlie Asilomar State Beach and Conference Grounds, expansive soils are not a potential geologic hazard (California Department of Parks and Recreation, 2004). The proposed project does not include construction of

a structure on expansive soils that would create substantial risks to life or property. The proposed trail project does not include septic tanks or alternative wastewater disposal systems. Thus, no impacts related to soils will occur as a result of the project.

VII. Greenhouse Gas Emissions

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

Setting

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of greenhouse house gas (GHG) emissions in the atmosphere. Greenhouse gases trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. Climate change models predict changes in temperature, precipitation patterns, water availability, and rising sea levels, and these altered conditions can have impacts on natural and human systems in California that can affect California's public health, habitats, ocean and coastal resources, water supplies, agriculture, forestry, and energy use.

According to California's 2000–2014 GHG emissions inventory (2016 edition), California emitted 441.5 MMT CO_2E in 2014, including emissions resulting from out-of-state electrical generation (California Air Resources Board, 2016). As with nationwide emissions, the primary GHG emitted by human activities in California was CO_2, which represented approximately 84.3 percent of total GHG emissions. The largest sources of GHG emissions in California were transportation and industrial uses, followed by electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high global-warming potential substances, and recycling and waste (Ibid.).

The State of California passed the Global Warming Solutions Act of 2006 (AB 32), which requires reductions of GHG emissions generated within California. The Governor's Executive Order S-3-05 and AB 32 (Health & Safety Code, § 38501 et seq.) both seek to achieve 1990 emissions levels by the year 2020. Executive Order S-3-05 further requires that California's GHG emissions be 80 percent below 1990 levels by the year 2050. AB 32 defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrocarbons, perfluorocarbons and sulfur hexafluoride.

The California Air Resources Board (CARB) is the lead agency for implementing AB 32. In accordance with provisions of AB 32, CARB completed a statewide Greenhouse Gas (GHG) Inventory that provides estimates of the amount of GHGs emitted to, and removed from, the atmosphere by human activities within California. In accordance with requirements of AB 32, CARB has prepared and updated a "Scoping Plan", which includes elements for reducing the state's greenhouse emissions to 1990 levels. The Scoping Plan identifies 18 emissions reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related greenhouse gas targets, vehicle efficiency measures, goods movement, solar roofs program, industrial emissions, high speed rail, green building strategy, recycling, sustainable forests, water and air.

In 2014, the CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (*First Update*). The stated purpose is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050." The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

On January 20, 2017, CARB released The *2017 Climate Change Scoping Plan Update (Second Update)* for public review and comment (California Air Resources Board, January 2017). This update proposes the CARB's strategy for achieving the states 2030 GHG target, including continuing the Cap-and-Trade Program through 2030 and includes a new approach to reduce GHGs from refineries by 20 percent. It is expected that the *Second Update* will be heard by the CARB at the April 27 and 28, 2017 CARB hearing.

Impact Discussion

a) Greenhouse Gas Emissions**.** The proposed project involves the re-alignment and reconstruction of nearly 1,500 linear feet of trail with revegetation and habitat restoration conducted in areas of removed trail segments that are within an existing trail system in a State Park unit. The habitat improvements include removal of invasive, non-native vegetation and revegetation as part of the ongoing restoration activities at Asilomar State Beach and Conference Grounds. The project does not involve any new sources of stationary or mobile greenhouse gas emissions. Temporary construction activities include delivery of materials from supply sources to the project area and use of small mechanized construction equipment and hand tools. The trail improvements and habitat

restoration will not generate any greenhouse gas emissions except for minimal, temporary emissions during delivery of construction materials to the project area and during some construction activities. Much of the work will be completed by crews using and tools. No heavy equipment will be used for construction. Trucks will be used to deliver construction materials to the Asilomar State Beach and Conference Grounds project site. The potential impacts from the use of hand tools, gas tote carriers, and the delivery of construction materials by truck to the project site will be less-than-significant with regards to greenhouse gas emissions.

b) Conflicts with Applicable Plans. The proposed project does not conflict with any plans, policies or regulations adopted for the purpose of reducing greenhouse gas emissions. No impact will occur.

VIII. Hazards and Hazardous Materials

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

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	❒	❒	❒	■

Setting

The five project trail segment sites are located within the Asilomar State Beach and Conference Grounds. With the exception of prior trail construction and maintenance, the project area has not undergone development of any kind. There are several single-family homes on the landward side of Sunset Drive located across from Asilomar State Beach and Conference Grounds at Asilomar Beach access gates 11, 12, and 15.

Impact Discussion

a-b) Use/Release of Hazardous Materials. The proposed project does not include the routine transport, use, or disposal of hazardous materials. Project construction will be conducted with hand tools or small mechanized equipment that will not require use of hazardous materials such as fuels and oils. Any limited equipment needing fuel will be refueled at offsite locations, and will not result in potential accidental release of hazardous materials at the project site. No herbicides will be used to control invasive, non-native plant species. Thus, there will be no impact related to routine transport, use, disposal or accidental release of hazardous materials.

c) Hazardous Emissions. There are no schools located within one-quarter mile of the project site. Furthermore, the proposed trail rehabilitation project will not result in stationary sources that will result in hazardous emissions. No impact will occur.

d) Hazardous Materials Site. The project site is not included on the California Department of Toxic Substance Control and State Water Resources Control Board list of hazardous materials sites. The project will not create a significant hazard to the public; therefore, no impact will occur.

e-f) Location Near Airport. The project is not located within two miles of a public airport. The closest airport is Monterey Regional Airport, located approximately seven miles away from the project site. The project is not located within the vicinity of a private airstrip. No impact related to exposure to aviation safety hazards will occur.

f) Emergency Response. The project is located within Asilomar State Beach and Conference Grounds, and the proposed trail replacement and rehabilitation will have no effect on or interfere with implementation of an adopted emergency response or evacuation plans for the area. Project construction will be short-term and will not impact any emergency evacuation routes or plans. No impact will occur.

h) Wildland Fire Hazard. The proposed project is located adjacent to the coast. All construction for the proposed trail replacement and rehabilitation will be done with hand tools; no motorized equipment or heavy equipment will be used. The proposed trail improvements will not result in structural development or any other operations that would result in exposure to wildland fire hazards or create new fire hazards. Therefore, project will result in no impact related to exposure to wildland fire hazards.

IX. Hydrology and Water Quality

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	❒	❒	❒	■
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	❒	❒	❒	■
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	❒	❒	❒	■
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	❒	❒	❒	■
e) 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?	❒	❒	❒	■
f) Otherwise substantially degrade water quality?	❒	❒	■	❒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	❒	❒	❒	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	❒	❒	❒	■
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	❒	❒	❒	■
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	❒	❒	■	❒

Setting

Surface water bodies within Asilomar State Beach and Conference Grounds are limited due to underlying high permeable sandy soils which allow for rapid percolation of stormwater. The sole freshwater body is Majella Slough, located south of Sunset Drive and east of the project sites. Rain runoff from the park and other surrounding areas are channeled into Majella Slough and eventually drain into the Pacific Ocean southwest of Asilomar State Beach and Conference Grounds (California Departments of Parks and Recreation, September 2004).

The groundwater underlying Asilomar State Beach and Conference Grounds is likely to be relatively shallow and brackish due to saltwater intrusion from the Pacific Ocean, although granidiorite bedrock which underlies Asilomar State Beach and Conference Grounds at varying depths, restricts the downward migration of groundwater. No groundwater resources have been identified within the planning area (California Departments of Parks and Recreation, September 2004).

Potential flooding within Asilomar State Beach and Conference Grounds is minimized by underlying sandy soils which have a high permeability rate. Asilomar State Beach and Conference Grounds is not located within a 100-year or 500-year flood zone, as designated by the Federal Emergency Management Agency (FEMA) (California Departments of Parks and Recreation, September 2004).

Tsunami Hazard. Tsunamis (seismic sea waves) are long period waves that are typically caused by underwater disturbances (landslides), submarine slumps, such as those found in Monterey Canyon, volcanic eruptions, or seismic events. Areas that are highly susceptible to tsunami inundation tend to be located in low-lying coastal areas such as tidal flats, marshlands, and former bay margins that have been artificially filled but are still at or near sea level. The potential for flood damage at Asilomar State Beach and Conference Grounds due to a tsunami would be minimal, although areas of Asilomar Beach may be temporarily inundated by a tsunami (California Departments of Parks and Recreation, September 2004).

Sea Level Rise. Sea level rise refers to the gradual and long-term elevation change of the sea level, both globally and locally, due to: a) changes in the shape of the ocean basins, b) changes in the total mass of water, and c) changes in water density. Factors leading to sea level rise under global warming include both increases in the total mass of water from the melting of land-based snow and ice, and changes in water density from an increase in ocean water temperatures and salinity changes. Relative sea level rise occurs where there is a local increase in the level of the ocean relative to the land, which might be due to ocean rise and/or land level subsidence (City of Pacific Grove, February 2017).

Impact Discussion

a) Violation of Waste Discharge Requirements. The proposed project involves trail rehabilitation and habitat restoration that requires minimal excavation and soil disturbance. The proposed project will not result in discharge of materials or wastes that are regulated and will not violate water quality standards. Therefore, the project will result in no impact.

b) Groundwater. No groundwater resources have been identified within Asilomar State Beach and Conference Grounds. The project will not utilize any groundwater supplies or interfere with groundwater recharge. Therefore, no impact to groundwater supplies or recharge will occur.

c-e) Stormwater-Drainage. The proposed project involves trail rehabilitation and habitat restoration that requires minimal excavation and will not result in an increase in impervious surfaces. The relocation of existing trail segments will not alter existing drainage patterns in the area and will not result in alteration of a watercourse or stream. Two pedestrian bridge crossings will be constructed over existing seasonal drainages, but no work will occur in the drainages. Therefore, no impact will occur regarding increased runoff or alteration of drainages.

f) Water Quality. The proposed project involves trail rehabilitation and habitat restoration that requires minimal excavation. Once construction is complete, the project will not introduce any sources of pollutants that would degrade water quality. Trail improvements will require minimal excavation and soil disturbance during construction. Removed trail segments will be revegetated. Construction of two small bridge structures could result in inadvertent erosion or transport of construction materials into these seasonal drainages. The Standard Project Requirements call for installation of a geotextile fabric drop cloth under the area where the bridge will be assembled. The drop cloth is installed to catch any debris that might fall from the bridge as it is being assembled. The fabric catches wood chips and debris created while installing post sills, post, railing, and tread. Geotextile fabric is especially effective in also catching oil and gas residues produced by chainsaws and gas-powered drills. It also catches tools and other valuable items that might be lost. Therefore, potential degradation of water quality will be a less-than-significant impact with implementation of Standard Project Requirements.

g-i) Flood Hazards. Asilomar State Beach and Conference Grounds is not located within a 100-year or 500-year flood zone. Thus, the project will result in no impact regarding placement of structures within a flood hazard area.

The project does not propose construction of habitable buildings that could be subject to tsunami or sea level rise hazards. A tsunami may temporarily inundate beaches, and warning systems are in place to evacuate trail or beach users.

X. Land Use and Planning

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

Setting

Asilomar State Beach and Conference Grounds is a park unit within the California State Park system. A park unit General Plan directs the long-range development and management of a park by providing broad policy and program guidance. A General Plan for Asilomar State Beach and Conference Grounds was approved by the State in 2004. The project area lies within the coastal zone within the City of Pacific Grove. The park unit is subject to the coastal development permit issued by the California Coastal Commission.

The City of Pacific Grove zoning is Open Space Recreation (OR-D) within the Coastal Zone (CZ). The purpose of this zoning district is to provide for the establishment, enhancement and maintenance of outdoor recreation uses in Monterey County. The project features public access trails, which is one of the principal uses allowed within this zoning district. The project will not conflict with the zoning or preclude any future agricultural use within the project area.

Impact Discussion

a) Divide Established Community. The project is located entirely within the boundaries of the Asilomar State Beach and Conference Grounds state park unit. The proposed project would not physically divide an established community as it is a trail within CSP property. No impact to an established community will occur as a result of the project.

b) Conflict with Local Policies. The project includes habitat restoration, protection of sensitive plant species during trail construction and restoration. The project does not propose any new land uses.

The Asilomar State Beach Preliminary General Plan emphasizes the conservation of sensitive dune species and their habitat, and CSP has been implementing a dunes restoration program since the late 1980s. The proposed restoration is consistent with Asilomar State Beach and Conference Grounds General Plan goals and guidelines to implement the restoration program. The General Plan includes a goal and supporting guidelines to "restore, protect, and maintain special status plant species and their habitat through active resource management programs." The proposed trail construction will conflict with guidelines BIO-5 and BIO-8 to protect and design around special status plant species. However, the project will result in moving the trail closer to Sunset Drive, which will allow for a larger area of restored dune habitat to be protected and managed. Therefore, potential conflicts with local policies is considered a less-than-significant impact.

c) Conflict with Habitat Conservation or Natural Community Conservation Plans. There are presently no habitat conservation plans or natural community conservation plans for the project area. No impact will occur.

XII. Mineral Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	❒	❒	❒	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	❒	❒	❒	■

Setting

The State Surface Mining and Reclamation Act requires the State Geologist to classify mineral areas in the state, and the State Mining and Geology Board to designate mineral deposits of regional or statewide significance. The Pacific Grove area was evaluated for the presence or likely occurrence of specific mineral deposits based on past mineral production and geologic concepts relating to mineral occurrence. Since such large areas are covered with decomposed granite, marine terrace deposits, dune sands, and alluvium, the amount of good material is impossible to determine without detailed drilling and sampling. Asilomar State Beach and Conference Grounds is classified by the California Geologic Survey (CGS) as lying within Mineral Resource Zone 3, areas containing mineral deposits, the significance of which cannot be evaluated from available data. However, the

CGS recognizes that dedicated park lands have special-status as opposed to other current land uses (California Department of Parks and Recreation, September 2004).

Impact Discussion

a) Loss of Known Mineral Resource. The project includes habitat restoration and improvements to an existing trail within Asilomar State Beach and Conference Grounds. The project will not result in the loss of availability of a known mineral resource. No impact will occur.

b) Loss of Locally Important Mineral Resource. The project area has not been identified as a locally important mineral resource recovery site in Pacific Grove's Local Coastal Program Land Use Plan. No impact to mineral resources will occur.

XII. Noise

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

Setting

The project area is located on the seaward side of Sunset Drive, within the City of Pacific Grove. Noise levels within the city of Pacific Grove are generally typical for a quiet suburban community with estimated day-night noise values ranging from 39-61 decibels (California Department of Parks and Recreation, September 2004). Asilomar Dunes residential area is located on the opposite side of Sunset Drive from the project area. The area is zoned low density residential and is sparsely developed with single-family homes. Ambient noise levels within the project area are primarily affected by low volumes of traffic on Sunset Drive and members of the public visiting the beach. There are no airports or private airstrips within the vicinity of the project site. Maximum noise levels near Asilomar State Beach and Conference Grounds are generally caused by motor vehicle traffic on Asilomar Avenue and the lumber yard on Crocker Avenue (California Department of Parks and Recreation, September 2004).

Impact Discussion

a) Exposure to Noise Standards in Excess of Standards. The proposed trail rehabilitation project will not result in construction of new structures or introduction of persons that would be subject to noise or result in increased ambient noise levels in the project area. Trail use will not result in a permanent increase in ambient noise levels as discussed below. Thus, the project will not result in impacts related to exposure of people to noise standards that exceed adopted standards.

b) Exposure to or Generation of Vibration. Construction of the project will not require the use of explosives, pile driving, or other equipment that would generate excessive ground borne vibration or ground borne noise levels. No impact will occur.

c) Permanent Increases in Noise. Trail use is not expected to change due to the trail rehabilitation and realignment of some existing trail segments, and there will be no increases in ambient noise levels as a result of the project. Thus, the proposed project will not result in a permanent increase in ambient noise levels.

d) Construction Noise. The construction work will not require the use of heavy motorized equipment; equipment will be limited to hand-steered motorized tote carriers and hand tools. Construction activities will generally be limited to daylight hours, between 8 a.m. and 5 p.m., Monday through Friday. The equipment may result in a disturbance to other park users during periods of equipment use. The exposure of park visitors to noise impacts will be less-than-significant. The duration of construction activities requiring the use of noise generating equipment will result in a less-than-significant temporary increase in ambient noise levels.

e-f) Aircraft Noise. The project is not located within an area covered by an airport land use plan or within two miles of a public airport or public use airport. The project is not located in the vicinity of a private airstrip. No impact related to exposure to aircraft noise will occur.

XIII. Population and Housing

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

Setting

The project site is located within the coastal beach area of the Asilomar State Beach and Conference Grounds. The park unit supports the Asilomar Conference facilities on the inland side of Sunset Drive.

Impact Discussion

a) Population Growth. The proposed project consists of includes trail improvements and rehabilitation and habitat restoration. The project does not include development of new homes, businesses, extension of roads, or other infrastructure that would affect population. Therefore, the project will not directly or indirectly induce population growth. No growth inducing impacts will occur as a result of the project.

b-c) Housing. No housing units exist within the project area. The proposed trail improvements will not remove existing housing units or displace any population. No impact will occur.

XIV. Public Services

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	❒	❒	❒	■
Fire protection?	❒	❒	❒	■
Police protection?	❒	❒	❒	■
Schools?	❒	❒	❒	■
Parks?	❒	❒	❒	■
Other public facilities?	❒	❒	❒	■

Setting

The California Department of Parks and Recreation Rangers primarily provide emergency and law enforcement services within Asilomar State Beach and Conference Grounds. The Pacific Grove Fire Department serves the whole city and has a mutual aid agreement with all fire agencies in Monterey County. Additional fire protection services are provided by the California Department of Forestry and Fire Protection (CAL FIRE). The closest fire station to the project site is located on Pine Street in Pacific Grove.

Impact Discussion

The project includes trail restoration and habitat rehabilitation. The project will not include an expansion of recreational facilities or introduction of new uses. The project will have no measurable impact on existing public services in that the proposed trail improvements and habitat restoration will not result in increased service calls or require expansion of any services to serve the project. Construction of new fire or police facilities to serve the project will not be warranted. The recreational uses associated with the proposed project will not substantially increase police service calls. The project will not result in new residential development, and will have no impact on schools. The project will improve the existing trail system within Asilomar State Beach through the provision of stable trail surfaces, pedestrian bridges, and rehabilitation of local habitat. No adverse impacts to parks will occur as a result of the project. Therefore, no impact to public services will occur.

XV. Recreation

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION. 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?	❒	❒	❒	■
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	❒	■	❒	❒

Setting

The Monterey Bay region is widely recognized for its scenic vistas and recreational opportunities. Asilomar State Beach and Conference Grounds consists of 107 acres and fronts about one mile of open shoreline. Asilomar State Beach is within the boundary of the Asilomar Marine Reserve and is home to a variety of marine resources, animals, and geologic features. A one-mile trail cuts through the dunes, is open to pedestrians and is wheelchair-accessible. The Asilomar Coast Trail receives hundreds of visitors per day; it is a popular destination for locals and tourists alike, allowing easily traversable access to the beach. Twenty-seven different entrances along Sunset Drive allow access to the trail. Popular activities at the beach include nature walks, surfing, kayaking, bird watching, etc. There are no restrooms on picnicking facilities or the beach.

Impact Discussion

a) Increased Recreational Use and Deterioration of Facilities. The proposed trail improvements will not result in population growth that would increase use of existing neighborhood and regional parks. The project will construct and rehabilitate approximately 0.5 mile (2,712 linear feet) of existing trails within five segments of the existing Asilomar Coast Trail. The purpose is to rehabilitate and enhance sections of the coast trail for continued public use and enjoyment. The project will substantially improve public access along a large part of the shoreline frontage; the existing haphazard and worn footpaths will be replaced with a network of improved trail surfaces. By providing defined routes, and by reinforcing the trail surfaces with decomposed granite and boardwalks, the capacity of the trail system to accommodate visitors without resource damage will be greatly increased. The inclusion of wheelchair access and upgraded trail surfaces may attract more visitors; however, this potential increase is not anticipated to be so substantial that accelerated deterioration of the trail system will result. Furthermore, the restoration of adjacent dunes, eradication of exotic species, and control of indiscriminate trampling will stabilize the habitat and provide a positive physical effect on the surrounding environment. Therefore, the project will not result in an increased usage at Asilomar State Beach and Conference Grounds that would result in a substantial physical deterioration of the facility.

b) Recreational Facility Impacts. The proposed project consists of trail replacement and restoration at Asilomar State Beach and Conference Grounds. Potentially significant impacts have been identified regarding biological and cultural resources, which can be mitigated to a less-than-significant level as discussed in subsections IVa and Va-b.

XVI. Transportation and Traffic

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

Setting

Sunset Drive provides local access to Asilomar State Beach and Conference Grounds, which is located on the seaward side of the road. Twenty-seven access gates along Sunset Drive allow access to the Asilomar Coast Trail. The only parking available is roadside along Sunset Drive, which is owned by the city of Pacific Grove. The parking is mostly unpaved but reinforced with packed decomposed granite. Due to this decentralized parking scheme, there needs to be many accessible and convenient access points or visitors will shortcut through sensitive dune habitat. The original

project established these twenty-seven entrances to accomplish that and installed split rail fencing to funnel people into the official entrances.

Impact Discussion

a) Traffic and Transportation Impacts. The proposed project is limited to improvements to existing pedestrian-only trails on the coastal side of Asilomar State Beach and Conference Grounds and will not result in new development that would generate traffic. The project does not include any improvements to Sunset Drive or existing vehicle turnouts and does not include new or improved parking.

The project does not propose expansion of existing recreational facilities. The overall trail mileage will be reduced as a result of the project. No new recreational uses are proposed. The proposed project will not result in a substantial increase in vehicle trips other than minimal traffic effects during construction, which are anticipated to be completed in phases as funding is available. The additional vehicle trips required for the trail crew and delivery of materials will not substantially increase congestion or lower standards of service during the temporary construction period. The proposed project will not result in a substantial increase in traffic congestion. No impact to traffic or congestion plans will occur.

b) Conflicts with Congestion Management Program. There are no congestion management programs affecting the project area.

c) Air Traffic. The proposed project will not result in any change in air traffic patterns. No impact will occur.

d-e) Creation of Hazards and Emergency Access. The proposed trail improvements will not affect the design features of the existing roadways or introduce incompatible uses that would create hazardous conditions on the road system. The proposed trail improvements will have no impact on emergency access. No impact will occur.

f) Conflicts with Adopted Policies and Plans. The proposed project will not conflict with any alternative transportation policies, plans, or programs. No impact will occur.

