

# 4

## ENVIRONMENTAL AND SCENIC RESOURCES

*The purpose of this chapter is to provide policy guidance to protect, preserve, and enhance Pacifica's natural and scenic resources. Topics covered in this element include hydrology and water quality; biological resources; forest, agricultural, and soil resources; and cultural and historic resources. The protection of environmental resources is a critical subject of regulation at the federal and State levels, and is a focus of the California Coastal Act.*

## 4.1 COASTAL ACT FRAMEWORK

The California Coastal Act provides extensive policies concerning the protection, use, and experience of the natural coastal environment. Policies relevant to this chapter are below. Appendix A contains the full text of each Coastal Act policy.

### Coastal Act Policies

#### *Article 4: Marine Environment*

- **Section 30230** Marine resources; maintenance
- **Section 30231** Biological productivity; waste water
- **Section 30232** Oil and hazardous substance spills
- **Section 30233** Diking, filling or dredging continued movement of sediment and nutrients
- **Section 30234** Commercial fishing and recreational boating facilities
- **Section 30234.5** Economic, commercial, and recreational importance of fishing
- **Section 30235** Construction altering natural shoreline
- **Section 30236** Water supply and flood control

#### *Article 5: Land Resources*

- **Section 30240** Environmentally sensitive habitat areas; adjacent developments
- **Section 30241** Prime agricultural land; maintenance in agricultural production
- **Section 30241.5** Agricultural lands; determination of viability of uses; economic feasibility evaluation
- **Section 30242** Lands suitable for agricultural use; conversion
- **Section 30243** Productivity of soils and timberlands; conversions
- **Section 30244** Archaeological or paleontological resources

#### *Article 6: Development*

- **Section 30251** Scenic and visual qualities
- **Section 30253** Minimization of adverse impacts
- **Section 30254** Public works facilities

For the purpose of this chapter, these policies may be grouped in six areas: protection of water quality; protection of sensitive habitat on land; protection of natural shorelines; maintenance of land and water for resource-based uses including fishing and farming; protection of cultural resources; and protection of scenic qualities. Each of these areas is discussed in the sections that follow.

## 4.2 HYDROLOGY AND WATER QUALITY

Under the Coastal Act, marine resources are to be “maintained, enhanced, and where feasible, restored” (Section 30230). This is to be achieved by controlling the quality of runoff, supporting natural infiltration

and similar means (Section 30231); protecting against oil and gas spills or leaks (Section 30232); and minimizing diking, dredging, or filling of coastal water, including wetlands (Section 30233).

The Coastal Act defines wetlands as “lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens” (Section 30121). Areas where the water table is at, near, or above the land surface at some time during each year may be identified as wetlands.

Pacifica’s water resources are unique and numerous, and they provide important benefits to the city, including wildlife habitat, scenic natural corridors, and flood control. Careful management of urban waterways ensures maintenance of water quality, preservation of ecological functions, and safety of surrounding development. Understanding Pacifica’s surface water and groundwater resources provides a context for policies for hydrology, water quality, and management.

## Surface Water

The City of Pacifica’s Coastal Zone is part of eight watersheds, shown on **Figure 4-1, Hydrology**. Some of the watersheds drain directly into the ocean, while others feed one of five creeks. From north to south, these are Milagra Creek, Sanchez Creek (also known as Sharp Park Creek), Calera Creek, Rockaway Creek, and San Pedro Creek.

### *Milagra Creek*

Milagra Creek drains approximately 460 acres. The drainage area has varied land cover types, including undeveloped portions of the Golden Gate National Recreation Area (GGNRA), and relatively dense residential and commercial development near Highway 1. Milagra Creek has intermittent flow in most years. The lower reaches of Milagra Creek have been altered and the channel hardened in the Coastal Zone reach below Highway 1 to the ocean.

### *Sanchez Creek*

Sanchez Creek watershed, located almost entirely within the City, drains approximately 1,070 acres. Much of it is within the GGNRA, while valley bottoms and flatter portions of the hillsides include residential development, Highway 1, and Sharp Park Golf Course. Sanchez Creek has intermittent flow in most years.

At its mouth within the Coastal Zone, Sanchez Creek flows through Horse Stable Pond and exchanges water with Laguna Salada within the Sharp Park Golf Course. Creek flow is then conveyed through a levee to the ocean via a system of pipes. The discharge point of the pipe(s) is often buried in beach sands and is occasionally excavated to allow for free drainage. During high flows, water from the golf course is pumped over the levee into the ocean. There are also several depressional and formerly estuarine wetlands near the mouth of Sanchez Creek at Horse Stable Pond and Laguna Salada.

### *Calera Creek*

Calera Creek drains approximately 1,600 acres via two forks: a main channel to the north, and a smaller southern fork, referred to as Rockaway Creek. Land use is dominated by residential neighborhoods with some businesses along main roads. The contributing area of Calera Creek is altered along the valley bottom and near the mouth. The City of Pacifica’s wastewater treatment plant is located near the mouth of Calera Creek, west of Highway 1.

The lower reach of Calera Creek, in the Coastal Zone, was part of a significant restoration project implemented in 1997 and 1998, which included excavation of a new stream channel, restoration of 16 acres of wetlands and 12 acres of surrounding uplands. The restoration site receives additional tertiary-treated wastewater from the Calera Creek Water Recycling Plant (CCWRP), adding approximately 3.6 million gallons per day (mgd) to the lower reach. The amount of flow generated by the CCWRP varies with rainfall and usage. The creek is now perennial in the lower reach due to the input from the CCWRP. The creek was likely intermittent in at least some years, and is still intermittent with residual pools above the CCWRP discharge point.

### *Rockaway Creek*

Rockaway Creek is south of Calera Creek in the larger Calera Creek watershed. Rockaway Creek parallels Rockaway Beach Avenue, and flows into the southern end of Rockaway Beach. The upper portions of the watershed are primarily open space, while the valley bottom is comprised of a small residential area, which follows the creek.

### *San Pedro Creek*

San Pedro Creek watershed is the largest in Pacifica, draining approximately 5,300 acres. The watershed extends north to Sweeney Ridge, east to Spring Valley Ridge, and south into the slopes of Montara Mountain. San Pedro Creek has several tributaries extending past the City boundaries. These tributaries include the South Fork, Middle Fork, North Fork, and Brooks/Sanchez Creek.

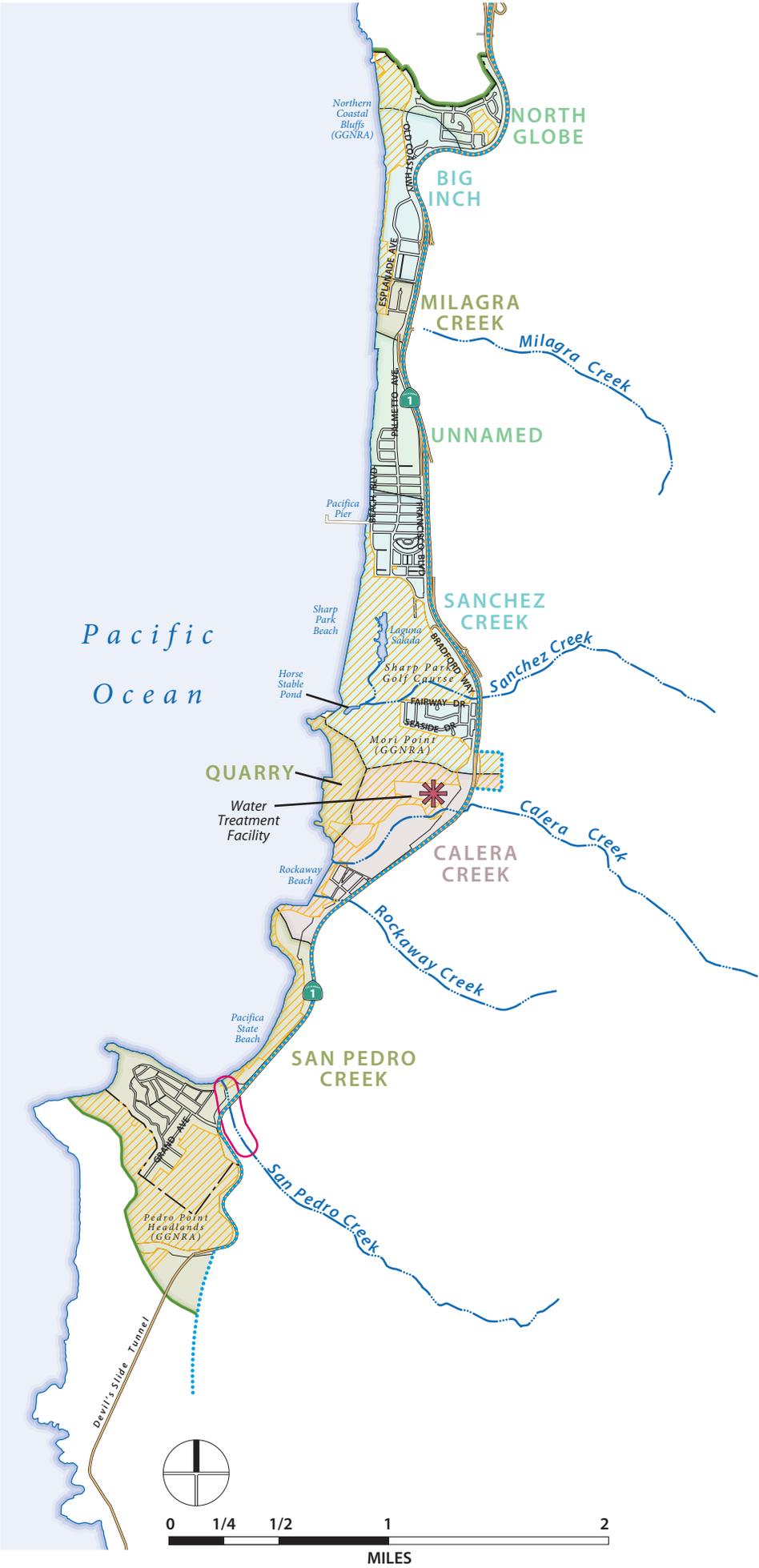
San Pedro Creek supports anadromous steelhead trout, a federally-listed endangered species. This creek also has one of the only functioning estuaries between the Devils Slide area and the Golden Gate Bridge. Wetlands along San Pedro Creek provide habitat for the threatened California red-legged frog.

The upper watershed is largely undeveloped, while the lower portion is highly residential with commercial shopping centers at Park Mall and near Highway 1. Alterations from urban development have resulted in a deep channel with steep banks. Channel downcutting and erosion throughout the reach has threatened roads and structures, as many residential lots back up against the creek. In order to protect the banks, formal and informal bank stabilization techniques have been installed over the years.

