

Biotic Resources Group

Biotic Assessments ♦ Resource Management ♦ Permitting

PACIFIC GROVE SHORELINE MANAGEMENT PLAN BIOLOGICAL RESOURCES TECHNICAL REPORT

December 14, 2018



1.0 Study Location

The study area is located in the City of Pacific Grove, extending along Ocean View Boulevard from near Dewy Street (Point Cabrillo/Hopkins Marine Station) westward to Asilomar State Beach. The area extends approximately 3 miles along the City’s shoreline, from the rocky shore inland to Ocean View Boulevard. The study area is located on the USGS Monterey 7.5’ quadrangle, as depicted on Figure 1.

2.0 Study Methodology

The biological resources of the study area were documented from a review of existing maps and reports, database records, field observations, and consultation with regional biologists and interested parties. Site visits were conducted to study area in March and June 2018 by Kathleen Lyons (plant ecologist, Biotic Resources Group) and Dana Bland (wildlife biologist, Dana Bland & Associates) to document plant communities and wildlife resources. Information on the biological resources between Acropolis Street and Asilomar State Beach (area covered by the Pt. Pinos Coastal Trail Study and Plan) were derived from the 2016 studies conducted for that Plan (TrailPeople, 2017). No field surveys of that portion of the study area were conducted in 2018.

The California Natural Diversity Database (CNDDDB Rare Find, Commercial Version, June 2018) and the California Native Plant Society’s (CNPS) Rare Plant Inventory (CNPS, June 2018) were searched for records of special status species within the study 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 the City of Pacific Grove was also reviewed and utilized to document resources within the study area.

3.0 Setting

The study area supports several plant community types: coastal bluff scrub, coyote brush scrub, dune sedge meadow, salt grass flat and seeps, ice plant mat, landscape shrubs and groundcovers, grassland, and Monterey cypress trees/tree groves. The area also supports the rocky shoreline and sandy beaches. The coastal bluff scrub is more prevalent in the western portion of the study area (within the Pt. Pinos Coastal Trail Study and Plan area) and the dune sedge meadow only occurs in this area. Grassland only occurs in the eastern portion of the study area. Table 1 lists each community type and where it is located. The distribution of vegetation types between Coral Street and Hopkins Marine Station is depicted on Figures 1-9 in Appendix A. Please refer to the vegetation maps in the Pt. Pinos Coastal Trail Study and Plan for the western portion of the study area.

Table 1. Distribution of Community Types in Shoreline Management Plan Study Area

Community Type	Pt. Pinos Coastal Trail Study and Plan Area	Remainder of Shoreline Management Plan Area
Coastal Bluff Scrub ¹	X	X
Coyote Brush Scrub	X	X
Dune Sedge Meadow ¹	X	
Salt Grass Flat and Seeps ¹	X	X
Ice Plant Mat	X	X
Landscape Shrubs and Groundcovers	X	X
Grassland		X
Monterey Cypress Trees/Groves	X	X
Rocky Shore and Sandy Beaches ¹	X	X

¹ Considered Environmentally Sensitive Habitat Area (ESHA) in City’s Land Use Plan (November 2017)

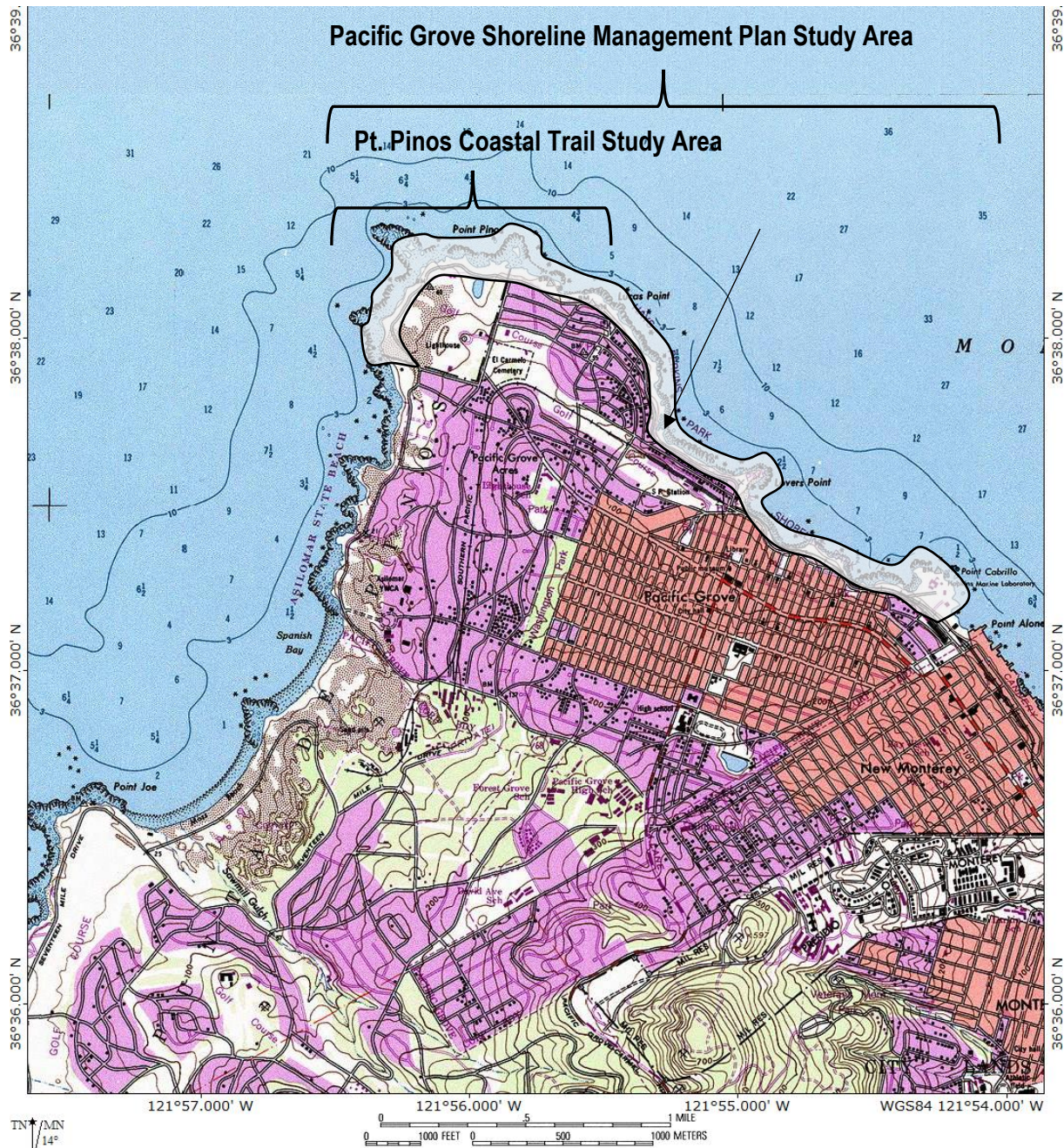


Figure 1. Location of Shoreline Management Plan Study Area on USGS Map (Monterey quadrangle)

3.1 Coastal Bluff Scrub

Coastal bluff scrub occurs on the bluff faces and terraces with often windswept shrubs and salt-spray tolerant herbs (Figure 2). It typically forms a narrow band on the rocky cliff and on inland sandy areas. It is most prevalent in the western portion of the study area, where the study area abuts Asilomar State Beach.