XVII. Tribal Cultural Resources

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
TRIBAL CULTURAL RESOURCES. 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:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as de3fined in Public Resources Code section 5020.1(k), or	❒	❒	■	❒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	❒	❒	❒	■

Setting

CEQA (Public Resources Code section 21974) defines a "tribal cultural resource" as either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
   (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
   (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) 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 Section 5024.1.

Based on the evaluations and testing of recorded archaeological sites within or in proximity to the project sites, all sites meet the definition of historical and archaeological resources, except for CA-MNT-135. The sites are characterized primarily as shell midden sites. See subsection V for further discussion of historical and archaeological resources.

Impact Discussion

a-b) Tribal Cultural Resource Impacts. Trail rehabilitation includes removal of some existing boardwalk trails and installation of new boardwalk structural pins that will require excavation to 24 to 36 inches in depth, which could compromise subsurface archaeological deposits. Due to potential eligibility for listing in the California Register of Historical Resources, three of the known recorded archaeological sites in the project area are considered tribal cultural resources per CEQA definitions. No additional resources have been identified by the lead agency, CSP, to be a tribal cultural resource. As discussed in subsection V, trail construction will not result in significant impacts to two sites and potential limited impacts at depth at the other site. An archaeological monitor will be required to be present during installation of the trails and habitat restoration activities at know archaeological sites. With mitigation, no substantial adverse change to tribal cultural resources is expected.

A representative of the Ohlone/Costanoan-Esselen Nation (OCEN) contacted CSP indicating that they object to all excavation in known cultural lands even when they are disturbed and of "no significant archaeological value." OCEN requested copies of all archaeological reports and surveys and that representatives be included in mitigation and recovery programs or reburials. Consultation also was requested. CSP archaeologist, Rae Schwaderer, initiated consultation with the OCEN representative as requested with subsequent meetings and discussions. Copies of the archaeological testing and evaluation report were given to OCEN with a request for feedback, but to date no response has been provided. An OCEN monitor was present during the testing investigations. No evidence of human remains were found at the sites and very little in the way of cultural remains were identified.

XVIII. Utilities and Service Systems

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	❒	❒	❒	■
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❒	❒	❒	■
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❒	❒	❒	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	❒	❒	❒	■
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	❒	❒	❒	■
f) Be served by a landfill with sufficient permitted capacity to accommodate the project=s solid waste disposal needs?	❒	❒	❒	■
g) Comply with federal, state, and local statutes and regulations related to solid waste?	❒	❒	❒	■

Setting

The proposed project involves improvements to existing trails within Asilomar State Beach and Conference Grounds. There are presently no potable water or wastewater services on the coast side of Sunset Drive. Public restrooms and drinking fountains are available at the inland portion of the Asilomar State Beach and Conference Grounds. Trash receptacles are provided at the trail gates and serviced by CSP staff.

Impact Discussion

The proposed trail improvements and habitat restoration will not result in new development that will result in demands for new or expanded utility services. The realignment and improvement to existing trails will not result in increased visitor use.

a) Wastewater Discharge. The proposed project does not include any new wastewater services or facilities. There are no wastewater discharge requirements for the project.

b, d, e) Water and Wastewater Treatment Facilities and Capacity. The project does not require construction of new water or wastewater facilities, and the project would not result in new demand for these services. No impact will occur.

c) Stormwater Drainage. No new stormwater facilities will be required for the proposed project.

f-g) Solid Waste Disposal. The proposed project will not substantially increase visitor use or result in increased sold waste generation. No impact will occur.

XVIII. Mandatory Findings of Significance

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

Impact Discussion

a) Degradation of Environment. The proposed project was evaluated for the potential effects on the quality of the environment, fish and wildlife species, plant communities, and historic and prehistoric resources. As discussed under the Biological Resources section, the project will have the potential to impact individual special status plant and animal species, a potentially significant impact that can mitigated with implementation of CSP's Standard Project Requirements and mitigation measures. However, the identified impacts will not substantially reduce habitat, will not cause a fish or wildlife population to drop below self-sustaining levels, will not threaten to eliminate a plant or animal community, and will not reduce or restrict the range of rare or endangered plant or animal species. As discussed under the Cultural Resources section, the project would have the potential to disturb archaeological sites which provide examples of California pre-history. However, impacts are of limited scope and can mitigated. The project will not result in elimination of important examples of major periods of California history or prehistory.

b) Cumulative Impacts. There are no other currently proposed projects at Asilomar. The City of Pacific Grove is implementing a trail rehabilitation project for an existing trail segment located to the north of the project trails. The trail does not contain the sensitive plant species at Asilomar and thus, there will be no potential cumulative biological impacts. The two projects may result in cumulative impacts to cultural resources during trail construction. However, the proposed project impacts can be mitigated to a less-than-significant level and will not be cumulatively considerable.

c) Adverse Impacts to Human Beings. No significant environmental effects have been identified that will have direct or indirect adverse effects on human beings. No impact will occur.

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4 REFERENCES AND PREPARERS

4.1 References Cited

14 CCR 15000–15387 and Appendices A through L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

Alta Archaeological Consulting. May 2017. "Archaeological Test Excavation and Evaluation of CA-MNT-135 and CA-MNT-141, Asilomar Coastal Trail Boardwalk Replacement Project. Asilomar State Beach and Conference Grounds, Pacific Grove, California."

California Air Resources Board (CARB).

a) January 20, 2017. "THE 2017 Climate Change Scoping Plan Update." Online at: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.
b) June 17, 2016. "California Greenhouse Gas Inventory – 2016 Edition." Online at: http://www.arb.ca.gov/cc/inventory/data/data.htm.
c) May 2014. "First Update to the Climate Change Scoping Plan Building on the Framework Pursuant to AB 32 – The California Global Warming Solutions Act of 2006. Online at: https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.
d) December 12, 2008. *Climate Change Scoping Plan: A Framework for Change*. Online at: https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

California Coastal Commission. July 1989. Staff Report for Permit Amendment for Application No. 3-87-258-A1 (dune restoration).

California Department of Fish and Wildlife. September 2012. "California Endangered Species Act, Scientific, Educational or Management Permit Not. 2081(a)-12-08-RP, Asilomar State Beach and Conference Grounds Dune Conservation and Restoration Project."

California Department of Parks and Recreation – California State Parks.

a) December 2016. DPR 5024 Project Evaluation, Asilomar Coast Trail Rehabilitation Project. Prepared by Rae Rae Schwaderer, Associate Archaeologist.
b) 2016. "Asilomar State Beach Rare Plant Survey Data and Annual Report." Prepared by Wes Gray, Environmental Scientist.
c) Approved by the State Park and Recreation Commission on September 17, 2004. "Asilomar State Beach and Conference Grounds General Plan and Final Environmental Impact Report."
d) April 1987. *Asilomar State Beach Dunes Restoration Plan.*

California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

Caltrans (California Department of Transportation). December 16, 2016. "Scenic Highways." Accessed online on February 27, 2017 at: http://www.dot.ca.gov/design/lap/livability/scenic-highways/index.html.

City of Pacific Grove. February 2017. "Draft Land Use Plan, A Component of the Local Coastal Program.: Accessed online on May 5, 2017 at: http://www.cityofpacificgrove.org/sites/default/files/general-documents/local-coastal-program/pg-lup_feb-2017.pdf

Monterey Bay Air Pollution Control District (MBUAPCD).

a) Adopted March 15, 2017. "2-12-2015 Air Quality Management Plan."
b) 2015. "NCCAB (NCCAB) Area Designations and Attainment Status". Online at: http://mbuapcd.org/wp-content/uploads/2015/01/attainment-status-january-2015.pdf
c) February 2008. "CEQA Air Quality Guidelines."

Monterey County. June 2015. "Monterey County Multi-Jurisdictional Hazard Mitigation Plan." Final. Prepared by the Monterey County Hazard Mitigation Planning Team with Professional Planning Assistance from AECOM.

4.2 List of Preparers

California State Parks

Eric Abma, Sector Superintendent, Asilomar Sector
John Hiles, District Maintenance Chief, Monterey District
Wes Gray, Environmental Scientist
Rae Schwaderer, Associated State Archaeologist

Consultants

- Dudek
  Stephanie Strelow, Project Manager
  Kara Laurenson-Wright, Environmental Planner
- Biotic Resources Group: Kathy Lyons and Dana Bland

APPENDIX A

Figures

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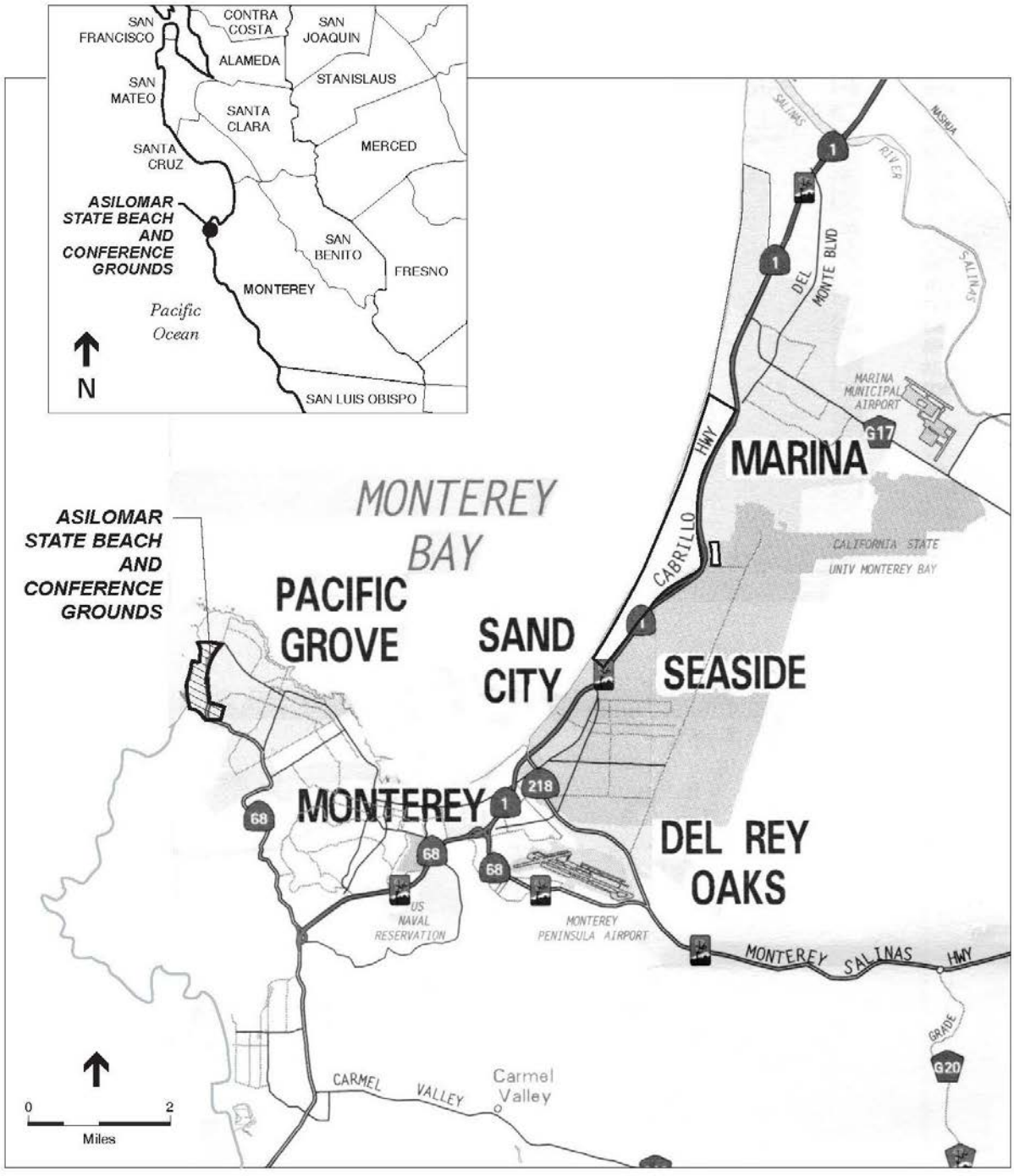
FIGURE 1: REGIONAL LOCATION



SOURCE: Asilomar State Beach and Conference Grounds General Plan

FIGURE 2: VICINITY LOCATION

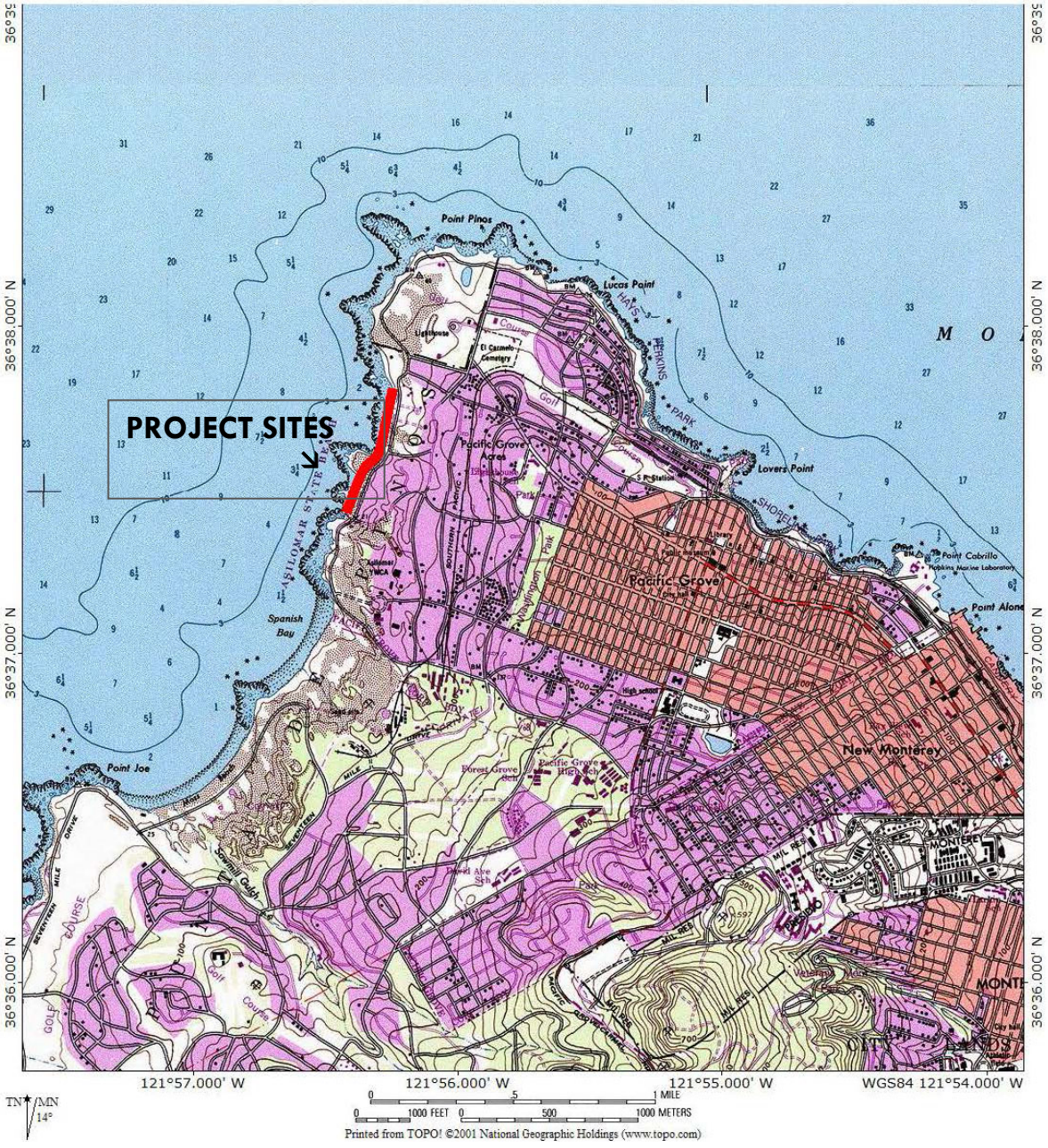


FIGURE 3: PROJECT LOCATION OVERVIEW

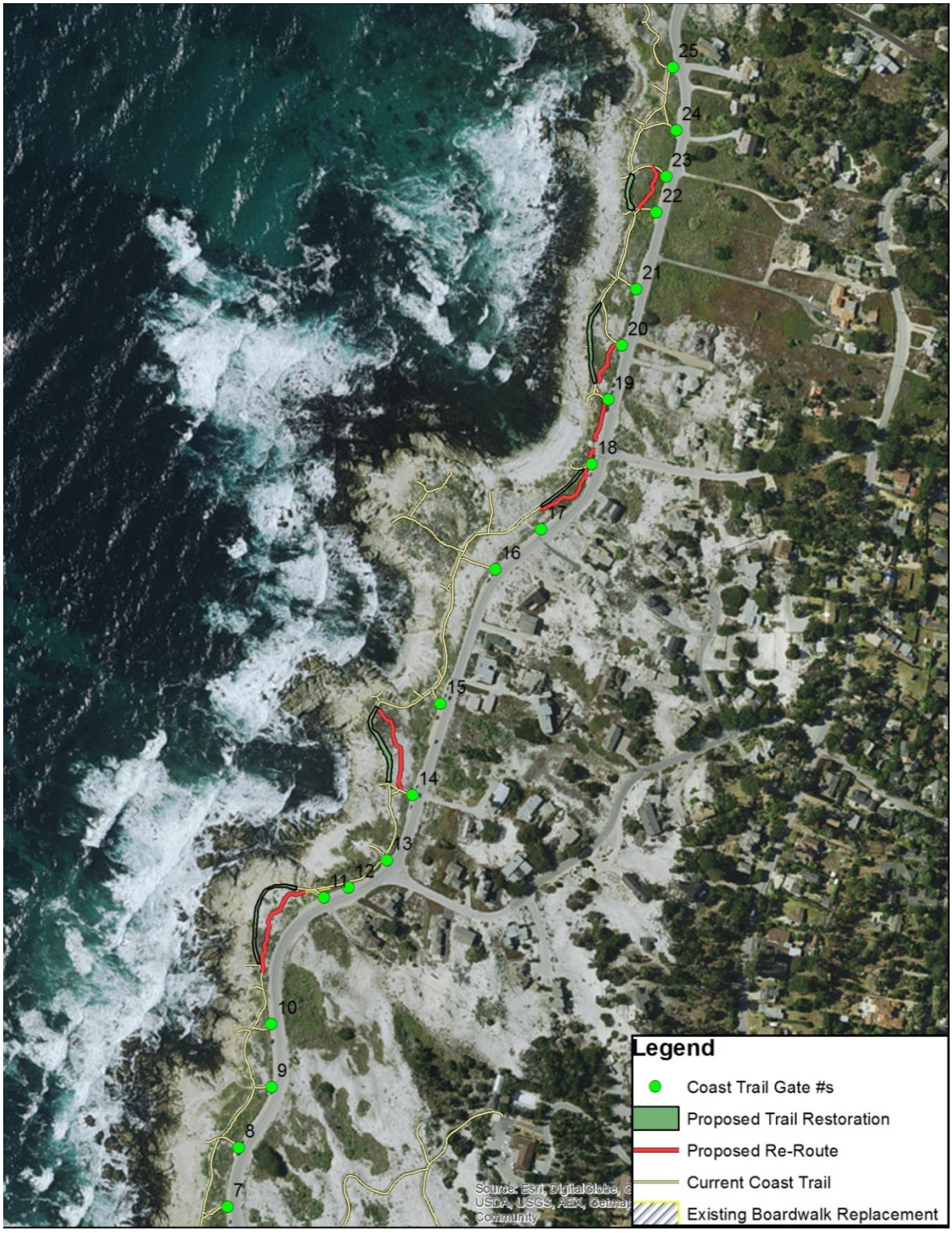


FIGURE 4A: PROPOSED TRAIL REHABILITATION, Gates 10-12

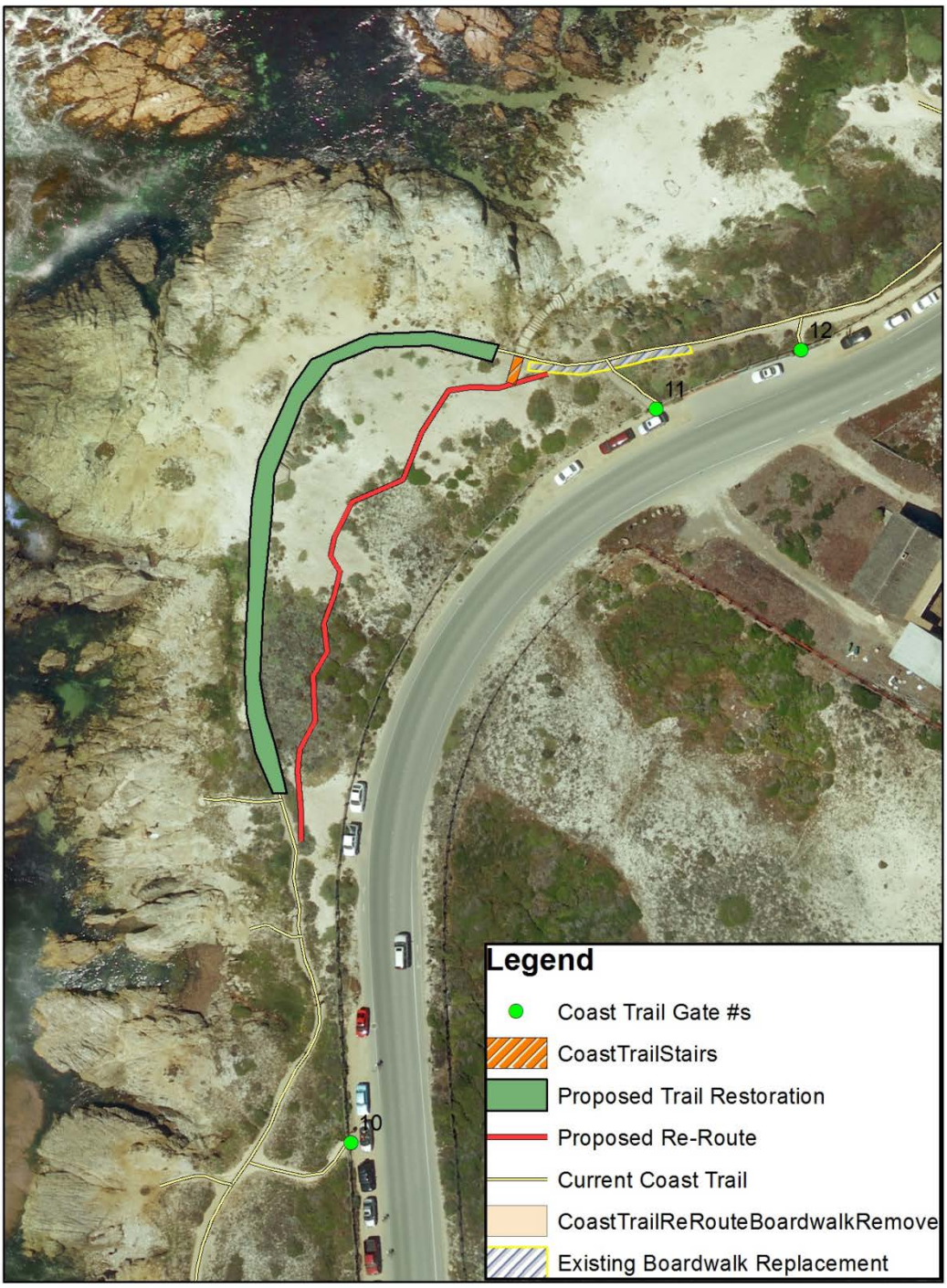


FIGURE 4B: PHOTOS OF PROPOSED TRAIL SITES, Gates 10-12

Old boardwalk site to be restored

Current condition of old boardwalk site

Proposed trail site (blue flags)