The City and partners (including the California Coastal Conservancy, Go Native, the Pacifica Land Trust, the California Department of Fish and Game, the Army Corps of Engineers, and the State Water Resources Control Board) have implemented restoration projects along the creek resulting in reduced flooding of homes and businesses, reduced erosion of Pacifica/Linda Mar State Beach, and the conservation habitat for steelhead trout.

Figure 4-1:  
Hydrology

-  Watersheds
-  Creeks
-  Water Treatment Facility
-  Stream Restoration Projects
-  Protected Open Space
-  Coastal Zone
-  City Limits
-  Planning Area



Source: U.S. Fish & Wildlife Service, National Wetlands Inventory, 2011; FEMA, 2008; ESA, 2009; City of Pacifica, 2008; San Mateo County, 2009; Dyett & Bhatia, 2013.

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## Groundwater

The 700-acre San Pedro Valley Groundwater Basin lies within the City. Alluvial deposits consisting primarily of clays, sands, silts, and some gravels are found throughout the majority of the basin and are the primary water-bearing formation in the Planning Area.<sup>1</sup> These deposits are approximately 150 feet thick or more. Water quality, groundwater level, and groundwater storage data for the basin is minimal. The outflow of water from the aquifer occurs by evapotranspiration and seepage to streams, springs, and the ocean. The water table fluctuates seasonally.

In a 1992 study, groundwater wells in the City were monitored to determine the location of seasonally shallow groundwater. The groundwater was mapped for three depths below the ground surface: less than 1.5 feet; less than 3.0 feet; and less than 6.0 feet. Areas within the Coastal Zone with seasonally shallow groundwater include Pedro Point, Fairway Park, and Sharp Park.

## Seasonal Wetlands and Ponds

Seasonal wetlands occur in smaller drainages and localized depressions, forming ponds or flowing water, and are underlain by saturated soils during the winter and spring. Seasonal wetlands also occur along the banks and sediments that accumulate in creeks. The Coastal Act defines wetlands as “lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.”

Wetlands in Pacifica are found along riparian areas, drainages, along the coast, and as fresh and brackish water marshes (such as on the Sharp Park Golf Course). The National Wetlands Inventory (USFWS, 2005) has identified different types of wetlands within the Planning Area (Cowardin et al., 1979). These are intertidal marine wetlands and emergent, forested, scrub-shrub, and unconsolidated palustrine wetlands.

## Impaired Water Bodies

The federal Clean Water Act requires a Total Maximum Daily Load (TMDL) be established for the pollutants identified as causing the impairment of surface water quality. TMDL refers to the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Generally, TMDL is the sum of the loads of a single pollutant from point and nonpoint sources. In Pacifica’s Coastal Zone, San Pedro Creek is listed as impaired by coliform bacteria

A TMDL for coliform bacteria in San Pedro Creek is to be established by 2019. From 2002 to 2004, San Mateo Countywide Stormwater Pollution Prevention Program (SMCWPPP) collected bioassessment and limited water quality grab samples throughout the San Pedro Creek watershed. The results of the bioassessment generally confirm that the portions of the creek that are higher in the watershed and do not receive as much runoff from developed lands support greater species richness and diversity.

## Stormwater

Pacifica’s storm drainage system consists of a collection system and two pump stations. This drainage system acts to convey drainage to area creeks or the ocean. Overall, the City’s system serves 178 miles of roads and 986 inlets, only a small portion of which is within the Coastal Zone.<sup>2</sup>

<sup>1</sup> Department of Water Resources (DWR), 2004.

<sup>2</sup> San Mateo Countywide Water Pollution Prevention Program. Annual report, 2007-08. August 29, 2008.

## *San Mateo Countywide Water Pollution Prevention Program*

The San Mateo County Water Pollution Prevention Program (SMCWPPP) was established in 1990 with the assistance of the San Mateo County City/County Association of Governments. The primary goal is to reduce pollution carried by stormwater, and to maintain compliance with the San Francisco Bay Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) permit. Participating agencies, including the City of Pacifica, must comply with the NPDES Permit by ensuring that municipal operations, new development and redevelopment, industrial and commercial site controls, and construction site controls mitigate water quality impacts to stormwater runoff during construction and operation phases of projects.

## *Stormwater Management and Site Planning*

New development and redevelopment projects are subject to NPDES Provision C.3, and are grouped into categories based on project type. Depending on their category, projects are required to include stormwater controls, including site design measures, source controls, treatment measures, low impact development, hydromodification management, and construction best management practices (BMPs).

Construction BMPs include scheduling grading and excavation work in dry weather only; installing temporary erosion controls until vegetation is reestablished; effectively managing all run-off within the site and from off-site. Post-construction stormwater treatment measures are required for all projects that create over a certain amount of impervious surface (the current threshold is 5,000 square feet for uncovered parking areas, restaurants, auto service facilities, and gas stations, and 10,000 square feet for other development types.) Stormwater treatment measures that remove pollutants from stormwater during project operations include rain gardens; vegetated swales; and flow-through planters.

## *San Pedro Creek/Linda Mar Storm Drain Treatment/Diversion Project*

In 2004, the City completed the Pacifica State Beach Improvement Project. This project has successfully redirected polluted water from first-flush release into the ocean to two constructed wetland treatment swales, and, together with other elements of the project, improved water quality.

## **Policies**

### *Guiding Policies*

- ER-G-1**      **Water Quality.** Support the improvement of Pacifica’s water quality, including both surface water and groundwater, through Best Management Practices (BMPs) for stormwater management, stream restoration, and riparian habitat restoration.
  
- ER-G-2**      **Watershed Management.** Recognize the interrelated nature of Pacifica’s hydrology system, its watersheds, and development in the Planning Area, and protect water resources through comprehensive management of entire watersheds.
  
- ER-G-3**      **Maintain Creeks as a Resource.** Ensure both access to and ecological functionality of the creek system in Pacifica.
  
- ER-G-4**      **Retain Natural Processes.** Enable natural processes to occur on developed sites, and utilize these processes to enhance the built environment and users’ experiences of it.

*Implementing Policies***CREEKS, WETLANDS, AND COASTAL WATERS**

- ER-I-1** **Creek Protection and Restoration.** Maintain, protect, and restore Pacifica’s creeks, including San Pedro, Calera, Sanchez, and Milagra creeks, as environmental and aesthetic resources. Actions will include, but are not limited to:
- Continuing restoration efforts along San Pedro Creek to improve conditions for steelhead by removing obstacles to fish passage, placing rock weirs to facilitate fish passage, and by monitoring the effectiveness of these projects;
  - Partnering with local organizations, such as the San Pedro Creek Watershed Coalition, Go Native, the Pacifica Land Trust, and others, on restoration efforts;
  - Exploring opportunities to collaborate with other agencies and organizations on stream restoration and riparian habitat restoration along Sanchez and Calera creeks;
  - Enforcing restrictions on the planting of invasive species near creek areas;
  - Identifying and working with property owners to take advantage of unique opportunities where human active use (e.g., through trail development) would enhance creek appreciation without disrupting ecological function;
  - Requiring minimum setbacks from the top of creek banks for development proposed adjacent to creeks, in keeping with City regulations and Best Management Practices.
- ER-I-2** **Improvement of Impaired Waterways.** Strive to increase water quality in San Pedro Creek, an Impaired Waterway that is also habitat for the federally-listed Steelhead Trout, and any other waterway that may be listed as impaired in the future.
- A study is being performed on San Pedro Creek by the San Pedro Creek Watershed Coalition, in which water samples will be analyzed to identify the sources of bacterial pollution.*
- ER-I-3** **Funding for Creek Maintenance.** Require property owners with parcels adjacent to creeks to pay for creek improvement maintenance.
- ER-I-4** **Coastal Protection Projects.** Evaluate coastal protection projects, such as flood protection and beach nourishment for potential impacts to beaches, wetlands and other habitats and impose mitigation to minimize impacts.
- ER-I-5** **Wetlands Preservation.** Prohibit new development in existing wetlands except as allowed under the federal Clean Water Act and the California Coastal Act. Continue to require detailed assessments to delineate wetlands subject to State or federal regulations prior to any proposed development project in an area where wetlands have been potentially identified.
- ER-I-6** **Limitations on Diking, Filling or Dredging.** Only permit the diking, filling, or dredging of open coastal waters, wetlands, and lakes for the following purposes where there is no feasible, less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects:

- New port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
- New boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- Restoration activities;
- Nature study, aquaculture, or similar resource-dependent activities.

**ER-I-7** **Minimize Disruption of Dredging.** Require any proposed dredging and spoils disposal to be planned and carried out in a way that will avoid significant disruption to marine and wildlife habitats.

**ER-I-8** **Maintain Functional Capacity of Wetlands.** Ensure that any diking, filling, or dredging in existing wetlands maintains or enhances their functional capacity.

*Any alteration of coastal wetlands identified by the Department of Fish and Game or as defined by the Coastal Commission shall be limited to very minor incidental public facilities, restorative measures, or nature study.*

**ER-I-9** **Continued Movement of Sediment and Nutrients.** Allow sediment removed from erosion and flood control facilities to be placed at appropriate points on the shoreline, where environmental effects will be minimal.

#### **STORMWATER MANAGEMENT**

**ER-I-10** **Countywide Water Pollution Prevention Program.** Continue to participate in the San Mateo Countywide Water Pollution Prevention Program.

*The Program represents a collaborative effort amongst the County and its municipalities, consisting of five major areas of water pollution prevention and control:*

- *Municipal maintenance activities*
- *Industrial and illicit discharge*
- *Public information and participation*
- *New development and construction controls*
- *Watershed monitoring*

**ER-I-11** **Stormwater Discharge.** Ensure compliance with the Municipal Regional Permit, the Construction General Permit and the Construction Dewatering Permit, which regulate stormwater discharge from new and existing development.

*These permits are established by the National Pollutant Discharge Elimination System (NPDES) and administered by the Regional Water Quality Control Board. They require that new*

*development incorporate Best Management Practices (BMPs) in site design, construction, and management to minimize storm water runoff rates and volumes, control water pollution, and maximize infiltration.*

**ER-I-12** **Protect Water Quality through Best Management Practices.** Continue to require the use of best management practices to reduce water quality impacts from construction and development. Measures include:

- *Site Design and Source Control.* Ensure that all new development incorporates site design and source control BMPs into the project design in order to preserve the infiltration, purification, and retention functions of each site’s natural drainage systems, and to prevent or minimize the runoff of pollutants, sediments, waste, and pathogens from the site.
- *Construction Pollution Control.* Require all construction projects to adopt measures to minimize erosion and runoff of pollutants and sediments from construction-related activities, and to limit activities that result in the disturbance of land or natural vegetation.

Construction projects will be required to use appropriate erosion prevention techniques, sediment control measures, and best management practices in accordance with City specifications and and the San Mateo Countywide Water Pollution Prevention Program.

