4.2 BIOLOGICAL RESOURCES

This section evaluates the proposed project to determine what impacts to biological resources would occur as a result of the project. The information presented below incorporates a compilation of botanical and wildlife data provided by the applicant's consultants Zander Associates (Zander) and Fred Ballerini Horticultural Services (Ballerini), and field verification of this data conducted by SWCA during preparation of this EIR. The information within this section also incorporates a review of information from federal, state, and local resource agencies, including comments from the CCC related to Environmentally Sensitive Habitat Areas (ESHA) received in response to the NOP on March 19, 2015. Previous biological documents reviewed in preparation of this section include:

- Biological Resources Assessment for 1170 Signal Hill Road (Zander 2010)
- Supplemental Biological Resources Assessment for 1170 Signal Hill Road (Zander 2011b)
- Dune Restoration Plan for 1170 Signal Hill Road (Zander 2011a)
- Remnant Dune Restoration Plan Mehdipour Property (Zander 2012)
- Dune Restoration Plan Massy Mehdipour Property (Ballerini 2013)
- Dune Restoration Plan Massy Mehdipour Property (Ballerini 2015)
- Tree Resource Evaluation Construction Impact Analysis 1170 Signal Hill Road (Hamb 2011)

These documents and additional cited references are available for review at the County offices at 168 West Alisal Street, 2nd Floor, Salinas, Monterey County, California.

4.2.1 Existing Conditions

4.2.1.1 Regional Setting

The Del Monte Forest planning area includes approximately 7 miles of coastline and extends inland approximately 3 to 4 miles. This area supports a variety of natural resources including coastal bluffs, beaches, stabilized sand dunes, forested areas, and waterways. The proposed project site is located at the base of Signal Hill Dune and situated between Spyglass Hill and Cypress Point Golf Courses. The area is part of a historic dune system that has been fragmented by development.

4.2.1.2 Project Site Setting

The project area includes an approximately 2.22-acre residential parcel developed with an existing residence that overlooks 17-Mile Drive and the coastline at Cypress Point Rock. The parcel's topography slopes southwest towards the coastline; the residence is located in the eastern portion, at the highest portion of the parcel. The graded/developed portion of the parcel includes the residential structure and foundation, a driveway, landscaped areas, and a concrete pathway. The landscaped areas include several Monterey cypress (*Hesperocyparis macrocarpa*) trees.

In general, habitat on the undeveloped parts of the parcel can be described as disturbed central dune scrub, a community that is restricted to the California Central Coast on stabilized dunes (Holland 1986). This community is comprised of scattered to dense shrubs, sub-shrubs, and herbaceous plants. Shrubs on the parcel include mock heather (*Ericameria ericoides*), dune lupine (*Lupinus chamissonis*), and beach sagewort (*Artemisia pycnocephala*). Herbs in the

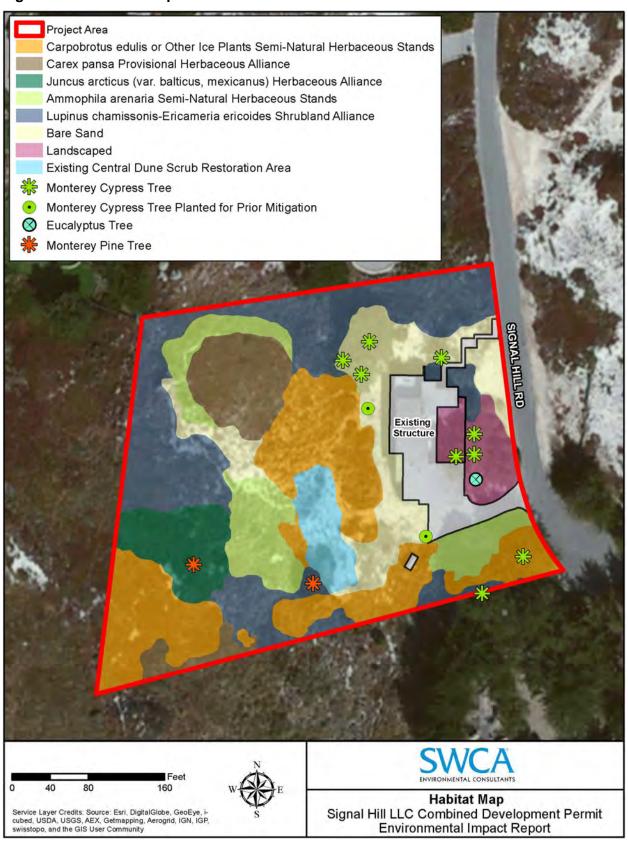
community include dune sedge (*Carex pansa*), sand verbena (*Abronia* sp.), and beach evening primrose (*Camissonia cheiranthifolia*). The central dune scrub habitat on the parcel is invaded by ice plant (*Carpobrotus chilensis*) and European beachgrass (*Ammophila arenaria*).

When mapped using the community membership rules defined by *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, and Evans 2009), the central dune scrub vegetation on the parcel is comprised of five vegetative stands and alliances, which are intermixed with each other. Descriptions are provided below.

- Carpobrotus edulis or Other Ice Plants Semi-Natural Herbaceous Stands: This non-native vegetation is dominated by ice plant and occurs on bluffs, sand dunes, disturbed areas, and coastal terraces.
- Ammophila arenaria Semi-Natural Herbaceous Stands: This non-native vegetation is dominated by European beachgrass and occurs on sand dunes. Remnant native dune species including dune lupine, beach sagewort, coyote brush (*Baccharis pilularis*), and poison oak (*Toxicodendron diversilobum*) provide low cover in the shrub layer.
- Carex pansa Provisional Herbaceous Alliance: This herbaceous community is dominated by dune sedge and occurs in swales and other areas experiencing seasonal flooding on coastal sand dunes. The dune sedge forms a continuous to intermittent sod in select areas of the parcel and has sporadic shrubs emerging from the sod.
- Juncus articus (var. balticus, mexicanus) Herbaceous Alliance: On the project site, this community is dominated by Mexican rush (Juncus mexicanus), a Facultative wetland species. Facultative wetland species commonly occur as either a hydrophyte (a plant that only grows in or on water) or nonhydrophyte. The Mexican rush on the site is intermixed with low growing poison oak and low cover of various native shrubs. In the coastal zone, dominance of a wetland indicator plant species is sufficient to define an area as a wetland.
- Lupinus chamissonis-Ericameria ericoides Shrubland Alliance: This shrubland community
 includes mock heather and dune lupine as co-dominants with coyote brush and beach
 sandwort intermixed. Mock heather provides greater cover on the parcel than dune lupine,
 but both species are present.

These vegetative stands and alliances occur on the parcel in a mosaic of blended polygons (refer to Figure 4.2-1). They are intermixed to create a central dune scrub community that is invaded by European beachgrass and ice plant. Patches of bare sand break up the vegetative cover. In some areas, the bare sand is a result of recent invasive species removal efforts and mechanical disturbances. In other areas, the patches of bare sand appear to be a natural feature of the habitat composition.

Figure 4.2-1. Habitat Map



4.2.1.3 Environmentally Sensitive Habitat Area

The Del Monte Forest area supports a variety of habitats that can be considered ESHA. ESHAs are typically native habitat types that are locally or regionally rare, support special-status plant or wildlife species, contain wetland resources, or otherwise support particular biological, scientific, or educational values. Due to these attributes, ESHAs are given special consideration in state and local planning documents. Section 4.2.2.3 below provides additional information on the definition of ESHA and applicable LCP ESHA policies.

The project site is located at the base of Signal Hill Dune, which is a remnant of a historically extensive Asilomar Dune complex. The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey identifies soils within the project area and surrounding areas as "Dune land." Dune land is comprised of fine sand derived from quartz and feldspar eolian sands (NRCS 2015).

The definition of ESHA provided in the Del Monte Forest LUP includes "coastal sand dunes" (refer to Section 4.2.2.3). As such, all areas of the parcel that are not currently developed with the existing residence, driveway, walkways, or concrete patio are considered ESHA subject to protections provided in the LUP. The delineation of ESHA in this EIR is based on the presence of natural dune sand as observed on the ground surface in 2015. Because the LUP definition of ESHA (coastal sand dunes) does not include any vegetation requirements, the lack or type of vegetation observed on the sand at the project site was not a determining factor in delineating the ESHA boundaries. Any previous ground disturbance that occurred during construction of the existing residence was also not considered a factor in delineating the ESHA boundaries.

Other factors that contribute to the parcel's designation as ESHA include the following:

- The parcel supports *Carex pansa* Provisional Herbaceous Alliance and *Lupinus chamissonis-Ericameria ericoides* Shrubland Alliance. The California Department of Fish and Wildlife (CDFW) considers these communities to be Sensitive Natural Communities in California. CDFW maintains a list of Sensitive Natural Communities (CDFW 2018) that are evaluated using the NatureServe Heritage Methodology to assign Global and State rankings to the communities (NatureServe 2017). These habitat types have a State Rank of S3, which indicates that these communities are "vulnerable" in their range (CDFW 2018).
- The LUP definition of ESHA includes "wetlands" as an example ESHA. In the coastal zone, areas supporting greater than 50% cover of hydrophytic vegetation, or hydric soil indicators, or wetland hydrology indicators are considered wetlands. The central dune scrub habitat within the project site includes a small but definable coastal wetland that is dominated by Mexican rush, a Facultative wetland plant species (refer to Figure 4.2-1, Juncus arcticus [var. balticus mexicanus] Herbaceous Alliance).
- The LUP states that "habitat areas that support species designated as Fully Protected or Species of Special Concern under State law or regulations" are examples of habitats that meet the definition of ESHA. California legless lizard (Anniella pulchra and Anniella pulchra nigra) are considered Species of Special Concern (SSC) in California. The sand dune and central dune scrub habitat on the parcel provide ideal habitat for these species.

Figure 4.2-2, in Section 4.2.5, provides a map of the identified ESHA on the parcel.

4.2.1.4 Native and Important Vegetation

As discussed above, the central dune scrub vegetation on the parcel is considered to be threatened in its range; therefore, it is considered native and important vegetation. In addition, the parcel supports two Monterey pine (*Pinus radiata*) and 11 Monterey cypress trees. The Monterey cypress trees are located adjacent to the existing residence and two of them were recently planted as replacement trees to mitigate the prior removal of other mature Monterey cypress trees. The two Monterey pines are located downslope of the residence in the proposed dune restoration area.

Monterey pine and Monterey cypress trees are native to the Del Monte Forest and are included on the California Native Plant Society (CNPS) List 1B, which includes species considered rare, threatened, or endangered in California and elsewhere. The cypress appear to have been planted as landscape elements and the pines are likely seedlings of trees in the landscape of adjacent residences (Zander 2011b). Nonetheless, because these trees are in their native range, they are afforded special consideration and their removal would be subject to review by the Pebble Beach Company Forester and/or Monterey County (Monterey County Coastal Implementation Plan, Part 5, §20.147.050; County of Monterey 2012b).