Existing boardwalk to be replaced

FIGURE 5A: PROPOSED TRAIL REHABILITATION, Gates 14-15

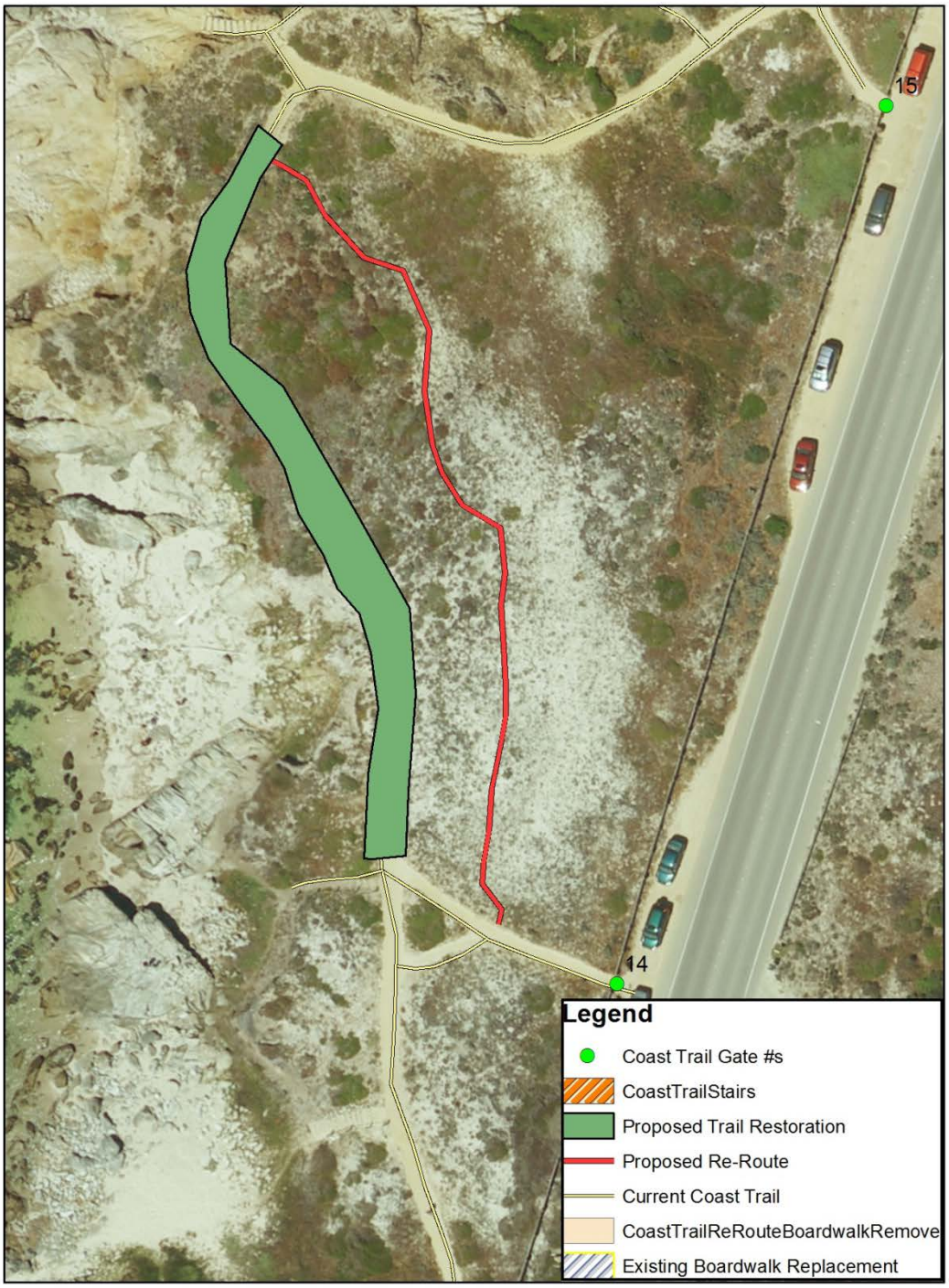


FIGURE 5B: PHOTOS OF PROPOSED TRAIL SITES, Gates 14-15

Existing Conditions

Boardwalk to be removed

Proposed Re-Route area

Proposed Re-Route site

FIGURE 6A: PROPOSED TRAIL REHABILITATION, Gates 18-19

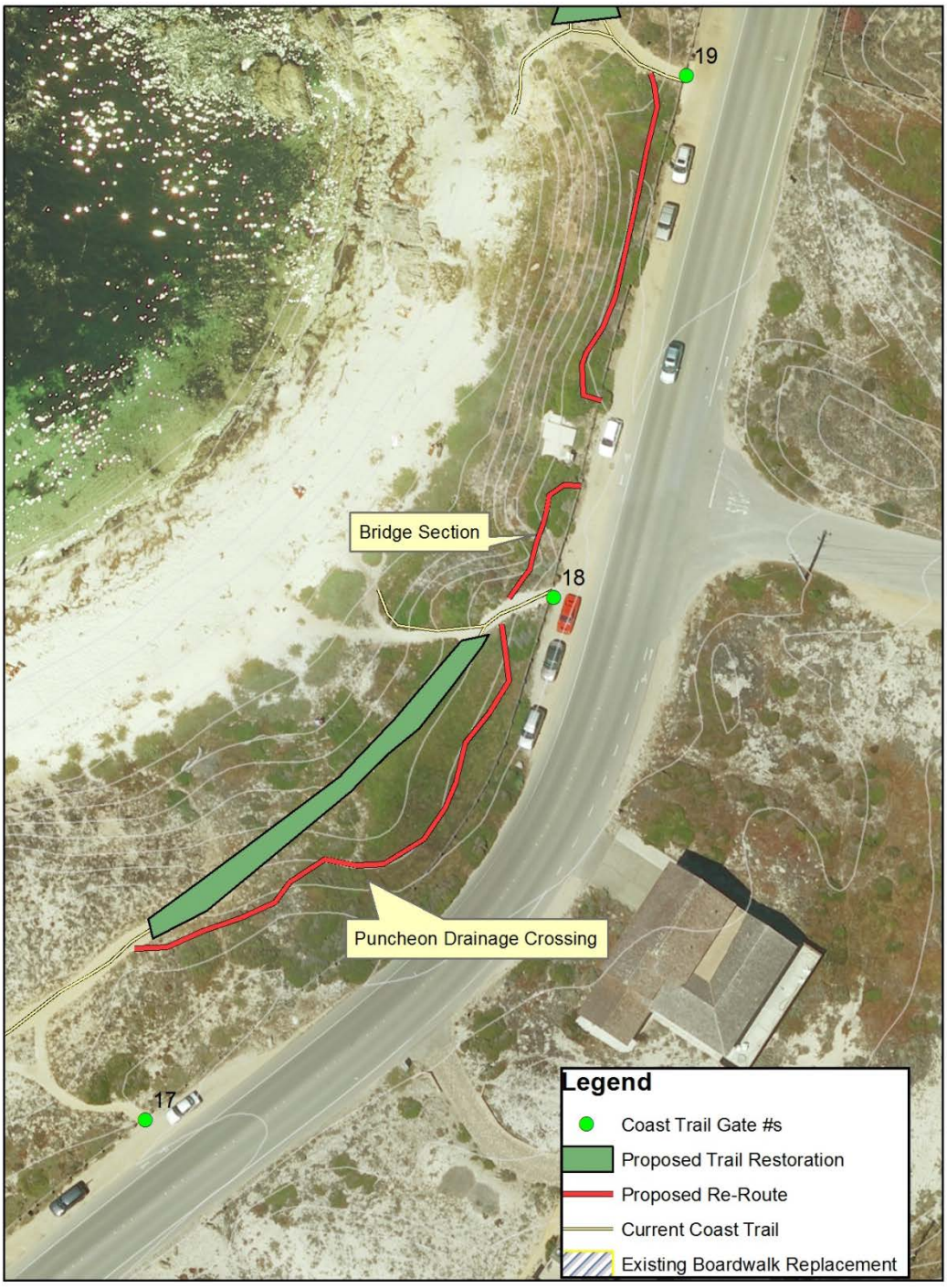


FIGURE 6B: PHOTOS OF PROPOSED TRAIL SITES, Gates 18-10

Existing Conditions

Existing Conditions

Bridge structure between gate 25-26

Bridge Posts

FIGURE 7A: PROPOSED TRAIL REHABILITATION, Gates 19-20

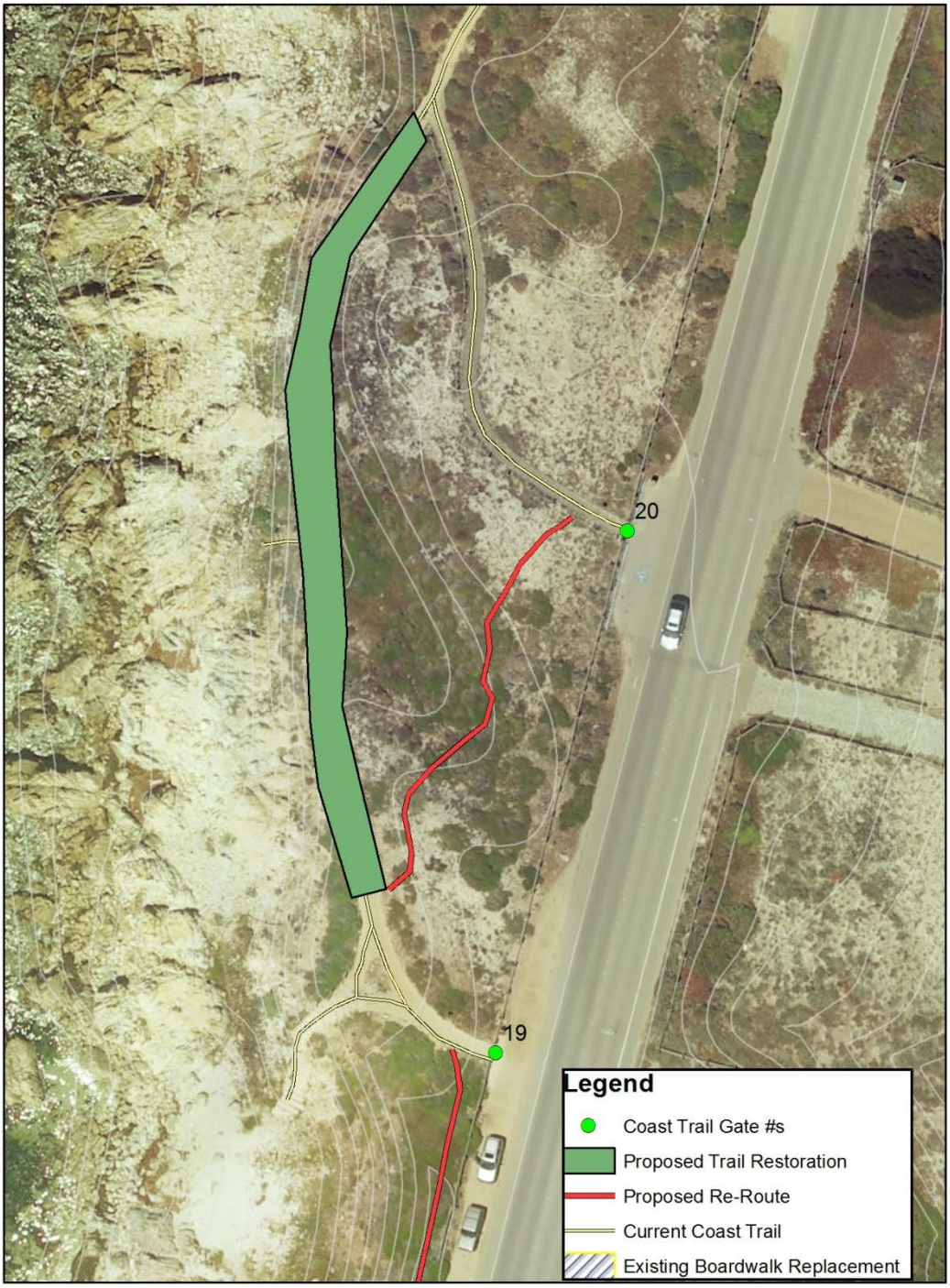


FIGURE 7B: PHOTOS OF PROPOSED TRAIL SITES, Gates 19-20

Existing section to be Restored

Proposed Re-Route site start

Proposed Re-Route site mid

Proposed Re-Route Site end

FIGURE 8A: PROPOSED TRAIL REHABILITATION, Gates 22-23

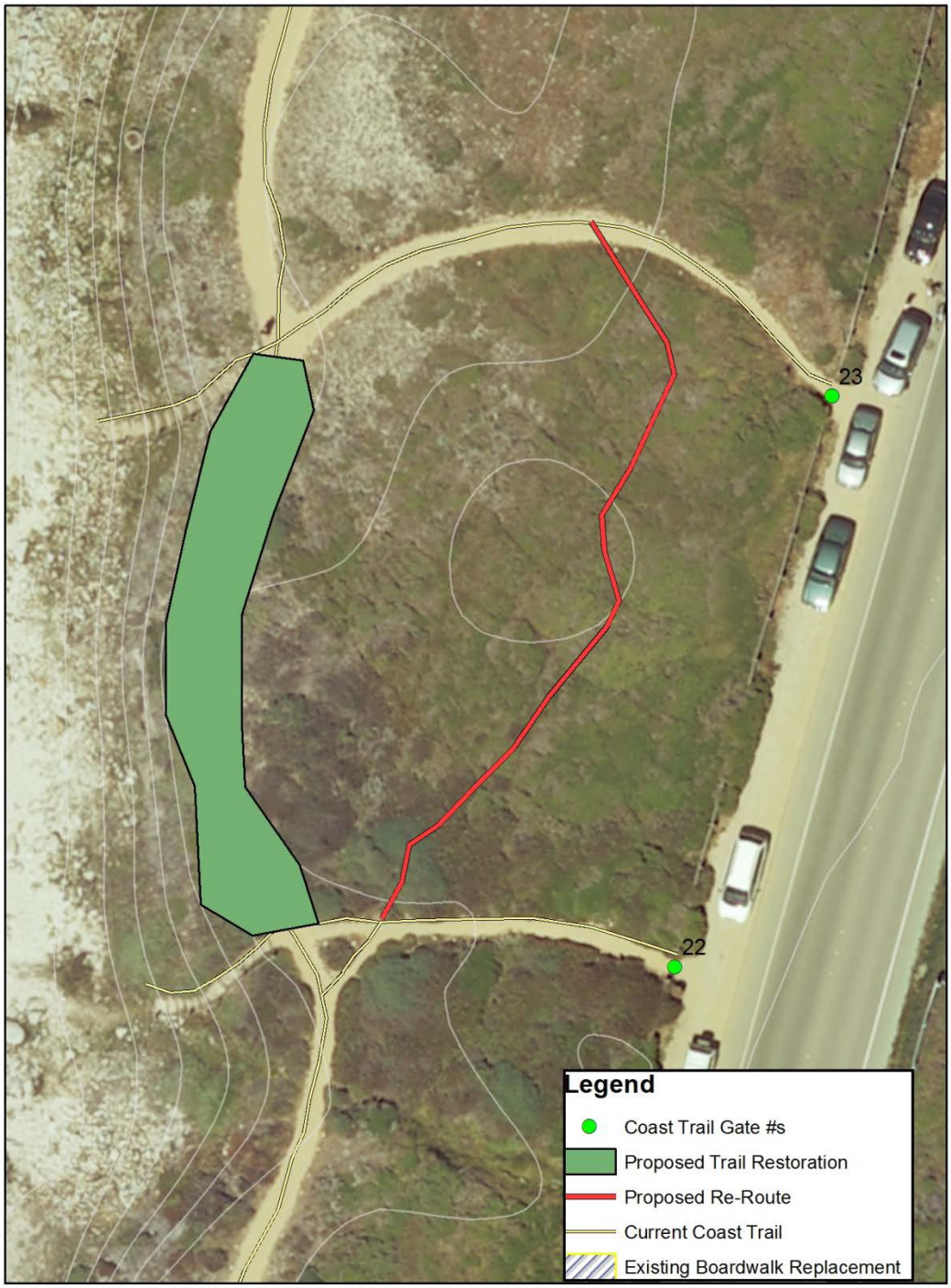


FIGURE 8B: PHOTOS OF PROPOSED TRAIL SITES, Gates 22-23

Existing Boardwalk to be removed

Existing boardwalk to be removed

Proposed Re-route Site start

Proposed Re-Route End

FIGURE 9: BEFORE AND AFTER PHOTOS OF ASILOMAR COASTAL DUNE RESTORATION SITES

Before...

Unmanaged access had caused severe erosion and a public safety hazard.

After.

After restoration, the area is both safer and more beautiful.