- *Treatment Control.* Require that new development implement treatment control BMPs (or structural treatment BMPs) where the combination of site design and source control BMPs is not sufficient to protect water quality and comply with applicable water quality permits.

Stormwater treatment systems must meet the numeric sizing criteria established in the NPDES Permit, and must be operated and maintained in compliance with the NPDES Permit.

**ER-I-13** **Infrastructure and Water Quality.** Ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hillside erosion or creek or wetland siltation, and incorporates site design and source control BMPs, construction phase BMPs, and treatment control BMPs to minimize impacts to water quality, in compliance with the NPDES Permit.

**ER-I-14** **Erosion Control.** Manage erosion in the Planning Area, particularly in watershed areas, through on-site erosion control.

*Construction projects will be required to use appropriate erosion prevention techniques, sediment control measures, and best management practices in accordance with City Specifications and General Conditions of Approval and the San Mateo Countywide Water Pollution Prevention Program.*

**ER-I-15** **Minimize Site Disturbance.** In design and construction, require use of best practices that preserve natural resources, such as soil, trees, native plants, and permeable surfaces.

**ER-I-16** **Reduce Impervious Surfaces.** Enable natural drainage by reducing the amount of impervious surfaces on a development site, whenever feasible.

*Techniques that help accomplish this objective:*

- *Designing medium and high density residential projects to share driveways;*
- *Placing parking lots under buildings, whenever feasible; and*
- *Using permeable paving materials on walkways and driveways, whenever possible.*

**ER-I-17** **On-site Stormwater Management.** Continue to require all small projects and detached single-family home projects, as defined under the NPDES Permit, to incorporate site design measures that facilitate groundwater recharge and natural hydrological processes, allowing stormwater to infiltrate the ground on-site and/or be collected for reuse in landscaping and designated to on-site stormwater detention facilities.

*Techniques for on-site stormwater management include use of:*

- *“Rain gardens” or bioretention areas in yards, parks, and parking lots;*
- *Landscaped drainage swales along roadways;*
- *Green roofs;*
- *Permeable pavers for walkways and parking areas;*
- *Rain barrels for harvesting runoff from rooftops;*
- *Tree box filters for on-street filtration;*
- *Parking areas that allow stormwater flow into vegetated areas;*
- *Grading that lengthens flow paths and increases runoff travel time to reduce the peak flow rate; and*
- *Cisterns or sub-surface retention facilities that capture rainwater for use in irrigation and non-potable uses.*

**ER-I-18** **Prevent Contaminated Runoff.** Ensure that new parking lots and commercial development incorporate BMPs designed to prevent or minimize runoff of oil, grease, solvents battery acid, coolant, gasoline, sediments, trash, and other pollutants from the site.

*Runoff from areas serving vehicle traffic, structures, landscaping, loading areas, repair and maintenance bays, fueling areas, vehicle/equipment wash areas, outdoor material storage areas, and waste storage areas should be prevented or minimized.*

**ER-I-19** **Oil and Hazardous Substance Spills.** Provide protection against the spillage of crude oil, gas, petroleum products, or hazardous substances in relation to any development of transportation of such materials.

*For any accidental spills that do occur, the City will require effective containment and cleanup facilities and procedures.*

**WASTEWATER COLLECTION AND TREATMENT**

**ER-I-20 Sanitary Sewer Discharge.** Ensure that discharges of treated wastewater from the Calera Creek Wastewater Recycling Plant continue to comply with the Sanitary Sewer System Permit.

*The City will manage the release of treated wastewater as part of habitat restoration along Calera Creek, and pursue the use of recycled water for irrigation and other uses.*

**4.3 BIOLOGICAL RESOURCES**

The Coastal Act seeks to protect Environmentally Sensitive Habitat Areas (ESHAs) from any significant disruption of their habitat values by providing strict limits on what may be allowed within these areas and ensuring that adjacent development will be compatible with habitat (Section 30240). Marine resources must also be maintained (Section 30230).

Pacifica contains some of the most natural habitat on the San Francisco Peninsula, providing for a wide variety of plant and animal species and natural communities. Some of these species and communities, both plant and animal, have special legal status, having been listed under the federal or state Endangered Species Acts, or having been identified as sensitive in the California Natural Diversity Database. Portions of the Coastal Zone have been noted for high habitat values (providing important resources to plants and wildlife), or their potential to be designated Environmentally Sensitive Habitat Area (ESHA) under the California Coastal Act.

Environmentally Sensitive Habitat Areas are defined by the California Coastal Act 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 are to be protected against any significant disruption of habitat values, and only uses dependent on those resources are to be allowed within those areas. Development in areas adjacent to environmentally sensitive habitat areas must be sited and designed to prevent impacts which would significantly degrade those areas, and be compatible with the continuance of those habitat and recreation areas.

**Plant Communities And Wildlife Habitats**

Plant communities and habitats found in Pacifica are briefly described below and depicted in **Figure 4-2, Vegetation**. The EIR for the General Plan and Local Coastal Land Use Plan Update includes a more detailed description of each of these communities and habitats. Species identified with various plant communities or habitats are not necessarily present in the Planning Area. Some of these communities are recognized as “special status communities,” or provide critical habitat for special status species.

*Annual Grasslands*

Annual grasslands in Pacifica occur most often in a mosaic with coastal scrub and are dominated by non-native annual grass species and a variety of other non-native weeds. The grasslands in Pacifica are of limited and highly disturbed nature, having been damaged through unauthorized vehicle activity that has created off-road trails on hillsides. Grasslands attract reptiles and amphibians, including several lizard species and the western rattlesnake. Annual grasslands are important foraging grounds for bats and other mammals such as coyote, black-tailed deer, jackrabbits, and various rodents. Small rodents attract raptors (birds of prey)

including hawks, owls, and turkey vultures. In urban situations, grassland patches tend to support more disturbance-tolerant animals adapted to impacted environments, such as fox squirrels, skunks, raccoons, rats, and mice.

#### **SPECIAL-STATUS SPECIES IN GRASSLAND HABITATS**

Special-status species<sup>3</sup> that have the potential to occur in grassland habitats around Pacifica include the Mission blue butterfly, San Bruno elfin butterfly, Crystal Springs fountain thistle, Marin western flax, San Mateo thorn-mint, white-rayed pentachaeta, Crystal Springs lessingia, pappose tarplant, and San Francisco owl's clover.<sup>4</sup>

#### *Coastal Bluff Scrub*

Coastal bluff scrub is found along the immediate coast line to the west of Highway 1. It consists of a mosaic of open sand, native low growing shrubs and herbaceous perennials. Native species present include dwarf coyote brush, silver bush lupine, yellow bush lupine, seaside woolly sunflower, bunchgrass, buckhorn plantain, beach evening primrose, beach bur, yellow sand verbena, beach saltbush, and beach morning glory. Other exotic species are Italian ryegrass, bull thistle, and fennel.<sup>5</sup>

#### **SPECIAL-STATUS SPECIES IN COASTAL BLUFF SCRUB HABITAT**

Special-status species that may be found in this habitat around Pacifica are bumblebee scarab beetle, sandy beach tiger beetle, Hickman's cinquefoil, blue coast gilia, coast yellow leptosiphon, coastal marsh milk-vetch, coastal triquetrella, compact cobwebby thistle, Franciscan thistle, Point Reyes horkelia, rose leptosiphon, San Francisco Bay spineflower, and short-leaved evax. Bank swallows, double-crested cormorants, and big free-tailed bats may use cliff sides for nesting.

#### *Northern Coastal Scrub*

Northern coastal scrub habitat is found on undeveloped slopes, often in a mosaic with annual grasslands. Northern maritime chaparral, a special-status community, is included in this category. Northern coastal scrub is dominated by either coyote brush or California sagebrush, depending on slope aspect. North facing slopes support a greater diversity of shrub species and canopy cover than south facing slopes. Coastal scrub habitat, often interspersed with other habitats, provides foraging and nesting habitat for species that are attracted to edges of plant communities. These include various bird species, including hummingbirds; small mammals including skunks, rabbits, gophers, and rodents; larger predators such as fox, coyotes, and bobcat; and small reptiles.<sup>6</sup>

#### **SPECIAL-STATUS SPECIES IN NORTHERN COASTAL SCRUB HABITAT**

Special-status animals that may use northern coastal scrub around Pacifica include merlins, dusky-footed woodrat, Mission blue butterfly, and San Bruno elfin butterflies. Special-status plants with the potential to

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<sup>3</sup> "Special-status" plant and animal species are defined in more detail in the Special-status Species section of this chapter. Briefly, they are:

- Species listed under the Federal Endangered Species Act, Marine Mammal Protection Act, California Endangered Species Act, California Fish and Game Code, and the Native Plant Protection Act as endangered, threatened, or depleted; species that are candidates or proposed for listing; or species that are designated as rare or fully protected
- Locally rare species defined by CEQA Guidelines Sections, which may include species that are designated as sensitive, declining, rare, locally endemic, or as having limited or restricted distribution by various federal, state, and local agencies, organizations, and watch lists.

<sup>4</sup> John Northmore Roberts & Associates et al., 1992; State of California Department of Parks and Recreation, 1990.

<sup>5</sup> State of California Department of Parks and Recreation, 1990; ESA surveys, 2008

<sup>6</sup> John Northmore Roberts & Associates et al., 1992

occur include: Pacific manzanita, Presidio manzanita, San Bruno manzanita, San Francisco lessingia, Choris' popcorn-flower, Davidson's bush-mallow, fragrant fritillary, Kellogg's horkelia, Montara manzanita, Oregon polemonium, pale yellow hayfield tarplant, San Francisco campion, San Francisco collinsia, and San Francisco gumplant.

### *Eucalyptus*

This habitat type is dominated by planted Eucalyptus species, primarily blue-gum eucalyptus. Stands of eucalyptus are dense and form a closed canopy, restricting other native overstory trees to clearings. Eucalyptus trees have allelopathic properties, releasing chemicals into the soil to reduce or inhibit growth of other plants. In addition, they produce extensive leaf and bark litter which further inhibits the growth of understory plants. Eucalyptus trees provide perching, roosting, and nesting sites for larger birds, such as crows, ravens, red-tailed hawks, red-shouldered hawks, and barn owls. The migratory monarch butterfly frequently roosts in eucalyptus trees in the winter.

### *Monterey Cypress*

Small patches of Monterey cypress occur throughout the Planning Area in planted stands surrounded by a mosaic of scrub and grasslands. The largest stand occurs at the north end of the Planning Area. Although the small patches of Monterey cypress found in Pacifica are unlikely to support significant wildlife populations, they complement surrounding habitats by providing nesting and roosting substrates for birds as well as shelter for other animals.