Shrubs commonly observed within the scrub habitat include coastal sagewort (*Artemisia pycnocephalus*), lizard tail (*Eriophyllum staechadifolium*), coyote brush (*Baccharis pilularis*), seaciff buckwheat (*Eriogonum parvifolium*), and mock heather (*Ericameria ericoides*). Sub-shrubs and herbaceous species are numerous and include common yarrow (*Achillea millefolium*), seaside daisy (*Erigeron glaucus*), Gray's locoweed (*Astragalus nuttallii*), yellow sand verbena (*Abronia latifolia*), peach primrose (*Camissoniopsis cheiranthifolia*), salt grass (*Distichlis spicata*), and gumplant (*Grindelia* sp.). A rocky face near Fountain Avenue supports a dense thicket of giant rye (*Elymus condensatus*) with yellow yarrow (*Eriophyllum confertiflorum*). The scrub habitat was also found to support invasive non-native plant species; the most prominent species are ice plant (*Carpobrotus* spp.), mustards (*Brassica* spp. and *Hershfeldia* sp.), New Zealand spinach (*Tetragonia tetragonoides*), and sea rocket (*Cakile maritima*).

Generally, the berries of shrubs and the seeds of herbaceous plants in the coastal scrub habitat provide important 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 may provide nesting habitat for some birds tolerant of the high human traffic in this particular scrub habitat. However, the coastal scrub habitat within this study area is highly fragmented into very small, isolated patches on bluff faces and adjacent to parking lots (restoration sites), which greatly moderates its value to native wildlife. Common wildlife species that may utilize some of the coastal scrub patches within the study area include western fence lizard (*Sceloporus occidentalis*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), and white-crowned sparrow (*Zonotrichia leucophrys*).



Figure 2. Narrow band of coastal dune scrub along rocky edge

3.2 Coyote Brush Scrub

The study area supports patches of coyote brush scrub. This scrub type can be seen along the coastal trail near the Hopkins Marine Station, between 1st and 5th Streets. The scrub is characterized by coyote brush (*Baccharis pilularis*), a native evergreen shrub (Figure 3). Other native species occurring in this habitat type are common yarrow, seaside daisy, California poppy (*Eschscholzia californica*), seaciff buckwheat, poison oak (*Toxicodendron diversilobum*), and mock heather. The scrub also supports several non-native plant species, such as wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), cut-leaved plantain

(*Plantago coronopus*), Himalaya berry (*Rubus armeniacus*), English ivy (*Hedera helix*), and sweet alyssum (*Lobularia maritima*).

As with the coastal bluff scrub habitat described above the small, isolated patches of coyote brush scrub within the study area are of low value to native wildlife. However, this habitat may provide forage or nesting opportunities for birds tolerant of the adjacent high human use such as white-crowned sparrow.



Figure 3. Coyote brush in flower

3.3 Dune Sedge Meadow

In the westernmost portion of the study area, near the Pacific Grove Municipal Golf Course, are patches of dune sedge meadow (Figure 4). These small meadows occur in openings within the coastal bluff scrub, often in low areas that receive more moisture than the surrounding scrub. These meadows are characterized by the presence of the native perennial dune sedge (*Carex pansa*). Other plant species include lizard tail, coastal sagewort, sea rocket, salt grass, locoweed, seaside daisy, and ice plant.

The patches of meadow are small and the use of these areas by wildlife is expected to be similar to the surrounding coastal scrub habitat.



Figure 4. Dune sedge meadow along rocky edge

3.4 Salt Grass Flat and Seeps

Patches of salt grass, a native stoloniferous species, occur in mesic areas along the coastal bluff, mostly in the westernmost portion of the study area (Pt. Pinos Coastal Trail Study and Plan area) (Figure 5). The salt grass forms dense mats. Other herbaceous species include fleshy jaumea (*Jaumea carnosa*), Pacific silver-weed (*Potentilla anserina ssp. pacifica*), and seaside daisy. Where there is moisture near culvert

outlets, such as near 8th Street, other wet-tolerant plant species were observed, including willow (*Salix lasiolepis*), rabbitsfoot grass (*Polypogon monspeliensis*), blue wild rye (*Elymus glaucus*), nutgrass (*Cyperus eragrostis*), curly dock, and seep monkeyflower (*Erythranthe guttata*).

The patches of salt grass habitat within the study area are small and isolated, and the use of these areas by wildlife is expected to be limited to perching for birds, and occasional forage for common species that eat vegetative plant material, such as an occasional brush rabbit.



Figure 5. Salt grass flat along rocky edge

3.5 Ice Plant Mat

Mats of non-native ice plant occur throughout the study area. Ice plant, native to South Africa, is an herbaceous perennial, characterized by its fleshy succulent stems and leaves. Sea fig ice plant (*Carpobrotus edulis*, *C. chilensis*) (native to South Africa) grows amid the coastal bluff scrub in the westernmost portion of the study area (Figure 6) and larger expanses occur from just west of Asilomar Avenue eastward to Esplanade Street. Large expanses of sea fig ice plant also occur in the eastern portion of the study area, from Fountain Avenue to Hopkins Marine Station.

The study area also supports rosy ice plant (*Drosanthemum floribunda*) (Figure 7). This ice plant grows in large areas in the central portion of the study area from Lovers Point westward to Esplanade Street. This ice plant is associated with Perkins Park, which was named after Hayes Perkins, who planted the first pink ice plant along this section of the shoreline in the 1940's.

The ice plant mats support almost a monoculture of ice plant; however, in some areas native plant species are found, such as beach primrose, lizard tail, and seaside daisy. Non-native plant species also occur, such as New Zealand spinach, Bermuda buttercup (*Oxalis pes-caprae*), wild mustard, foxtail (*Hordeum leporinum*) and sea rocket.

The non-native ice plant habitat is of little value to native wildlife. The dense mats do not provide good cover, and the leaves and flowers are not generally used as forage.



Figure 6. Sea fig ice plant mat



Figure 7. Rosy ice plant mat

3.6 Landscape Shrubs and Groundcovers

Portions of the study area support non-native landscape shrubs. A thicket of bottlebrush (*Callistemon* sp.) grows near the picnic area near Asilomar Avenue. Stands of torch aloe (*Aloe arborescens*), a large densely growing succulent shrub, growing to 9 feet tall by an equal spread, supports coral-red flower stalks. Large stands of this shrub occur near Asilomar Avenue, Carmel Avenue, Marine Street, Moss Street, and Shell Avenue. Hayes Perkins reportedly planted torch aloe along the shoreline in the 1940's.