Source: California State Parks

FIGURE 10: DISTRIBUTION OF SPECIAL STATUS PLANT SPECIES IN PROJECT AREA

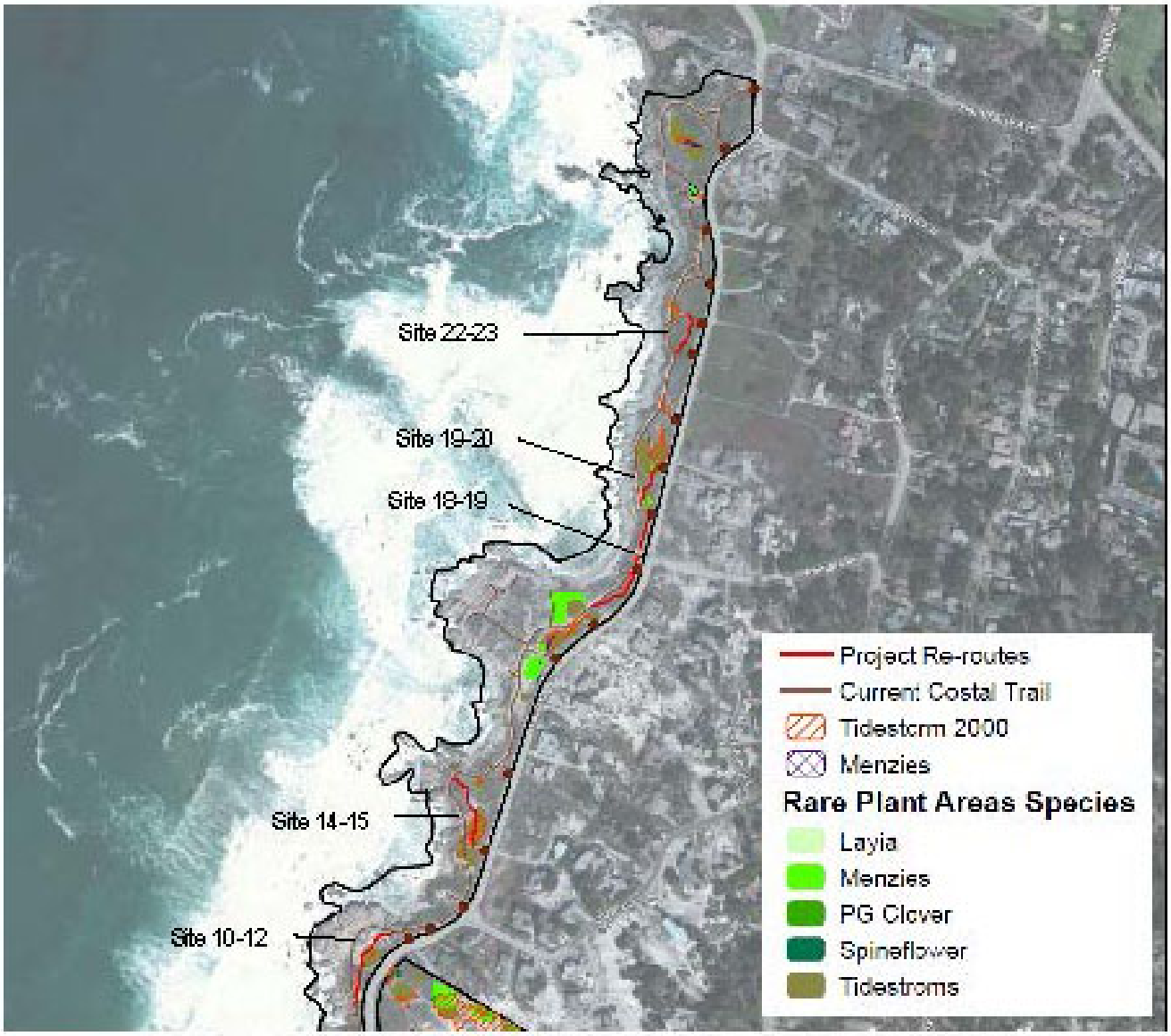
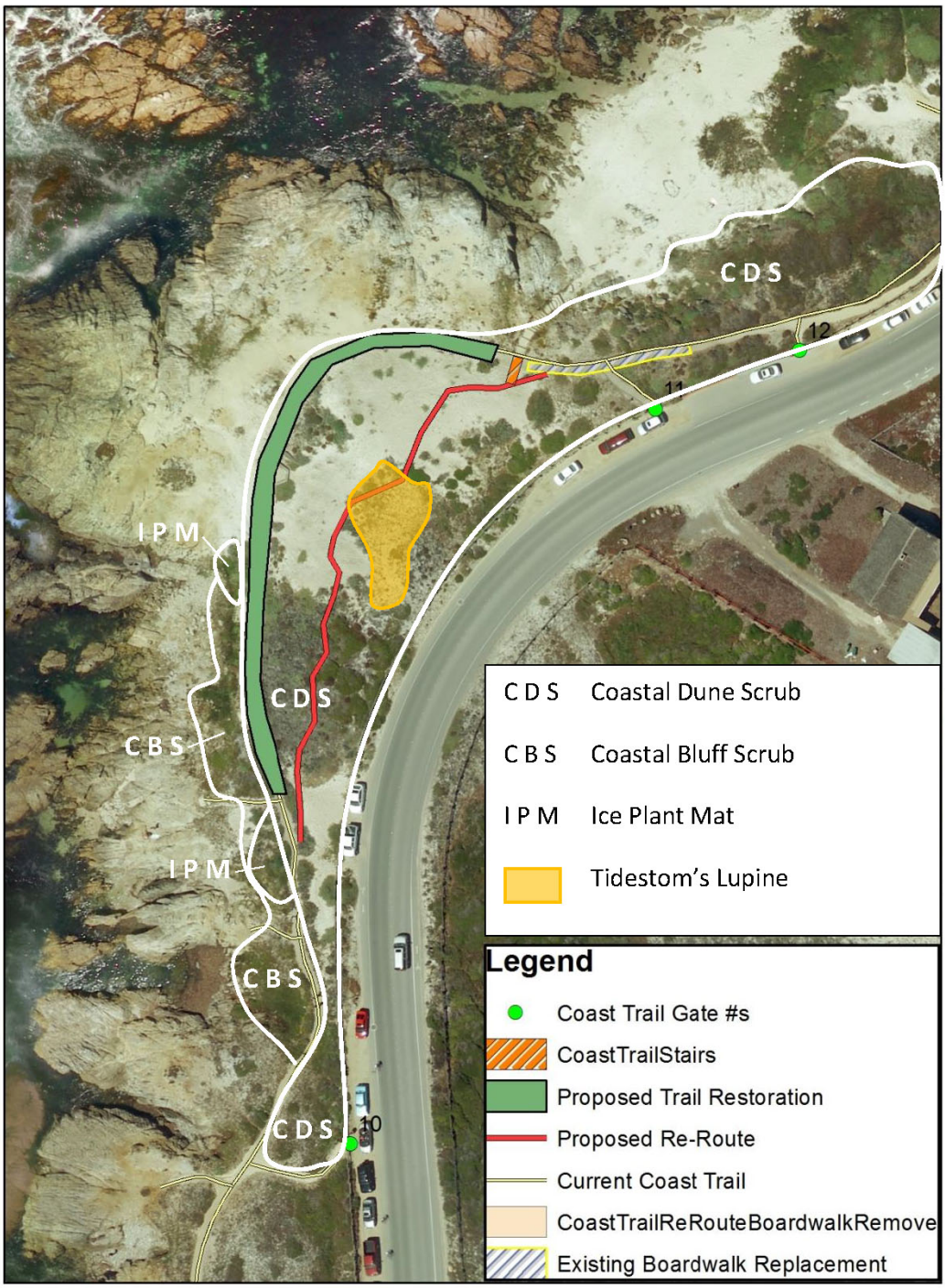
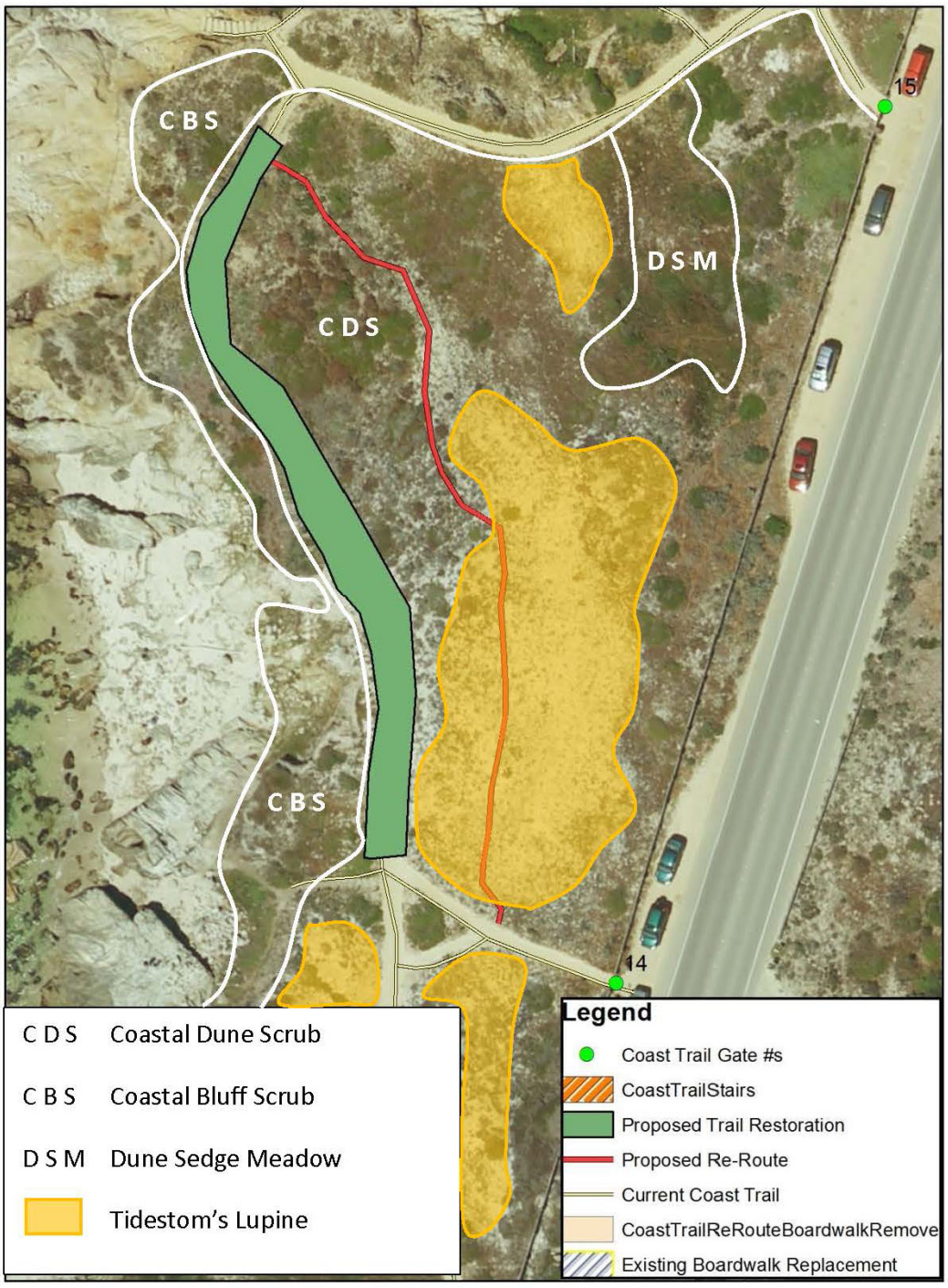


FIGURE 11A: VEGETATION TYPES AT PROJECT SITES, Gates 10-12



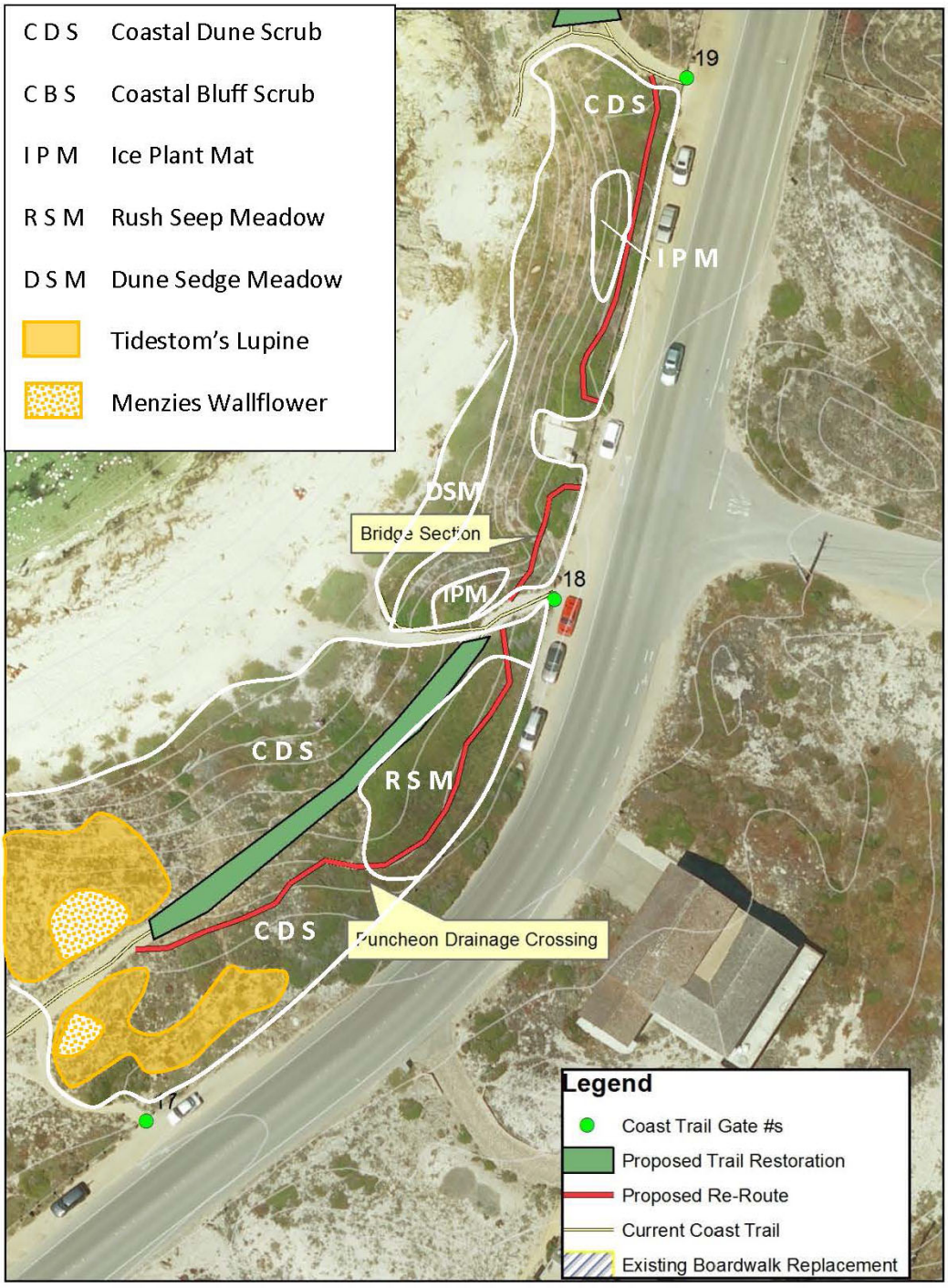
SOURCE: Biotic Resources Group

FIGURE 11B: VEGETATION TYPES AT PROJECT SITES, Gates 14-15



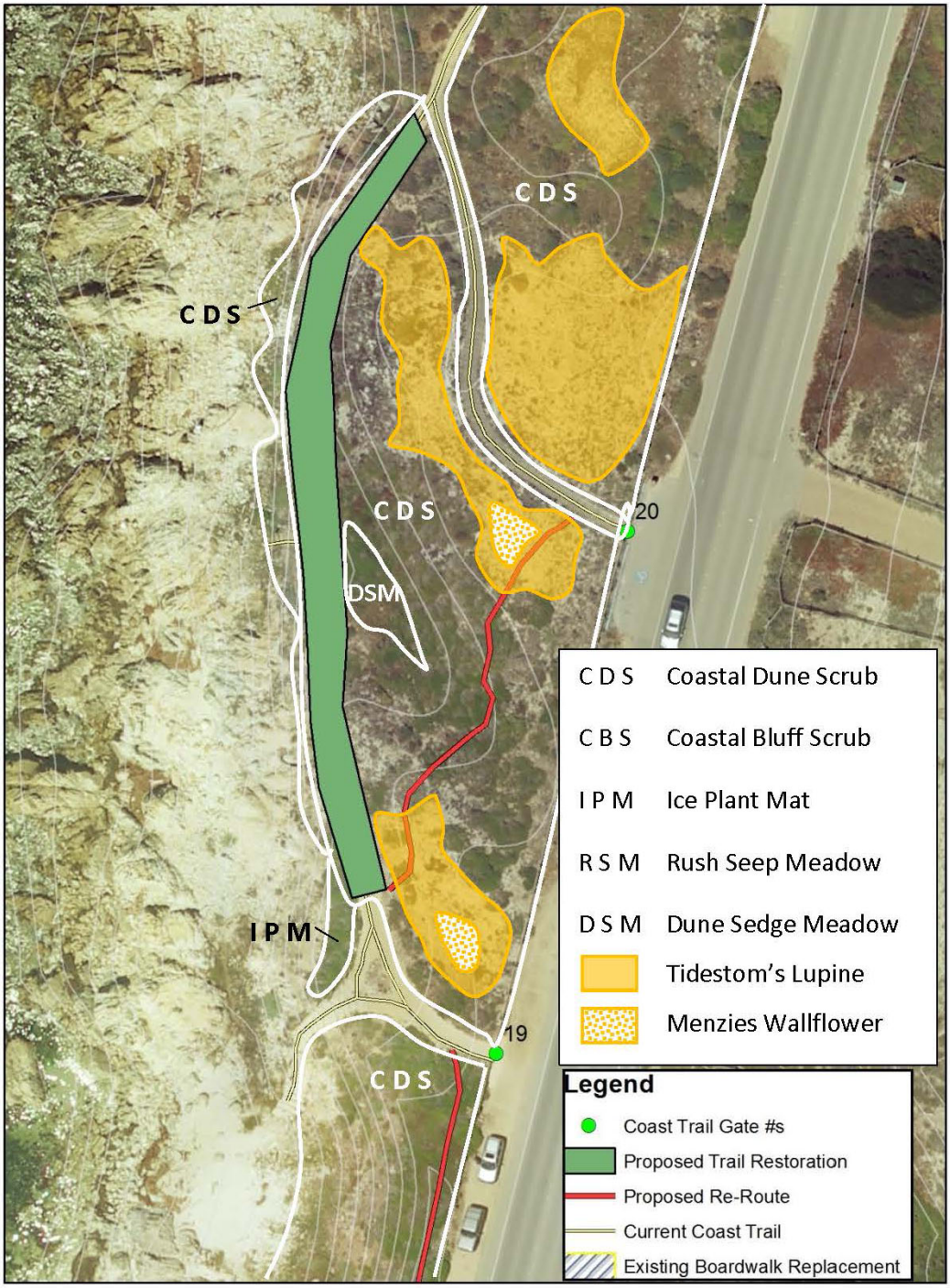
SOURCE: Biotic Resources Group

FIGURE 11C: VEGETATION TYPES AT PROJECT SITES, Gates 18-19



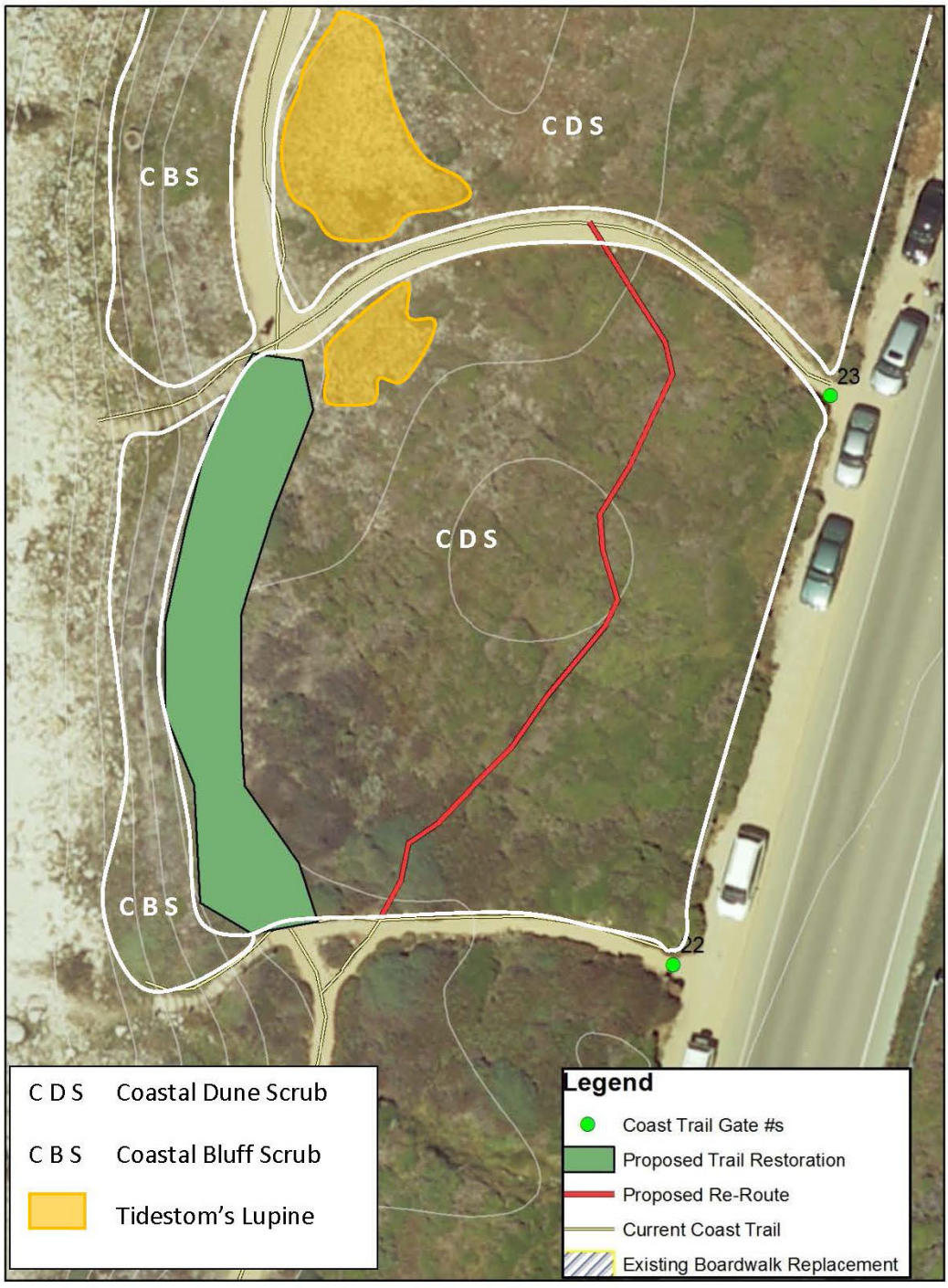
SOURCE: Biotic Resources Group

FIGURE 11D: VEGETATION TYPES AT PROJECT SITES, Gates 19-20



SOURCE: Biotic Resources Group

FIGURE 11E: VEGETATION TYPES AT PROJECT SITES, Gates 22-23



SOURCE: Biotic Resources Group

APPENDIX B

Standard Project Requirements

ASILOMAR COASTAL TRAIL IMPROVEMENTS

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Standard Project Requirements Asilomar Coastal Trail Improvements

Diamond-Pier Boardwalk Construction

A. Flagging and lay-out procedures will identify areas that will require some excavation for boardwalk footings. Excavation, for the purpose of leveling the piers, will be done by hand, and the all excavated materials will be placed on geo-textile, woven fabric and contained by straw wattles for later use. The current trail corridor will be used for the storage of all excavations and construction materials as to leave as much area as possible undisturbed. The boardwalk shall be aligned to reduce impact on sensitive plant species.

B. All lumber, tools, and required materials for construction of the boardwalk will be stored, when not in use, in designated areas to reduce impact. Stored aggregate material will be staged on geo-textile woven fabric in designated areas and contained by straw wattles.

C. All wood dust produced while cutting lumber will be contained by the use of a geo-textile woven fabric ground-covering.

Rock Causeway Construction

D. Excess sand and soil produced while excavating footings for rock causeway will be used to backfill the new trail-bed. Material that needs to be stored will be done so on geo-textile fabric and contained by wattles.

E. Rock shards and debris produced during construction will also be contained by geo-textile fabric to limit introduction of non-native materials to the project area. Rock shall be staged in designated areas to reduce impact.

Bridge Construction

F. The 31 foot pedestrian bridge will require the construction of two multi-tier rock walls abutments in order to span a seasonal drainage. Silt fence will be used during excavation for the rock footings to contain loose sediment. Excavated soil will be exported and contained by wattles and fabric when staged.