4.2.1.5 Special-Status Species

Special-Status Plants

For the purposes of this section, special-status plant species are defined as the following:

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act of 1973 (FESA) (50 Code of Federal Regulations [CFR] 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the FESA (Federal Register 79(234):72452–72455 [U.S. Fish and Wildlife Service (USFWS) 2014]).
- Plants that meet the definitions of endangered, rare, or threatened species under CEQA (State CEQA Guidelines §15380).
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Rank 1B and 2 in CNPS 2015).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in CNPS 2015).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 CCR 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code §1900 et seg.).
- Plants considered sensitive by other federal agencies (i.e., US. Forest Service, Bureau of Land Management), state and local agencies, or jurisdictions.

Based on the literature review, a records search of the CDFW California Natural Diversity Database (CNDDB) and USFWS Information, Planning, and Conservation System (IPaC), and SWCA's knowledge of the area, 49 special-status plant species were evaluated for potential occurrence at the project site. The existing conditions at the site were found to provide suitable conditions for 25 of the evaluated plant species; of these, two were observed at the project site during 2015 field surveys (Monterey cypress and Monterey pine). Table 4.2-1 provides the rationale for determining whether or not the project site provides suitable conditions for a particular species. Monterey pine and Monterey cypress are the only special-status plant species known to occur at the site. Figure 4.2-1 shows the locations of the trees at the site.

Special-status Animal Species

For the purposes of this section, special-status animal species are defined as the following:

- Animals listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.11 for listed animals and various notices in the *Federal Register* for proposed species).
- Animals that are candidates for possible future listing as threatened or endangered under the FESA (Federal Register 79(234):72452–72455 [USFWS 2014]).
- Animals that meet the definitions of endangered, rare or threatened species under CEQA (State CEQA Guidelines §15380).
- Animals listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5).
- Animal species of special concern to the CDFW (CDFW 2015).
- Animal species that are fully protected in California (California Fish and Game Code §3511 [birds], §4700 [mammals], and §5050 [reptiles and amphibians]).

A literature review identified 24 special-status wildlife species that have known occurrences in the project vicinity. The existing conditions at the project site provide suitable conditions for the following species:

- Smith's blue butterfly (*Euphilotes enoptes smithi*): The project site and greater Del Monte Forest coastal area support *Eriogonum latifolium* and *Eriogonum parvifolium*, which are host plants to Smith's blue butterfly. Dr. Richard Arnold, a local entomologist, has conducted numerous Smith's blue butterfly surveys for projects in the area over several decades. Despite the survey efforts in the area, Mr. Arnold has not detected any individuals in the vicinity of the proposed project site (Entomological Consulting Services, Ltd. 2008). Considering the available survey data, it is assumed that Smith's blue butterfly does not occur on the parcel.
- California legless lizard (Anniella pulchra, inclusive of Anniella pulchra nigra): California legless lizards thrive in stabilized dune habitat where they are capable of moving through the sand while finding shelter and foraging opportunities under shrubs and debris. Although the species has not been observed on the project site, it is assumed to occupy the site based on the presence of suitable habitat and its known potential to occur in the project vicinity.

- Coast horned lizard (Phrynosoma coronatum): Coast horned lizards occupy sandy washes and stabilized dune habitats with sparse vegetation. The stabilized dune habitat located at the project site provides marginal conditions for coast horned lizard due to the presence of relatively dense vegetation. Coast horned lizard has not been observed on the parcel. The presence of this species on the parcel is unlikely but possible based on the marginal habitat conditions.
- California brown pelican (Pelecanus occidentalis californicus): The project site does not support suitable nesting habitat for California brown pelican; however, the nearby coastline provides ample foraging and resting habitat. Any occurrence of California brown pelican at the project site would be associated with a "fly by" and would not adversely impact the individual(s).
- Nesting and Migratory Birds (Class Aves): The central dune scrub habitat and existing structure on the parcel provide ample nesting opportunities for a variety of passerines that are protected under the Migratory Bird Treaty Act of 1918 (MBTA).

Table 4.2-1 provides additional analysis of the potential for these special-status species to occur at the project site.

The IPaC data also identified 18 marine aquatic animals, critical habitats, and Essential Fish Habitats as occurring in the project vicinity. The proposed project area does not include marine or freshwater aquatic resources or habitats; therefore, further evaluation of the following aquatic resources is not included in this document: green sturgeon (*Acipenser medirostris*), green sturgeon critical habitat, black abalone (*Haliotis cracherodii*), black abalone critical habitat, east pacific green sea turtle (*Chelonia mydas*), olive ridley sea turtle (*Lepidochelys olivacea*), leatherback sea turtle (*Dermochelys coriacea*), north Pacific loggerhead sea turtle (*Caretta caretta*), blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaeangliae*), southern resident killer whale (*Orcinus orca*; J Clan, Pods J, K, and L), north Pacific right whale (*Eubalaena japonica*), sei whale (*Balaenoptera borealis*), sperm whale (*Physeter macrocephalus*), Guadalupe fur seal (*Arctocephalus townsendi*), Groundfish Essential Fish Habitat, and Coastal Pelagics Essential Fish Habitat.