Landscaping was recently installed near 15th Street; several native shrub species were installed, including wild lilac (*Ceanothus* sp.), and manzanita (*Arctostaphylos* sp.). Other landscaped areas occur on in the study area; noticeable species include wax myrtle (*Morella californica*), jade plant (*Crassula argentea*), English ivy (*Hedera helix*), petite butterfly (*Polygala fruticosa*), Pride of Madeira (*Echium candicans*), yellow margarine (*Chrysanthemum* sp.), lavender cotton (*Santolina* sp.), black sage (*Salvia mellifera*), myoporum (*Myoporum* sp.) and hare grass (*Lagurus ovatus*).

The bottle brush thicket, dense aloe stands, and wax myrtle plants within the landscaped area of the study area may provide forage and nesting for common birds such as Anna's hummingbird that can tolerate the high human presence.

3.7 Monterey Cypress Trees and Tree Groves

The study area supports numerous Monterey cypress (*Hesperocyparis macrocarpa*) tree groves (Figure 8). One grove is located near Asilomar Avenue; smaller groves, as well as isolated trees, grow along Ocean View Boulevard from Acropolis Street eastward to Hopkins Marine Station. Large tree groves occur at Lovers Point and the park between Carmel Avenue and 9th Street. The groves support single and multi-trunked individuals. Although Monterey cypress are native to Monterey County, the trees within the study area are located outside the species' native stands; the trees likely became established through plantings or natural colonization from nearby planted individuals. Intermixed with the tree groves are ice plant, yellow sweet clover (*Melilotus indica*), stock (*Matthiola sp.*), cut-leaved plantain, wild oat, salt grass, torch aloe, and English ivy.

The tree groves provide perching, roosting, cover, foraging and nesting opportunities for native wildlife. Because the tree groves lack a natural stratified understory, the habitat does not provide the variety of niches for wildlife usually found in a natural forest habitat. Common wildlife species that may occur in the tree groves include mourning dove (*Zenaida macroura*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), chestnut-backed chickadee (*Poecile rufescens*), and California towhee (*Pipilo crissalis*).



Figure 8. Monterey cypress trees

3.8 Grassland

Irrigated turf/grassland is found at Lovers Point and at Berwick Park. Non-irrigated grassland is scattered elsewhere in the study area, primarily along the trail edges and larger areas near 1st Street and 11th Street. The grassland is dominated by non-native annual grasses, such as ripgut brome, wild radish (*Raphanus sativa*), rattlesnake grass (*Briza maxima*), curly dock (*Rumex crispus*), and foxtail (*Hordeum leporinum*).

The irrigated turf is of low value to most native wildlife, although it may provide forage for some birds such as American robin (*Turdus migratorius*). The patches of non-native grassland are like most of the other habitats described above; they are adjacent to high human uses and occur in small, fragmented patches. Some species, primarily birds, such as California towhee and white-crowned sparrow, may forage on the seasonal seed crops.

3.9 Rocky Shore and Sandy Beaches

The study area supports rocky shore habitat, including tidepools (intertidal and subtidal areas) and small sandy beaches (Figures 9 and 10). The study area is located within the Monterey Bay National Marine Sanctuary, the Pacific Grove Marine Refuge and the Pacific Grove Marine Gardens Fish Refuge. The heterogenous rocky conditions, combined with the nutrient-rich cold water, supports a rich diversity of marine flora and fauna (Tenera Environmental, 2003). This habitat also supports diverse marine bird life

and marine mammal uses such as harbor seal (*Phoca vitulina*) pupping and haul out areas. The larger rocks above high tide and wave spray support roosting birds such as Brandt's cormorant (*Phalacrocorax penicillatus*), non-breeding California brown pelican (*Pelecanus occidentalis californicus*), several gull species, and nesting black oystercatcher (*Haematopus bachmani*). Several shorebird species utilize the rocky inlets and sandy beaches to forage on invertebrates when they are exposed during lower tides.



Figure 9. Rocky shore

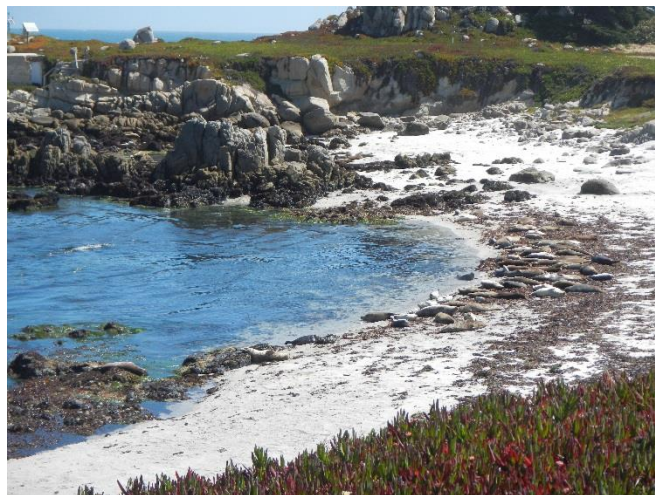


Figure 10. Sandy beach (with seal haul out and pupping)

4.0 Sensitive Biological Resources

4.1 Federal Endangered Species Act (FESA) and Marine Mammal Protection Act

The U. S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NOAA) administer the FESA of 1973 and Title 16 (implementing regulations) of the U.S. Code of Regulations (CFT) 17.1 et seq. USFWS administers the FESA for wildlife and most freshwater aquatic species; NOAA Fisheries administers the FESA for anadromous fish and marine species. FESA designates and provides protection for threatened and endangered plants and animals and their critical habitat. Section 9 of FESA prohibits the “take” of federally listed wildlife species; however, the “incidental take” of federally listed species may be permitted during the course of an otherwise lawful activity through provisions included in Section

7 or Section 10 of the Act. Section 7 of the Act applies to projects where a federal agency is involved by issuing a permit, funding, or conducting the study. Under Section 7, the federal agency involved with the study consults with the USFWS, which authorizes limited incidental take of the affected species in the form of a Biological Opinion letter, with specific terms and conditions to avoid and minimize the effects on the species. Section 10 instruments, such as a Habitat Conservation Plan, may be developed and issued for take of a federally listed species for all non-federal projects (e.g., state and local governments, private owners). Tidestrom's lupine is a federally listed plant species and is known to occur in the westernmost portion of the study area. Smith blue butterfly, a federally-listed species, is not expected to occur in the study area.

The Marine Mammal Protection Act (MMPA) of 1972, as amended in 1994, protects all marine mammals from whales to polar bears to sea otters within the waters of the U.S. As with FESA, the MMPA protects marine mammals from "take" in U.S. waters and by U.S. citizens on the high seas, as well as the importation of marine mammals or their products with certain exceptions. NMFS is responsible for cetaceans, otariids, and phocids. The USFWS is responsible for all other marine mammals. Exceptions to take may be authorized for research, education, recovery, and other waivers granted by the government. Within the study area, the harbor seal is protected by the MMPA.