G. After the bridge stringers are placed and anchored, geotextile fabric drop cloth is installed under the area where the bridge will be assembled. The drop cloth is installed to catch any debris that might fall from the bridge as it is being assembled. The fabric catches wood chips and debris created while installing post sills, post, railing, and tread. Geotextile fabric is especially effective in also catching oil and gas residues produced by chainsaws and gas-powered drills. It

also catches tools and other valuable items that might be lost. Once the bridge stringers are anchored and the drop cloth is installed, workers assembling the bridge must have a safe platform to work from. Standard stair tower scaffolding can be assembled in the channel of the channel morphology and water conditions allow. California State Parks has developed a bridge scaffolding system that hangs from the bridge stringers. Because it hangs from the bridge, there is no need to enter the stream channel or disturb the stream banks.

Legless Lizard

1. The entire project area is potential habitat for Legless Lizards. Their preferred habitat is just below the surface of the sand in areas with some moisture, under leaf litter or brush. Several days prior to any digging or excavation for new trail segments in coastal bluff and dune habitats, CSP shall schedule the brushing of vegetation at the surface in order to allow any black legless lizards to escape on their own to adjacent areas..

2. All construction activity will be done with hand tools; no heavy equipment will be used.

3. To avoid, minimize, or compensate for impacts to black legless lizards, CSP shall implement the following measures:
    - Several days prior to any digging or excavation for new trail segments in coastal bluff and dune habitats, CSP shall schedule the brushing of vegetation at the surface in order to allow any black legless lizards to escape on their own to adjacent areas.
    - In addition, immediately after the brushing, a qualified biologist shall survey the brushed area with a potato rake (or other similar tool), at least one-foot-deep in order to search for legless lizards. Any individuals caught by raking shall be placed in a plastic 5-gallon bucket (or similar container) with sand, and immediately relocated to other nearby areas of suitable habitat well outside the construction zone.
    - Suitable areas to receive relocated black legless lizards shall be determined by the biologist before brushing and construction begins.
    - The biologist shall also observe the digging or excavation of the soils during new trail construction, and be prepared to capture and relocate any black legless lizards uncovered. The biologist shall have a Scientific Collecting Permit from CDFW, and notify the CDFW of plans to capture and relocate these lizards.
    - Any ground disturbance will be done methodically as to be as least disruptive to Legless lizards.

Birds

4. If possible, all noise generating construction activities will occur outside the migratory bird breeding season (August 1 – February 1).

5. If construction-related activities must be scheduled during the breeding season, then focused surveys to identify active nests of migratory bird species will be conducted by a CSP-approved biologist before construction activities occur in these months.

6. If a nest is found during construction, any disruptive work in the immediate area will be halted and construction must be shifted to another area of the project far enough away as to limit disrupting the active nest. The nest will be monitored to determine when chicks have fledged and when it is safe to resume work around the nest site.

Plants

7. The trampling of existing native plants will be minimized by reducing foot traffic and sticking to established trails and construction corridors.

8. Native plants that need to be removed as part of the project will be transplanted if feasible to nearby areas or to the Asilomar Native Plant Nursery for later use.

9. Cut brush will be saved on site and used as groundcover to help restoration efforts.

10. Any disturbed or bare ground will be planted and stabilized by the end of the project with Native plants from the Asilomar Native Plant Nursery.

Threatened and Endangered Plants

11. Tidestroms Lupine and Menzies Wallflower are in the project area and will be avoided whenever possible.

12. All T&E plants will be identified with flagging so that construction crews can more easily avoid.

13. Cages and other protective measures will be installed as part of ongoing State Park restoration but additional effort will be made around construction sites for plant protection.

14. Diamond pier locations can be manipulated to better avoid plants.

15. If a T&E plant must be taken, it will be done within the allowances agreed to in Asilomar's Scientific Collection permit.
    - Impacted plants will be transplanted to pots and stabilized in Native Plant Nursery then out-planted when ready
    - 100-200 Tidestroms and Menzies Wallflowers will be grown from collected seed and planted around project area once complete.
    - All salvaged plants will be monitored and success or failure reported to CAL Fish and Game as required by permit.

Old Trail Restoration

16. Entrances will be blocked off with Post and cable fencing.

17. Signs will be posted indicating area closure due to plant restoration.

18. All old trail structures such as boardwalks, posts, supports will be removed.

19. Soil will be lightly raked to match natural contour.

20. Any old compacted DG trails that are over sand will be broken up till native soil is reached.

21. All bare areas will be planted with native plants from Asilomar Nursery.

22. 1 gallons and cells of: Beach Sage Wort, Beach bur, Coyote Bush, Mock Heather, Seaside Daisy, Sea thrift, and others.

23. Native brush cuttings will be spread over planting sites to aide in stabilization and protection from the wind.

24. Non-native plants such as Ice Plant and New Zealand Spinach will be removed.

25. Native seed mixtures from locally collected sources may be spread to site.

26. Erosion control measures such as straw waddles may be used temporarily if needed.

APPENDIX C

Biotic Resources Report

ASILOMAR COASTAL TRAIL IMPROVEMENTS

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Asilomar Coast Trail Managed Retreat and Restoration Project
Asilomar State Beach and Conference Grounds

Biotic Report

Biotic Resources Group
Biotic Assessments • Resource Management • Permitting

Asilomar Coast Trail Managed Retreat and Restoration Project
Asilomar State Beach and Conference Grounds

Biotic Report

Prepared for:

Dudek
Attn: Stephanie Strelow

Prepared by:

Kathleen Lyons, Plant Ecologist
Biotic Resources Group
With
Dana Bland, Wildlife Biologist
Dana Bland & Associates

July 27, 2017

2551 S. Rodeo Gulch Road #12, Soquel California • (831) 476-4803 • brg@cruzio.com

BIOLOGICAL RESOURCES

Setting

The project area is located within Asilomar State Beach, west of Sunset Avenue, within the City of Pacific Grove. The project is located along the Asilomar Coast Trail, a trail that extends along the coastline. The project is the re-alignment of the existing trail at five locations, encompassing approximately 1,292 linear feet (0.25 mile). Approximately 1,127 linear feet of new boardwalk will be constructed. Approximately 1,127 linear feet of the new 5-foot wide boardwalk will be elevated 24-30 inches above the ground surface and supported by structural pins to minimize ground disturbance and disturbance to the existing vegetation. Approximately 100 linear feet of existing boardwalk will be replaced in-kind and approximately 165 linear feet of new trail (with decomposed granite surface) will be constructed. The project also includes rehabilitation of closed trails; rehabilitation and habitat restoration will occur along approximately 1,220 linear feet (0.24 mile) of trail and encompass approximately 8,540 square feet (0.20 acre).

The Coast Trail Rehabilitation Project area is located within the Asilomar dune complex. This dune complex has been subject to restoration and rehabilitation since the 1980's when dune restoration was first implemented inland and then seaward of Sunset Drive. State Parks implemented this large restoration project over several years pursuant to a Coastal Development Permit and the *Asilomar State Beach Dunes Restoration Plan* and *Addendum to Asilomar State Beach Dunes Restoration Plan* (State Parks, 1987 and 1989), wherein over 50 acres of coastal dune habitat has been created and restored both inland and seaward of Sunset Drive. Seaward of Sunset Avenue, the foredune at Asilomar Beach was rebuilt, foot trail and boardwalk trails installed and non-native plant eradication and native plant restoration implemented. State Parks maintains a native plant nursery to facilitate the dune restoration.

The Coast Trail Rehabilitation Project area supports the following plant community types: coastal bluff scrub, coastal dune scrub, dune sedge meadow, rush seep meadow, and ice plant mat. The project is located on the USGS Monterey 7.5' quadrangles. Site visits were conducted in December 2016 by Biotic Resources Group and Dana Bland & Associates to document plant communities and wildlife resources. All plant species observed were identified and recorded in a field notebook. Botanical nomenclature follows *The Flowering Plants of Monterey County - An Illustrated Field Key, Second Edition* (Matthews and Mitchell, 2015) and *The Jepson Manual Vascular Plants of California (*Baldwin, 2012).

The California Natural Diversity Database (CNDDB Rare Find, Commercial Version, 2017) and the California Native Plant Society's (CNPS) Rare Plant Inventory (CNPS, 2017) were searched for records of special status species within the project quadrangle (Monterey) and surrounding quadrangles (i.e., Marina, Seaside, Soberanes Point, and Mt. Carmel). Mapped data on vegetation types and special status species as maintained by State Parks was also reviewed and utilized to document resources within the project area.

The location of the project, on the USGS Monterey topographic map, is depicted on Figure 1. The distribution of vegetation types at the five trail rehabilitation areas is presented on Figures A1 through A5 in Appendix A.

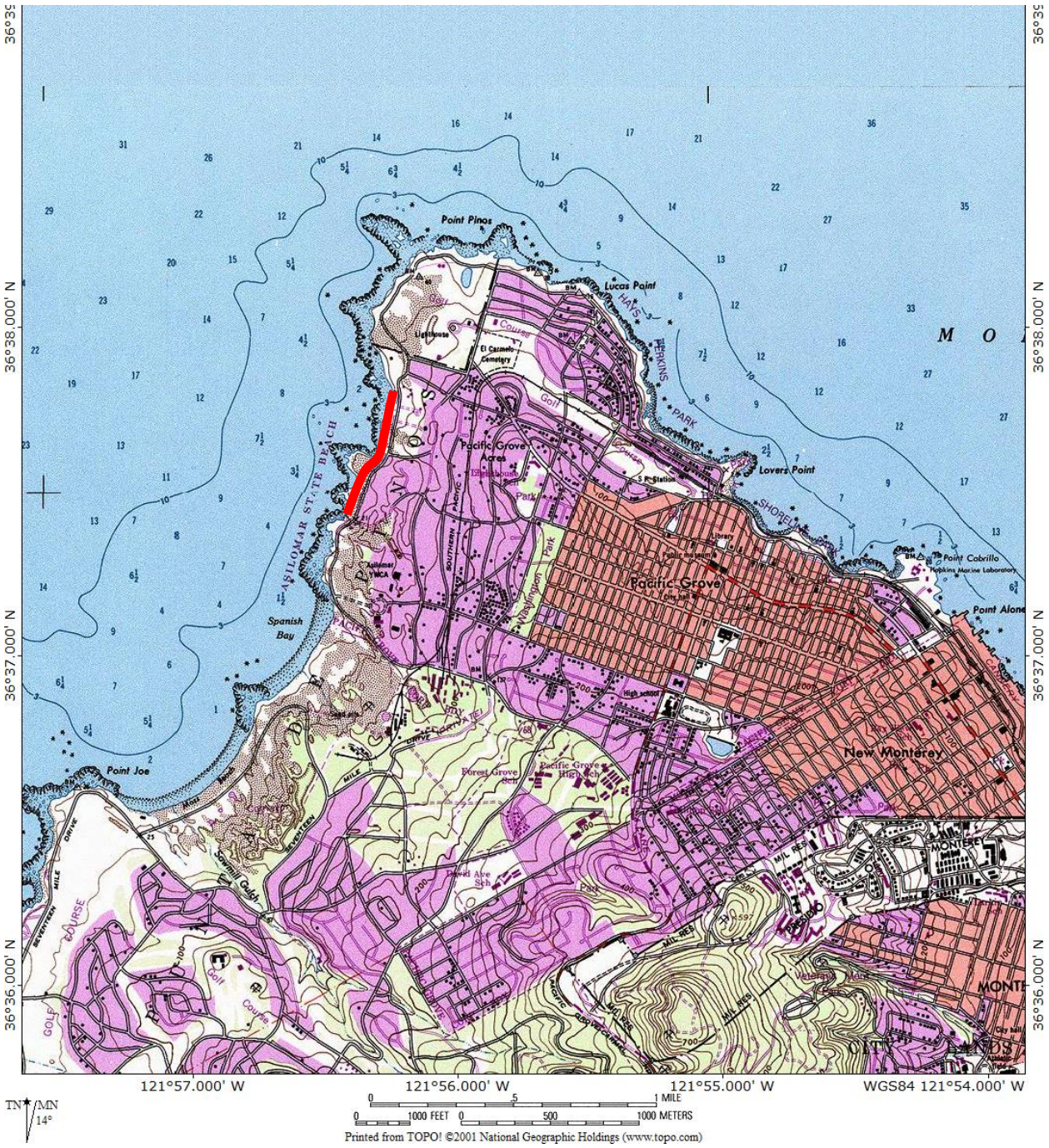

Figure 1. Project Location (USGS Monterey Quadrangle)

Coastal Bluff Scrub
The seaward edge of the project area supports coastal bluff scrub. The scrub is characterized by the dense growth of shrubs and herbs on the bluff faces and terraces with often windswept shrubs and salt-spray tolerant herbs. The bluff scrub vegetation has been established by State Parks over the past 27 years as part of the *Asilomar State Beach Dunes Restoration Plan* and *Addendum to Asilomar State Beach Dunes Restoration Plan* (State Parks, 1987 and 1989). Pursuant to these plans, large swaths of non-native ice plant (*Carpobrotus spp.)* were removed and the areas replanted with native bluff vegetation.

Plant species commonly observed within the bluff scrub habitat include coastal sagewort (*Artemisia pycnocephala)*, lizard tail (*Eriophyllum staechadifolium)*, seacliff buckwheat (*Eriogonum parvifolium)*, and seaside daisy (*Erigeron glaucus)*. The bluff scrub habitat was also found to support small patches of invasive non-native plant species; the most commonly observed species were ice plant (*Carpobrotus spp.)* and sea rocket (*Cakile maritima)*. The character of this vegetation type is depicted in Figure 2.

Figure 2. Character of coastal bluff scrub, December 2016

The berries of shrubs and the seeds of herbaceous plants in the coastal bluff scrub and coastal dune scrub habitats provide forage for wildlife. Wildlife may perch on the outer perimeter of mixed scrub to take advantage of hunting opportunities in adjacent openings, and take cover in the denser shrub patches as needed. The dense shrub patches also provide nesting habitat for birds.

Common wildlife species that may occur in the coastal scrub within the project area include western fence lizard (*Sceloporus occidentalis*), Anna's hummingbird (*Calypte anna*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), and white-crowned sparrow (*Zonotrichia leucophrys*). One special status species that may occur in this coastal scrub habitat, the black legless lizard (*Anniella pulchra nigra*).

Coastal Dune Scrub
The inland edge of the project area, primarily abutting Sunset Avenue, supports coastal dune scrub. This scrub is characterized by open sand deposits, with a sparse to dense growth of shrubs and herbs. The dune scrub vegetation has been established by State Parks over the past 27 years as part of the *Asilomar State Beach Dunes Restoration Plan*. As part of that plan, large swaths of non-native ice plant were removed and sand imported to create the foredune formations. The bare sand was planted with native dune scrub vegetation. The vegetation on site today is a result of this restoration project, as well as natural recruitment of plant species from wind, humans, and animals. State Parks continues to implement on-site

dune restoration. Native plants are routinely grown in the Asilomar State Beach nursery and out planted into the scrub habitat. Invasive, non-native plant species are also routinely removed/controlled.

Shrubs commonly observed within the dune scrub habitat include coastal sagewort, lizard tail, coyote brush (*Baccharis pilularis)*, and seacliff buckwheat. Yellow bush lupine (*Lupinus arboreus)* is also present. In some areas, such as near Site 19-20, the scrub supports a dense stands of coyote brush, with scattered yellow bush lupine, lizard tail, and California blackberry (*Rubus ursinus)*. Sub-shrubs and herbaceous species are numerous; species observed within the project area include common yarrow (*Achillea millefolium)*, seaside daisy, Gray's locoweed (*Astragalus nuttallii)*, sand verbena (*Abronia sp.)*, peach primrose (*Cammissoniopsis cheiranthifolia)*, sea pink (*Armeria maritima)*, dune sedge (*Carex pansa)*, and Pacific gumplant (*Grindelia stricta)*. Individual plants of Tidestom's lupine (*Lupinus tidestromii)*, an endangered species, were observed in some dune scrub areas. Hybrids between Tidestrom's lupine and the locally non-native silver beach lupine (*Lupinus chamissonis)* also occur in the project area (Wes Gray, State Parks, pers. comm., 2016). Non-native species observed in the scrub include cut-leaved plantain (*Plantago coronopus)* and common groundsel (*Senecio vulgaris)*. Invasive non-native plant species were also observed; the most commonly observed species were ice plant, New Zealand spinach (*Tetragonia tetragonoides)*, Bermuda buttercup (*Oxalis per-caprae)*, and sea rocket (*Cakile maritima)*. The character of this vegetation type is depicted in Figure 3.

Figure 3. Character of coastal dune scrub at Site 14-15, December 2016

The wildlife use of the coastal dune scrub habitat is expected to be similar to that described above for the coastal bluff scrub habitat. The areas with dense plant cover and leaf litter are more likely to be occupied by black legless lizard, than the areas with sparse, patchy plant cover and open sand.

Dune Sedge Meadow

Patches of dune sedge meadow occur in openings within the coastal dune scrub, often in low areas that receive more moisture than the surrounding scrub. These small meadows are characterized by the presence of the native perennial dune sedge (*Carex pansa)* Other plant species include lizard tail, coastal sagewort, sea rocket, seaside daisy, common yarrow (*Achillea millefolium)*, and scattered ice plant. One dune sedge area occurs at Site 14-15.

The patches of sedge meadow within the project area are relatively small and the use of these areas by wildlife is expected to be by birds for foraging on seeds or perching, similar to the surrounding coastal scrub habitat. Black legless lizards are not expected to inhabit the sedge meadow habitat.

Rush Seep Meadow

Patches of rush (*Juncus spp.)* occur in a mesic area/swale in the project area at Site 18-19. Bog rush (*Juncus effusus)*, iris-leaved rush (*J. xiphioides)* and creeping wild rye (*Leymus triticoides)* forms dense stands. Other herbaceous species include Olney's bulrush (*Schoenoplectus americanus)*, Pacific silver-weed (*Potentilla anserina ssp. pacifica)*, common yarrow, velvet grass (*Holcus lanatus)*, and scattered ice plant. Surface water was observed in the lowest portion of the swale as well as along the upslope edge of the existing trail in December 2016. The character of this vegetation type is depicted in Figure 4.

Figure 4. Character of rush seep meadow at Site 18-19, December 2016

The patches of rush meadow within the project area are relatively small and the use of these areas by wildlife is expected to be by birds for foraging on seeds or perching, similar to the surrounding coastal scrub habitat. Black legless lizards are not expected to inhabit the sedge meadow habitat.

Ice Plant Mat

Small mats of non-native ice plant occur in the project area. These patches occur adjacent to coastal bluff scrub and coastal dune scrub. The mats are typically a monoculture of ice plant; however, in some areas other plant species are found, such as beach primrose, lizard tail, sea rocket, seaside daisy, and New Zealand spinach. Ice plant mats also support additional non-native species, such as cut-leaved plantain. The character of a typical ide plant mat is depicted in Figure 5.

The patches of ice plant within the project area are relatively small and the predominance of the non-native mats of ice plant reduce the use of this habitat by native wildlife. Birds may perch in the ice plant to rest, and when flowers are present, birds seeking nectar may forage there.

Figure 5. Character of ice plant mat, December 2016

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Sensitive Biological Resources

Regulated Habitats

California Department of Fish and Wildlife (CDFW) is a trustee agency that has regulatory jurisdiction under Sections 1600-1603 of the California Fish and Game Code, for all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake which supports fish or wildlife. Along watercourses, CDFW jurisdictional limits typically extend to the top of bank or to the edge of riparian habitat if such habitat extends beyond top of bank (outer drip line), whichever is greater. The proposed project area supports two ephemeral swales/seeps (Site 18-19) that may be subject to CDFW jurisdiction.

Water quality in California is governed by the Porter-Cologne Water Quality Control Act and certification authority under Section 401 of the Clean Water Act, as administered by the Regional Water Quality Control Board (RWQCB). The Section 401 water quality certification program allows the State to ensure that activities requiring a Federal permit or license comply with State water quality standards. Water quality certification must be based on a finding that the proposed discharge would comply with water quality standards which are in the regional board's basin plans. The Porter-Cologne Act requires any person discharging waste or proposing to discharge waste in any region that could affect the quality of the waters of the state to file a report of waste discharge. The RWQCB issues a permit or waiver that includes implementing water quality control plans that take into account the beneficial uses to be protected. Waters of the State subject to RWQCB regulation extend to the top of bank, as well as isolated water/wetland features and saline waters. The proposed project area supports two ephemeral swales/seeps (Site 18-19) that may be subject to RWQCB jurisdiction.

The US Army Corps of Engineers (USACE) regulates activities within waters of the United States pursuant to congressional acts: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (1977, as amended). Section 10 of the Rivers and Harbors Act requires a permit for any work in, over, or under navigable waters of the United States. Navigable waters are defined as those waters subject to the ebb and flow of the tide to the Mean High Water mark (tidal areas) or below the Ordinary High Water mark (freshwater areas). Areas below the Mean High Water Mark below the sea cliff edge would be within the USACE's jurisdiction. In addition, the small seeps that supports the rush seep meadow (Site 18-19) may meet the definition of a wetland under USACE definitions; however, a formal delineation of Waters of the U.S. was not conducted as part of the biological evaluation.

Sensitive Habitats

Sensitive habitats are defined by local, State, or Federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. CDFW classifies and ranks the State's natural communities to assist in determining the level of rarity and imperilment. Vegetation types are ranked between S1 and S5. For vegetation types with ranks of S1-S3, all associations within the type are considered to be highly imperiled. If a vegetation alliance is ranked as S4 or S5, these alliances are generally considered common enough to not be of concern; however, it does not mean that certain associations contained within them are not rare (CDFG, 2007 and 2010). The project area was observed to support two vegetation types with an imperiled status. Dune sedge meadow and associations of dune scrub (i.e., dune mats with sand verbena, sagewort, and/or sea pink) are ranked S3.

The project is located within the coastal zone with the City of Pacific Grove. The Coastal Commission certified the City of Pacific Grove's 1989 Coastal Land Use Plan; however, the City never finalized or received certification of an Implementation Plan. Therefore, the City lacked a completed Local Coastal Program, and jurisdiction over Pacific Grove's Coastal Zone remained with the Coastal Commission. The project area is located within Area IV-B. Within the coastal zone, Environmentally Sensitive Habitat Areas", or "ESHAs," are defined as any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. These areas include, but are not limited to, dune, wetland, stream and rookery areas. For the Asilomar Coast Trail Rehabilitation project area, the Coastal Commission has stated the entire project area is ESHA (Coastal Development Permit Amendment, dated 1989). In addition, the dune sedge and rush seep areas may meet the definition of coastal review wetlands due to the presence of seasonal surface water and/or wetland indicator plant species (e.g., bog rush and bulrush). Development in ESHA shall be limited to uses dependent on the resource, and shall be sited and designed to protect against significant disruption of habitat values including to rare and endangered species. Other stabilizing native dune plants shall also be protected, relocated, or replanted with similar native plants.