4.2.1.6 Common Wildlife, Wildlife Corridors, and Migration

Undeveloped land, open space, recreation areas, and forests in the Del Monte Forest contribute to the area's ability to support common wildlife species. The large residential lots coupled with the open space areas allow wildlife such as black-tailed deer (*Odocoileus hemionus columbianus*) to move through the area with ease. During the 2015 field survey, the SWCA biologist observed a bachelor herd of three black-tailed deer moving through and browsing in the subject parcel and neighboring parcel.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leg	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
Vernal pool bent grass Agrostis lacuna-vernalis	Annual herb that occurs in vernal pools. Only known from two occurrences on Fort Ord National Monument. 115–145 meters.	April-May			1B.1	Suitable Habitat Absent; Species Absent: The site does not support any vernal pools. This species was not observed by Zander or SWCA on the site.
Hickman's onion Allium hickmanii	Usually occurs on sandy loam in grasslands. Also found in closed cone coniferous forest, chaparral and coastal scrub. 5–200 meters.	March– May			1B.2	Marginal Habitat Present, Species Absent: CNDDB documents occurrences within 1 mile of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
little sur manzanita Arctostaphylos edmundsii	Evergreen shrub that occurs on sandy soils in coastal bluff scrub and chaparral. 30–105 meters.	November– April			1B.2	Suitable Habitat Present; Species Absent: No Arctostaphylos species were observed by Zander or SWCA on the site.
Hooker's manzanita Arctostaphylos hookeri ssp. hookeri	Evergreen shrub that occurs on sandy soils, shaly soils, and sandstone outcrops. Associated with closed cone coniferous forest, chaparral, and coastal scrub. 85–536 meters.	January– June			1B.2	Marginal Habitat Present; Species Absent: the site is at a lower elevation than the documented range for this species. CNDDB documents occurrences 0.5 mile south of the site. No Arctostaphylos species were observed by Zander or SWCA on the site.
toro manzanita Arctostaphylos montereyensis	Evergreen shrub occurs in cismontane woodland, chaparral, and coastal scrub on sandy soils. 30–730 meters.	February– March			1B.2	Suitable Habitat Present; Species Absent: No Arctostaphylos species were observed by Zander or SWCA on the site.
Pajaro manzanita Arctostaphylos pajaroensis	Evergreen shrub occurs in chaparral on sandy soils. 30–760 meters.	December- March			1B.1	Suitable Habitat Present; Species Absent: No <i>Arctostaphylos</i> species were observed by Zander or SWCA on the site.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leç	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
sandmat manzanita Arctostaphylos pumila	Low growing evergreen shrub occurs in maritime chaparral and openings within Monterey pine forest. 3–205 meters.	February– March			1B.2	Suitable Habitat Present; Species Absent: CNDDB documents occurrences 0.5 mile south of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
marsh sandwort Arenaria paludicola	Perennial herb that occurs in marshes and swamps. Grows through dense mats of <i>Typha</i> , <i>Juncus</i> , <i>Scirpus</i> , etc. in freshwater marsh. 10–170 meters.	May– August	FE	SE	1B.1	Suitable Habitat Absent; Species Absent: The site does not support marsh habitat with dense emergent vegetation. Species not observed during surveys conducted in the appropriate season.
ocean bluff milk-vetch Astragalus nuttallii var. nuttallii	Perennial herb that occurs on coastal bluffs and dunes. 3–20 meters.	January– November			4.2	Suitable Habitat Present; Species Absent: CNDDB does not document occurrences in the reviewed quadrangle map areas. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
coastal dunes milk-vetch Astragalus tener var. titi	Annual herb occurs in coastal bluff scrub, coastal dunes, and coastal prairie. Often in vernally mesic (wet) areas. 1–50 meters.	March– May	FE	SE	1B.1	Suitable Habitat Present; Species Absent: CNDDB documents occurrences within 0.75 mile north of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
twisted horsehair lichen Bryoria spiralifera	An epiphytic lichen that is typically associated with conifers. Largest known population is on Samoa Peninsula in Humboldt County. 0–30 meters.	N/A			1B.2	Suitable Habitat Absent; Species Absent: The site does not support coniferous forest. Species not observed on site.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leg	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
pink Johnny-nip Castilleja ambigua var. insalutata	Annual herb that occurs in coastal bluff scrub and coastal prairie. 0–100 meters.	May– August			1B.1	Suitable Conditions Absent; Species Absent. Sandy dune soils are not conducive to this species. CNDDB documents occurrences of pink Johnnynip approximately 0.75 mile northwest of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Monterey coast paintbrush Castilleja latifolia ssp. latifolia	Hemi-parasitic herb that occurs in sandy areas supporting closed-cone coniferous forest, cismontane woodland, coastal dunes, and coastal scrub. 0–185 meters.	February– September			4.3	Suitable Habitat Present; Species Absent: CNDDB documents occurrences 0.5 mile north of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Point Reyes ceanothus Ceanothus gloriosus var. gloriosus	Perennial shrub that occurs in coastal bluff scrub, closed-cone coniferous forest, dunes, and scrub. 5–520 meters.	March– May			4.3	Marginal Habitat Present; Species Absent: CNPS documents this species in the Seaside quadrangle area. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Monterey ceanothus Ceanothus rigidus	Evergreen shrub that occurs in closed-cone, coniferous forest, chaparral, and coastal scrub with sandy soil. 3–550 meters.	February– April			4.2	Suitable Habitat Present; Species Absent: CNDDB documents many occurrences in the Monterey Peninsula area. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Congdon's tarplant Centromadia parryi ssp. congdonii	Annual herb that occurs in depressional areas within valley and foothill grassland. 1–230 meters.	June– November			1B.1	Suitable Conditions Absent; Species Absent. Sandy dune soil is not conducive to this species. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leg	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
Douglas' spineflower Chorizanthe douglasii	Annual herb that occurs in openings among maritime chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, and coastal scrub on sandy or gravelly soils. 55–1600 meters.	April–July			4.3	Marginal Habitat Present; Species Absent: CNPS documents this 1.4 mile south of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Fort Ord spineflower Chorizanthe minutiflora	Annual herb that occurs in openings among maritime chaparral and coastal scrub on sandy soils. 55–150 meters.	April–July			1B.2	Marginal Habitat Present; Species Absent: Only documented to occur on Fort Ord. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Monterey spineflower Chorizanthe pungens var. pungens	Annual herb occurs in chaparral cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland on sandy soils. 3–450 meters.	April–June	FT		1B.2	Suitable Habitat Present; Species Absent: CNDDB documents occurrences 0.5 mile south of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
robust spineflower Chorizanthe robusta var. robusta	Annual herb occurs in chaparral, cismontane woodland, coastal dunes, and coastal scrub with sandy or gravelly soils. 3–300 meters.	April– September	FE		1B.1	Suitable Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Jolon clarkia Clarkia jolonensis	Annual herb occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. 20–660 meters.	April–June			1B.2	Suitable Habitat Absent; Species Absent: Sandy dune soil is not conducive to this species. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Lewis' Clarkia Clarkia lewisii	Annual herb that occurs in broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub. 30–610 meters.	May–July			4.3	Marginal Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leç	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
San Francisco collinsia Collinsia multicolor	Annual herb occurs in closed-cone coniferous forest and coastal scrub. Occasional found in serpentinite. 30–250 meters.	March– May			1B.2	Suitable Habitat Absent; Species Absent: Sandy dune soil and dune scrub are not conducive to this species. Species not observed by Zander during surveys conducted in the appropriate season.
seaside bird's-beak Cordylanthus rigidus ssp. littoralis	Annual herb occurs in closed-cone coniferous forest, chaparral, cismontane woodland, coastal dunes, and coastal scrub with sandy soils. Often found in disturbed sites. 0–425 meters.	April– October		SE	1B.1	Suitable Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Branching beach aster Corethrogyne leucophylla	Perennial herb that occurs in closed-cone coniferous forest and coastal dune habitats. 3–60 meters.	May- December			3.2	Marginal Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Rattan's cryptantha Cryptantha rattanii	Annual herb that occurs in cismontane woodland, riparian woodland, and valley and foothill grassland. 245–915 meters.	April–July			4.3	Suitable Habitat Absent; Species Absent: This species occurs at higher elevations than the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Hospital Canyon larkspur Delphinium californicum ssp. interius	Perennial herb that occurs in wet meadows and canyon bottoms among cismontane woodland and coastal scrub communities. 195–1095 meters.	April–June			1B.2	Suitable Conditions Absent; Species Absent: The site does not support suitable habitat and is located at a lower elevation than this species' documented range. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Hutchinson's larkspur Delphinium hutchinsoniae	Perennial herb occurs in broad-leafed upland forest, chaparral, coastal prairie, and coastal scrub. 0–427 meters.	March– June			1B.2	Suitable Conditions Absent; Species Absent: The site does not support suitable habitat. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leg	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
umbrella larkspur Delphinium umbraculorum	Perennial herb that occurs in cismontane woodland. 400–1,600 meters.	April–June			1B.3	Suitable Habitat Absent; Species Absent: This species occurs at higher elevations than the site. The site does not support the appropriate vegetation type. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Eastwood's goldenbush Ericameria fasciculata	Perennial shrub occurs in closed-cone coniferous forest, chaparral, coastal dunes, and coastal scrub. Within openings on sandy soil. 30–275 meters.	July– October			1B.1	Suitable Habitat Present; Species Absent: Species not observed by Zander during surveys conducted in the appropriate season.
Pinnacles buckwheat Eriogonum nortonii	An annual herb that occurs on sandy soils among chaparral and valley and foothill grassland. 300–975 meters.	April– September			1B.3	Suitable Conditions Absent; Species Absent: The site does not support suitable habitat and is located at a lower elevation than this species documented range. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
sand-loving wallflower Erysimum ammophilum	Perennial herb occurs in chaparral, coastal dunes, and coastal scrub with sandy soils and openings. 0–60 meters	February– June			1B.2	Suitable Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Menzies wallflower Erysimum menziesii ssp. menziesii	Perennial herb occurs in coastal dunes. 0–35 meters.	March– June	FE	SE	1B.1	Suitable Habitat Present, Species Absent: CNDDB documents occurrences on Signal Hill directly uphill from the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leç	gal St	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
fragrant fritillary Fritillaria liliacea	Bulbiferous herb occurs in cismontane woodland, coastal prairies, coastal scrub, and valley and foothill grassland; often associated with serpentinite. 3–410 meters.	February– April			1B.2	Suitable Conditions Absent; Species Absent: The site does not support appropriate soil type. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Santa Lucia bedstraw Galium clementis	Perennial herb that occurs in lower and upper montane coniferous forests. Associated with granitic and serpentine rocky soils. 1,130–1,780 meters.	April–July			1B.3	Suitable Conditions Absent; Species Absent: The site does not support appropriate soil type and is located at a lower elevation than this species range. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Monterey (sand) gilia Gilia tenuiflora ssp. arenaria	Annual herb occurs in chaparral, cismontane woodland, coastal dunes, and coastal scrub in sandy soil with openings. 0–45 meters.	April–June	FE	ST	1B.2	Suitable Habitat Present, Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
San Francisco gumplant Grindelia hirsutula var. maritima	Perennial herb that occurs in coastal bluff scrub, coastal scrub, and valley and foothill grassland. Often associated with sandy or serpentine-derived soils. 15–400 meters.	June- September			3.2	Suitable Habitat Present, Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Gowen cypress Hesperocyparis goveniana	Evergreen tree occurs in closed-cone coniferous forest and maritime chaparral. Typically associated with sandy soil. Known from only three native occurrences in the Monterey area including the Del Monte Forest/ Huckleberry Hill, Point Lobos, and Pacific Grove. 30–300 meters.	N/A	FT		1B.2	Suitable Habitat Present, Species Absent: Species not observed by Zander or SWCA during surveys conducted on the site.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leg	jal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
Monterey cypress Hesperocyparis macrocarpa	Evergreen tree occurs in closed-cone coniferous forest. Known from only two native occurrences in the Monterey area. 10–30 meters.	N/A			1B.2	Suitable Habitat Present, Species Present: Eleven individuals located on the property. Three of these trees are remnants of the native cypress forest in the area (Hamb 2011).
Kellogg's horkelia Horkelia cuneata ssp. sericea	Perennial herb occurs in closed-cone coniferous forest, maritime chaparral, and coastal scrub with sandy or gravelly openings. 10–200 meters.	April- September			1B.1	Suitable Habitat Present, Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Point Reyes horkelia Horkelia marinensis	Perennial herb from the Rosaceae family. Occurs in coastal dunes, prairie, and scrub habitats. 5–755 meters.	May- September			1B.2	Suitable Habitat Present, Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
coast iris Iris longipetala	Perennial and rhizomatous herb that occurs in coastal prairie and lower montane coniferous forest among meadows and seeps. 0–600 meters.	March– May			4.2	Marginal Habitat Present; Species Absent: The slope wetland within the proposed restoration area provides marginal habitat for this species. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Contra Costa goldfields Lasthenia conjugens	Annual herb occurs in mesic (wet) sites with cismontane woodland, playas, valley and foothill grassland, or vernal pools. 0–470 meters.	March– June	FE		1B.1	Marginal Habitat Present; Species Absent: The slope wetland within the proposed restoration area provides marginal habitat for this species. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leç	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
beach layia <i>Layia carnosa</i>	Annual herb occurs in coastal dunes and coastal scrub on sandy soils. 0–60 meters.	March–July	FE	SE	1B.1	Suitable Habitat Present, Species Absent: CNDDB documents occurrences on Signal Hill directly uphill from the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
large-flowered leptosiphon Leptosiphon grandifloras	Annual herb that occurs in coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, and valley and foothill grassland with sandy soil. 5–1,220 meters.	March– May			4.2	Suitable Habitat Present, Species Absent: CNPS documents occurrences in the Soberanes Point quadrangle map. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
small-leaved lomatium Lomatium parvifolium	Perennial herb that occurs in closed-cone coniferous forest, chaparral, coastal scrub, and riparian woodland; often associated with serpentinite. 20–700 meters.	January– June			4.2	Marginal Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Tidestrom's lupine Lupinus tidestromii	Rhizomatous herb occurs on coastal dunes. 0–100 meters.	April–June	FE	SE	1B.1	Suitable Habitat Present, Species Absent: CNDDB documents occurrences on Signal Hill directly uphill from the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Carmel Valley bush-mallow Malacothamnus palmeri var. involucratus	Perennial shrub that occurs in chaparral, cismontane woodland, and coastal scrub. 30–1100 meters.	May– August			1B.2	Suitable Conditions Absent; Species Absent: Sandy soil on the site is not conducive to this species. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leg	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
Santa Lucia bush-mallow Malacothamnus palmeri var. palmeri	Deciduous shrub occurs in chaparral with rocky substrates. 60–360 meters.	May–July			1B.2	Suitable Conditions Absent; Species Absent: Sandy soil on the site is not conducive to this species. The site is at a lower elevation than the species' range. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Carmel valley malacothrix Malacothrix saxatilis var. arachnoidea	Rhizomatous herb occurs in chaparral and coastal scrub with rocky substrates. 25–1036 meters.	June- December			1B.2	Suitable Conditions Absent; Species Absent: Sandy soil on the site is not conducive to this species. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Mt. Diablo cottonweed Micropus amphibolus	Occurs on rocky substrates in broadleaf upland forest, chaparral, cismontane woodland, and valley and foothill grassland. 45–825 meters.	March– May			3.2	Suitable Conditions Absent; Species Absent: Sandy soil on the site is not conducive to this species. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
marsh microseris Microseris paludosa	Perennial herb occurs in closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland. 5–300 meters.	April–June			1B.2	Suitable Habitat Present; Species Absent: CNDDB documents occurrences 0.5 mile south of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
San Antonio Hills monardella Monardella antonina	Rhizomatous herb that occurs in chaparral and cismontane woodland. 320–1,000 meters.	June– August			3.0	Suitable Conditions Absent; Species Absent: Sandy soil on the site is not conducive to this species. The site is at a lower elevation than the species' range. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leg	gal Sta	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
northern curly-leaved monardella Monardella sinuata ssp. nigrescens	Annual herb that occurs in sandy soil among chaparral, lower montane coniferous forest, coastal dunes, and coastal scrub with openings. 0–300 meters.	April– September			1B.2	Suitable Habitat Present; Species Absent: CNDDB documents occurrences along Highway 68 and south of Monterey Airport. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
woodland woollythreads Monolopia gracilens	An annual herb associated with serpentine soil. Often found in openings within broadleafed upland forest, chaparral, cismontane woodland, north coast coniferous forest, and valley and foothill grassland. 100–1200 meters.	February– July			1B.2	Suitable Conditions Absent; Species Absent: Sandy soil on the site is not conducive to this species. The site is at a lower elevation than the species' range. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
California adder's tongue Ophioglossum californicum	Perennial and rhizomaous herb that occurs in pond and vernal pool margins in chaparral and valley and foothill grassland. 60–525 meters.	December– June			4.2	Suitable Conditions Absent; Species Absent: The site does not support any aquatic habitats. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Gairdner's yampah Perideridia gairdneri	Perennial herb that occurs in vernally mesic sites among broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, and vernal pools. 0–610 meters.	June– October			4.2	Suitable Conditions Absent; Species Absent: The site does not support any vernal pool habitats. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
South Coast branching phacelia Phacelia ramosissima var. austrolitoralis	Perennial herb from the Boraginaceae family. Occurs in chaparral, coastal dunes, coastal scrub, and coastal salt marsh. 5–300 meters.	March– August			3.2	Marginal Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Leg	jal St	atus	
Species Name	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
Monterey pine Pinus radiata	Evergreen tree; only native stands restricted to Año Nuevo, Cambria, and the Monterey Peninsula. Occurs in closedcone coniferous forest and cismontane woodland. 25–185 meters.	N/A			1B.1	Suitable Habitat Present; Species Present: Two young Monterey pines occur on the property downslope from the existing residence.
Michael's orchid Piperia michaelii	Perennial herb that occurs in coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, and lower montane coniferous forest. 3–915 meters.	April– August			4.2	Marginal Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Yadon's rein orchid Piperia yadonii	Perennial herb occurs in coastal bluff scrub, closed-cone coniferous forest, and maritime chaparral with sandy soil. 10–510 meters.	May– August	FE		1B.1	Suitable Habitat Present; Species Absent: CNDDB documents occurrences within 0.5 mile north of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Hickman's popcornflower Plagiobothrys chorisianus var. hickmanii	Annual herb that occurs in vernal pools and other wet areas among chaparral, closed-cone coniferous forest. and coastal scrub habitats. 15–185 meters.	April-June			4.2	Marginal Habitat Present; Species Absent: Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
hooked popcornflower Plagiobothrys uncinatus	Annual herb occurs in chaparral, cismontane woodland, and valley and foothill grassland with sandy soils. 300–760 meters.	April–May			1B.2	Suitable Conditions Absent; Species Absent: The site is at a lower elevation than the species' range. Species not observed by Zander during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