4.2 California Endangered Species Act

Section 2080 of the California Fish and Game Code prohibits the "take" of species listed under the California Endangered Species Act (CESA) of 1984. Incidental take of state listed species may be authorized by Section 2081 of the Code, after consultation with the California Department of Fish and Wildlife (CDFW), and development of minimization and mitigation measures. Tidestrom's lupine is listed as an endangered species under CESA and is known from the western portion of the study area. There are no state listed wildlife species in the project study area.

4.3 Porter-Cologne Water Quality Control Act

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 will 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. Should there be no Section 404 nexus (i.e., isolated feature not subject to USACE jurisdiction); a report of waste discharge (ROWD) is filed with the RWQCB. The RWQCB interprets waste to include fill placed into water bodies. If actions occur below the Mean High Water Line it be within the RWQCB's jurisdiction, pending confirmation by this agency.

4.4 California Streambed Alteration Agreement

California Department of Fish and Wildlife (CDFW) is a trustee agency that has jurisdiction under Section 1600 et seq. of the CDFW Code. Under Sections 1600-1603 of the California Fish and Game Code, CDFW regulates 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. CDFW also regulates alterations to ponds and impoundments; 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. Under California Fish and Game Codes 1600-1603, modifications to the bed or bank of such a feature are subject to review

and permitting by CDFW. If actions occur below the Mean High Water Line they may be within CDFW's jurisdiction, pending confirmation by this agency.

4.5 CDFW Natural Communities

CDFW recognizes sensitive vegetation communities include: a) areas of special concern to resource agencies, b) areas protected under the California Environmental Quality Act (CEQA), c) areas designated as sensitive natural communities by California Department of Fish and Wildlife (CDFW), d) areas outlined in Section 1600 of the California Fish and Game Code, e) areas regulated under Section 404 of the federal Clean Water Act (CWA), and f) areas protected under local regulations and policies. The CDFW tracks sensitive vegetation communities that are considered rare (CDFG 2010). 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 study area was observed to support one vegetation type with an imperiled status. Dune sedge meadow is ranked S3.

4.6 California Fish and Game Code for Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code list animals that are fully-protected species and may not be taken or possessed at any time. Permits or licenses to take any fully protected species are issued only for very limited types of activities such as research. Section 3503, 3503.5 and 3513 of the Code protect resident, migratory non-game, and birds-of-prey. No fully protected species are known from the study area.

4.7 California State Species of Concern

CDFW has designated certain vertebrate species, subspecies, or distinct population of an animal native to California as Species of Special Concern. CDFW's criteria for this category is that a species satisfies one or more of the following criteria: 1) is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role; 2) is listed as Federally, but not State, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed; 3) is experiencing, or formerly experienced, serious (noncyclical) population declines or range restrictions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; and/or 4) has naturally small populations exhibiting high susceptibility to risk from and factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status (CDFW, 2018. <https://www.wildlife.ca.gov/Conservation.SSC>). No Species of Special Concern are expected in the study area.

4.8 California Oak Woodland Conservation Act

This Act formally recognizes the role of oak woodlands as wildlife habitat, erosion control, and sustaining water quality. The Act encourages voluntary, long-term private stewardship and conservation of oak woodland by landowners and promotes landowners to protect biologically functional oak woodlands. In a related action, effective January 2005, the State amended CEQA with the addition of Public Resources Code 21083.4. This Code requires that counties consider the significance of oak woodland conversions under CEQA and adopt an oak woodland management plan pursuant to the Oak Woodlands Conservation Act that contains measures to minimize impacts to oak woodlands along riparian zones, near wetlands and those that contain snags or other features used by wildlife. If significant impacts are determined under CEQA, mitigation alternatives may include conserving oaks through the use of conservation easements (2:1 ratio, conserved to impacted), restoration of former oak woodland area (2:1 ratio), contribution to the Oak Conservation Fund established under CDFW, or other mitigation measures developed by the Counties. If a planting program is implemented, replanting shall be at a 3:1 ratio (tree replacement) with requirements for

planting maintenance and monitoring for seven years. The study does not support oak woodlands as outlined in this Act.

4.9 Native Plant Protection Act

The Legislature formally recognized the plight of rare and endangered plants in 1977 with the passage of the Native Plant Protection Act (NPPA). The NPPA directs the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. An occurrence of Tidestom's lupine, a State-listed plant, is located in the westernmost portion of the study area.

4.10 Rivers and Harbors Act and Clean Water Act

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 support the salt grass flats 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. If actions occur below the Mean High Water Line they will be within the USACE's jurisdiction, pending confirmation by this agency.

4.11 California Coastal Act

The California Coastal Commission was established by voter initiative in 1972 (Proposition 20) and later made permanent by the Legislature through adoption of the California Coastal Act of 1976. In partnership with coastal cities and counties, The Coastal Commission plans and regulates the use of land and water in the coastal zone. Development activities, which are broadly defined by the Coastal Act to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a coastal permit from either the Coastal Commission or the local government. The coastal zone varies in width from several hundred feet in highly urbanized areas up to five miles in certain rural areas, and offshore the coastal zone includes a three-mile-wide band of ocean. The proposed study is located within the coastal zone and is subject to provisions of the City of Pacific Grove Local Coastal Program and subject to review and permitting by the Coastal Commission. The coastal dune scrub, dune bluff scrub, and dune sedge meadow are considered Environmentally Sensitive Habitats (ESHA) under the Coastal Act. In addition, the small seeps that support the salt grass flats may meet the definition of a wetland, and be considered ESHA, under CCC definitions; however, a formal delineation of coastal review wetlands was not conducted as part of the biological evaluation.

4.12 City of Pacific Grove General Plan and LCP

The study 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. City is currently preparing a Land Use Plan for approval by the Coastal Commission. This report utilizes information from the City's Draft Land Use Plan, dated November 2017.

The study area is located within four planning areas: I, II, III, Area IV-A, and IV-B. Within the coastal zone, 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: coastal bluff, coastal dunes, wetlands and waterways, intertidal and subtidal areas, and rookery areas. For the shoreline management plan study area, ESHA status is expected to pertain to the following community types: coastal bluff scrub, dune sedge meadow, the salt grass flat (potential coastal review wetland), and rocky shore/sandy beaches. 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. The draft LUP (November 2017) has several policies relating to the coastal zone. In addition to protection of ESHA areas (BIO-1, 2, 3, 4, and 5), the LUP has policies to preserve the areas character-defining flora and fauna (BIO-7). Within the study area this includes rosy ice plant, Monterey pine, Monterey cypress, harbor seal and black oystercatcher. Other policies pertain to implementing seal pupping protection measures (BIO-11), encouraging the Hopkins Marine Station to remove exotic plants and restore native bluff vegetation (BIO-12), developing a black oystercatcher management plan (BIO-14), maintaining and enhancing Monterey pine and cypress stands (BIO-16), and regulating removal of native trees, including all Monterey cypress and Monterey pine trees (BIO-17).