The City of Pacific Grove General Plan identifies protected trees. All trees on public property, six inches or greater in trunk diameter, measured at 54 inches above native grade are designated as protected trees. There are no trees in the project area.

California State Parks recognizes the presence of sensitive habitat within Asilomar park unit. State Parks developed and implemented the *Asilomar State Beach Dunes Restoration Plan* and *Addendum to Asilomar State Beach Dunes Restoration Plan* (State Parks, 1987 and 1989). In addition, State Parks continues to implement dune restoration and management. The proposed project is intended to provide additional management of sensitive resources by removing trail from eroding areas, restoring degrading areas, removing invasive, non-native plant species, controlling public access and protecting endangered species. The Asilomar State Beach Preliminary General Plan emphasizes the conservation of sensitive dune species and their habitat and the State Beach has a steady funding source, mandated by language in the concessionaire contract for the Asilomar Conference Center. A portion of the Conference Center proceeds go to resource management, including funding a native plant nursery and some State Park personnel.

Special Status Plant Species

Plant species of concern include those listed by either the Federal or State resource agencies and species identified as rare (on List 1B) by CNPS. Special status species searched for within the project area are listed in Table 1, based on species recorded for the region by CNDDB and CNPS. The biological evaluation did not include a spring/summer season survey for special status plant species; however, State Parks have conducted

seasonal surveys and the occurrence of species status plant species have been mapped, as depicted on Figure 6.

Seven special status plant species have been recorded from the Asilomar Coast Trail vicinity based on CNDDB records; five of these species have been recently recorded in the greater project area based on State Park surveys, yet only two species, Tidestrom's lupine and Menzies wallflower occur in the Coast Trail Rehabilitation Project area (see Figure 6).

Tidestrom's Lupine. Occurrences of Tidestrom's lupine (*Lupinus tidestomii)* (listed as endangered by State and Federal endangered species acts) were observed during the December 2016 site visits. This species, a member of the Pea Family (Fabaceae), is a creeping perennial herb, typically growing 4-12 inches tall. It has dense hairs on its leaflets and produces purplish-pink flower May- June. The plant is short-lived, yet produces large, long-lived seeds (USFWS, 2009). The species is found in clustered colonies at three sites along the California coastal dunes: the southernmost population is found from Carmel Beach to Asilomar State Beach and Conference Grounds. The species also occurs at Point Reyes National Seashore and on the Sonoma Coast State Beach (Goat Rock Beach). According to USFWS's 5-year review of the species, the populations on the Monterey Peninsula are highly threatened by hybridization with silver bush lupine (*Lupine chamissonis)*.

Within Asilomar State Beach and Conference Grounds, Tidestrom's lupine occur both inland and seaward of Sunset Drive, where the species inhabits relatively open, sparsely vegetated dunes. Within the SB, the primary threats are from trampling from hikers, dune stabilization from invasive, non-native plant species, hybridization effects, and flower/seed predation (USFWS, 2009). State Parks has successfully propagated and out planted this species since the 1980's for habitat enhancement at Asilomar State Beach and Conference Grounds. The current population within the trail project area is approximately 483 plants; approximately 1,167 plants occur with the park unit (State Parks, 2016). Tidestrom's lupine growing near Gates 10-12, 14-15, 19-20 and near Gates 18-19, as depicted in Figure 7.

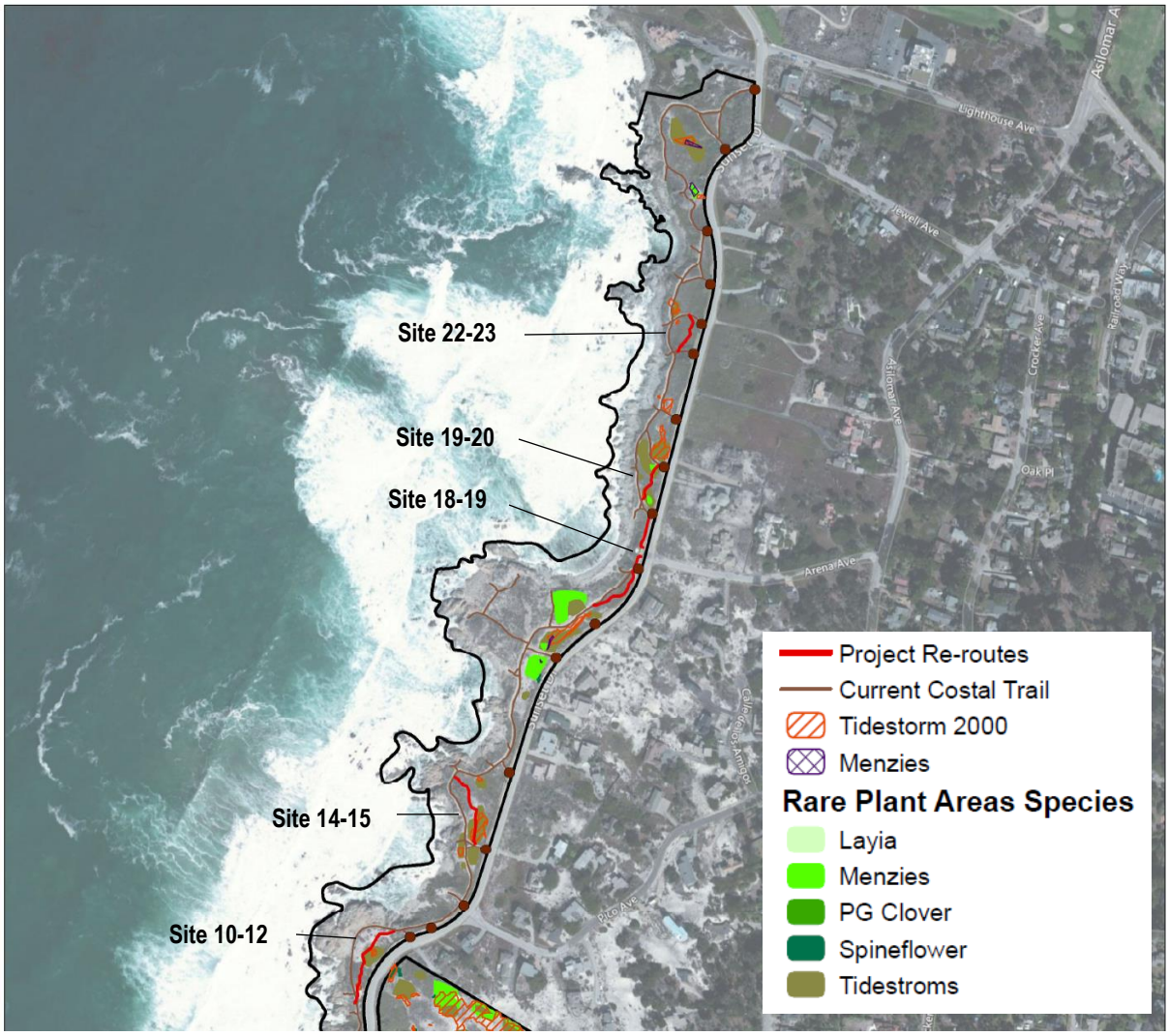

Figure 6. Distribution of special status plant species in project area, 2016
(Source: State Parks, 2016)

Figure 7. Tidestrom's lupine in coastal dune scrub, December 2016

Menzies Wallflower. The Coast Trail project area supports Menzies wallflower (*Erysimum menziesii ssp. menziesii)* (listed as endangered by State and Federal endangered species acts). Menzies wallflower is a perennial plant in the mustard family (Brassicaceae). Although it flowers and produces fruit (seed) only once during its life (after which it dies), its basal rosette of leaves may persist for up to eight years before flowering (USFWS, 2008). The plant typically blooms from March through April and is identifiable by the stalk of yellow flowers. Seeds are produced in June and slowly disperse through the summer and fall. The seed is short-lived in the soil. In Monterey County, Menzies wallflower occurs in open, sparsely vegetated dunes, typically in loose sand that lacks organic matter and minerals (USFWS, 2008). The species is known from four isolated dune areas extending from Point Pinos in the north to Cypress Point in the south. The colony at Asilomar State Beach and Conference Grounds was recorded to support over 5,000 plants in 2003 (USFWS, 2008). The current population within the trail project area is approximately 242 plants; approximately 2,206 plants occur within the park unit (State Parks, 2016). State Parks has successfully propagated and out planted this species since the 1980's for habitat enhancement at Asilomar State Beach and Conference Grounds. Menzies wallflower is depicted in Figure 8.

Figure 8. Menzies wallflower
(Source: Ken Berg, Cal Photos)

Other Species. Occurrences of other special status species occur within Asilomar State Beach, yet not within the Coast Trail project area. These species are beach layia (*Layia carnosa)*, Pacific Grove clover (*Trifolium polyodon)*, and Monterey spineflower (*Chorizanthe pungens pungens).*

Information of species occurrence/potential occurrence in the project area is presented in Table 1.

Table 1. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Coast Trail Rehabilitation Project Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Monterey Quadrangle			
Hickman's onion *(Allium hickmanii)*	List 1B.2 State: None Fed: None	Openings in forest, woodlands, or chaparral, grassland Sandy damp ground and vernal swales; blooms April - May	Veterans Memorial Park and Presidio of Monterey. Not recorded from project area.
Hooker's manzanita *(Arctostaphylos hookeri ssp. hookeri)*	List 1B.2 State: None Fed: None	Sandy soils, maritime chaparral/oak woodland mosaic Evergreen shrub	Presidio of Monterey. Not observed or recorded from project area.
Sandmat manzanita *(Arctostaphylos pumila)*	List 1B.2 State: None Fed: None	Closed cone forest, Sandy soils, maritime chaparral, dunes Evergreen shrub	Fort Ord, Monterey Airport. Not observed or recorded from project area.
Coastal dunes milk-vetch *(Astragalus tener var. titi)*	List 1B.1 State: E Fed: E	Coastal bluff scrub, moist sandy depressions on bluffs or dunes; blooms April – May	Along 17-mile Drive near Ocean Road. Not observed within project area.
Johnny nip paintbrush *(Castilleja ambigua ssp. insalutata)*	List 1B.1 State: None Fed: None	Coastal bluff scrub Blooms May - August	1903 record from between Point Pinos and Pacific Grove No recent observation in project area; potential habitat
Monterey spineflower (*Chorizanthe pungens var. pungens)*	List 1B.2 State: None Fed: T	Sandy soils, maritime chaparral Annual; blooms May – August	Record from near Pt. Pinos, CNDDB occurrence #4 Documented from inland areas of Asilomar State Beach; not in Coast Trail project area; potential habitat.
Jolon clarkia *(Clarkia jolonensis)*	List 1B.2 State: None Fed: None	Dry grasslands Annual; blooms April - July	Historic collection (1893) and observation (1903) from "near Pt. Pinos", CNDDB Occurrence #13 Species unlikely to be present based on a lack of suitable habitat.
San Francisco collinsia *(Collinsia multicolor)*	List 1B.2 State: None Fed: None	Close cone pine forest, coastal scrub on decomposed shale/mudstone Annual; blooms March - May	Pacific Grove (1903). Not observed within project area.
Seaside birds-beak *(Cordylanthus rigidus ssp. littoralis)*	List 1B.1 State: E Fed: None	Dry slopes, grasslands, closed cone forests; coastal scrub; sandy substrate Annual; blooms May - September	Fort Ord, Monterey Airport. Not recorded from project area.
Hutchinson's larkspur *(Delphinium hutchinsoniae)*	List 1B.2 State: None Fed: None	Broadleaf upland forest, coastal prairie, coastal scrub; usually moist slopes Annual; blooms April – May	CNDDB Occ. #9 - 1949 collection from near Asilomar and Pt. Pinos Lighthouse. Not observed within project area.

Table 1. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Coast Trail Rehabilitation Project Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Umbrella larkspur *(Delphinium umbraculorum)*	CNPS: List 1B.3 State: None Federal: None	Broadleaf upland forest, mesic sites on clay	Tassajara Road area Not recorded in project area
Eastwoods goldenbush *(Ericameria fasciculata)*	List 1B.1 State: None Fed: None	Sandy openings in maritime chaparral, pine forests, coastal scrub Perennial shrub; blooms Jul – Oct.	Carmel (1913); Morse Reserve in Del Monte Forest. Not observed within project area.
Pinnacles buckwheat *(Eriogonum nortonii)*	List 1B.3 State: None Fed: None	Chaparral, valley and foothill grassland; sandy openings often after burns Perennial shrub; blooms May-June.	Head of Gibson Creek; Palo Corona Regional Park; E of Carmel Highlands. Not observed within project area.
Menzies wallflower *(Erysimum menziesii ssp. menziesii)*	List 1B.1 State: E Fed: E	Sandy soils, coastal dunes Biennial, blooms May - June	Dunes by in Asilomar State Beach CNDDB Occurrence #4 Documented within project area
Fragrant fritillary *(Fritillaria liliacea)*	List 1B.2 State: None Fed: None	Coastal scrub, grasslands near coast Perennial bulb; blooms February - April	Pebble Beach area (1931). Not observed within project area.
Sand gilia *(Gilia tenuiflora ssp. arenaria)*	List 1B.2 State: T Fed: E	Coastal dunes, coastal chaparral Annual herb; blooms April – June	Moss Beach, Del Monte Dunes, Sand City, Ft. Ord, Marina Dunes, Asilomar Not observed within project area; potential habitat.
Gowen cypress *(Hesperocyparis goveniana)*	List 1B.2 State: None Fed: T	Closed cone pine forest; coast terraces, usually in sandy soil Evergreen tree	Pt. Lobos along N side of Gibson Creek, E of Hwy 1. Not observed within project area.
Monterey cypress *(Hesperocyparis macrocarpa)*	List 1B.2 State: None Fed: None	Closed cone pine forest; coast terraces, usually on granitic soils Evergreen tree	Northern portion of Pt. Lobos State Reserve. Not observed within project area.
Kellogg's horkelia *(Horkelia cuneata ssp. sericea)*	List 1B.1 State: None Fed: None	Closed cone forest, coastal scrub, chaparral Perennial; blooms April - June	Carmel Mission, Asilomar, Del Monte area Not observed within project area.
Beach layia *(Layia carnosa)*	List 1B.1 State: E Fed: E	Coastal dunes Annual herb; blooms April – June	In Asilomar, south of Pico Avenue and north end of Asilomar State Beach; CNDDB Occurrence #5 Recorded from inland portion of SB; not recorded from Coast Trail project area; potential habitat

Table 1. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Coast Trail Rehabilitation Project Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Tidestom's lupine *(Lupinus tidestomii)*	List 1B.1 State: E Fed: E	Coastal dunes Annual herb; blooms April – May	Dunes at Asilomar State Beach, CNDDB Occurrence #2 Documented within project area
Carmel Valley bush-mallow *(Malacothamnus palmeri var. involucratus)*	List 1B.2 State: None Fed: None	Chaparral on rock outcrops or steep rocky road cuts, talus Perennial; blooms June - December	Carmel Valley, 2 miles from Hwy 1. Not observed within project area.
Santa Lucia bush mallow *(Malacothamnus palmeri var. palmeri)*	List 1B.2 State: None Fed: None	Chaparral, dry talus slopes Deciduous shrub; blooms May - Oct	Carmel (1985) Not observed within project area
Marsh microseris (*Microseris paludosa)*	List 1B.2 State: None Fed: None	Closed cone pine forest, scrub, woodland, grassland Annual, blooms May - June	Pt. Lobos State Reserve (1978), Del Monte Forest, Veterans Memorial Park Not observed within project area
Northern curly-leaved monardella (*Monardella sinuata ssp. nigrescens)*	List 1B.2 State: None Fed: None	Closed cone pine forest, scrub, woodland, grassland, sandy soils Annual, blooms May - June	1932 record from Asilomar Not observed in project area
Woodland woolythreads (*Monolopia gracilens)*	List 1B.2 State: None Fed: None	Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. 100-1200 m.	1897 collection from Monterey Not expected in project area
Monterey pine (*Pinus radiata)*	List 1B.1 State: None Fed: None	Closed cone pine forest Evergreen tree	Pt. Lobos State Reserve Not observed within project area
Yadon's rein orchid (*Piperia yadonii)*	List 1B.1 State: None Fed: E	Closed cone pine forest, scrub, coastal bluff scrub Annual, blooms May - June	Washington Park and Along 17 Mile Dr, Veterans Memorial Park, Pt. Lobos, Carmel. Potential habitat within project area
Hickman's cinquefoil (*Potentilla hickmanii)*	List 1B.1 State: E Fed: E	Closed cone pine forest, scrub, meadows and seeps, streams Annual, blooms April - August	17-mile Drive, S of Bird Rock parking lot; Pacific Grove on road to Cypress Point. Not observed within project area
Pine rose (*Rosa pinetorum)*	List 1B.2 State: None Fed: None	Closed cone pine forest Perennial, blooms May - June	1906 record from near Pt. Pinos Lighthouse; last observed in 2000 Not observed within project area

Table 1. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Coast Trail Rehabilitation Project Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Saline clover (*Trifolium hydrophilum)*	List 1B.2 State: None Fed: None	Marshes and swamps, valley and foothill grassland, vernal pools. Annual, blooms May - June	1907 record from Pacific Grove, Moss Landing Not observed within project area
Pacific Grove clover (*Trifolium polyodon)*	List 1B.1 State: R Fed: None	Closed cone pine forest Annual, blooms May - June	Pebble Beach riding stables, 17-Mile Drive near Ocean Road; S of Seal Rock Creek Recorded from inland portion of Asilomar State Beach; not observed within Coast Trail project area
Monterey clover (*Trifolium trichocalyx)*	List 1B.1 State: E Fed: E	Closed cone pine forest Annual, blooms April - June	Morse Botanical Reserve; Huckleberry Hill Not observed within project area
Surrounding Quadrangles (Marina, Seaside, Soberanes Point, Mt. Carmel)			
Vernal pool bent grass (*Agrostis lacuna-vernalis)*	List 1B.1 State: None Fed: None	Vernal pools Annual, blooms May - June	Ft. Ord Not expected within project area
Little Sur manzanita *(Arctostaphylos edmundsii)*	CNPS: List 1B.2 State: None Federal: None	Coastal bluff scrub, sandy terraces Evergreen shrub	In the vicinity of Garrapata Creek, N of bridge along Highway 1. Recorded from near Gate 19; observed east of existing trail near Gate 19.
Toro manzanita *(Arctostaphylos montereyensis)*	List 1B.2 State: None Fed: None	Sandy soils, maritime chaparral/oak woodland mosaic Evergreen shrub	Monterey Airport; Ft. Ord Not observed within project area.
Pajaro manzanita *(Arctostaphylos pajaroensis)*	List 1B.1 State: None Fed: None	Sandy soils, maritime chaparral/oak woodland mosaic Evergreen shrub	Prunedale; Ft. Ord Not observed within project area.
Congdon's tarplant *(Centromadia parryi ssp. congdonii)*	List 1B.1 State: None Fed: None	Moist grasslands, alkaline depressions Annual; blooms July - October	Laguna Seca Area. Not observed within project area.
Hospital Canyon larkspur *(Delphinium californicum ssp. interius)*	CNPS: List 1B.2 State: None Federal: None	In wet, boggy meadows, openings in chaparral and in canyons.	Carmel Valley Not expected in project area
Sand-loving wallflower *(Erysimum ammophilum)*	List 1B.2 State: None Fed: None	Sandy soils, maritime chaparral; coastal dunes; scrub Biennial, blooms May - June	Ft. Ord; Naval Postgraduate School; Seaside; Asilomar; 17-mile Drive Not observed within project area.

Table 1. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Coast Trail Rehabilitation Project Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Santa Lucia bedstraw *(Galium clementis```)*	CNPS: List 1B.3 State: None Federal: None	Lower montane coniferous forest, upper montane coniferous forest.	Los Padres NF Not expected in project area
Point Reyes horkelia *(Horkelia marinensis)*	List 1B.2 State: None Fed: None	Coastal dunes, coastal prairie, coastal scrub. Perennial; blooms April - June	Near Highway 1, Marina Potential within project area.
Contra Costa goldfields *(Lasthenia conjugens)*	List 1B.1 State: None Fed: E	Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland. Perennial; blooms April - June	Ft. Ord Not expected within project area.
Carmel Valley malacothrix *(Malacothrix saxatilis var. arachnoidea)*	List 1B.2 State: None Fed: None	Chaparral, rocky areas Deciduous shrub; blooms May - Oct	Carmel Valley Road. Not observed within project area.
Hooked popcorn flower *(Plagiobothrys uncinatus)*	List 1B.2 State: None Fed: None	Chaparral, woodlands and grasslands on sandstone outcroppings, often burned areas Annual; blooms April - May	Recorded from Hastings Reserve, approx. 3 miles SE of project. Not observed within project area.
Santa Cruz microseris (*Stebbinsoseris decipiens)*	List 1B.2 State: None Fed: None	Coastal scrub, chaparral, prairie near coast; loose disturbed soils Annual; blooms April - May	Known from Laureles Grade, Highway 68 No suitable habitat; not observed during surveys
Santa Cruz clover (*Trifolium buckwestiorum)*	List 1B.1 State: E Fed: E	Moist grassland. Gravelly margins. Annual; blooms April - June	Laguna Seca, Tarpy Flats Not expected within project area

CNPS Status:

List 1B: These plants (predominately endemic) are rare through their range and are currently vulnerable or have a high potential for vulnerability due to limited or threatened habitat, few individuals per population, or a limited number of populations. List 1B plants meet the definitions of Section 1901, Chapter 10 of the CDFG Code.