Species Name			Leç	gal Sta	atus	
	Habitat and Distribution	Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
Hickman's cinquefoil Potentilla hickmanii	Perennial herb occurs in wet areas associated with coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, and freshwater marshes. 10–149 meters.	April– August	FE	SE	1B.1	Marginal Habitat Present; Species Absent: The slope wetland within the proposed restoration area provides marginal habitat for this species, but is likely not wet enough to support the species. CNDDB documents occurrences within 1 mile of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
angel's hair lichen Ramalina thrausta	An epiphytic lichen that grows on dead twigs and other lichens in north coast coniferous forests. 75–430 meters.	N/A			2B.1	Suitable Habitat Absent; Species Absent: The site does not support coniferous forest. Species not observed on site.
Lobb's aquatic buttercup Ranunculus lobbii	Aquatic annual herb that occurs in vernal pools among cismontane woodland, North Coast coniferous forest, and valley and foothill grassland. 15–470 meters.	February– May			4.2	Suitable Conditions Absent; Species Absent: The site does not support any aquatic habitats. Species not observed by Zander during surveys conducted in the appropriate season.
pine rose Rosa pinetorum	Perennial shrub occurs in closed-cone coniferous forest. 2–300 meters	May-July			1B.2	Suitable Habitat Absent; Species Absent: The site does not support coniferous forest. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
maple-leaved checkerbloom Sidalcea malachroides	Perennial herb occurs in broad-leafed upland forest, coastal prairies, coastal scrub, north coast coniferous forest, and riparian woodland. Often found in disturbed areas. 2–730 meters	April– August			4.2	Suitable Habitat Absent; Species Absent: The site does not support appropriate habitats. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

Species Name	Habitat and Distribution		Leg	gal Sta	atus	
		Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence
Santa Cruz microseris Stebbinsoseris decipiens	Annual herb occurs in broadleaf upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and alley and foothill grassland. Associated with open areas; occasionally occurring in serpentinite. 10–500 meters	April-May			1B.2	Suitable Habitat Absent; Species Absent: The site does not support appropriate habitats. Species not observed by Zander during surveys conducted in the appropriate season.
California screw moss Tortula californica	Moss that occurs in chenopod scrub and valley and foothill grassland associated with sandy soil. 10–1460 meters	N/A			1B.2	Suitable Habitat Absent; Species Absent: The site does not support appropriate habitats. Species not observed by Zander or SWCA on site.
Santa Cruz clover Trifolium buckwestiorum	Annual herb that occurs in broadleaf upland forest, cismontane woodland and coastal prairies with gravelly margins. 105–610 meters	April– October			1B.1	Suitable Conditions Absent; Species Absent: The site is at a lower elevation than the species' range, does not support gravelly areas, and does not support appropriate habitat. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
saline clover Trifolium hydrophilum	Annual herb that occurs in marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. 0–300 meters.	April–June			1B.2	Suitable Habitat Absent; Species Absent: The site does not support appropriate habitats. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Pacific Grove clover Trifolium polyodon	Annual herb usually associated with mesic (wet) sites in closed-cone coniferous forest, coastal prairies, meadows and seeps, and valley and foothill grassland. 5–120 meters	April–June		SR	1B.1	Suitable Habitat Absent; Species Absent: The slope wetland within the proposed restoration area provides marginal habitat; however, the sandy soil is not likely to support this species. CNDDB documents occurrences within 1 mile of the site. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

			Le	gal St	tatu	IS	
Species Name	Habitat and Distribution	Flower Season	Federal	State		CNPS	Rationale for Expecting Presence or Absence
Monterey clover Trifolium trichocalyx	Annual herb occurs in closed-cone coniferous forest with sandy openings or burned areas. 30–240 meters	April–June	FE	SE	1	IB.1	Suitable Habitat Absent; Species Absent: The site does not support appropriate habitats. Species not observed by Zander or SWCA during surveys conducted in the appropriate season.
Sensitive Natural Commun	nities						
Central Dune Scrub	A back dune plant community characterized by low growing, drought tolerant shrubs that develop considerable cover. Diagnostic species include <i>Ericameria ericoides</i> and <i>Lupinus chamissonis</i> .						Central dune scrub is present on the undeveloped portions of the property.
Central Maritime Chaparral	A variable scrub community of moderate to Arctostaphylos sp. Found on well drained s summer fog.					;	The site does not support central maritime chaparral.
Monterey Cypress Forest		A moderately dense forest dominated by <i>Callitropsis macrocarpa</i> ; understory usually consist of scattered shrubs and perennial herbs. This community is confined to rocky granitic soils of coastal bluffs.					
Monterey Pine Forest	coast live oak. The understory is variable in	Open to dense forest dominated by <i>Pinus radiata</i> with a significant presence of coast live oak. The understory is variable in density and composition. Monterey pine forests are limited to areas with well-drained sandy soils and marine fog.					
Monterey Pygmy Cypress Forest	A lower growing scattered forest occurring on marine terraces with sterile, acidic, and poorly drained soils. Often intergrades with Monterey pine forest. Typical understory species include <i>Arctostaphylos hookeri</i> and <i>Vaccinium ovatum</i> .						The site does not support Monterey pygmy cypress forest.
Northern Bishop Pine Forest	Open to dense serotinous forest dominated by <i>Pinus muricata</i> . This community often intergrades with northern coastal scrub on rocky soils, upland redwood forest on protected sites, or pygmy cypress forest on coastal terraces with podzol soils.					The site does not support northern bishop pine forest.	

Table 4.2-1. Special-Status Plant Species Evaluated for Potential Occurrence

	Habitat and Distribution		Le	gal Sta	atus		
Species Name		Flower Season	Federal	State	CNPS	Rationale for Expecting Presence or Absence	
Northern Coastal Salt Marsh	often active in summer and dormant in wi Jaumea carnosa, Limonium californicum,	Marsh habitat supporting herbaceous, suffrutescent, salt tolerant hydrophytes often active in summer and dormant in winter. Characteristic species include Jaumea carnosa, Limonium californicum, and Frankenia salina. Developed around Humboldt Bay, Tomales Bay, San Francisco Bay, Elkhorn Slough, and					
Valley Needlegrass Grassland	Grassland reaching up to 2 feet tall and dominated by <i>Nassella</i> sp, which is a native tussock forming grass. Annual grasses occur between the perennials, often exceeding the bunch grasses in cover. Usually occurs on fine-textured soils that are wet in the winter and very dry in the summer.				The site does not support valley needlegrass grassland.		

General references: Unless otherwise noted all habitat and distribution data provided by California Native Plant Society Rare Plant Inventory.

Status Codes

--= No status

Federal: California Native Plant Society:

FE = Federally Endangered Rank 1B = rare, threatened, or endangered in California and elsewhere.

FT = Federally Threatened Rank 2 = rare, threatened, or endangered in California, but more common elsewhere.

State: Threat Code:

SE = State Endangered .1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

ST = State Threatened .2 = Fairly endangered in California (20–80% occurrences threatened)

SR = State Rare .3 = Not very endangered in California (<20% of occurrences threatened or no current threats known)

Table 4.2-2. Special-Status Wildlife Species Evaluated for Potential Occurrence

		Le	gal Sta	atus	
Species Name	Habitat and Distribution		State	CDFW	Rationale for Expecting Presence or Absence
Insects					
monarch butterfly Danaus plexippus	Occurs along the coast from northern Mendocino to Baja California, Mexico. Winter roosts in wind protected tree groves (eucalyptus, Monterey pine and cypress), with nectar and water sources nearby.		SA		Suitable Habitat Absent: CNDDB documents occurrences on Signal Hill directly uphill and downhill from the site. However, the project area does not support suitable roost trees.
Smith's blue butterfly Euphilotes enoptes smithi	Occurs in coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz counties. Utilizes <i>Eriogonum latifolium</i> and <i>Eriogonum parvifolium</i> as a host plant for larval and food	FE			Suitable Habitat Present, Species not expected to occur. Despite repeated survey efforts in the area conducted by Dr. Richard Arnold, Smith's blue butterfly has not been documented in the vicinity of Pebble Beach and 17-mile drive (Entomological Consulting Services, Ltd. 2008).
Branchiopods					
vernal pool fairy shrimp Branchinecta lynchi	Occur in vernal pool habitats including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT			Suitable Habitat Absent: The site does not contain sandstone depressions or vernal pools.
California linderiella Linderiella occidentalis	Occurs in seasonal ponds in grasslands, sandstone depressions, and alluvial flats with hardpan beneath.				Suitable Habitat Absent: The site does not contain sandstone depressions or vernal pools.
Fish					
tidewater goby Eucyclogobius newberryi	Occurs in brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	FE		SSC	Suitable Habitat Absent: The site does not support any aquatic habitats.