The City of Pacific Grove has adopted an ordinance for allowed activities in the marine refuge. Ordinance 14.04 prohibits the collecting of all marine plants and allows up to one handful of non-living plant and animal material (i.e., detached plants, pebbles, flotsam and jetsam) and identifies protection of harbor seal during the pupping season. The ordinance also requires that any scientific collecting permit issued by CDFW be approved by the City Manager. Fishing is allowed within the Fish Refuge, as per CDFW sport fishing license regulations.

The City 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.

4.13 Marine Sanctuary and Refuges

The rocky shore and bay/ocean areas that extend outward from Point Pinos are within the Monterey Bay National Marine Sanctuary, the Pacific Grove Marine Refuge, and the Pacific Grove Marine Gardens Fish Refuge. A portion of the rocky intertidal to the west of Lovers Point is designated as a State Marine Reserve and an area to the east a State Marine Conservation area; signs are posted advising visitors that all collecting within these two areas is prohibited.

A portion of the rocky shore east of Point Pinos to Asilomar Avenue has been designated by the State Water Resources Control Board and the Central Coast Regional Water Quality Control Board as an Area of Significant Biological Significance (ASBS). ASBS's are established in an effort to preserve unique and sensitive marine ecosystems by prohibiting waste discharge. The Pacific Grove ASBS lies within the Monterey Bay Marine Sanctuary and contains the Pacific Grove Marine Conservation Area and Hopkins Marine Reserve. The Pacific Grove ASBS follows guidelines of the California Ocean Plan; the City is covered under a General Exception to the Ocean Plan that governs point and non-point source waste discharge (including municipal storm water discharges) to the ASBS. A Final ASBS Compliance Plan for the City was prepared in September 2016.

Areas southwest of Point Pinos are within the Asilomar State Marine Reserve. The City established the Pacific Grove Marine Refuge in 1952 to recognize the biodiversity of the area and provide for resource conservation. The marine refuge extends from the mean high tide line outward to a depth of 60 feet offshore, a distance of approximately 1,000 feet from the shore. The Pacific Grove Marine Gardens Fish Refuge was established by CDFW in 1963. It covers the same area and provides a means for the State to provide marine resource management and protection. The Asilomar State Marine Reserve extends from Point Pinos south to Point Joe (Pebble Beach) and is managed by CDFW. In addition, the California Coastal National Monument, which was established in 2000, includes within its boundaries all the rocks, small islands, exposed reefs, and pinnacles above water at mean high tide off-shore of Pacific Grove.

These areas are under the jurisdiction of the Bureau of Land Management and serve as habitat for a variety of birds, including species of concern such as the black oystercatcher.

4.14 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 study area are listed in Table 2, based on species recorded for the region by CNDDDB and CNPS. The biological evaluation included a spring/summer season survey for special status plant species.

Seven special status plant species have been recorded from the Point Pinos area based on CNDDDB records; however, only one, Tidestrom’s lupine (*Lupinus tidestomii*) (a state and federally-listed endangered species), has been found within the study area based on recent surveys conducted for the City of Pacific Grove. The closest extant occurrence of other a state or federally-listed species are Menzies wallflower (*Erysimum menziesii* ssp. *menziesii*), Monterey spineflower (*Chorizanthe pungens* var. *pungens*), and beach layia (*Layia carnosa*) from the dunes at the Pacific Grove Golf Course and Asilomar State Beach. Information on species occurrence/potential occurrence in the study area is presented in Table 2.

Table 2. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Pacific Grove Shoreline Management Plan Study Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Monterey Quadrangle			
Hickman’s onion (<i>Allium hickmanii</i>)	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 study area.
Hooker’s manzanita (<i>Arctostaphylos hookeri</i> ssp. <i>hookeri</i>)	List 1B.2 State: None Fed: None	Sandy soils, maritime chaparral/oak woodland mosaic Evergreen shrub	Presidio of Monterey. Not observed or recorded from study area.
Sandmat manzanita (<i>Arctostaphylos pumila</i>)	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 study area.
Coastal dunes milk-vetch (<i>Astragalus tener</i> var. <i>titi</i>)	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 study area.
Johnny nip paintbrush (<i>Castilleja ambigua</i> ssp. <i>insalutata</i>)	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 study area; potential habitat
Monterey spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)	List 1B.2 State: None Fed: T	Sandy soils, maritime chaparral Annual; blooms May – August	Record from near Pt. Pinos, CNDDDB occurrence #4 Not observed within study area; potential habitat; known from Pacific Grove Golf Course and Asilomar SB

Table 2. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Pacific Grove Shoreline Management Plan Study Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Jolon clarkia (<i>Clarkia jolonensis</i>)	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 (<i>Collinsia multicolor</i>)	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 study area.
Seaside birds-beak (<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>)	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 study area.
Hutchinson’s larkspur (<i>Delphinium hutchinsoniae</i>)	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.
Umbrella larkspur (<i>Delphinium umbraculorum</i>)	CNPS: List 1B.3 State: None Federal: None	Broadleaf upland forest, mesic sites on clay	Tassajara Road area Not recorded in study area
Eastwoods goldenbush (<i>Ericameria fasciculata</i>)	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 study area.
Pinnacles buckwheat (<i>Eriogonum nortonii</i>)	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 study area.
Menzies wallflower (<i>Erysimum menziesii</i> ssp. <i>menziesii</i>)	List 1B.1 State: E Fed: E	Sandy soils, coastal dunes Biennial, blooms May - June	Dunes by golf course at Pt. Pinos CNDDB Occurrence #1 Not documented within study area; potential habitat; known from Pacific Grove Golf Course and Asilomar SB
Fragrant fritillary (<i>Fritillaria liliacea</i>)	List 1B.2 State: None Fed: None	Coastal scrub, grasslands near coast Perennial bulb; blooms February - April	Pebble Beach area (1931). Not observed within study area.

Table 2. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Pacific Grove Shoreline Management Plan Study Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Sand gilia (<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>)	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 study area; potential habitat.
Gowen cypress (<i>Hesperocyparis goveniana</i>)	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 study area.
Monterey cypress (<i>Hesperocyparis macrocarpa</i>)	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. Planted specimens in study area; not part of native stand.
Kellogg's horkelia (<i>Horkelia cuneata</i> ssp. <i>sericea</i>)	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 study area.
Beach layia (<i>Layia carnosa</i>)	List 1B.1 State: E Fed: E	Coastal dunes Annual herb; blooms April – June	Sand hills at Pt. Pinos CNDDDB Occurrence #4 (1962) No recent records from study area; potential habitat; known from Asilomar SB
Tidestom's lupine (<i>Lupinus tidestomii</i>)	List 1B.1 State: E Fed: E	Coastal dunes Annual herb; blooms April – May	Dunes at golf course at Pt. Pinos, CNDDDB Occurrence #1 Documented from southern end of study area (2 colonies recorded in 2014); larger colonies known from Pacific Grove Golf Course and Asilomar SB.
Carmel Valley bush- mallow (<i>Malacothamnus palmeri</i> var. <i>involutus</i>)	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 study area.
Santa Lucia bush mallow (<i>Malacothamnus palmeri</i> var. <i>palmeri</i>)	List 1B.2 State: None Fed: None	Chaparral, dry talus slopes Deciduous shrub; blooms May - Oct	Carmel (1985) Not observed within study area
Marsh microseris (<i>Microseris paludosa</i>)	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 study area