### *Riparian Mixed Hardwood*

Areas with riparian mixed hardwood habitat occur along San Pedro Creek, Rockaway Creek, Calera Creek, and Laguna Salada. Native trees that are found include red alder, various willow species, and creek dogwood. Riparian areas also host native herbs and emergent vegetation, as well as various nonnative ivies, grasses, blackberry, and other plants.<sup>7</sup> Riparian areas provide foraging ground for birds and small mammals, and habitat for small reptiles and amphibians.

#### **SPECIAL-STATUS SPECIES IN RIPARIAN MIXED HARDWOOD HABITAT**

Special-status wildlife that could be present in the riparian corridor includes tricolored blackbirds, raptors such as Cooper's hawk, sharp-shinned hawk, and great blue heron.

### *Seasonal Wetlands and Ponds*

Seasonal wetlands occur in smaller drainages and localized depressions, forming ponds or flowing water, and are underlain by saturated soils during the winter and spring. Seasonal wetlands also occur along the banks and sediments that accumulate in creeks. Wetlands in Pacifica are found along riparian areas, drainages, along the coast, and as fresh and brackish water marshes (such as on the Sharp Park Golf Course). Vegetation and wildlife found in wetlands varies with water characteristics, inundation patterns, surrounding habitat, and level of disturbance.

#### **SPECIAL-STATUS SPECIES IN SEASONAL WETLANDS AND PONDS**

The California red-legged frog, San Francisco garter snake, Leech's skyline diving beetle, San Francisco forktail damselfly, Tomales isopod, western pond turtle, and bristly sedge are special-status species that may be found in wetlands around Pacifica. The wetlands in Sharp Park are also known to support saltmarsh

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<sup>7</sup> San Pedro Creek Watershed Coalition, 2005

common yellowthroat. Seasonal wetlands and ponds at Mori Point and Sharp Park Golf Course support the California red-legged frog as well as the San Francisco garter snake.

## Streams

Streams are important habitat features in Pacifica as they can function as movement corridors as well as providing protective cover. Wildlife species that are associated with stream habitat include river otters, great blue heron, snowy egret, belted kingfisher, dark-eyed junco, and black phoebe. Black-tailed deer, raccoon, opossum, and grey fox may use the creeks as movement corridors. Fish species present include the prickly sculpin, the Pacific lamprey, and the threespine stickleback.

### **SPECIAL-STATUS SPECIES IN STREAMS**

The federally threatened steelhead trout use parts of San Pedro Creek for spawning, including the main portion parallel to Linda Mar Boulevard, as well as the middle and south forks in San Pedro County Park.<sup>8</sup> This is the only stream with a steelhead population between the Golden Gate Bridge and Half Moon Bay. Lower Calera Creek on the Quarry site supports the federally-threatened California red-legged frog and the Endangered San Francisco garter snake.

## *Beach/Intertidal*

Significant expanses of continuous sandy shoreline occur along the San Mateo coastline, including in Pacifica. Beaches are dynamic systems that change with wind and waves; generally, sand is eroded from beaches in the winter and re-deposited in the summer, resulting in annual changes in beach slope and width.

Beach habitats can be divided into upper tidal, intertidal, and subtidal. The upper tidal beach fauna consists of sand crabs, California beach flea, amphipods, polychaete worms, flies, and isopods that feed on detritus; these species in turn are fed on by a variety of birds. The by-the-wind sailor, a jellyfish-like colony of organisms, frequently washes up on the upper beach areas. Exposed rocks or cobble, especially at the lower intertidal areas, can have attached algae, mussels, and barnacles. Intertidal areas are home to the Pacific egg cockle and spiny mole crab. The Subtidal zone is primarily inhabited by fish such as surf perch, striped bass, salmon, anchovies, sanddabs, California halibut, and the starry flounder.<sup>9</sup>

### **SPECIAL-STATUS SPECIES IN BEACH/INTERTIDAL HABITAT**

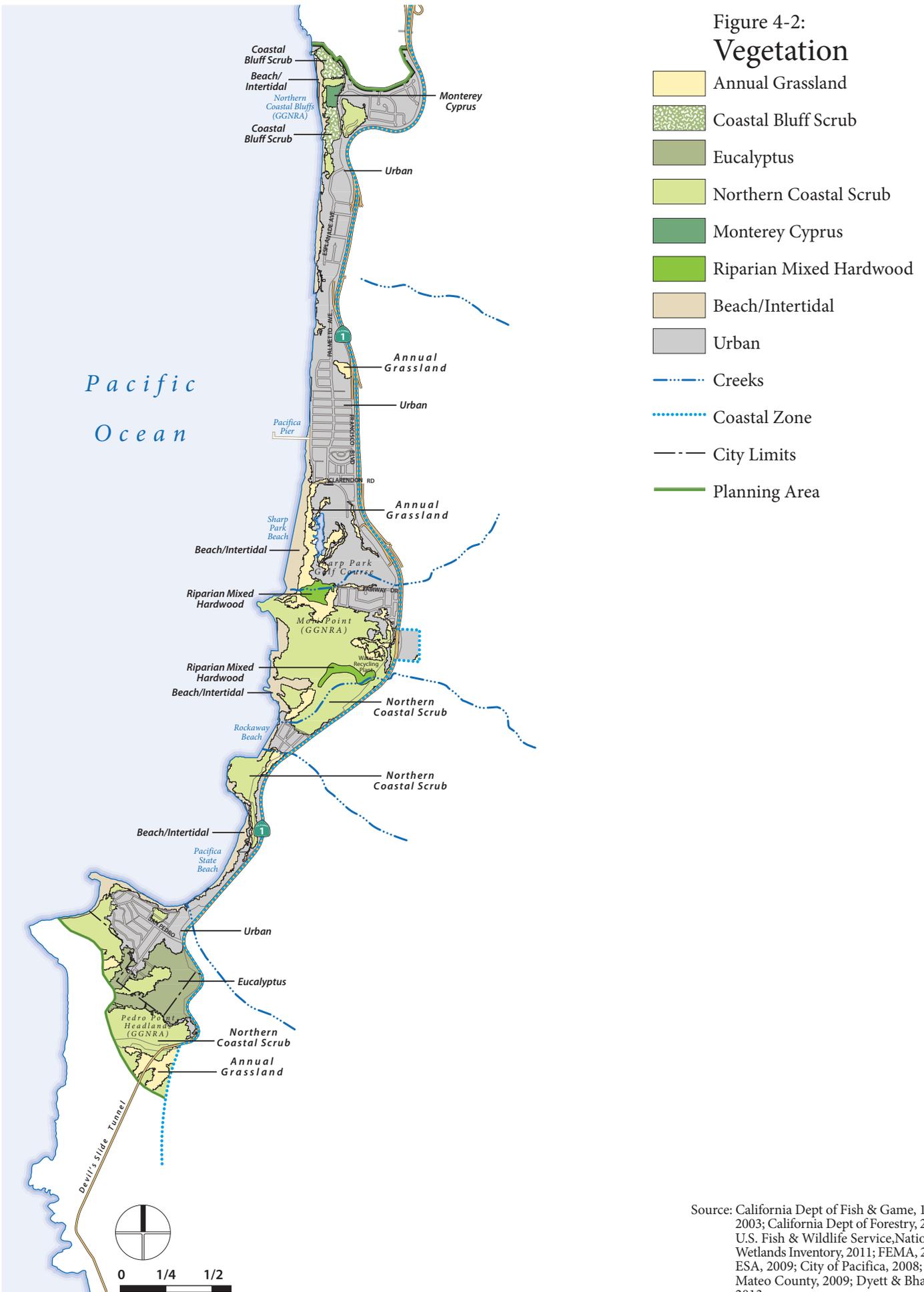
Some special-status species may be found in the shallow waters off of Pacifica. Harbor seals and sea lions haul out on isolated beaches and sands spits. The endangered black abalone may be present in intertidal areas attached to rocks. The threatened green sturgeon may also forage in the shallow waters off of Pacifica. Both the gray whale and southern sea otter use the nearshore waters, and the California brown pelican is also frequently observed.

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<sup>8</sup> San Pedro Creek Watershed Coalition, 2005

<sup>9</sup> BLM, 1981; State of California Department of Parks and Recreation, 1990

Figure 4-2:  
Vegetation



Source: California Dept of Fish & Game, 1988, 2003; California Dept of Forestry, 2005; U.S. Fish & Wildlife Service, National Wetlands Inventory, 2011; FEMA, 2008; ESA, 2009; City of Pacifica, 2008; San Mateo County, 2009; Dyett & Bhatia, 2013.

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## Potential Environmentally Sensitive Habitat Areas (ESHAs)

Figure 4-3 identifies potential ESHAs in the Planning Area. Potential ESHAs include all designated critical habitat for Endangered or Threatened Species; special status communities<sup>10</sup>; areas designated as “other potential Environmentally Sensitive Habitat Areas;” and areas identified as “High Value/Further Analysis Needed Prior to Development” within the Coastal Zone.

### *Critical Habitat*

Critical habitat areas are for species listed under the Federal Endangered Species Act. These areas contain features that are essential for the conservation of the species and may require special management and protection.

Critical habitat for the California red-legged frog has been designated in the southeast portion of the City of Pacifica, outside the Coastal Zone. A final ruling was issued in March 2010 to expand the current critical habitat from 450,288 acres to 1,804,865 acres statewide, including additional parts of the Planning Area, including on Pedro Point Headlands in the Coastal Zone (see Figure 4-3, Sensitive and Critical Habitat).

San Pedro Creek is known to support steelhead trout, a federally listed threatened species. However, conditions in parts of the creek limit its suitability for steelhead habitat, including barriers to fish passage at main stem road crossings, low base flows, mobilization and accumulation of fine sediments in the main stem, deterioration of water quality, disturbance, and exploitation.

Nearshore marine areas off of Pacifica are part of the Green Sturgeon Critical Habitat. The National Oceanic and Atmospheric Administration found that this, which includes Pacifica’s shoreline, is of high conservation value.

### *Special-Status Communities*

An area of coastal bluff scrub has been identified at the north end of Pacifica. Coastal bluff scrub communities are found on steep, exposed bluffs along the ocean and are dominated by low shrubs and ground-hugging herbaceous species. It is particularly important for stabilizing sand dunes. Both bluff and northern coastal scrub habitat has been damaged by unauthorized vehicle activity and pedestrian use.

### *Other Potential ESHA*

Areas around Mori Point and Sharp Park Golf Course are likely to qualify as an Environmentally Sensitive Habitat Area. Any proposed development on land designated on the Sensitive and Critical Habitat map (Figure 4-3) as having potential to include an Environmentally Sensitive Habitat Area requires a site-specific evaluation by qualified biologists. The site evaluation will determine the precise location and extent of sensitive resources, if any, and establish appropriate development setbacks and standards to ensure that resources are protected.