Table 4.2-2. Special-Status Wildlife Species Evaluated for Potential Occurrence

			gal Sta	atus	
Species Name	Habitat and Distribution	Federal	State	CDFW	Rationale for Expecting Presence or Absence
South-Central California Coast steelhead ESU Oncorhynchus mykiss irideus	Occurs in clear, cool water with abundant instream cover, well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio.	FT, PCH		SSC	Suitable Habitat Absent: The site does not support any aquatic habitats.
Amphibians					
California tiger salamander Ambystoma californiense	Occurs in grasslands or oak woodlands that support natural ephemeral pools or ponds that mimic them. This species requires seasonal water for breeding and small mammal burrows, crevices in logs, piles of lumber, and shrink-swell cracks in the ground for refuges.	FT		SSC	Suitable Conditions Absent: Site does not support any ephemeral pools or seasonal water suitable for breeding. Small mammal burrows for aestivation were not observed.
California red-legged frog Rana draytonii	Occurs in aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Presence of fairly sturdy underwater supports such as cattails.	FT		SSC	Suitable Habitat Absent: The site does not support any aquatic habitats for breeding. CNDDB documents occurrences within 0.5 mile north of the site.
Coast Range newt Taricha torosa torosa	Breed in ponds, reservoirs, and slow-moving streams. Frequents terrestrial habitats such as oak woodlands.			SSC	Suitable Habitat Absent: The site does not support any aquatic habitats for breeding. Species not observed.
Reptiles					
California legless lizard Anniella pulchra (inclusive of A. p. pulchra and A. p. nigra)	Occurs in sandy or loose loamy soils with high moisture content under sparse vegetation. Herpetologists debate the validity of these two subspecies. Regardless of the specific epithet, <i>A. p. pulchra</i> and <i>A. p. nigra</i> have the same conservation status and utilize similar habitats; therefore, they are treated together in this evaluation.			SSC	Suitable Habitat Present: CNDDB documents occurrences on Signal Hill directly uphill and downhill from the site. Species is likely present on the site.

Table 4.2-2. Special-Status Wildlife Species Evaluated for Potential Occurrence

		Leg	jal Sta	atus	
Species Name	Habitat and Distribution		State	CDFW	Rationale for Expecting Presence or Absence
western pond turtle Emys marmorata	Occurs in quiet waters of ponds, lakes, streams, and marshes. Typically in the deepest parts with an abundance of basking sites.			SSC	Suitable Conditions Absent: Site does not support freshwater habitat with basking structures.
coast horned lizard Phrynosoma coronatum (blainvillii population)	Frequents a wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub and chaparral in arid and semi-arid climate conditions. Species prefers friable, rocky, or shallow sandy soils.			SSC	Suitable Conditions Present: CNDDB does not document occurrences in the immediate area; however, the site supports suitable habitat for this species. Species not observed during surveys.
Birds					
tricolored blackbird Agelaius tricolor	(Nesting colony); requires open water, protected nesting substrate such as cattails or tall rushes, and foraging area with insect prey.	MBTA		SSC	Suitable Conditions Absent: The site does not support any aquatic sites with emergent vegetation.
burrowing owl Athene cunicularia	Occurs in open, dry grasslands, deserts, and scrublands. Subterranean nester, dependent upon burrowing mammals.	MBTA		SSC	Suitable Conditions Absent: The friable soil is suitable for wintering burrowing owl. However, the sloped topography and lack of small mammal burrows are not conducive to this species. Burrowing owls are not expected to occur on the site.
marbled murrelet Brachyramphus marmoratus marmoratus	Spends most of the non-breeding season in off shore or near shore environments near coniferous forests. The only California alcid species to nests inland. Typically nests in the upper branches of redwoods or doug-fir forests. Builds its nests with lichens and mosses.	FT			Suitable Conditions Absent: The site does not support coniferous forest suitable for nesting.
ferruginous hawk <i>Buteo regalis</i>	A winter migrant in coastal California that utilizes open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats. Preys on lagomorphs, ground squirrels, and mice.	MBTA			Suitable Conditions Absent: Although the ferruginous hawks may pass through the area in the winter. Nesting is not expected to occur in the project areas.

Table 4.2-2. Special-Status Wildlife Species Evaluated for Potential Occurrence

		Leg	jal Sta	atus	
Species Name	Habitat and Distribution		State	CDFW	Rationale for Expecting Presence or Absence
western snowy plover Charadrius alexandrinus nivosus	Occurs on sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	MBTA, FT		SSC	Suitable Conditions Absent: The site does not support the appropriate habitat for nesting.
black swift Cypseloides niger	Occurs along the coastal belt of Santa Cruz and Monterey counties, central and southern Sierra Nevada, and in the San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs, near waterfalls and on sea bluffs above the ocean.			SSC	Suitable Conditions Absent: The site does not contain cliffs, waterfalls or sea bluffs. Impacts to this species are not expected.
yellow rail Coturnicops noveboracensis	Occurs in freshwater marshlands. Known as a summer resident in the eastern Sierra Nevada mountain range, Mono County.	МВТА		SSC	Suitable Conditions Absent: The site does not support freshwater marshlands suitable for this species. Species not observed.
southwestern willow flycatcher Empidonax traillii extimus	Occurs in riparian woodlands of southern California.	FE	SE		Suitable Conditions Absent: The site does not support riparian woodlands suitable for this species. Species not observed.
California horned lark Eremophila alpestris actia	Occurs in short grass prairies, coastal plains, fallow grain fields and alkali flats. Found in coastal regions from Sonoma to San Diego county, and west to the San Joaquin Valley.	MBTA			Suitable Conditions Absent: The sloped topography and dense shrubs are not conducive to this species. California horned lark is not expected to occur on the site. Species not observed during the surveys.
California condor Gymnogyps californianus	Occurs in open savannahs, grasslands, and foothill chaparral, in mountain ranges with moderate altitudes. Nest in deep canyons on rock walls with clefts.	MBTA, FE	SE		Suitable Conditions Absent: The site does not support any cliffs or rock faces for nesting. Any occurrence in the area would be an incidental flyby to access coastal feeding grounds on the nearby beaches.

Table 4.2-2. Special-Status Wildlife Species Evaluated for Potential Occurrence

		Leg	gal Sta	itus	
Species Name	Habitat and Distribution		State	CDFW	Rationale for Expecting Presence or Absence
California black rail Laterallus jamaicensis coturniculus	Shore birds known to frequent tidal salt marshes. Utilize densely vegetated mud flats and high tide line in salt water marsh systems.	MBTA	ST		Suitable Conditions Absent: the site does not support tidal salt marshes or mudflats. Species not observed.
ashy storm-petrel Oceanodroma homochroa	An open ocean bird that feeds in pelagic waters. Target feeding grounds include the edge of the continental shelf and other deep water habitats such as the Monterey submarine canyon. Often seen near shore in Monterey Bay. Nests on rocky islands with abundant crevices.			SSC	Suitable Conditions Absent: The site is too far removed from the coastline to support this species. The site does not have rocky outcrops with numerous crevices for nesting opportunities.
California brown pelican Pelecanus occidentalis californicus	Nests on coastal islands in colonies; forages throughout coastal California ocean waters.	FE	SE		Suitable Conditions Present: Site does not support any nesting habitat. However, near-shore open water habitat located just west of the project area supports resting and foraging habitat. Any occurrence during project activities would be a "fly by".
bank swallow Riparia riparia	Nests in colonies in vertical sand banks. Forages over meadows and water.		ST		Suitable Conditions Absent: The site does not have any vertical banks for nesting opportunities.
California least tern Sternula antillarum browni	Largely a coastal species that feed on fish and nest on sandy dunes or beaches. Once a common species in California; currently nesting colonies are isolated to Southern California and scattered Bay Area beaches.	FE	SE		Suitable Conditions Absent: The site does not include sandy dunes or beaches suitable for nesting.
Least Bell's vireo Vireo bellii pusillus	Summer resident of southern California. Occurs in low riparian areas in the vicinity of water or in dry river bottoms below 2000 feet. Nests along the margins of bushes or twigs of willow, Baccharis, or mesquite.	FE	SE		Suitable Conditions Absent: the site does not support low riparian areas or dry river bottom conditions.

Table 4.2-2. Special-Status Wildlife Species Evaluated for Potential Occurrence

		Legal Status			
Species Name	Habitat and Distribution		State	CDFW	Rationale for Expecting Presence or Absence
Class Aves Other migratory bird species (nesting)	Annual grasslands, coastal scrub, chaparral, and oak woodlands may provide nesting habitat.	MBTA			Suitable Conditions Present: Potential nesting habitat occurs throughout the site.
Mammals					
Townsends big-eared bat Corynorhinus townsendii	Occurs in a wide variety of habitats; most common in mesic (wet) sites. May use trees for day and night roosts; however, requires caves, mines, rock faces, bridges or buildings for maternity roosts. Maternity roosts are in relatively warm sites.			SSC	Suitable Conditions Absent: The site does not support suitable roosting substrates.
Southern sea otter Enhydra lutris nereis	Sea otters are found in nearshore marine environments of California from Año Nuevo, San Mateo County, to Point Sal, Santa Barbara County.	FT		FP	Suitable Conditions Absent: The site does not include nearshore marine habitats.
Hoary bat Lasiurus cinereus	Occurs in open habitats and habitat mosaics with access to trees for cover. Roosts in dense foliage of medium to large trees.		SA		Suitable Conditions Absent: The site does not support appropriate habitats or trees suitable for roosting.
American badger Taxidea taxus	Occurs in open stages of shrub, forest, and herbaceous habitats; needs uncultivated ground with friable soils.			SSC	Suitable Conditions Absent: The sloped topography and dense shrubs are not conducive to this species.

General references: Unless otherwise noted all habitat and distribution data provided by CNDDB.

Status Codes

--= No status

Federal: State:

FE = Federal Endangered

FT = Federal Threatened

SE = State Endangered

ST = State Threatened

FC = Federal Candidate

CH = Federal Critical Habitat

California Department of Fish and Wildlife:

PCH = Proposed Federal Critical Habitat SSC = California Special Concern Species

MBTA = Protected by Federal Migratory Bird Treaty Act FP = Fully Protected Species

SA = Not formally listed but included in CDFW "Special Animal" List.

4.2.2 Regulatory Setting

4.2.2.1 Federal Regulations

Federal Endangered Species Act of 1973

The FESA provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with USFWS or the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a particular species. If USFWS or NOAA Fisheries determine that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

Migratory Bird Treaty Act of 1918

The MBTA protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by USFWS, and potential impacts to species protected under the MBTA are evaluated by USFWS in consultation with other federal agencies.

4.2.2.2 State Regulations

California Endangered Species Act

The CESA ensures legal protection for plants listed as rare or endangered, and wildlife species formally listed as endangered or threatened. The state law also lists SSC species based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, CDFW is empowered to review projects for their potential to impact state listed species and SSC species, and their habitats.

California Fish and Game Code

"Fully Protected" species may not be taken (hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill) or possessed without a permit from the California Fish and Game Commission and/or CDFW. Information on these species can be found within §3511 (birds), §4700 (mammals), §5050 (reptiles and amphibians), and §5515 (fish) of the California Fish and Game Code. Sections 3503 and 3503.5 of the California Fish and Game Code state that it is unlawful to take, possess, or destroy the nest or eggs of any bird, with occasional exceptions. In addition, §3513 states that it is unlawful to take or possess any migratory bird as designated in the MBTA or any part of such migratory birds except as provided by rules and regulations under provisions of the MBTA.