Federal and State Status:

T: Designated as a threatened species by the federal government or the California Fish and Game Commission

E: Designated as an endangered species by the federal government or the California Fish and Game Commission

Special Status Wildlife Species

Special status wildlife species known from the general project vicinity were evaluated for their potential to occur at the project site. Special status wildlife species include those proposed for listing as threatened or endangered, candidates for listing, and those listed by either the Federal or State resource agencies, as well as those identified as State species of special concern. In addition, all raptor nests are protected by Fish and Game Code, and all migratory bird nests are protected by the Federal Migratory Bird Treaty Act.

Special status wildlife species were evaluated for their potential presence in the project area as described in Table 2 below. The coastal scrub and coastal bluff scrub supports seacliff buckwheat which can be habitat for the Smith's Blue butterfly, a species federally listed as endangered. The Smith's blue butterfly is

considered extirpated from this portion of the Monterey Peninsula, including Asilomar State Beach and Conference Center (USFWS 2006, *Smith's Blue Butterfly (Euphilotes enoptes smithi), 5-Year Review: Summary and Evaluation*). The relatively small areas of coastal bluff and dune habitat with buckwheat (the required adult and larval food plant) are fragmented by development to the east and the busy roadway. The occurrence of buckwheat within the coastal bluff and dune habitats is sparse. This butterfly has low vagility (movement and dispersal) capability, and thus the sparse occurrence of buckwheat plants, and the fragments of habitats (islands basically), and the lack of any records of Smith's blue butterfly within the general vicinity (Pacific Grove to Pebble Beach) reduce the likelihood that this butterfly currently inhabits any portion of the project area.

Black legless lizards (*Anniella pulchra nigra*), a State Species of Special Concern, require coastal dune habitats and edges of other adjacent habitats (such as oak woodlands) with very loose, sandy soils with dense vegetative cover and dense leaf litter. They live primarily in the upper soil layers and hunt for invertebrates at the surface, especially amongst dense leaf litter. They dense leaf litter and dense shrub (particular lupines and mock heather) create moist soil conditions that are critical to this lizard's survival. They can rapidly burrow deep into the sand if disturbed. This lizard has been found in marginal habitats at the edges of preferred dune scrub habitats. Although the coastal bluff and dune scrub habitats at this site are relatively small in area, and fragmented by the adjacent busy roads and residential developments to the east, the black legless lizard may persist in some portions of the project area, namely the coastal dune and scrub habitats (CNDDB 2017, Thompson *et al*. 2016 *California Amphibian and Reptile Species of Special Concern*). The black legless lizard has been found during revegetation efforts within the project area by State Parks personnel (Wes Gray, Environmental Scientist, California State Parks, pers. comm., February 2017, see Figure 9). This lizard is not expected to occur in the meadow habitats on site. Measures are detailed below to avoid impacts to this species.

Figure 9. Black legless lizard at revegetation site along Asilomar coastal trail
(Source: State Parks)

The southern sea otter (*Enhydra lutris*) frequents the nearshore along the entire Asilomar State Beach and Conference Grounds coastline. The gray whale can be sighted off the Monterey Peninsula headlands during its annual migration (California Department of Parks and Recreation, 2004). The portion of Monterey Bay that borders Asilomar State Beach and Conference Grounds on the west is part of the Monterey Bay National Marine Sanctuary (MBNMS), managed by the National Oceanic and Atmospheric Administration (NOAA). The MBNMS incorporates over 276 miles of shoreline and 5,322 square miles of ocean, encompassing a region from Marin County south to Cambria. NOAA has been assigned responsibility for managing the Nation's thirteen National Marine Sanctuaries and has developed regulations uniquely suited to protect the resources at each sanctuary.

No other special status wildlife species are expected in the project area, although migratory birds may nest in the very dense coastal bluff scrub on site.

Table 2. Special Status Wildlife Species and Potential Occurrence in the Vicinity of the Coast Trail Rehabilitation Project Area

SPECIES	STATUS[1]	HABITAT	POTENTIAL OCCURRENCE ON SITE
Invertebrates			
Monarch butterfly *(Danaus plexippus)*	*	Eucalyptus, acacia and pine trees groves provide winter habitat when they have adequate protection from wind and nearby source of water and nectar	None, no suitable habitat on site.
Smith's blue butterfly *(Euphilotes enoptes smithi)*	FE	Coastal dunes, coastal scrub and sage scrub with host plant of buckwheat present	Extirpated from Asilomar vicinity (USFWS).
Fish			
Steelhead *(Oncorhynchus mykiss)*	FT, CSC	Perennial creeks and rivers with gravels for spawning.	None, no suitable habitat on site.
Amphibians			
California tiger salamander (*Ambystoma californiense)*	FT, ST	Ponds, vernal pools for breeding, grasslands with burrows for upland habitat	None, no suitable habitat on site.
Coast range newt (*Taricha torosa*)	CSC	Coastal drainages from Mendocino to San Diego counties; breeds in ponds, reservoirs and slow moving parts of creeks	None, no suitable habitat on site.
California red-legged frog *(Rana draytonii)*	FT, CSC	Riparian, marshes, estuaries and ponds with still water at least into June.	None, no suitable habitat on site.
Reptiles			
Western pond turtle *(Actinemys marmorata)*	CSC	Creeks and ponds with water of sufficient depth for escape cover, and structure for basking; grasslands or bare areas for nesting.	None, no suitable habitat on site.
Black legless lizard *(Anniella pulchra nigra)*	CSC	Sand dunes with native vegetation	May occur in coastal bluff and dune habitats on site.
Birds			
California brown pelican *(Pelecanus occidentalis californicus)*	FP	Nests on coastal islands, winter coastal visitor along Central coast	May perch on nearby rocks in intertidal zone or occasionally, forage in ocean nearby. No nesting known in Monterey County.
Western snowy plover *(Charadrius alexandrinum nivosus)*	FT, CSC	Nests on sandy beach, shores of salt ponds	None, no suitable habitat on site. Beaches along this site are regularly inundated at high tides.

Table 2. Special Status Wildlife Species and Potential Occurrence in the Vicinity of the Coast Trail Rehabilitation Project Area

SPECIES	STATUS[1]	HABITAT	POTENTIAL OCCURRENCE ON SITE
Western burrowing owl *(Athene cunicularia hypugea)*	CSC	Grasslands with short grass and burrows.	None, no suitable habitat on site.
Black swift *(Cypseloides niger)*	CSC	Nests in small colonies on cliffs behind or adjacent to waterfalls and along sea bluffs	None, no suitable habitat on site.
Mammals			
Monterey dusky-footed woodrat *(Neotoma fuscipes Luciana)*	CSC	Dense scrub, forest, and riparian habitats	None, no suitable habitat on site.

[1] Key to status:

FE	=	Federally listed as endangered species
FT	=	Federally listed as threatened species
ST	=	State listed as threatened species
CSC	=	California species of special concern
FP	=	Fully protected species under CDFG Code
*	=	Protected under County Local Coastal Plan

IMPACT ANALYSIS AND RECOMMENDED MITIGATION MEASURES

The Coast Trail Rehabilitation Project was reviewed as per CEQA thresholds. 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 Game or U.S. Fish and Wildlife Service?

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

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

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

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?

Discussion of Potential Impacts and Mitigation Measures

State Parks have identified several best management practices (BMPs) for the Asilomar Coastal Trail project. Twenty-six (26) BMPs are specific to biological resources, additional measures relate to construction near wetlands and other features. The measures are intended to avoid or minimize adverse impacts to sensitive biological resources during project construction.

Standard Project Requirements Asilomar Coastal Trail Improvements

Diamond-Pier Boardwalk Construction

1. Flagging and lay-out procedures will identify areas that will require some excavation for boardwalk footings. Excavation, for the purpose of leveling the piers, will be done by hand, and the all excavated materials will be placed on geo-textile, woven fabric and contained by straw wattles for later use. The current trail corridor will be used for the storage of all excavations and construction materials as to leave as much area as possible undisturbed. The boardwalk shall be aligned to reduce impact on sensitive plant species.
2. All lumber, tools, and required materials for construction of the boardwalk will be stored, when not in use, in designated areas to reduce impact. Stored aggregate material will be staged on geo-textile woven fabric in designated areas and contained by straw wattles.
3. All wood dust produced while cutting lumber will be contained by the use of a geo-textile woven fabric ground-covering.

Rock Causeway Construction

1. Excess sand and soil produced while excavating footings for rock causeway will be used to backfill the new trail-bed. Material that needs to be stored will be done so on geo-textile fabric and contained by wattles.

2. Rock shards and debris produced during construction will also be contained by geo-textile fabric to limit introduction of non-native materials to the project area. Rock shall be staged in designated areas to reduce impact.

Bridge Construction

1. The 31 foot pedestrian bridge will require the construction of two multi-tier rock walls abutments in order to span a seasonal drainage. Silt fence will be used during excavation for the rock footings to contain loose sediment. Excavated soil will be exported and contained by wattles and fabric when staged.
2. After the bridge stringers are placed and anchored, geotextile fabric drop cloth is installed under the area where the bridge will be assembled. The drop cloth is installed to catch any debris that might fall from the bridge as it is being assembled. The fabric catches wood chips and debris created while installing post sills, post, railing, and tread. Geotextile fabric is especially effective in also catching oil and gas residues produced by chainsaws and gas-powered drills. It also catches tools and other valuable items that might be lost. Once the bridge stringers are anchored and the drop cloth is installed, workers assembling the bridge must have a safe platform to work from. Standard stair tower scaffolding can be assembled in the channel of the channel morphology and water conditions allow. California State Parks has developed a bridge scaffolding system that hangs from the bridge stringers. Because it hangs from the bridge, there is no need to enter the stream channel or disturb the stream banks.

Biological Resources

<u>Black Legless Lizard (BMPs 1-3)</u>

1. The entire project area is potential habitat for Legless Lizards. Their preferred habitat is just below the surface of the sand in areas with some moisture, under leaf litter or brush. Several days prior to any digging or excavation for new trail segments in coastal bluff and dune habitats, DPR shall schedule the brushing of vegetation at the surface in order to allow any black legless lizards to escape on their own to adjacent areas..
2. All construction activity will be done with hand tools; no heavy equipment will be used.
3. To avoid, minimize, or compensate for impacts to black legless lizards, DPR shall implement the following measures:
    - Several days prior to any digging or excavation for new trail segments in coastal bluff and dune habitats, DPR shall schedule the brushing of vegetation at the surface in order to allow any black legless lizards to escape on their own to adjacent areas.
    - In addition, immediately after the brushing, a qualified biologist shall survey the brushed area with a potato rake (or other similar tool), at least one-foot-deep in order to search for legless lizards. Any individuals caught by raking shall be placed in a plastic 5-gallon bucket (or similar container) with sand, and immediately relocated to other nearby areas of suitable habitat well outside the construction zone.
    - Suitable areas to receive relocated black legless lizards shall be determined by the biologist before brushing and construction begins.
    - The biologist shall also observe the digging or excavation of the soils during new trail construction, and be prepared to capture and relocate any black legless lizards uncovered. The biologist shall have a Scientific Collecting Permit from CDFW, and notify the CDFW of plans to capture and relocate these lizards.
    - Any ground disturbance will be done methodically as to be as least disruptive to Legless lizards.

<u>Nesting Birds (BMPs 4-6)</u>

4. If possible, all noise generating construction activities will occur outside the migratory bird breeding season (August 1 – February 1).

5. If construction-related activities must be scheduled during the breeding season, then focused surveys to identify active nests of migratory bird species will be conducted by a DPR-approved biologist before construction activities occur in these months.
6. If a nest is found during construction, any disruptive work in the immediate area will be halted and construction must be shifted to another area of the project far enough away as to limit disrupting the active nest. The nest will be monitored to determine when chicks have fledged and when it is safe to resume work around the nest site.

Native Vegetation (BMPs 7-10)

7. The trampling of existing native plants will be minimized by reducing foot traffic and sticking to established trails and construction corridors.
8. Native plants that need to be removed as part of the project will be transplanted if feasible to nearby areas or to the Asilomar Native Plant Nursery for later use.
9. Cut brush will be saved on site and used as groundcover to help restoration efforts.
10. Any disturbed or bare ground will be planted and stabilized by the end of the project with native plants from the Asilomar Native Plant Nursery.

Special Status Plant Species (BMPs 11-15)

11. Tidestrom's lupine and Menzies wallflower are in the project area and will be avoided whenever possible.
12. All Tidestrom's lupine and Menzies wallflower plants (and other special status species, if found) will be identified with flagging so that construction crews can more easily avoid them.
13. Cages and other protective measures will be installed as part of ongoing State Park restoration but additional effort will be made around construction sites for plant protection.
14. Diamond pier locations will be manipulated to better avoid plants.
15. If a State-listed plant must be taken, it will be done within the allowances agreed to in Asilomar's Scientific Collection permit with CDFW.
    a. Impacted plants will be transplanted to pots and stabilized in the Asilomar Native Plant Nursery then out-planted when ready.
    b. 100-200 Tidestrom's lupine and Menzies wallflowers will be grown from collected seed and planted around the project area once complete.

Old Trail Restoration (BMPs 16-25)

16. Entrances will be blocked off with post and cable fencing.
17. Signs will be posted indicating area closure due to plant restoration.
18. All old trail structures such as boardwalks, posts, supports will be removed.
19. Soil will be lightly raked to match natural contour.
20. Any old compacted decomposed granite (DG) trails that are over sand will be broken up until native soil is reached.
21. All bare areas will be planted with native plants from the Asilomar Nursery
22. Revegetation will include 1 gallon and cells of: beach sagewort, beach bur, coyote brush, mock heather, seaside daisy, sea thrift, and others.
23. Native brush cuttings will be spread over planting sites to aide in stabilization and protection from the wind.
24. Non-native plants, such as ice plant and New Zealand spinach will be removed.
25. Native seed mixtures may be spread onto site.
26. Erosion control measures such as straw wattles may be used temporarily.

a) Special Status Plant Species: The proposed trail realignment will result in construction of approximately 0.13 acres of raised boardwalks and trail closure/habitat restoration on approximately 0.20 acres. The project includes restoration of closed trail segments and associated degraded areas as part of Asilomar's approved ongoing dune restoration program. These activities will occur within and/or in proximity to individual plants of Tidestrom's lupine and Menzies wallflower, both federally- and state-listed endangered plant species. Project activities could result in take or harm to individual

plants of both species and their habitat. However, the proposed restoration in combination with implementation of CSP's proposed Standard Project Requirements #11-14 (see Appendix B) will avoid take of the two listed species and their habitat. In limited areas where individual plants cannot be avoided, implementation of Standard Project Requirement #15 requires that the plant(s) and/or seed be salvaged to minimize impacts. Where an individual is salvaged, it will be repotted in the Asilomar nursery and ultimately replanted in the trail restoration area. With the proposed restoration and implementation of Standard Project Requirements, impacts to these species will be less than significant.

The occurrences of Tidestrom's lupine and Menzies wallflower are in locations that have been planted over the past 25+ years and have since naturally re-established within portions of the dune scrub as part of the CSP's implementation of the *Asilomar State Beach Dunes Restoration Plan.* CSP has successfully collected seed, grown plants, and planted both species as part of the dune restoration plan since the 1980s, and holds a Section 2081(a) Scientific, Educational, and Management Permit with CDFW that allows CSP to "take" the two species for habitat management purposes. This includes seed collection and growing plants for out planting in the dune scrub as part of ongoing habitat restoration and dune management. The permit does not allow impacts to existing populations.

Individuals of Tidestrom's lupine grows within the dune scrub in/adjacent to the proposed trail re-alignments at Site 10-12, Site 14-15, and Site 19-20. Trail construction (installation of raised boardwalks, approximately 270 linear feet) will occur within and/or in close proximity to several individuals. Given the small footprint of the supports to be used for the boardwalk (structural pins) and the ability of State Parks to site the supports to avoid plant occurrences, it is likely that direct take of Tidestrom's lupine plants can be avoided during trail construction with implementation of Standard Project Requirements #11-14 that call for avoidance and protection of individual plants during construction. In the event that the placement of the boardwalk supports cannot avoid impacting a plant, CSP will implement Standard Project Requirements #15 that requires plant salvage and replanting with additional propagation of plants from collected seed in accordance with Asilomar's Scientific Collection Permit such that there is no net loss of individual plants. In addition, the proposed trail work will leave any disturbed soils on site to prevent loss of potential seeds in the soil.

The new boardwalk trails will be 5 feet wide and elevated above the dune scrub approximately 24 to 30 inches. Some shading of the listed species may occur from the raised boardwalk, particularly beneath the mid-section of the boardwalk when sunlight cannot reach. This may result in indirect impacts to listed species if such plants are present. The new raised boardwalk may indirectly affect up to 1,350 square feet (0.031 acre) of habitat supporting Tidestrom's lupine; however, indirect impacts to the species habitat will be compensated by the proposed on-site habitat restoration and implementation of Standard Project Requirements, particularly #10 and #15. Approximately 8,540 square feet (0.20 acre) of rehabilitated dune scrub habitat will be created as part of the project, which will include plantings of Tidestrom's lupine.

Individuals of Menzies wallflower grows within the dune scrub in/adjacent to the proposed trail re-alignments at Site 19-20. As discussed for the Tidestom's lupine, above, trail rehabilitation (installation of raised boardwalks, approximately 30 linear feet (150 square feet – 0.003 acre) will occur within and/or in close proximity to individuals at this location. Given the small footprint of the supports to be used for the boardwalk (structural pins) and the ability of State Parks to site the supports to avoid plant occurrences, it is likely that direct take of Menzies wallflower plants can be avoided with implementation of Standard Project Requirements #11-14. In the event that the placement of the boardwalk supports cannot avoid impacting a plant, CSP will implement Standard Project Requirements #15 that requires salvage and replanting individuals, such that there is no net

loss of individuals. In addition, as indicated above, disturbed soils will be retained on site to prevent loss of potential seeds in the soil.

DPR developed and has been implementing the *Asilomar State Beach Dunes Restoration Plan* since the 1980s, which has successfully included replanting and re-establishment of the two affected special status species. The proposed project is intended to provide additional management of sensitive resources by removing trail segments from eroding areas, restoring degraded areas, removing invasive, non-native plant species, and controlling public access in accordance with provisions of the Restoration Plan's long-term management component. The Asilomar State Beach and Conference Grounds General Plan emphasizes the conservation of sensitive dune species and their habitat, and CSP has a steady funding source, mandated by language in the concessionaire contract for the Asilomar Conference Center, a portion of which goes to resource management, including funding a native plant nursery and some State Park personnel.

In addition, the status of the project area as an area dedicated to open space and conservation of natural resources, and thereby protected from development, provides a benefit to listed species and other native plant and wildlife species. As outlined in the Asilomar State Beach General Plan State Parks will maintain the State Park in a natural state where the native habitats will be maintained and remain mostly undisturbed over the long-term, thereby serving as a refuge for special status species where suitable habitat exists. The General Plan's commitment and funding mechanism for resource management and restoration and enhancement of listed species habitats further promotes the conservation and recovery of these species by providing future area for each of these species to expand its current range once habitat has been restored or enhanced.

Wildlife Species. Direct impacts to black legless lizards may occur if any are present in the work area during construction. Relocation of individuals may cause temporary impacts, and the loss of coastal dune bluff and dune habitat may cause temporary impacts until the closed trails segments are revegetated with native plants. Successful implementation of CSP's proposed Project Standard Project Requirements #1-3 will avoid and minimize any direct impacts to black legless lizards, and reduce any indirect impacts to a less-than-significant level. The proposed Standard Project Requirements will remove leaf litter in advance of construction to allow any individuals to move out the area and carful construction with hand tools to minimize direct impacts to individuals if present. Therefore, project construction will result in a less-than-significant impact with implementation of Standard Project Requirements.

b) Riparian and Sensitive Habitats. Project activities will result in removal of habitat considered to be ESHA, which is considered a potentially significant impact. Project features will occur within three sensitive vegetation types areas considered to be ESHA: coastal dune scrub, coastal bluff scrub, and rush seep meadow. New boardwalk construction will affect up to approximately 5,635 square feet (0.13 acre) of ESHA. This represents the entire footprint of the boardwalk; however, in most areas the boardwalk will be elevated 24-30 inches above the habitat and direct impacts will be limited to the supports (structural pins). In addition, new decomposed granite-surfaced trail will affect approximately 990 square feet (0.02 acre) of ESHA. The rehabilitation of closed trails and habitat restoration of these areas will create approximately 0.20 acre of new habitat. The restoration to impact ratio is approximately 1.5:1. Successful implementation of CSP's proposed Standard Project Requirements #7-10 and #16-25) will minimize and compensate for the impact to ESHA, resulting in a less-than-significant impact, and no additional mitigation is required. In addition, in approving the coastal development permit for restoration the California Coastal Commission determined that the installation of the existing trail and boardwalk system with protective fencing along Sunset Drive would be conducted in a manner that will minimize disruption of remnant dunes and special status species, and concluded that the trail would not result in a

significant disruption to ESHAs. As previously indicated, the proposed project is consistent with and part of the ongoing dune restoration program.

c) Wetlands. The project will not alter the flow of any watercourse or affect in-stream wetlands. Boardwalk and bridge abutments will be placed outside the top of bank of swales and wetlands at Site 18-19. The footbridge and puncheon crossing will not require any alteration of the creek or creek flow. All bridges will avoid permanent impacts to in-stream vegetation (wetlands).

Construction of the new footbridge at Gate 18-19 may cause temporary impacts to wetland resources if workers access the waterway. Construction of the bridge and puncheon at Site 18-19 may cause temporary impacts to water resources if workers access the waterway. Successful implementation of State Park Standard Project Requirements # 7-10, #16-25 and the Standard Project Requirements identified for bridge construction will minimize and compensate for the impact to water resources. The watercourses may be subject to jurisdiction by the Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and the CDFW. Implementation of the proposed BMPs will reduce impacts to waters of the US and Waters of the State to a less-than-significant level. No additional mitigation is required.

d) Wildlife Movement and Nesting Birds. Construction activities may cause short-term impacts to nesting birds if they are present during construction, or result in injury or death to eggs and chicks if the nest is impacted. Successful implementation of State Park Standard Project Requirements# 4-6 will avoid impacts to nesting birds. No additional mitigation is required.

e-f) Conflicts with Policies or Plans. The project will not conflict with local plans, policies or ordinance protecting biological resources, such as tree preservation policies. The project includes restoration for degraded habitats through the removal/control of invasive non-native plant species and rehabilitation of closed/removed trails and protection of special status species. This is consistent with the Asilomar State Beach and Conference Grounds General Plan and Asilomar State Beach Dunes Restoration Plan.