Table 2. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Pacific Grove Shoreline Management Plan Study Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Northern curly-leaved monardella (<i>Monardella sinuata</i> ssp. <i>nigrescens</i>)	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 study area
Woodland woollythreads (<i>Monolopia gracilens</i>)	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 study area
Monterey pine (<i>Pinus radiata</i>)	List 1B.1 State: None Fed: None	Closed cone pine forest Evergreen tree	Pt. Lobos State Reserve Not observed within study area
Yadon's rein orchid (<i>Piperia yadonii</i>)	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 study area
Hickman's cinquefoil (<i>Potentilla hickmanii</i>)	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 study area
Pine rose (<i>Rosa pinetorum</i>)	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 study area
Saline clover (<i>Trifolium hydrophilum</i>)	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 study area
Pacific Grove clover (<i>Trifolium polyodon</i>)	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 Not observed within study area
Monterey clover (<i>Trifolium trichocalyx</i>)	List 1B.1 State: E Fed: E	Closed cone pine forest Annual, blooms April - June	Morse Botanical Reserve; Huckleberry Hill Not observed within study area
Surrounding Quadrangles (Marina, Seaside, Soberanes Point, Mt. Carmel)			
Vernal pool bent grass (<i>Agrostis lacuna-vernalis</i>)	List 1B.1 State: None Fed: None	Vernal pools Annual, blooms May - June	Ft. Ord Not expected within study area

Table 2. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Pacific Grove Shoreline Management Plan Study Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Little Sur manzanita (<i>Arctostaphylos edmundsii</i>)	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 (<i>Arctostaphylos montereyensis</i>)	List 1B.2 State: None Fed: None	Sandy soils, maritime chaparral/oak woodland mosaic Evergreen shrub	Monterey Airport; Ft. Ord Not observed within study area.
Pajaro manzanita (<i>Arctostaphylos pajaroensis</i>)	List 1B.1 State: None Fed: None	Sandy soils, maritime chaparral/oak woodland mosaic Evergreen shrub	Prunedale; Ft. Ord Not observed within study area.
Congdon's tarplant (<i>Centromadia parryi</i> ssp. <i>congdonii</i>)	List 1B.1 State: None Fed: None	Moist grasslands, alkaline depressions Annual; blooms July - October	Laguna Seca Area. Not observed within study area.
Hospital Canyon larkspur (<i>Delphinium californicum</i> ssp. <i>interius</i>)	CNPS: List 1B.2 State: None Federal: None	In wet, boggy meadows, openings in chaparral and in canyons.	Carmel Valley Not expected in study area
Sand-loving wallflower (<i>Erysimum ammophilum</i>)	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 study area.
Santa Lucia bedstraw (<i>Galium clementis</i>)	CNPS: List 1B.3 State: None Federal: None	Lower montane coniferous forest, upper montane coniferous forest.	Los Padres NF Not expected in study area
Point Reyes horkelia (<i>Horkelia marinensis</i>)	List 1B.2 State: None Fed: None	Coastal dunes, coastal prairie, coastal scrub. Perennial; blooms April - June	Near Highway 1, Marina Potential within study area.
Contra Costa goldfields (<i>Lasthenia conjugens</i>)	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 study area.
Carmel Valley malacothrix (<i>Malacothrix saxatilis</i> var. <i>arachnoidea</i>)	List 1B.2 State: None Fed: None	Chaparral, rocky areas Deciduous shrub; blooms May - Oct	Carmel Valley Road. Not observed within study area.
Hooked popcorn flower (<i>Plagiobothrys uncinatus</i>)	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 study. Not observed within study area.

Table 2. List of Special Status Plant Species Evaluated for Potential to Occur in the Vicinity of the Pacific Grove Shoreline Management Plan Study Area

Species	Status	Habitat Type Plant Characteristics	Closest Known Occurrence(s) Observed on Site?
Santa Cruz microseris (<i>Stebbinsoseris decipiens</i>)	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 (<i>Trifolium buckwestiorum</i>)	List 1B.1 State: E Fed: E	Moist grassland. Gravelly margins. Annual; blooms April - June	Laguna Seca, Tarpy Flats Not expected within study 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

4.15 Special Status Wildlife Species

Special status wildlife species known from the general study vicinity were evaluated for their potential to occur in the study area. Special status wildlife species include those proposed for listing as threatened or endangered, candidates for listing, and those listed by either the Federal (see Section 4.1), State resource agencies (see Section 4.2), or are designated as fully protected species (see Section 4.6), or identified as State Species of Special Concern (see Section 4.7).

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. Within the project area, harbor seals are protected by the Marine Mammal Protection Act.

Special status wildlife species were evaluated for their potential presence in the study area as described in Table 3 below. The coastal bluff scrub supports sparse occurrences of seacliff buckwheat which can be habitat for the Smith’s blue butterfly, a species federally listed as endangered. (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 south of project corridor 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 study area.

The black legless lizard (*Anniella pulchra nigra*), a State Species of Special Concern, requires 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. As noted above, there are only scattered occurrences of native coastal dune plants within the study area, which do not form a dense vegetative cover necessary for this lizard’s habitat, and these patches of dune habitat are highly fragmented into small areas by existing parking lots, roads, and golf course. Although

the black legless lizard has been found south of Point Pinos in Asilomar State Park, it occurs in much larger expanses of coastal dune habitat with dense native plant cover vegetation. Black legless lizard is not expected to occur at this study area due to lack of suitable habitat.

One other species of local and regional concern, the black oystercatcher (*Haematopus bachmani*) is present year-round and nests on the rocky shoreline areas. Although this shorebird is not currently state or federally listed, the population is being monitored to gather more information on its overall status along the California coast, and its vulnerability to future population declines from both recreational use of coastal areas and climate change induced rising sea levels. Seven pairs of black oystercatchers were documented to nest within the study area in 2016 (as per maps included in the Briefing Paper by Herrick Hanks, California Central Coast Black Oystercatcher Study, March 20, 2017). This shorebird forages on invertebrates along the rocky shoreline, and nests in scrapes they make on the ground on “islets” above the high water mark. They nest March through September along the Central Coast (Herrick Hanks 2017). The black oystercatcher young spend a relatively long time (1-3 months) learning foraging skills from their parents, do not sexually mature until the age of 4 or 5 years, are relatively long-lived (up to 15 years documented), and their monogamous parents vigorously defend their territories from year-to-year. Also, the species is confined to the rocky intertidal, which is a long, linear habitat type. The life history attributes of the oystercatcher make it vulnerable to adjacent human disturbance (e.g., development projects, roads, etc.), as well as loss of required nesting, rearing and foraging habitats from rising sea levels.