CDFW also manages the California Native Plant Protection Act of 1977 (California Fish and Game Code §1900, et seq.), which was enacted to identify, designate, and protect rare plants. In accordance with CDFW guidelines, plant species included on CNPS lists 1A, 1B, and 2 are considered "rare" under the Native Plant Protection Act, and are evaluated in CEQA documents. Impacts to plants on these lists must be fully evaluated under CEQA. Little information is known about plant species included on CNPS list 3; plants included on CNPS list 4 have limited distributions. It is strongly recommended that impacts to plants on CNPS lists 3 and 4 be evaluated in CEQA documents.

California Coastal Act

The California Coastal Act was enacted in 1976 to provide long-term protection of California's coastal resources. The Coastal Act's coastal resources management policies are based on recommendations contained in the California Coastal Plan. One such policy includes:

"Protection, enhancement and restoration of environmentally sensitive habitats, including intertidal and nearshore waters, wetlands, bays and estuaries, riparian habitat, certain wood and grasslands, streams, lakes, and habitat for rare or endangered plants or animals."

Most development within the coastal zone is required to obtain a coastal development permit. The CCC, or other local agency with delegated authority through an approved LCP, must evaluate proposed impacts to coastal resources, wetlands, and other environmentally sensitive habitats. Any proposed impacts to these resources must conform to Coastal Act/LCP policies.

The Coastal Act definition of a wetland is broader than that of the U.S. Army Corps of Engineers (USACE). For wetland delineations in the Coastal Zone, the CCC utilizes a single-parameter definition, where any one of three common wetland indicators (hydrophytic vegetation, hydric soil, or wetland hydrology) will qualify an area as a wetland (as opposed to the USACE three-parameter methodology, which requires all three wetland characteristics to be present for an area to be considered a wetland). Delineations performed using the CCC definition generally results in the identification of more and larger wetland areas than a corresponding USACE delineation of the same site due to the difference in identifying criteria between methods.

4.2.2.3 Local Regulations and Policies

Del Monte Forest Area Land Use Plan and Coastal Implementation Plan

The Del Monte Forest Area LUP (County of Monterey 2012a) is a component of the LCP and is supported by Part 5 of the Coastal Implementation Plan, *Regulations for Development in the Del Monte Forest Land Use Plan Area (Title 20, Coastal Zoning Ordinance, Chapter 20.147)* (Monterey County 2012b). Together, these documents include policies requiring the protection of ESHA and the preservation of freshwater areas, marine areas, and forest areas.

Environmentally Sensitive Habitat Areas

The Del Monte Forest Area LUP defines ESHA 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 development. In the Del Monte Forest, examples of habitat areas which have historically been determined to meet the definition of ESHA include: the rare Monterey cypress and Gowen cypress forest communities, portions of the native Monterey pine forest, the endemic Monterey pine/Bishop pine association, central maritime chaparral, coastal sand dunes, streams and riparian corridors, wetlands, and sites in which sensitive plants and animals associated with these and other habitats are located."

Del Monte Forest Area LUP policies provide strong protection for ESHAs, and allowable development within ESHA is limited to resource-dependent uses (e.g., nature education and research) that do not result in any significant disruption of habitat values. The LUP also requires

that any development adjacent to ESHA be properly sited and designed to avoid impacts that would significantly degrade the adjacent habitat areas.

Freshwater and Marine Resources

Freshwater and marine resources include Del Monte Forest's coastal streams, wetlands, open coastal waters, and Carmel Bay. As discussed in Section 4.2.2.2, the definition of wetlands in the coastal zone requires that a wetland area support at least one of the following indicators:

- dominance of hydrophytic vegetation;
- hydric soil indicators; or,
- wetland hydrology indicators.

The key policies in the LUP require that freshwater and marine resources be protected and maintained through application of adequate buffers and setbacks, maintaining hydrologic inputs, protecting riparian and wetland vegetation, carefully controlling grading to minimize erosion and sedimentation, and effective collection, filtration, and treatment of runoff.

Forest Resources

The Del Monte Forest area includes premier examples of Monterey pine forest, Monterey cypress forest, Gowen cypress (*Hesperocyparis goveniana*) forest, and Bishop pine (*Pinus muricata*) forest. The forests are a defining element of the Del Monte Forest area and are provided special protections in the LUP.

The protection of identified forest resources is a paramount concern of the LUP. The LUP recognizes that some of the Del Monte area forests are ESHA, while other forests are not. Some level of protection is provided for all types of forest resources, but disturbance of non-ESHA forests and non-forest trees as part of normal and typical development is allowed as long as the development is otherwise consistent with the LCP. Development within ESHA forests is strictly limited.

4.2.2.4 Applicable State, Regional, and Local Land Use Plans and Policies Relevant to Biological Resources

Table 4.2-3 lists applicable state, regional, and local land use policies and regulations pertaining to biological resources that were adopted for the purpose of avoiding or mitigating an environmental effect and that are relevant to the proposed project. A general overview of these policy documents is presented in Section 4.2.2, Regulatory Setting, above, and Chapter 3, Environmental Setting. Also included in Table 4.2-3 is an analysis of project consistency with identified policies and regulations. Where the analysis concludes the proposed project would potentially conflict with the applicable policy or regulation, the reader is referred to Section 4.2.5, Impact Assessment and Mitigation Measures, for additional discussion.

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Goals, Policies, Plans, Programs and Standards

Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts

Preliminary Consistency Determination*

County of Monterey Del Monte Forest Area Land Use Plan

Del Monte Forest Land Use Plan Key Policies

Freshwater and Marine Resources: The water quality and biological value of the Del Monte Forest's coastal streams, wetlands, open coastal waters, and the Carmel Bay shall be protected and maintained, including through application of adequate buffers and setbacks, maintaining hydrologic inputs, protecting riparian and wetland vegetation, carefully controlling grading to minimize erosion and sedimentation, and effective collection, filtration, and treatment of runoff.

The intent of this policy is to ensure that proposed projects do not result in adverse impacts to marine and freshwater resources.

Potentially Consistent. The proposed project is located on a stabilized sand dune and would not directly or indirectly affect marine or freshwater resources. The identified wetland vegetation is located within an area proposed for restoration and is located approximately 130 feet downslope from the proposed residence. Mitigation has been identified to ensure adequate erosion control is implemented during construction (HYD/mm-1.1) and wetland species are protected during dune restoration (BIO/mm-4.1 and BIO/mm-4.2). With implementation of identified mitigation, the project would be consistent with this policy.

Environmentally Sensitive Habitat Areas: The environmentally sensitive habitat areas of the Del Monte Forest are unique, limited, and fragile resources that are sensitive and important biologically, as well as resources that enrich Del Monte Forest enjoyment for residents and visitors alike. Accordingly, these areas shall be protected, maintained, and, where possible, enhanced and restored in accordance with the policies of this LUP. Except where specifically and explicitly authorized by the LUP, all categories of land use and development, both public and private, shall be subordinate to the protection of these areas.

The intent of this policy is to ensure that development projects do not adversely affect ESHA.

Potentially Inconsistent. As proposed, the project would encroach onto and permanently convert ESHA into the building footprint and other proposed paved areas. Mitigation is proposed to reduce the impacts on ESHA to less than significant, including use of native species within proposed landscaped areas and long-term maintenance to ensure the success of restored areas. The project would also restore and conserve 1.67 acres of ESHA in perpetuity, and the loss of 0.39 acre of ESHA would not disrupt or significantly degrade the habitat values of the remaining ESHA at the project site.

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
	However, approval of the project as mitigated would make the protection of ESHA subordinate to the project, which would be potentially inconsistent with this policy.
The intent of this policy is to ensure that development projects do not adversely affect forest resources in the Del Monte Forest area.	Potentially Consistent. The proposed project site does not support forested areas; however, several individual Monterey cypress and Monterey pine trees are located on the site. The project would require the removal of two Monterey cypress trees and mitigation has been identified to protect forest resources to remain, including preparation of a Monterey Cypress Tree Protection, Replacement, Maintenance and Monitoring Plan and construction monitoring by an arborist. Mitigation is also identified, which requires the replacement and maintenance of the removed trees onsite. Implementation of these measures would protect these forest resources, consistent with this policy.
The intent of this policy is to avoid long- term adverse effects on Environmentally Sensitive Habitat Areas.	Potentially Inconsistent. Construction of the proposed residence and adjacent landscaping would result in the permanent loss of 0.39 acre of disturbed sand dune habitat, which is considered ESHA. Expanded residential use of ESHA is not a resource dependent use and would be potentially inconsistent with this policy. However, the project
	Avoiding or Mitigating Significant Environmental Impacts The intent of this policy is to ensure that development projects do not adversely affect forest resources in the Del Monte Forest area. The intent of this policy is to avoid long-term adverse effects on Environmentally

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
		would also conserve 1.67 acres of ESHA in perpetuity and the loss of 0.39 acre of ESHA would not disrupt or significantly degrade the habitat values of the remaining ESHA at the project site.
Policy 11. Contiguous areas of land in open space uses shall be maintained wherever possible to protect environmentally sensitive habitat areas and associated wildlife values. To this end, development of parcels immediately adjacent to environmentally sensitive habitat areas shall be planned to keep development intensity immediately adjacent to the sensitive habitats as low as possible, consistent with other planning criteria (e.g., drainage design, roadway design, and public safety).	The intent of this policy is to protect ESHA and wildlife habitat in contiguous areas of open space.	Potentially Consistent. Although the proposed residence would be larger than the existing residence, the project does not propose a substantial increase in density or intensity of uses at the project site. The increased area of residential development would not substantially affect wildlife values in the surrounding area, consistent with this policy.
Policy 12. Where development of any type, including subdivision of land for development purposes, is proposed in or near documented or expected locations of environmentally sensitive habitat areas, biological reports, including field surveys and impact analysis, by qualified individuals shall be required to precisely determine such habitat area locations and to recommend siting, design, and related mitigating measures to ensure protection of any sensitive species or habitat areas present.	The intent of this policy is to ensure that development projects are adequately studied to identify whether or not the project would adversely affect ESHA.	Potentially Consistent. The Monterey County Resource Management Agency – Planning Department has established guidelines for biological studies to evaluate project impacts on biological resources. The applicant retained Zander, a Monterey County approved biological consultant, to prepare several studies on the site. In addition, SWCA conducted a biological study for the preparation of this EIR, consistent with this policy
Policy 13. Environmentally sensitive habitat areas shall be protected through deed restrictions or permanent open space conservation and scenic easements granted to the Del Monte Forest Foundation. Where developments are proposed within or near areas containing environmentally sensitive habitat, such restrictions or easements shall be established through the development review process. Where development has already occurred within or near areas containing environmentally sensitive habitat, property owners are encouraged to voluntarily grant conservation and scenic easements to the Del Monte Forest Foundation. Except in the case of voluntary easements, each	The intent of this policy is to avoid long- term adverse effects on Environmentally Sensitive Habitat Areas.	Potentially Consistent. The project would result in the permanent loss of 0.39 acre of ESHA, as a result of the expanded building footprint and adjacent landscaping. However, the project also includes the restoration of 1.67 acres of ESHA on the site. Mitigation has been identified that requires protection of the 1.67 acres of restored ESHA in perpetuity through a deed restriction or