The project area is not within the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other habitat conservation plan.

REFERENCES AND LITERATURE CITED

Baldwin, etal. 2012. The Jepson Manual – Vascular Plants of California. Berkeley: University of California Press.

California Native Plant Society. 2017. Electronic Inventory of Rare and Endangered Vascular Plants of California. Electronic Database, Monterey quadrangle and surrounding quadrangles.

California, State of, Department of Fish & Game. 2017. Natural Diversity Database. 2017 Rare Find 5 program, Monterey quadrangles and surrounding quadrangles.

California, State of, Department of Fish & Game. 2010. Natural Diversity Database, Natural Communities Classification System, 2010. http://www.dfg.ca.gove/biogeodata/vegcamp.

California State Parks. 1989. Asilomar State Beach Dunes Restoration plan and Addendum. State parks, Monterey District. June 1998.

Matthews M.A. and M. Mitchell, 2015. The Plants of Monterey County, 2nd edition. California Native Plant Society and M.A. Matthews, Sacramento, CA.

Sawyer, J.O., T. Keeler-Wolf, and Evens. 2009. A Manual of California Vegetation, 2nd Edition. California Native Plant Society, Sacramento, CA.

U.S. Fish and Wildlife Services, 2009. *Lupinus tidestromii* - 5 Year Summary and Review. USFWS, Sacramento Fish and Wildlife Office. November 2009.

U.S. Fish and Wildlife Services, 2008. *Erysimum memziesii* - 5 Year Summary and Review. USFWS, Arcata Field Office. June 2008.

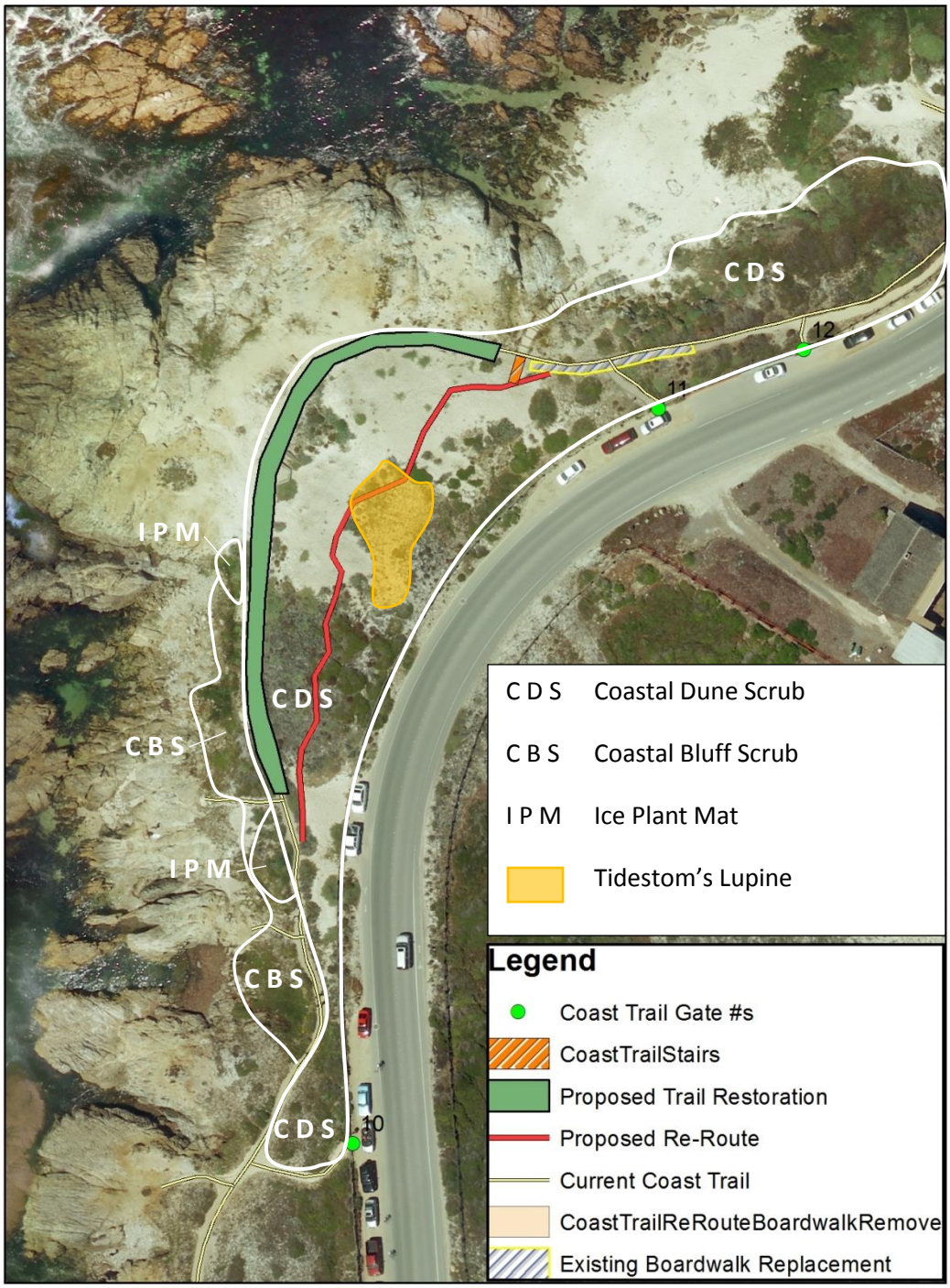

Figure A1. Vegetation Types at Site 10 – 12

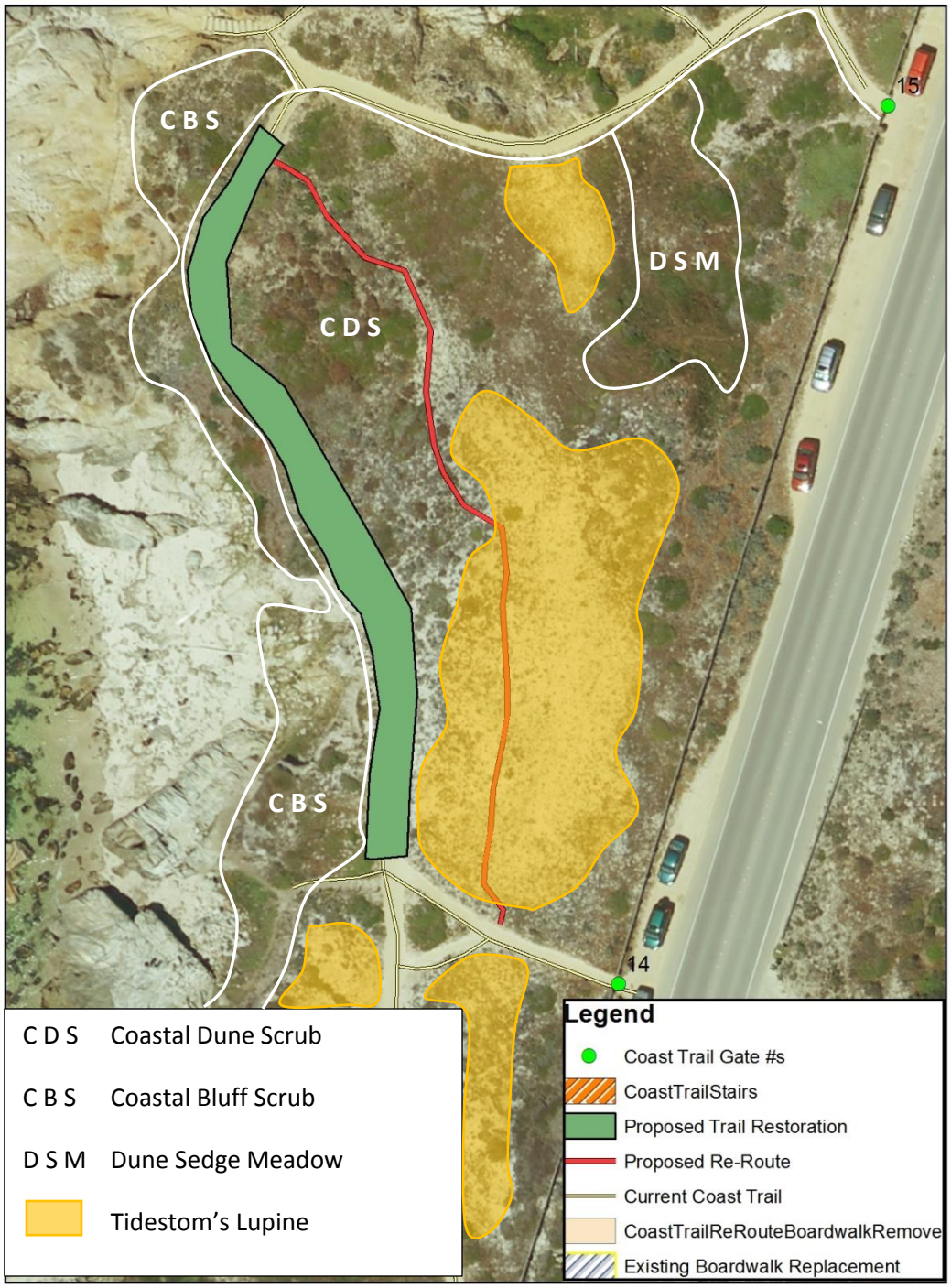

Figure A2. Vegetation Types at Site 14 -15

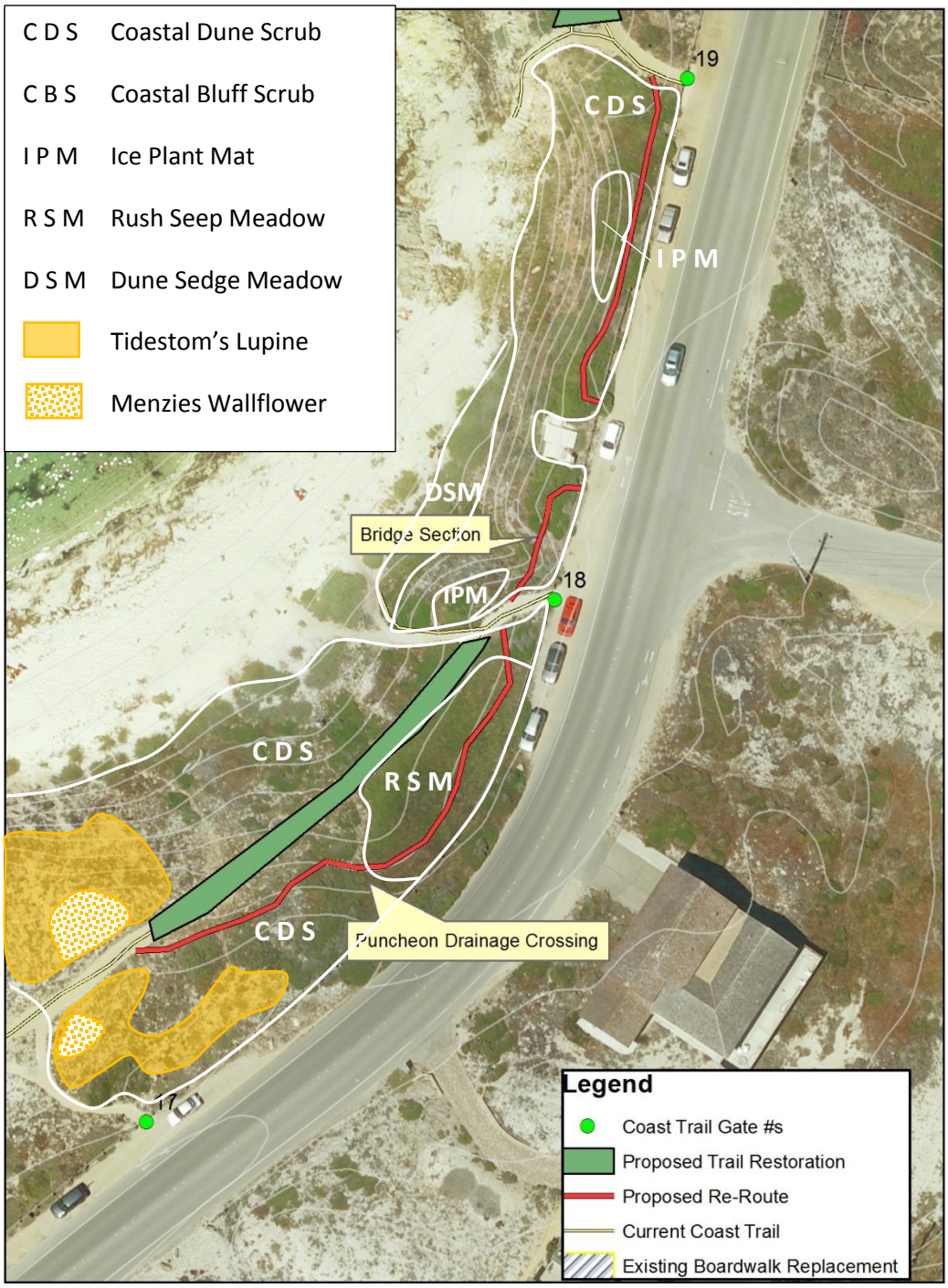

Figure A3. Vegetation Types at Site 18 -19

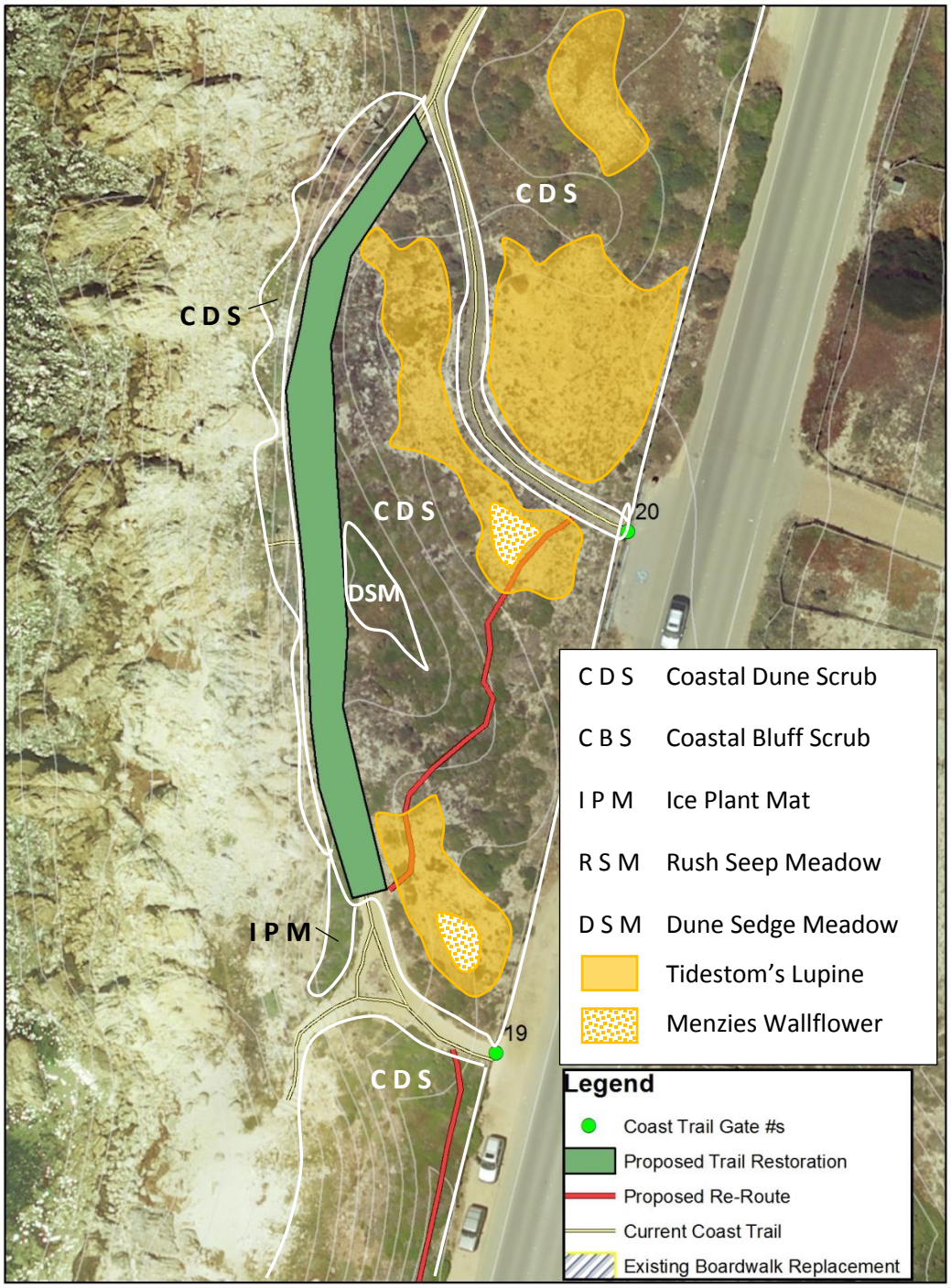

Figure A4. Vegetation Types at Site 19-20

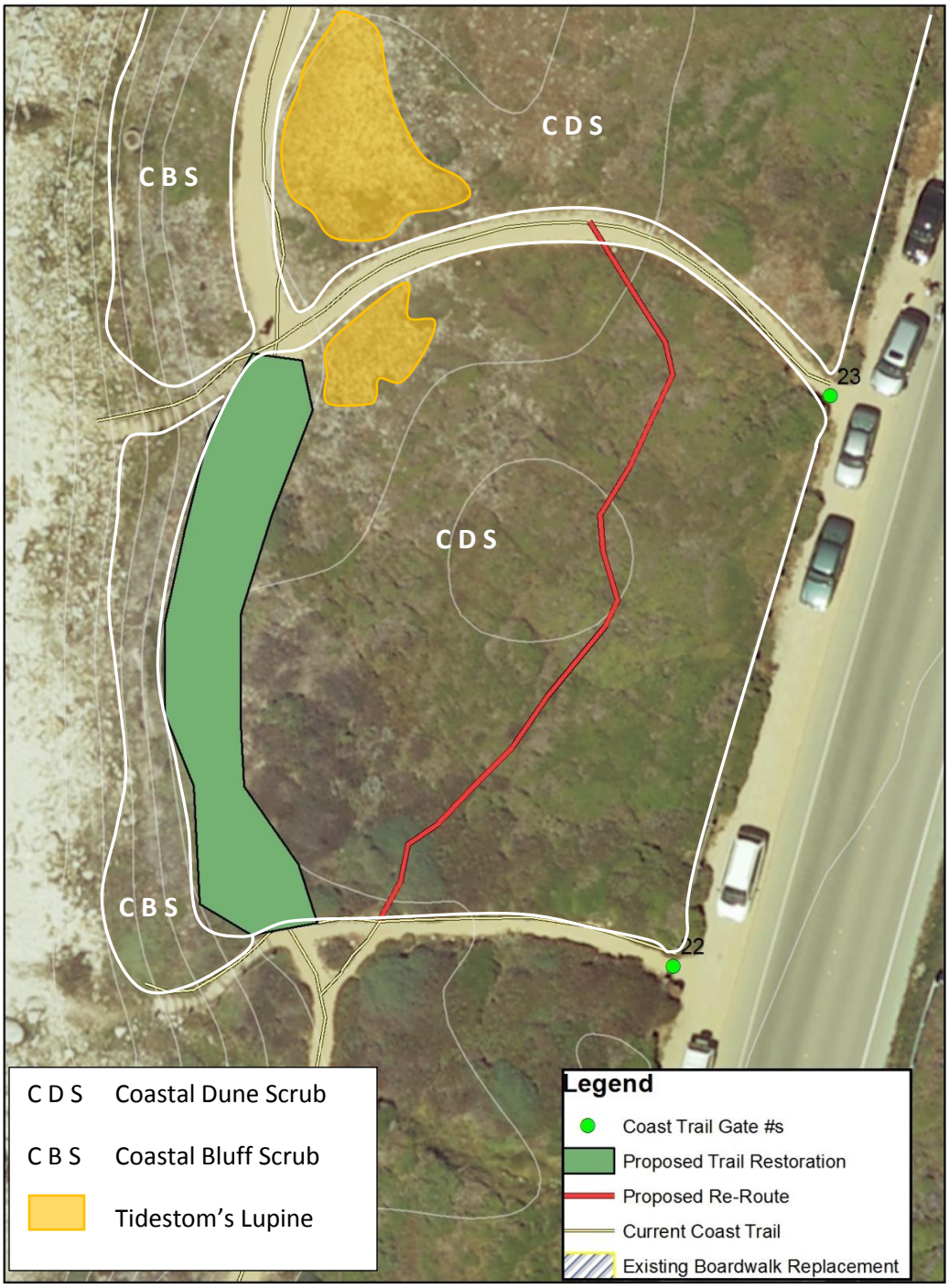

Figure A5. Vegetation Types at Site 22 – 23

APPENDIX D

Mitigation Monitoring and Reporting Program

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APPENDIX D
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Agency Responsible for Monitoring	Monitoring Timeline	Monitoring Compliance Record (Name/Date)
Cultural Resources				
Mitigation Measure CULT-1: Require that a California State Parks (CSP)-qualified archaeologist monitor all ground disturbing activities associated with trail relocation and subsequent restoration, revegetation or contouring at project site locations Gates 10-11, 14-15 (restoration), and 20-21 (restoration). If a cultural feature or other significant find is encountered, work shall be halted within a 50-foot radius of the find until a CSP-qualified archaeologist has had adequate time to evaluate the resource and determine an appropriate course of action. If the proposed project cannot avoid impacting the cultural resource then additional archaeological investigations will be necessary in order to mitigate the adverse effects to the resource. Locate construction staging areas outside areas of known archaeological sites. Limit the number of 1-gallon plantings in these areas to minimize disturbance of cultural deposits.	Qualified archaeologist selected by California State Parks (CSP) and supervised by California State Parks	California State Parks (CSP)	During construction at specified locations.	

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