## High Habitat Value Areas Requiring Further Analysis

“High Value/Further Analysis Needed Prior to Development” areas are those occupied by special-status species or containing sensitive natural communities, but sufficiently dispersed to accommodate some degree of impact if, in project-specific environmental documents, sufficient mitigation measures are applied. This

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<sup>10</sup> A “special-status natural community” is a natural habitat community that is unique in its constituent components, restricted in distribution, supported by distinctive soil conditions, considered locally rare, potentially supporting special-status plant or wildlife species, and/or that receives regulatory recognition from municipal, county, state, and/or federal entities such as the California Natural Diversity Database (CNDDB).

category applies to most undeveloped land that isn't otherwise categorized above, including land on Pedro Point and Rockaway Headlands in the Coastal Zone.

### **Special-Status Species**

Several species known to occur in the vicinity of the Planning Area are accorded “special-status” because of their recognized rarity or vulnerability to various causes of habitat loss or population decline. Some of these receive specific protections defined in federal or state endangered species legislation. Others have been designated as “sensitive” by state resource agencies or organizations with acknowledged expertise. For purposes of this Local Coastal Land Use Plan, special-status species include:

- Plant and animal species designated as rare, threatened or endangered under the federal or state endangered species acts (ESA);
- Species that are candidates for listing under either federal or state law;
- Species designated by the USFWS as species of concern or species of local concern, or by CDFG as species of special concern;
- Species protected by the federal Migratory Bird Treaty Act (16 U.S.C. 703-711);
- Bald and golden eagles protected by the federal Bald Eagle Protection Act (16 U.S.C. 668); and
- Species such as candidate species and CNPS List 1 and 2 species that may be considered rare or endangered pursuant to Section 15380(b) of the CEQA Guidelines.

Of particular interest are the Mission Blue Butterfly and the San Francisco garter snake, federally listed as Endangered; the California red-legged frog and the Central California Coast Steelhead trout, federally listed as Threatened; the Western snowy plover, which is federally listed as Threatened and a California Species of Special Concern; and Myrtle's Silverspot big free-tailed bat, a California Species of Special Concern. A comprehensive list of species that are either known or presumed to be in the Planning Area based on suitable habitat is in the EIR.

#### **SPECIAL-STATUS WILDLIFE SPECIES**

In addition to these species, additional migratory birds, raptors, and common bat species are subject to general protections provided by state and federal regulations.

#### **SPECIAL-STATUS PLANT SPECIES**

The large number of special-status plants and the severity of their population declines are reflective of the degree of habitat loss that has occurred throughout the San Francisco Peninsula. Outside of San Bruno Mountain, Pacifica encompasses the northernmost natural habitat on the peninsula. Due to extensive coastal development throughout neighboring counties, beach and bluff species have also become rare.

Of the special-status plant species listed in the EIR, 38 special-status plants have the potential to occur within the Planning Area. These species have been recorded in the vicinity and/or may be present in suitable habitat on site.

Certain trees within the city limits are also protected, including heritage trees and street trees. Heritage trees are any trees in the city that have a trunk with a circumference of 50 inches or more, at 24 inches above grade, excluding eucalyptus. The City Council may also designate any tree or grove of trees with historical, environmental, or aesthetic value as Heritage Trees. These require special permits for removal, substantial trimming, or construction within its drip-line; in some cases, a Tree Protection Plan prepared by a qualified arborist, landscape architect, or horticulturalist may be required prior to project approval.

Figure 4-3:  
Sensitive and  
Critical Habitat

**Environmentally Sensitive  
Habitat Areas ESHA**

**Special Status Communities**

 Coastal Bluff Scrub (High Value/  
Further Analysis Needed Prior  
to Development

**Critical Habitat**

 Steelhead

 California Red-Legged Frog

**Potential ESHA**

**Other Sensitive Areas**

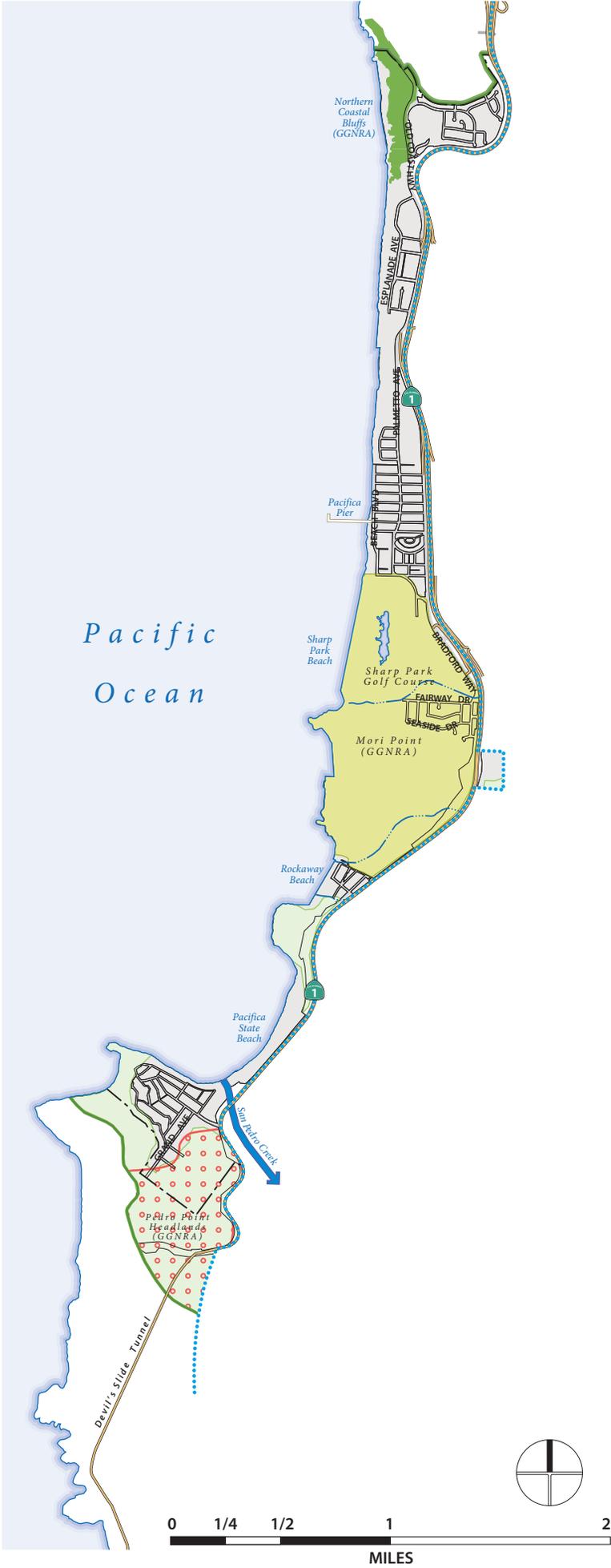
 Potential Environmentally  
Sensitive Habitat Areas

 High Value/Further Analysis  
Needed Prior to Development

 Coastal Zone

 City Limits

 Planning Area



SOURCE: U.S. Fish & Wildlife Service 2010; National Marine Fisheries Service, 2005; National Park Service, 2005; California Dept of Forestry, 2005; California Natural Diversity Database, 2009; California Native Plant Society, 2008; California Dept of Fish & Game, 2008; FEMA, 2008; ESA, 2009; City of Pacifica, 2008; San Mateo County, 2009; Dyett & Bhatia, 2013.

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## Policies

### Guiding Policies

**ER-G-5 Wildlife and Critical Habitat.** Conserve and protect indigenous threatened, endangered, and other special status species by preserving critical habitat .

*Habitat can be protected by allowing very limited or no development, by identifying habitat areas as top priorities for permanent conservation, and by managing public land to ensure species protection. Critical Habitat in the Coastal Zone is considered Environmentally Sensitive Habitat Area (ESHA).*

**ER-G-6 Coastal Environment and Special Status Communities.** Conserve and protect beaches, sand dunes, coastal bluffs, and special status communities, particularly the Coastal bluff scrub on the northern bluffs.

*Special status communities in the Coastal Zone are considered Environmentally Sensitive Habitat Area (ESHA).*

**ER-G-7 Creeks and Riparian Areas as Habitat.** Protect year-round creeks and their riparian habitats.

*San Pedro Creek has been designated an “impaired waterway” by the Regional Water Quality Control Board and provides critical habitat to a federally-listed threatened species, the California coast population of steelhead.*

**ER-G-8 Other Environmentally Sensitive Areas.** Protect other potential Environmentally Sensitive Habitat Areas (ESHAs), High Value or High Habitat Value areas, and Wildlife Movement Corridors from development that would significantly disrupt habitat values.

**ER-G-9 Open Space Conservation.** Protect beaches, oceanfront bluffs, ridgelines, hillside areas adjacent to existing open space, and areas that support critical wildlife habitat and special status species.

### Implementing Policies

**ER-I-21 Protection of Biological Resources with New Development.** Protect sensitive habitat areas and special-status species through implementation of the following measures:

- 1) The City shall avoid development and/or buildout in critical habitat of special status species.
- 2) Pre-construction plant and wildlife surveys: Project applicants shall engage a qualified biologist to conduct presence/absence biological surveys for sensitive plant and wildlife species prior to construction adjacent to or within identified special status communities and other sensitive areas identified in Figure 7-3 of the proposed General Plan. If special status species are identified, the qualified biologist shall consult with the California Department of Fish and Wildlife (CDFW) and establish no-disturbance buffers around avian nests, bat roosts, and sensitive plants to avoid

disturbance and direct impacts to these resources during construction. If no special status species are detected during surveys, then construction-related activities may proceed. Nesting birds, in particular, are protected by two means; they receive protection under the Migratory Bird Treaty Act, and nesting raptors (in the order Falconiformes or Strigiformes) are protected under the State Fish and Game Code, §3503.5.

- 3) Require biological resource assessments be conducted prior to approval for any development within 300 feet of creeks, wetlands, or other sensitive habitat areas shown on Figure 7-3 of the proposed General Plan.
- 4) Require on-site monitoring of biological resources by a qualified biologist throughout the duration of construction activity.
- 5) Require compensatory mitigation by means of habitat preservation, restoration, and enhancement; for the loss of any critical habitat and/or special status communities.

*The City will coordinate with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, and Regional Water Quality Control Board in providing developers with the best guidance to avoid impacts to special status species and habitat areas including creeks, wetland features, woodlands, or other sensitive natural features.*

**ER-I-22**      **Protection of Environmentally Sensitive Habitat Area (ESHA).** Update zoning regulations to protect all sensitive species with defined or potential habitat by establishing specific habitat survey requirements, development limitations, and other requirements to mitigate potential impacts.