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
instrument for effecting such restriction or easement shall be subject to approval by the County and the Coastal Commission as to form and content; shall provide for enforcement, if need be, by the County or other appropriate enforcement agency; and shall name the County as beneficiary in the event the Foundation ceases or is unable to adequately manage these easements for the intended purpose of natural habitat preservation. Permanent open space conservation and scenic easements shall be dedicated to the Del Monte Forest Foundation for all areas of the Forest designated Open Space Forest and Open Space Shoreline.		permanent open space and conservation easement (see measure BIO/mm-3.1), consistent with this policy. With implementation of identified mitigation, the project would be consistent with this policy.
Policy 14. Near environmentally sensitive habitat areas, native vegetation removal and land disturbance (grading, excavation, paving, etc.) shall be restricted to the minimum amount necessary to accommodate reasonable development. Development shall be sited and designed to prevent impacts that would significantly degrade those nearby areas, and shall be compatible with the continuance of those habitat areas.	The intent of this policy is to avoid long-term adverse effects on Environmentally Sensitive Habitat Areas.	Potentially Consistent. The proposed project has been sited and designed to maximize the use of the currently developed/disturbed portions of the parcel and to minimize disturbance of native dune habitat and the loss of ESHA. The proposed residence would result in the loss of 0.39 acre of disturbed sand dune habitat that is considered ESHA per applicable plans and policies. However, this area of ESHA is moderately to heavily disturbed and development of the project would not significantly degrade or interfere with the continuance of restored ESHA in nearby areas, consistent with this policy.
Policy 15. The use of non-invasive Del Monte Forest-appropriate native plant species shall be required in landscape materials used in projects and invasive plant species shall be prohibited, especially in developments adjoining environmentally sensitive habitat areas. Non-native and/or invasive plant species should be removed, and such removal is encouraged.	The intent of this policy is to prevent adverse effects on Environmentally Sensitive Habitat Areas as a result of invasive species.	Potentially Consistent. The project does not include the installation of any invasive species, and proposes the removal of invasive species within the 1.67-acre dune restoration area. Mitigation measures have been identified that prohibit the use of invasive species in project landscaping areas, consistent with this policy. With implementation of identified mitigation, the project would be consistent with this policy.

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
Policy 16. Prior to approval of development on existing legal lots of record, a biological report shall be prepared by a qualified biologist for the purpose of determining the presence of rare, endangered, and/or sensitive native plant and animal species and habitats and developing appropriate siting and design standards.	The intent of this policy is to ensure that development projects are adequately studied to identify whether or not the project would adversely affect special-status natural resources.	Potentially Consistent. The applicant retained Zander, a Monterey County approved biological consultant, to conduct several studies on the site that included an analysis of the potential for presence of rare, endangered, and/or sensitive native species at the site. In addition, SWCA conducted a biological study for the preparation of this EIR, consistent with this policy.
Policy 17. The remnant native sand dune habitat along the shore in the Spanish Bay planning area, on Signal Hill near the former Spyglass Quarry, and adjacent to 17-Mile Drive in the Spyglass Cypress planning area, shall be preserved through open space conservation and scenic easements conveyed to the Del Monte Forest Foundation, as provided by Policy 13 above, as part of the approval of any development in adjacent areas.	The intent of this policy is to protect the remnant native sand dune habitat in the Spanish Bay and Signal Hill areas.	Potentially Consistent. The project would result in the loss of 0.39 acre of ESHA, as a result of the expanded building footprint and adjacent landscaping. Mitigation has been identified that requires protection of the 1.67 acres of remaining ESHA in perpetuity through deed restriction or conservation easements (refer to measure BIO/mm-3.1), consistent with this policy. With implementation of identified mitigation, the project would be consistent with this policy.
Policy 18. Uses of remnant native sand dune habitat shall be limited to low-intensity scientific, educational, and/or recreational activities dependent on the resource. Particular attention shall be given to protection of rare and endangered plants from trampling. Such uses must be consistent with restoration and enhancement of the habitat.	The intent of this policy is to protect remnant native sand dune habitat and sensitive species.	Potentially Inconsistent. The proposed project includes expansion of residential development into areas of disturbed native sand dune. Although no rare and endangered plant species were identified at the site, residential development is not a resource-dependent use and the project would be potentially inconsistent with this policy.
Policy 20. Indigenous Monterey cypress habitat is an environmentally sensitive habitat area within the Del Monte Forest, and is presumed present within the area mapped in Figure 2a. All proposed development in this area shall be accompanied by the biological	The intent of this policy is to preserve and protect designated Monterey cypress habitat.	Potentially Consistent. The project site is not located in identified Monterey cypress habitat. Two Monterey cypress trees are proposed for removal;

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Intent of the Policy in Relation to **Preliminary** Goals, Policies, Plans, Programs and Standards Avoiding or Mitigating **Consistency Determination* Significant Environmental Impacts** reports described in Policies 12 and 16. All use and development in or mitigation identified in the EIR would adjacent to indigenous Monterey cypress habitat areas shall be require replacement of these trees compatible with the objective of protecting this environmentally onsite. Individual Monterey cypress trees sensitive coastal resource. All improvements (such as structures and to remain on the site, and new trees to driveways, etc.) shall be carefully sited and designed to avoid potential be planted, would be protected through damage or degradation of Monterey cypress habitat, including the identified mitigation, including a microhabitat of individual cypress trees, and must be located within requirement for preparation of a existing hardscaped areas and outside of the dripline of individual Monterey Cypress Tree Protection, cypress trees. Within the perimeter of the identified habitat area for a Replacement, Maintenance and site, including at a minimum as defined by the driplines of the Monitoring Plan, consistent with this outermost indigenous Monterey cypress trees on the site, removal of policy. Mitigation has been identified that native trees or other indigenous vegetation, grading, paving, building requires protection of the 1.67 acres of construction activity, landscape alterations and summer watering shall remaining ESHA in perpetuity through deed restriction or conservation be prohibited. On the inland side of 17-Mile Drive, driveways shall be easements (refer to measure BIO/mmallowed in this area where the driveway does not come within the dripline of individual Cypress trees. Underground residential utilities 3.1), consistent with this policy. With and fences shall be allowed in this area on the inland side of 17-Mile implementation of identified mitigation, the project would be consistent with this Drive. Open space conservation and scenic easements are required for all undeveloped areas of a parcel within the Monterey cypress policy. habitat area, and such easements shall be secured consistent with Policy 13. Policy 23. In addition to environmentally sensitive habitat area policies The intent of this policy is to protect Potentially Consistent. The project site is that may also apply, riparian plant communities shall be protected by riparian vegetation and associated not located adjacent to any riparian establishing a setback/buffer of at least 100 feet as measured from the aquatic habitat from adverse impacts. vegetation. outer edge of riparian vegetation. The setback/buffer requirement may be reduced only if it is clearly demonstrated that a narrower setback/buffer is sufficient to protect riparian vegetation and associated wildlife values and other ecological functions, and that riparian enhancement is included in a project. No significant disruption of riparian habitat will be permitted, and all allowable use/development dependent on the riparian resource, including bridges, shall result in long-term habitat enhancement (i.e., new habitat value greater (qualitatively and quantitatively) than existing habitat value). Examples of such cases include restoration of previously damaged riparian environments and replacement of fill and culverts by bridges.

Goals, Policies, Plans, Programs and Standards

Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts

Preliminary Consistency Determination*

Policy 25. In addition to environmentally sensitive habitat area policies that may also apply, a setback/buffer of at least 100 feet as measured from the edge of wetlands and from the mean high water line of the ocean shall be provided. No landscape alterations will be allowed in this setback/buffer area unless accomplished in conjunction with restoration and enhancement, and unless it is demonstrated that no significant disruption of environmentally sensitive habitat areas will result.

The intent of this policy is to protect coastal wetlands from adverse impacts.

Potentially Consistent. The project's proposed construction footprint is approximately 130 feet from the identified Juncus mexicanus dominated coastal wetland. Mitigation measures have been identified to ensure dune restoration activities would not significantly disrupt wetland areas, including requirements that the perimeter of the wetland be flagged, that any vegetation removal within 25 feet of the coastal wetland be implemented by hand, and that no herbicides shall be used within 25 feet of the wetland. With implementation of identified mitigation. the project would be consistent with this policy.

FOREST RESOURCES

Policy 30. The natural forested character of Del Monte Forest shall to the maximum feasible degree be retained consistent with the uses allowed by this LUP. Accordingly, all tree removal, land clearing for development, and forest management activities within native forest areas covered by this LUP shall conform to LUP policies regarding water and marine resources, environmentally sensitive habitat areas, and scenic visual resources.

The intent of this policy is to ensure that development projects do not result in adverse effects on forest resources in the area.

Potentially Consistent. The project site is not located in identified forested areas. Two Monterey cypress trees are proposed for removal. Individual Monterey cypress trees to remain on the site, and trees to be planted as mitigation for the loss of existing trees, would be protected through identified mitigation, including a requirement for preparation of a Monterey Cypress Tree Protection, Replacement, Maintenance and Monitoring Plan, consistent with this policy. With implementation of identified mitigation, the project would be consistent with this policy.