Harbor seal rest and pup within some areas of this project corridor. The seals are particularly vulnerable to human disturbance when pupping and weaning their pups, and the seals are protected by the MMPA. The main pupping and weaning site within the project area is located at the sandy beach at the west end of the Hopkins Marine Station, but such sites extend west to the sandy beaches between 5th and 8th Streets.

Table 3. Special Status Wildlife Species and Potential Occurrence in the Vicinity of the Pacific Grove Shoreline Management Plan Study Area.

Species	Status ¹	Habitat	Potential Occurrence On Site
Invertebrates			
Monarch butterfly <i>Danaus plexippus</i>	*	Eucalyptus, acacia and pine trees groves provide winter habitat when they have adequate protection from wind and nearby source of water and nectar	Unlikely, trees present lack wind protection and surrounding areas lack suitable nectar plants.
Smith’s blue butterfly <i>Euphilotes enoptes smithi</i>	FE	Coastal dunes, coastal scrub and sage scrub with host plant of buckwheat present	Habitat patches too small and isolated to support a population of this species.
Fish			
Steelhead <i>Oncorhynchus mykiss</i>	FT, CSC	Perennial creeks and rivers with gravels for spawning.	No suitable habitat on site.
Amphibians			
California tiger salamander <i>Ambystoma californiense</i>	FT, ST	Ponds, vernal pools for breeding, grasslands with burrows for upland habitat	No suitable habitat on site.
California red-legged frog <i>Rana draytonii</i>	FT, CSC	Riparian, marshes, estuaries and ponds with still water at least into June.	No suitable habitat on site.
Reptiles			

Table 3. Special Status Wildlife Species and Potential Occurrence in the Vicinity of the Pacific Grove Shoreline Management Plan Study Area.

Species	Status ¹	Habitat	Potential Occurrence On Site
Western pond turtle <i>Actinemys marmorata</i>	CSC	Creeks and ponds with water of sufficient depth for escape cover, and structure for basking; grasslands or bare areas for nesting.	No suitable habitat on site.
Black legless lizard <i>Anniella pulchra nigra</i>	CSC	Sand dunes with native vegetation	Habitat patches too small and isolated to support a population of this species. None expected on site.
Birds			
Black oystercatcher <i>Haematopus bachmani</i>	**	Rocky intertidal for both foraging and nesting	Known to nest on rocks in rocky shore areas of study area. 7 nesting pairs observed in 2016.
Ashy storm-petrel <i>Oceanodroma homochroa</i>	CSC	Nests in colonies on off-shore islands in crevices under loose rocks or caves	No habitat on site.
California brown pelican <i>Pelecanus occidentalis californicus</i>	FP	Nests on coastal islands, winter coastal visitor along Central coast	May perch on nearshore rocks occasionally, forage in ocean. No nesting known in Monterey County.
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT, CSC	Nests on sandy beach, shores of salt ponds	None, no suitable habitat on site.
Western burrowing owl <i>Athene cunicularia hypugea</i>	CSC	Grasslands with short grass and burrows.	No suitable habitat on site.
Black swift <i>Cypseloides niger</i>	CSC	Nests in small colonies on cliffs behind or adjacent to waterfalls and along sea bluffs	No suitable habitat on this site.
Mammals			
Monterey dusky-footed woodrat <i>Neotoma fuscipes Luciana</i>	CSC	Scrub, forest, and riparian habitats	No suitable habitat on site.
Harbor seal <i>Phoca vitulina</i>	MMPA	Resting on nearshore rocks, pupping and weaning on sandy beaches	Resting areas scattered along project area, pupping beach located at west end of Hopkins

¹Key to status:

FE	=	Federally listed as endangered species	FT	=	Federally listed as threatened species
MMPA	=	Protected by the Marine Mammal Protection Act			
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
**	=	Species of local and regional interest; actively monitored local population to gather additional information on status			

APPENDIX A
VEGETATION COPMMUNITY/HABITAT MAPS

Acropolis Street to Hopkins Marine Station

(please refer to the Pt. Pinos Coastal Trail Study and plan for maps from Asilomar State Beach to Acropolis Street)



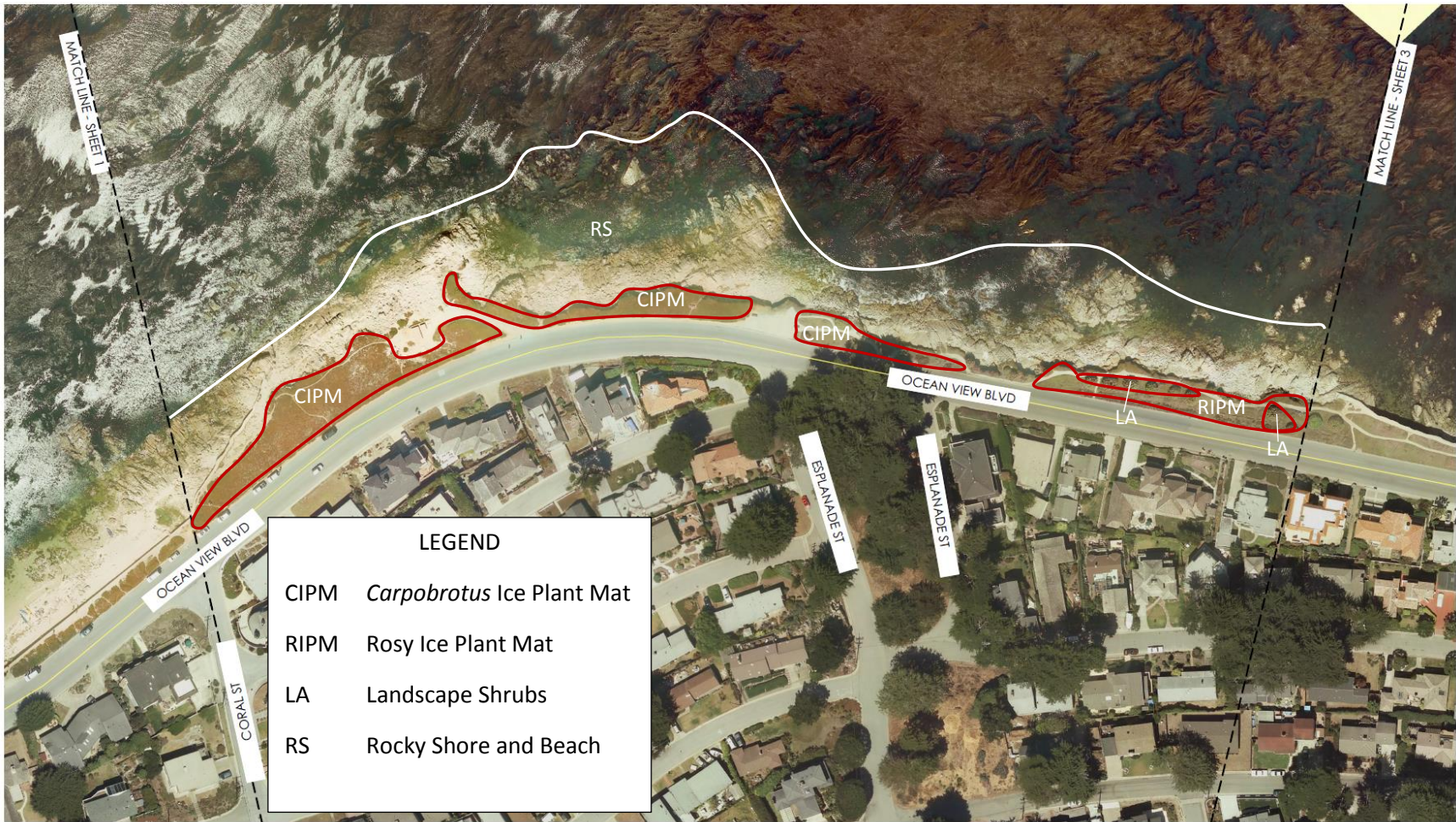
LEGEND	
CIPM	<i>Carpobrotus</i> Ice Plant Mat
MCT	Monterey Cypress Trees
RS	Rocky Shore and Beach