**ER-I-23**      **Verification of ESHA.** Prior to any proposed development in an ESHA or potential ESHA, require that a habitat survey be conducted by a qualified botanist or biologist. The habitat survey will verify whether the site is an ESHA, and document the extent of the sensitive resources, document potential negative impacts to the habitat, and recommend appropriate mitigation measures. Verification of an ESHA shall be based on the following considerations:

- Presence of natural communities identified as rare by the California Department of Fish and Wildlife (determined by a state rarity ranking of S1 to S3).
- Recorded or potential presence of plant or animal species designated as rare, threatened or endangered under State or federal law.
- Recorded or potential presence of plant or animal species for which there is compelling evidence or rarity, such as a designation of 1B (rare or endangered in California or elsewhere) or 2 (rare, threatened, or endangered in California, but more common elsewhere) by the California Native Plant Society.
- Presence of coastal waterways.
- Integrity of the habitat and its connectivity to other natural areas.

**ER-I-24**      **Management of ESHA.** If the area qualifies as an ESHA under the California Coastal Act, the following regulations apply:

- No new development shall be allowed within primary habitat areas with the exception of resource-dependent uses that can be demonstrated to have no significant adverse impact.
- Buffer areas shall be established around all sensitive resources, providing a minimum of 100 feet, and varying as needed to account for feeding, breeding, nesting, and other habitat requirements. New buildings in buffer areas shall be allowed only if there are no other feasible development areas on the parcel.
- Development shall be sited and designed to prevent impacts that would degrade adjacent habitat areas, taking into account drainage, vegetation, topography, and other considerations.
- Alteration of landforms, removal of vegetation, impervious surfaces, noise, light, and glare shall be minimized.

**ER-I-25** **Fencing.** Any fencing or barriers located within riparian ESHAs or wildlife corridors shall permit the free passage of wildlife.

**ER-I-26** **Fuel Modification.** Ensure that new development is sited and designed to minimize the need for fuel modification and vegetation clearance in order to avoid or minimize the disturbance or destruction of habitat and existing hydrology while still providing for fire safety as necessitated by the North County Fire Authority's Vegetation Management Program. Prohibit new development that would require fuel modification within ESHAs.

**ER-I-27** **Monitoring Requirements.** Require a Restoration and Monitoring Proposal for any proposed habitat restoration or mitigation. The Proposal should describe the methods and practices to be employed, and include:

- A clear statement of the goals of the restoration or mitigation for all habitat types;
- Sampling of reference habitat, with reporting of resultant data;
- Designation of a qualified biologist as the Restoration or Mitigation Manager responsible for all phases of the restoration;
- A specific grading plan, if the topography must be altered;
- A specific erosion control plan, if soil or other substrate will be disturbed during restoration;
- A weed eradication plan designed to eradicate existing weeds and control future invasion by exotic species;
- A planting plan based on the natural habitat type;
- An irrigation plan that describes the method and timing of watering and ensures removal of watering infrastructure by the end of the monitoring period;
- An interim monitoring plan with performance goals, assessment methods, and a schedule; and
- A final monitoring plan to determine whether the restoration has been successful.

**ER-I-28**      **Construction during Nesting Season.** If site work or construction occurs during the nesting season (February 1 through August 31), then pre-construction breeding bird surveys shall be performed by a qualified wildlife biologist prior to any site disturbance to ensure that no nests will be disturbed or destroyed during Project implementation. If an active nest is found sufficiently close to work areas to be disturbed by construction activities, then the biologist shall create a no-disturbance buffer of 250 feet around passerine nests and a 500 foot buffer around raptor nests. Work-free buffer zones shall be maintained until after the breeding season or until after the qualified biologist determines the young have fledged (usually late June through mid-July).

*Nests initiated during construction activities would be presumed to be unaffected by the activity, and a buffer zone around such nests is not necessary. However, nests shall be flagged and construction activity shall avoid killing and/or injuring nesting birds.*

**ER-I-29**      **Pre-Construction Bat Surveys.** Pre-construction surveys for special-status and non-listed bat species will be performed by a qualified biologist if large trees (>4 ft. diameter at breast height) are to be removed or underutilized or vacant buildings are to be demolished. A no-disturbance buffer of 100 feet shall be created around active bat roosts being used for maternity or hibernation purposes.

**ER-I-30**      **Protection of the Californian Red-Legged Frog and San Francisco Garter Snake during Construction.** To minimize disturbance, require all grading activity within 100 feet of aquatic habitat shall be conducted during the dry season (May 1 and October 15) to protect California red-legged frog and San Francisco garter snake. A qualified biologist shall conduct presence/absence surveys for California red-legged frog and San Francisco garter snake prior to construction in or adjacent to riparian areas, grasslands near ponds/wetlands, or other sensitive habitat. Any individuals identified shall be treated in consultation with USFWS. Construction shall follow accepted procedures for exclusion and avoidance of California red-legged frog and San Francisco garter snake and their habitat. Additionally, the biologist shall supervise the installation of exclusion fencing along the boundaries of the work area, shall conduct environmental awareness training for construction workers, and shall be present during initial vegetation clearing and ground-disturbing activities.

**ER-I-31**      **Invasive Plant Species.** Prohibit the use of invasive plant species, such as pampas grass, adjacent to wetlands, riparian areas, ESHAs, or other sensitive habitat.

*A list of invasive species should be developed in coordination with Sustainable San Mateo County.*

**ER-I-32**      **Beach Grooming.** Work with the State of California, GGNRA, and other partners in the management of beaches in Pacifica to ensure biological resources are adversely affected by beach grooming. Specifically, protect beach wrack (the piles of plant and animal debris that wash ashore), which plays an important role in the beach ecosystem.

**ER-I-33**      **Biological Productivity.** Maintain—and where feasible, restore—the biological productivity and the quality of coastal waters, streams, wetlands, and lakes in order to maintain optimum populations of marine organisms and to protect human health.

*Techniques may include:*

- *Minimizing adverse effects of wastewater discharge;*
- *Controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow;*
- *Encouraging wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats; and*
- *Minimizing alteration of natural streams.*

**ER-I-34** **Regulations and Incentives to Preserve Habitat.** Ensure that sensitive or critical habitat is protected, maintained, enhanced, or restored.

*Possible techniques include:*

- *Zoning for very low density and clustered development where appropriate;*
- *Requiring the preparation of a habitat survey in certain areas ; and*
- *Identifying appropriate “sending sites” in the City’s Transfer of Development Rights program.*

**ER-I-35** **Protection through Land Acquisition or Conservation Easements.** Explore opportunities for public acquisition of land or conservation easements on parcels not currently designated for Conservation that have significant habitat value.

**ER-I-36** **Public Land Management.** Coordinate with GGNRA, State and County Parks, and the City and County of San Francisco to ensure that public open space lands are managed to optimize habitat protection for special status species while also providing for public access and other goals.

*Key issues include maintaining viable habitat for the Mission Blue butterfly on Milagra and Sweeney ridges; for the California red-legged frog and San Francisco garter snake populations associated with Mori Point and Laguna Salada; and supporting migrating Western snowy plover at Pacifica State Beach.*

**ER-I-37** **Management of Public Coastal Access.** Ensure regular public access, determining locations on a site-specific basis by considering:

- The capacity of the access way to sustain use;
- The intensity of access that can be sustained;
- The fragility of the natural resources in the accessing, and
- The proximity of the access to adjacent residential uses.

*Innovative access management techniques include but are not limited to agreements with private organizations that would minimize management costs and the use of volunteer programs.*

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#### POLICIES FOR SPECIFIC SITES

**ER-I-38** **Northern Coastal Bluffs.** Establish appropriate zoning for private, developable land on the northern coastal bluffs to allow Planned Development.

*Allowable density should be consistent with the Residential/Open Space/Agriculture designation. Where coastal bluff scrub vegetation is present, further analysis will be required prior to any development. Work with public agencies and others to facilitate permanent conservation of scenic resources in this area.*

**ER-I-39** **Bowl Site.** Establish appropriate zoning for the “Bowl” site along the east side of Palmetto Avenue in Fairmont West for Planned Development to ensure site planning that clusters development, avoiding potential flooding or geotechnical hazards and protecting open space resources.

*Allowable density should be consistent with the Medium Density Residential designation.*

## **4.4 NATURAL SHORELINES**

Shoreline armoring measures such as breakwaters, seawalls, and channelization of waterways have been used to protect development from flooding and coastal erosion. In recognition of the potential adverse effect such structures can have on natural drainage and sedimentation, the Coastal Act limits them to very specific cases (Sections 30235 and 30236).

Coastal sediment, generally consisting of sand, gravel, silt, and clay, provides many benefits for coastal communities, providing habitat for a variety of species, creating recreational opportunities for residents and tourists, and protecting shorelines and adjacent development. Coastal sediment occurs, accumulates, and moves via natural processes (precipitation, wind, landslides, stream flow, etc.). However, urban development and flood control can disrupt these processes and alter the quantity, quality, and location of coastal sediment deposition over time. Eventually, additional intervention (such as armoring, dredging, and other methods) is required to stabilize the shoreline as the natural system is unable to do so. Such interventions often have adverse impacts on shoreline erosion downshore, and may accelerate sand loss from beaches.

Pacifica participates in the Coastal Regional Sediment Management Plan (CRSMP) process for the San Francisco Littoral Cell (the stretch of coastline in which Pacifica is included). The CRSMP will establish policies for management of coastal sediment resources in the area, addressing:

- Shoreline erosion and coastal storm damage reduction;
- Environmental restoration and protection, including beach nourishment, sediment transportation, and natural sediment supply to the coast;
- Sea level rise;
- Coastal access and recreation;
- Water quality along beaches; and
- Identification of beneficial uses for dredged sediment.

## Policies

### Guiding Policies

**ER-G-10** **Protect Significant Mineral Resources.** Cooperate with regional agencies to protect coastal sediment and significant mineral resources in the Planning Area.

### Implementing Policies

**ER-I-40** **Shoreline Protection.** Continue to prohibit new development requiring shoreline alterations.

*Shoreline-altering construction such as revetments, breakwaters, groins, channels, seawalls, cliff retaining walls, and similar structures is permitted only when required to serve coastal-dependent uses or to protect existing structures and public beaches in danger of erosion. Such structures, where permitted, must be designed to eliminate or mitigate adverse impacts on local shoreline sand supply.*

**ER-I-41** **Regional Sediment Management.** Participate in regional approaches to protecting, enhancing and restoring coastal beaches and watersheds through the California Coastal Sediment Management Workgroup, with a goal of minimizing coastal erosion.

*Shoreline protection strategies may include:*

- *Beach nourishment, using cleaned dredge material, clean material from flood control structures, clean excavation material and other innovative sources;*
- *Multi-purpose reefs placed offshore of critical erosion areas to retain sediment and reduce wave exposure in specific locations;*
- *A armor constructed along the coastline to protect infrastructure and/or impede erosion of the backshore, in selected locations;*
- *No action with natural processes occurring without intervention on a targeted scale;*
- *“Managed retreat,” involving landward setback of infrastructure and restoration of shoreline areas.*

**ER-I-42** **Pacifica State Beach.** Continue to manage sedimentation at Pacifica State Beach, and undertake structural protective measures only if non-structural measures (i.e., relocation of facility, set back, redesign, or beach replenishment) are not feasible.

*If a protective structure is constructed (i.e., riprap, rock revetment, seawall, etc.) the structure should not:*

- *Significantly reduce or restrict beach access*
- *Adversely affect shoreline processes and sand supply;*
- *Significantly increase erosion on adjacent properties;*
- *Cause harmful impacts on vegetation, wildlife or fish habitats;*
- *Be placed further than necessary from the development requiring protection; or*
- *Create a significant visual intrusion.*

**ER-I-43** **Sharp Park Beach.** Work with other public agencies, to implement a “natural management” strategy and refrain from further armoring or heightening of the levee to protect the beach from erosion, allowing the beach and lagoon system to reestablish itself.

*This approach has been formally recommended by the Sharp Park Working Group, as part of the San Francisco Recreation & Parks Department’s Significant Natural Resource Areas Management Plan.*

## 4.5 AGRICULTURE, FORESTRY AND FISHING

Several provisions of the Coastal Act aim to ensure that resource use activities may continue and thrive. Sections 30234 and 30234.5 promote the preservation and enhancement of facilities for fishing and recreational boating. Sections 30241, 30241.5, and 30242 call for prime agricultural land to be preserved to the greatest extent, including ensuring that its viability is not compromised by adjacent development. Section 30243 states that timberlands should be protected. Pacifica’s Coastal Zone does not currently support any of these resource uses.

### Agriculture

Approximately 360 acres in the City of Pacifica Planning Area currently have agriculture-related uses, mainly as horse boarding, but there are no agricultural uses within the Coastal Zone. No land in the Coastal Zone is classified as farmland by the California Department of Conservation’s Farmland Mapping and Monitoring Program.

### Forestry

Portions of Pacifica’s Coastal Zone are forested, including Eucalyptus, Riparian Mixed Hardwood, and Monterey Cypress, as shown on Figure 4-2, Vegetation.

The City defines logging operations as any removal, destruction or harvesting of 20 or more trees within one year from any parcel or contiguous parcel in the same ownership, and exhibits logging operations unless one of the following conditions is met:

- Operations have received Planning Commission and/or City Council;
- Operations are necessary immediately for the safety of life or property, as determined by the Director of Public Works; or
- Operations occur on city-owned property and are necessary to maintain public health and safety.

### Fishing and Recreational Boating

Pacifica does not currently have a marina or other facilities to support fishing or recreational boating. Previous studies have concluded that land adjacent to Rockaway Beach at the Quarry site does not provide a feasible location for a marina to be developed. Pacifica’s beaches are popular for surfing and related water sports. This is important for the City’s identity and economy, and is discussed in Chapter 3: Public Access and Recreation.

## Policies

### Guiding Policies

- ER-G-11**      **Preserve Agricultural Open Space.** Promote the preservation of agricultural open space in the Planning Area.
- ER-G-12**      **Trees.** Conserve trees and encourage native forestation and planting of appropriate trees and vegetation.

### Implementing Policies

- ER-I-44**      **Continuation of Agricultural and Related Uses.** Where agricultural and related uses exist, allow compatible uses to continue.
- ER-I-45**      **Recreational Uses.** Promote recreational uses, such as horse boarding and trail riding, which retain open space character while contributing to a visitor-based economy.

## 4.6 CULTURAL RESOURCES

With Section 30244, the Coastal Act reinforces other State Law to ensure that mitigation is required where development would adversely impact archaeological or paleontological resources. Pacifica has a rich history with regional and statewide significance, as it was home to several Native American villages as well as the site of the discovery of the San Francisco Bay. The Sanchez Adobe Historical Site along San Pedro Creek features physical evidence of several significant periods in California history.

### Historic Context

Native Americans had an extensive presence in the Planning Area. When Europeans arrived, the area was home to persons speaking the Costanoan/Ohlone language, and living in and around two villages: Pruristac, in San Pedro Valley, and Timiigtac, in Calera Valley. In 1769, an expedition led by Gaspar de Portola, governor of the Spanish territory covering California, discovered San Francisco Bay from a point on Pacifica's Sweeney Ridge, and camped in San Pedro Valley. Not long after, Mission San Francisco de Asis (Mission Dolores in present-day San Francisco) was established, and in 1786 the Mission developed an outpost in San Pedro Valley, alongside Pruristac. The Costanoan village was wiped out by disease in 1791.<sup>11</sup>

Mexican independence from Spain was followed by a "secularization" program, and in 1839 the San Pedro mission outpost and its *rancho*, covering the majority of the Planning Area, was granted to Francisco Sanchez, who built the adobe house that stands today as the oldest structure in San Mateo County. Following his death, the land was divided and the area developed slowly.

In 1905 construction began on the Ocean Shore Railway, which was to connect San Francisco with Santa Cruz. The line was never completed, but operated as far south as Half Moon Bay until 1921, supporting a string of stops in present-day Pacifica including Tobin, Salada Beach, and Rockaway Beach. The communities surrounding the railway stops, including Edgemar, Sharp Park, Pacific Manor, Vallemar, Rockaway Beach,

<sup>11</sup> California Historical Resources Information System (CHRIS), 2009

and San Pedro Terrace-by-the-Sea, grew slowly until the building boom following World War II. Pacifica incorporated as a City in 1957.

## Native American Cultural Resources

Five Native American archaeological resources have been found and recorded in Pacifica, all classified as habitation sites. Two additional resources contain both Native American and historic-era archaeological value. The Sanchez Adobe's State Historical Landmark and Point of Historical Interest is listed on the National Register of Historic Places and operated by the San Mateo County Historical Association as an historical site. The Sanchez Adobe Park, site of the Pruristac village and the San Pedro mission outpost, also is listed in the National Register of Historic Places and the California Register of Historical Resources.

The Planning Area is rich with the types of environments where Native American cultural resources have been found: permanent and intermittent streams, productive coastal environments, and sheltered locations for permanent habitations, as well as ridgelines, terraces, spurs and saddles. The Planning Area also includes a significant amount of alluvial soil, which in some cases is overlaid by artificial fill, increasing the probability for buried archaeological deposits. There is considered to be a high likelihood that unrecorded Native American cultural resources are present.

### *Contemporary Native American Resources*

As part of the General Plan and Local Coastal Land Use Plan update process, the Native American Heritage Commission (NAHC) conducted a record search of the sacred lands file in 2009. The search failed to indicate the presence of additional Native American cultural resources within the Planning Area. The NAHC response listed six tribes that may have historic ties to the Planning Area, and letters of inquiry were sent to the six tribal representatives; however, no responses were received.

## Policies

### *Guiding Policies*

**ER-G-13**      **Historic and Cultural Sites.** Conserve designated historic and cultural sites and structures that help define Pacifica's identity and character and increase public awareness and appreciation them.

**ER-G-14**      **Ensure Mitigation.** Require mitigation for any new development that would adversely affect archaeological or paleontological resources.

### *Implementing Policies*

**ER-I-46**      **Resource Impact Mitigation.** Ensure that new development analyzes and avoids potential impacts to historic, archaeological, and paleontological resources by:

- Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive;
- Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historic or archaeological sensitivity; and
- Implementing appropriate measures as a condition of project approval—such as avoidance, preservation in place, and excavation,—to reduce or avoid impacts.

*In the event that historical, archaeological, or paleontological resources are accidentally discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected. A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures or appropriate mitigation should be completed, according to CEQA Guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archaeological Resource Management Reports that may be used as guidelines.*

**ER-I-47** **Native American Sites.** Work with local Native American tribes to protect recorded and unrecorded cultural and sacred sites, and educate developers and the community-at-large about the connections between Native American history and the environmental features that characterize the local landscape.

*Development on archaeologically sensitive sites requires on-site monitoring by appropriate Native American consultant(s) and a qualified archaeologist of all grading, excavation, and site preparation activities that involve earth-moving operations.*

## 4.7 SCENIC AND VISUAL QUALITIES

The Coastal Act provides a framework for protecting scenic views and enhancing the visual quality of the “visually degraded areas,” by siting and designing development to protect views, protecting natural landforms, and other means (Section 30251). Section 30253 identifies the need to protect “special communities or neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.”

### Hillside Preservation

To protect important views from public areas and the sensitive terrain of hillside areas, the City has special development regulations for the Hillside Preservation District (HPD), which requires submission of development plans, grading plans, and other documentation. Hillside development also receives special consideration in the Design Guidelines, which are used to evaluate proposed projects. The key issues for hillside development are slope stability, grading, and visual impact.

Prominent ridgelines are identified based on their visual importance or scenic quality. Owners must focus development on suitable portions of their property off the ridges, to protect the scenic quality of ridgelines, except where ridgelines are the only buildable portions of the property. Prominent ridgelines are shown on **Figure 4-4**.

### Coastal Development

The sensitive natural and visual resources of hillsides also apply to the undeveloped coastal bluffs and promontories, including the Northern Coastal Bluffs, the Quarry site uplands, and Rockaway Headlands. Developed coastal areas also require special attention, not only because of their natural features but also for their potential as visitor destinations.

Three promontories dominate Pacifica's Coastal Zone and visually represent the coastal character of Pacifica. These landforms—Pedro Point Headlands, Rockaway Headlands, and Mori Point (including the Quarry site

uplands)—are shown on **Figure 4-4**. While much of this area has been permanently preserved, development may occur on the Rockaway Headlands or the Quarry site.

Views to the ocean and along the panoramic coastline are an integral part of Pacifica’s character, and a part that must be preserved for the future. Of primary importance are views of the ocean, landforms, and special coastal communities from public roadways, trails, and vista points. Important coastal view corridors are identified on **Figure 4-4**.

### **Scenic Routes**

The State and County have identified Highway 1 and Sharp Park Road in Pacifica as eligible for scenic highway designation. Local scenic roadway designation requires a corridor study, a program to enhance the scenic qualities, and adoption of the scenic roadway designation and its protection plan. Such a plan may be prepared in the future. For the purpose of this Plan, what is important is that the scenic qualities of these roadways are preserved and enhanced.

#### *Viewsheds*

Highway 1 plays an important role in defining the image of Pacifica, creating a visual narrative for the traveler from one end of the City to the other. Sharp Park Road also represents an important visual summary of Pacifica, drawing travelers from the ridgeline at Skyline Boulevard to the coast, with views out to the Ocean and over the Sharp Park neighborhood and Golf Course. Several specific viewsheds from Highway 1 and Sharp Park Road are shown on **Figure 4-4**. Other defining views include the view over the West Sharp Park district and Pacifica Pier from Highway 1; views toward Cattle Hill and Fassler Ridge from Highway 1; and the view to the ocean from Grace McCarthy Vista Point on Sharp Park Road.