PACIFIC GROVE SHORELINE MANAGEMENT PLAN

CITY OF PACIFIC GROVE, CALIFORNIA



MAY, 2018



PACIFIC GROVE SHORELINE MANAGEMENT PLAN

CITY OF PACIFIC GROVE, CALIFORNIA



MAY, 2018



LEGEND	
RIPM	Rosy Ice Plant Mat
LA	Landscape Shrubs
MCT	Monterey Cypress Trees
RS	Rocky Shore and Beach

PACIFIC GROVE SHORELINE MANAGEMENT PLAN

CITY OF PACIFIC GROVE, CALIFORNIA



MAY, 2018



LEGEND	
RIPM	Rosy Ice Plant Mat
LA	Landscape Shrubs
MCT	Monterey Cypress Trees
RS	Rocky Shore and Beach

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PACIFIC GROVE SHORELINE MANAGEMENT PLAN

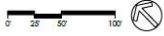
CITY OF PACIFIC GROVE, CALIFORNIA



LEGEND	
CBS	Coastal Bluff Scrub
CIPM	<i>Carpobrotus</i> Ice Plant Mat
LA	Landscape Shrubs
MCT	Monterey Cypress Trees
RS	Rocky Shore and Beach

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CITY OF PACIFIC GROVE, CALIFORNIA



MAY, 2018

LEGEND

CBS	Coyote Brush Scrub	SGS	Salt Grass Flat and Seep
CIPM	<i>Carpobrotus</i> Ice Plant Mat	LA	Landscape Shrubs
G	Grassland	MCT	Monterey Cypress Trees
RS	Rocky Shore and Beach		



PACIFIC GROVE SHORELINE MANAGEMENT PLAN

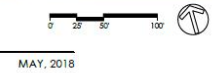
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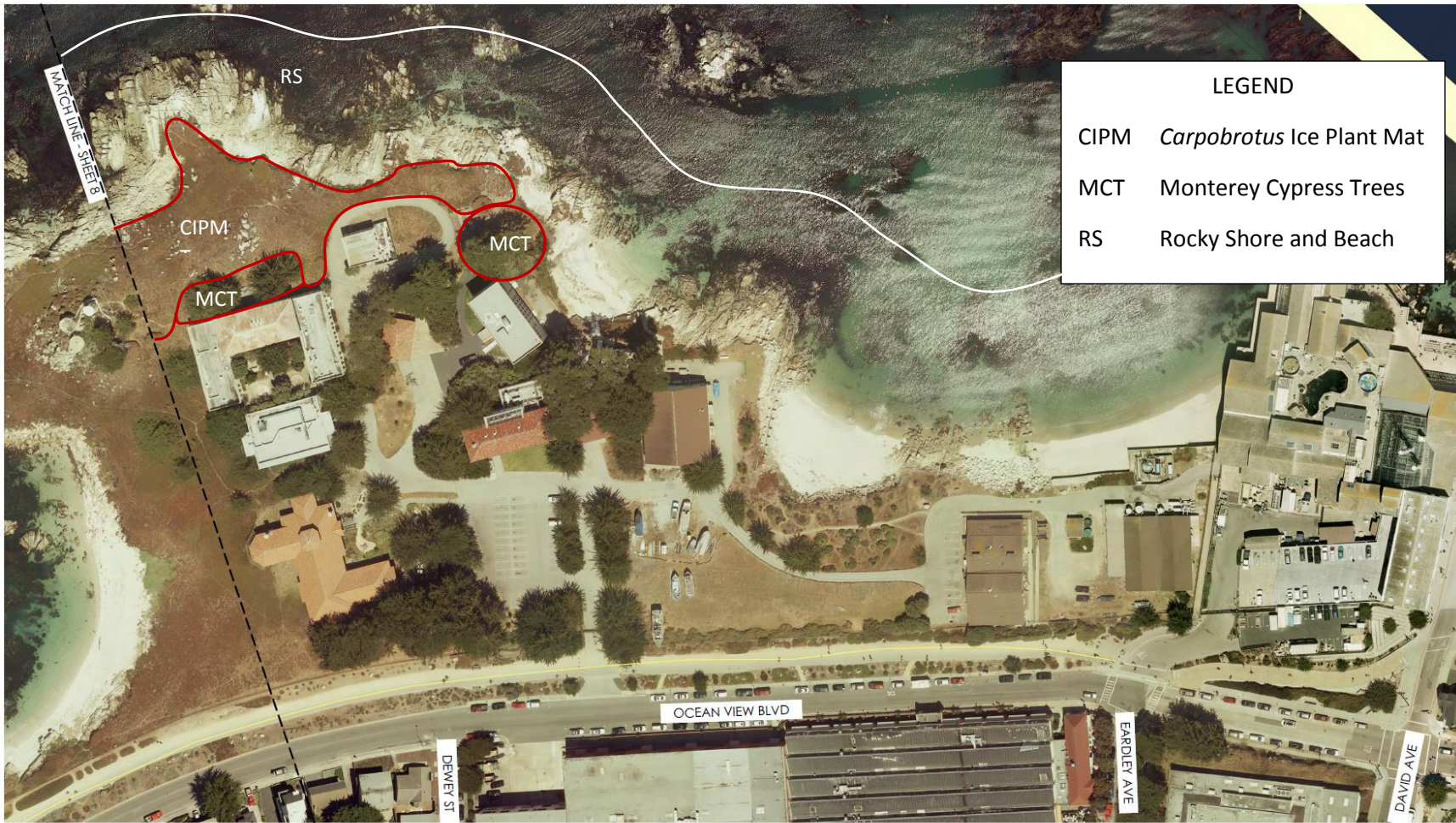
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PACIFIC GROVE SHORELINE MANAGEMENT PLAN

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LEGEND	
CIPM	<i>Carpobrotus</i> Ice Plant Mat
MCT	Monterey Cypress Trees
RS	Rocky Shore and Beach

PACIFIC GROVE SHORELINE MANAGEMENT PLAN

CITY OF PACIFIC GROVE, CALIFORNIA



MAY, 2018