#### *Roadway Enhancements*

In addition to viewsheds from these roads, the character of the roadways themselves shapes visitors’ and residents’ experience of Pacifica. The appearance of the Coast Highway right-of-way in central Pacifica can be improved as part of the Calera Parkway project. Other future improvements to the visual character of the Highway can include new and improved pedestrian over-crossings, and multi-use trails leading to the Devil’s Slide area. On Sharp Park Road, completion of bicycle improvements will improve the character of this roadway and make its scenic quality available to cyclists.

#### *Development Character in the Corridor*

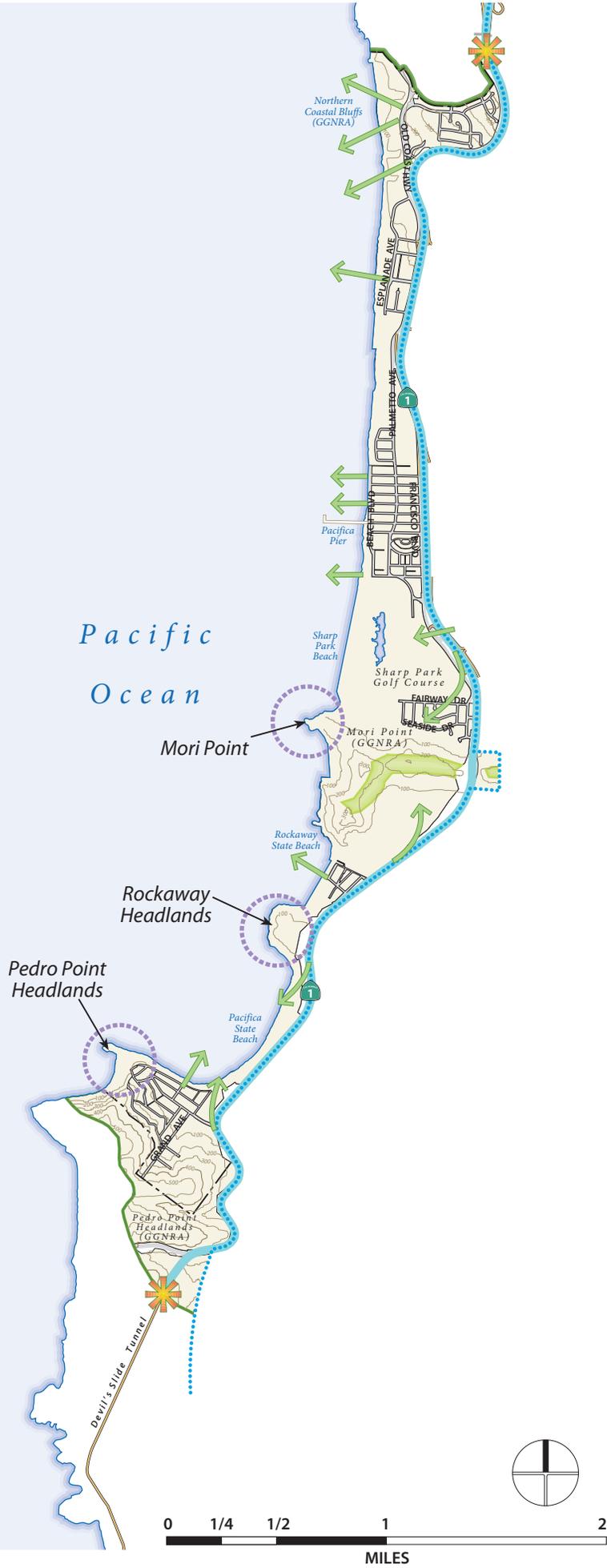
Future development along Highway 1 will also influence the scenic qualities of the corridor.. Development can create a strong presence along the Highway, and harmonious transitions to adjacent neighborhoods. All new commercial development requires site development review, assisted by the Design Guidelines. As part of updating the Guidelines, the City should provide direction on how buildings should relate to Highway 1, at different segments of the Highway.

#### *Gateways*

Pacifica is introduced to southbound travelers with the experience of coming over the hill and seeing the expansive coastal vista. Northbound travelers come through the Devil’s Slide Tunnel, wind around the forested Pedro Point Headlands, and arrive at the active intersection with Linda Mar Boulevard. Skyline Boulevard acts as a coherent eastern boundary for the City, as it travels along the crest of the ridge with mature trees along its edges. From Skyline, Pacifica is entered via Sharp Park Road, Manor Drive, and Hickey Boulevard. While the “gateways” into Pacifica are strong, entry points from the east can be made stronger, and all entries treated with a consistent signage theme. Gateway locations are shown on **Figure 4-4**.

Figure 4-4:  
Visual Resources

-  Gateways
-  Prominent Landforms
-  Coastal View Corridors
-  Scenic Routes
-  Prominent Ridges
-  Coastal Zone
-  City Limits
-  Planning Area



Source: US Geological Survey, 2009; City of Pacifica, 2008; San Mateo County, 2009; Dyett & Bhatia, 2012.

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## Policies

### Guiding Policies

- ER-G-15** **Hillsides and Prominent Ridgelines.** Maintain development standards that ensure that new development does not detract from the visual qualities of Pacifica’s hillsides and visually prominent ridgelines.
- ER-G-16** **Scenic and Visual Amenities of the Coastal Zone.** Protect the City’s irreplaceable scenic and visual amenities in the Coastal Zone by protecting landforms, vegetation, special communities, and important viewsheds.
- ER-G-17** **Views from Scenic Routes.** Ensure that designated viewsheds from Highway 1 and Sharp Park Road are preserved and enhanced. These views are an essential part of Pacifica’s identity.
- ER-G-18** **Gateways.** Create strong entrances and preserve the quality of experience of movement along primary travel routes, in particular along the coast.

### Implementing Policies

#### HILLSIDE DEVELOPMENT

- ER-I-48** **Minimize Visual Impacts of Hillside Development.** Require new development to employ innovative site planning, engineering and design techniques that:
- Seek first to avoid impacts to scenic resources through site planning and design;
  - Minimize grading and conform with natural landforms to the greatest extent possible;
  - Design structures so that they follow contours and limit their downslope exposure; and
  - Use landscaping to screen and integrate buildings with the natural environment.
- ER-I-49** **Protection of Ridgelines.** Protect visually prominent ridgelines from residential and commercial development.
- Local access roads and trails may be allowed on visually prominent ridgelines provided they follow contours, minimize grading, and are unobtrusive in their design.*
- ER-I-50** **Hillside Preservation District Requirements.** Continue to implement the requirements of the Hillside Preservation District (HPD), including submission of siting and grading plans. Update the HPD to ensure that all steep slopes are covered and that sites on other terrain are not included.
- ER-I-51** **Design Review.** Continue to use Design Guidelines to evaluate proposed projects in Planned Development, Hillside Development, and Special districts.

## COASTAL DEVELOPMENT

- ER-I-52** **Minimize Impacts of Coastal Development on Landforms.** Ensure that negative visual impacts resulting from new development in the Coastal Zone are minimized. In areas characterized by bluffs and landforms. Strategies to implement this policy include:
- Prohibiting development on slopes in excess of 35 percent and highly visible tops of prominent landforms;
  - Requiring blufftop development to minimize impacts on the view from the ocean and beach below by implementing a setback from the bluff edge;
  - Requiring that development be clustered and contoured into the existing slope; and
  - Requiring that new development be scaled and designed to be subordinate to landforms in the Coastal Zone.

- ER-I-53** **Minimize Impacts of Coastal Development on Vegetation.** Continue to require that disturbance to vegetation be minimized in new development and that graded areas be promptly replanted with native vegetation.

- ER-I-54** **Headlands Special Area.** In the zoning code, update the Headlands Special Area for the Rockaway Headlands, to specify very low-intensity visitor-serving use such as hikers' huts and kiosks. A view restaurant may be appropriate if access can be created without harming biological or scenic resources.

- ER-I-55** **Rockaway Quarry Special Area.** In the zoning code, update and rename the Mori Point Special Area to facilitate visitor-serving development on the portion of the Quarry site determined to be appropriate for development.

*Visitor-oriented development on the Quarry site "flats" should be connected with the adjacent Rockaway Beach district. If a hotel is built, it must be designed to sensitively blend with the landscape and convey a high-quality image for Pacifica.*

- ER-I-56** **Trail Design on Coastal Headlands and Bluffs.** Develop new trails on Pedro Point Headlands, the Rockaway Headlands, the Quarry site uplands, and the Northern Coastal Bluffs in such a way that native vegetation is protected by limiting pedestrians to designated trails and preventing access by motorized vehicles.

- ER-I-57** **Underground Utilities.** Continue to require underground utilities in all new development. Within scenic corridors, place lines underground or located there so they do not break the viewline of a roadway vista.

## SCENIC ROUTES

- ER-I-58** **Roadway Enhancements.** Coordinate with Caltrans in an effort to ensure that future changes to the Coast Highway will also upgrade the appearance of the right-of-way.
- Improvements should include landscaping and roadway design, as well as trails and visually-appealing pedestrian over-crossings.*

- ER-I-59**      **Scenic Corridor Plans.** Seek grant funding to develop local scenic corridor plans for Highway 1 and Sharp Park Road.
- ER-I-60**      **Parallel Trails for Non-Motorized Travel.** Improve walking, riding, and biking trails along roadways with the State scenic highway designation.
- ER-I-61**      **Other Scenic Trails.** Improve pedestrian routes along corridors that provide access to locations of significant scenic quality, recreation, historic and cultural importance in Pacifica.
- ER-I-62**      **Vehicle Access Points.** Maintain and improve existing scenic turnouts, public parking areas, access to regional parks, beaches and other recreation areas.
- ER-I-63**      **Roadway Design.** Ensure that any proposed new roads or modification to existing roads which traverse scenic areas minimize visual impacts to views from scenic routes.  
*Where possible, the physical form of structures, grading and alignment should be integrated into the natural setting. Views to and from ridges should be protected*
- ER-I-64**      **High-Quality Design at Key Points.** Ensure that new development directly adjacent to Highway 1 in West and East Sharp Park helps to create a strong image of Pacifica's cultural and civic core, and that new development in the Rockaway Quarry site has a visual quality that enhances the natural setting and draws travelers in from the highway.
- ER-I-65**      **Highway Frontage Design Guidelines.** Update the Design Guidelines to provide direction on how new buildings relate to Highway 1, both in its freeway and highway configuration.
- ER-I-66**      **Gateway Signage.** Create unified gateway signage, for entrances along Highway 1, Sharp Park Road, Manor Drive, and Hickey Boulevard.

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