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
Policy 31. Where LUP objectives conflict, preference should be given to long-term protection of the forest resource. All development that could affect trees and/or forest resources shall be accompanied by a forest management plan that clearly identifies all aspects of the tree/forest resources in question, including in relation to whether the trees are part of a forest, and whether the forest or portions of it are considered ESHA (to which the requirements of the preceding applicable LUP ESHA policies shall apply). When reviewing requests for tree removal, environmental considerations shall include review of forest plant associations, native soil cover, fuel management, aesthetic values, tree health, and applicable forest management plans. Within a forest ESHA, or for any individual tree considered ESHA, tree removal shall be prohibited unless it is part of restoration and enhancement efforts.	The intent of this policy is to ensure that development projects do not result in adverse effects on forest resources in the area.	Potentially Inconsistent. The project site is not located in identified forested areas. However, individual Monterey cypress trees in areas identified as ESHA would be removed. The tree removal is not part of restoration or enhancement; therefore, the project is potentially inconsistent with this policy.
Policy 33. In considering potential development projects, siting and design shall be required to minimize to the extent feasible the removal of trees and understory vegetation and damage to soil resources. Siting, design, and land use concepts that minimize removal and damage should be applied and are preferred. Retained trees that are located close to construction areas shall be protected from inadvertent damage by construction equipment through wrapping of trunks with protective materials, bridging or tunneling under major roots where exposed in foundation or utility trenches, and other measures appropriate and necessary to protect the well-being of the retained trees.	The intent of this policy is to reduce the number of trees to be removed during development and minimize impacts to trees that are located adjacent to but will remain after development.	Potentially Consistent. The project would require tree removal; however, mitigation has been identified to protect trees and minimize impacts to trees that are located adjacent to the proposed development but will remain after development, including preparation of a Monterey Cypress Tree Protection, Replacement, Maintenance and Monitoring Plan and construction monitoring by an arborist, consistent with this policy. With implementation of identified mitigation, the project would be consistent with this policy.
Policy 34. The natural forest soil cover shall be retained in place to the maximum extent possible.	The intent of this policy is to minimize the loss of forest soils.	Potentially Consistent. The project site does not contain any natural forest soil cover.
Policy 35. Development, including driveways and parking areas, shall be sited and designed to minimize removal of trees, especially trees that significantly contribute to the visual character of public view corridors (e.g., along 17-Mile Drive) and that screen the development from public view and neighboring properties. The clustering of single	The intent of this policy is to minimize the loss of trees resulting from development projects.	Potentially Consistent. The project would result in the removal of two Monterey cypress trees and include grading adjacent to additional trees to remain after construction. Project construction

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
	has been sited within previously disturbed areas to the extent feasible. Mitigation measures have been identified to protect onsite trees, including preparation of a Monterey Cypress Tree Protection, Replacement, Maintenance and Monitoring Plan and construction monitoring by an arborist, consistent with this policy. With implementation of identified mitigation, the project would be consistent with this policy.
The intent of this policy is to prohibit the removal of trees in undeveloped areas	Potentially Consistent. The project would result in the removal of two Monterey cypress trees and include grading adjacent to additional trees to remain after construction. Mitigation measures have been identified to protect onsite trees, including preparation of a Monterey Cypress Tree Protection, Replacement, Maintenance and Monitoring Plan and construction monitoring by an arborist, consistent with this policy. With implementation of identified mitigation, the project would be consistent with this policy.
This policy is intended to avoid adverse effects on Environmentally Sensitive Habitat Areas.	Potentially Consistent. The project would result in the permanent loss of 0.39 acre of ESHA, as a result of the expanded building footprint and adjacent landscaping. However, the project also proposes restoration of 1.67 acres of on-
	Avoiding or Mitigating Significant Environmental Impacts The intent of this policy is to prohibit the removal of trees in undeveloped areas This policy is intended to avoid adverse effects on Environmentally Sensitive

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
		site ESHA and mitigation has been identified that requires use of native or native-compatible species in project landscaping and protection of the restored ESHA in perpetuity through deed restriction or conservation easements (refer to measure BIO/mm-3.1), consistent with this policy. With implementation of identified mitigation, the project would be consistent with this policy.
Policy 71. Environmentally sensitive habitat areas shall remain undeveloped except for resource-dependent development that will not significantly disrupt habitat values.	This policy is intended to avoid adverse effects on Environmentally Sensitive Habitat Areas.	Potentially Inconsistent. The proposed project includes expansion of residential development into degraded dune habitat that qualifies as ESHA. Although the project would not substantially disrupt habitat values, residential development is not a resource-dependent use and the project would be potentially inconsistent with this policy.
Policy 72. Within their indigenous range (see Figure 2a), Monterey cypress trees shall be protected to the maximum extent possible. All development that would impact Monterey cypress trees and/or Monterey cypress habitat in this area shall be sited and designed to avoid adverse impacts to individual cypress trees and cypress habitat.	The intent of this policy is to preserve and protect designated Monterey cypress habitat.	Potentially Consistent. The project site is not located in identified Monterey cypress indigenous range.
Monterey County Coastal Implementation Plan		
Part 5 Regulations for Development in the Del Monte Forest Plan A	rea (Chapter 20.147)	
20.147.040 Environmentally Sensitive Habitat Areas A. Environmentally Sensitive Habitat Area (ESHA) Determination The presence/absence of ESHA shall be determined prior to initiating the application review process with the intent to design sites in a manner avoiding ESHA to the greatest extent feasible. ESHAs are those habitat areas in which plant or animal life or their	It is the intent of this section is to ensure that proposed projects are reviewed in sufficient detail to determine whether or not ESHA will be affected by the project.	Potentially Consistent. This EIR and previous studies evaluated the site to determine the presence of ESHA in the project area, consistent with this policy.

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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. Historically, the following types of habitats have generally been found to meet the definition of ESHA:

- Habitat areas that are rare or especially valuable from a local, regional, or statewide basis.
- Habitat areas that support plant or animal species designated or candidates for listing as rare, threatened, or endangered under State or Federal law.
- Habitat areas that support species designated as Fully Protected or Species of Special Concern under State law or regulations.
- Habitat areas that support plant species for which there is compelling evidence of rarity (e.g., those designated 1b (rare or endangered in California and elsewhere) or 2 (rare, threatened, or endangered in California but more common elsewhere) by the California Native Plant Society).
- Areas of particular biological, scientific, or educational interest, including large continuous expanses of native trees and vegetation.

Determinations of whether ESHA is actually present in the Del Monte Forest in any particular situation must be based on an evaluation of both the resources on the ground and knowledge about the sensitivity of the habitat at the time of development consideration. In the Del Monte Forest, examples of habitat areas that have historically been determined to meet the definition of ESHA include: the rare Monterey cypress and Gowen cypress forest communities, portions of the native Monterey pine forest, the endemic Monterey pine/Bishop pine association, central maritime chaparral, coastal sand dunes, streams and riparian corridors, wetlands, rocky intertidal areas, near-shore reefs, offshore rocks and inlets, the Carmel Bay ASBS, kelp beds, rookeries and haul-out sites, important roosting sites, and sites in which sensitive plants and animals associated with these and other habitats are located.

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In terms of native Monterey pine forest and ESHA determinations, unless there is compelling site specific evidence to the contrary, significant stands (i.e., 20 acres in size or larger) of native Monterey pine forest that are relatively undisturbed are considered ESHA. Stands of native Monterey pine forest less than 20 acres that provide specific documented ecosystem functions, such as the provision of habitat for rare species (e.g., Yadon's piperia or Hooker's Manzanita) or rare communities (e.g., central maritime chaparral), or that are very close to or connected to large areas of forest may also be considered ESHA because of their especially valuable ecosystem functions. Other factors that might be considered in native Monterey pine forest ESHA determinations include the relative degradation or health of the understory, association with wetland or riparian resources, or the relative uniqueness of the stand itself.

20.147.040 Environmentally Sensitive Habitat Areas

- B. Biological Report Requirements
 - Applications for development of any type, including subdivision of land for development purposes, shall include field surveys and impact analysis, by qualified individuals, to precisely determine habitat area, including ESHA, and to recommend siting, design, and related mitigating measures to ensure protection of any sensitive species or habitat areas present. All required setbacks, development footprint, fuel management, and landscape areas shall be illustrated on a map that depicts habitat areas.
 - All reports shall be prepared by a qualified biologist, and all field surveys for such biological reports shall be undertaken during times when documented or expected habitat evidence is most likely to be detected (e.g., flowering season, breeding season, etc.).
 - At a minimum, a report shall be required for all proposed development that can be described using one or more of the following criteria:
 - (a) The development is or may potentially be located within an environmentally sensitive habitat area, based on

The intent of this section is to protect the significant ESHA resources of the Del Monte Forest.

Potentially Consistent. The applicant retained Zander, a Monterey County approved biological consultant, to prepare several studies on the site. In addition, SWCA conducted a biological study for the preparation of this EIR that identified ESHA on the project site, consistent with this policy.

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- current available resource information or through onsite investigation;
- (b) The development is or may potentially be located within 100 feet of an environmentally sensitive habitat area and/or has the potential to significantly degrade such area: or
- (c) There is disagreement between staff and the applicant as to whether the proposed development meets one of the above criteria.
- 4. The report shall be required, submitted and accepted by the Planning Department prior to the application being determined complete. The manner (electronic versus hard copy, number of copies, etc.) in which said report is to be submitted shall be determined by the Planning Department.
- 5. Report preparation shall be solely at applicant expense.

20.147.040 Environmentally Sensitive Habitat Areas

C. Development Standards

- Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values. Within environmentally sensitive habitat areas, land uses shall be limited to those that are dependent on the resources therein.
- 2. Land uses and development adjacent to environmentally sensitive habitat areas shall be compatible with long-term maintenance of the habitat area, and such land use and development shall be sited and designed to prevent impacts that would significantly degrade habitat areas. All land use and development shall be set back a minimum of 100 feet from environmentally sensitive habitat areas Within this setback area, only uses and development that are consistent with the above long-term habitat area maintenance and impact prevention criteria are allowed (e.g., habitat maintenance activities, limited passive recreational access, etc.).

Uses permitted in the setback area shall be required to:
a) minimize removal of vegetation; b) conform to natural topography; c) minimize erosion potential; d) make provisions

The intent of this section is to establish standards for the protection of the significant ESHA resources of the Del Monte Forest.

Potentially Inconsistent. The project would result in the loss of 0.39 acre of ESHA, as a result of an expanded building footprint and adjacent landscaping. Residential development is not a resource-dependent use of ESHA; therefore, the project is potentially inconsistent with this policy.

The proposed project would be sited immediately adjacent to the ESHA that would remain after construction is complete. The residential uses that would occur within 100 feet of the remaining ESHA would not be resource dependent, potentially inconsistent with this policy.

The project has been designed to utilize previously disturbed and developed areas and to avoid effects on existing trees to the extent feasible. However, the proposed development would encroach

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to keep run-off and sedimentation from exceeding predevelopment levels; e) remove invasive and non-native plant species and replant with native and non-invasive species; f) prevent discharge of toxic substances, such as fertilizers and pesticides; and, g) include other requirements specific to habitat area needs (e.g., limit noise and activity adjacent to sensitive receptors).

- 3. Where sensitive species and/or other environmentally sensitive habitat areas are encountered during project review, the following mitigation measures must be undertaken:
 - (a) Performance standards covering building locations, lot setbacks, roadway and driveway width, grading, and landscaping shall be established as a means of carrying out the recommendations of the biological report and as necessary to meet the requirements of the LCP. These standards are intended to isolate use and development from identified locations of sensitive species or other environmentally sensitive habitat areas.
 - (b) Open space conservation and scenic easements covering the environmentally sensitive habitat area and required setback areas shall be dedicated to the Del Monte Forest Foundation along with funding adequate to ensure their management and protection over time.
- 4. Any impacts to environmentally sensitive habitat areas shall be appropriately mitigated.
- 8. The protection of environmentally sensitive habitat areas shall be provided through deed restrictions or permanent open space conservation and scenic easements granted to the Del Monte Forest Foundation. Parcels proposed for development containing areas of environmentally sensitive habitat shall require, as a condition of approval, that the sensitive habitat area (including a 100 foot buffer around the habitat area) be placed in an open space conservation and scenic easement. Where development has already occurred within or near areas containing environmentally sensitive habitat, property owners are encouraged to voluntarily grant conservation and scenic

on and permanently convert adjacent ESHA, potentially inconsistent with this policy.

The project includes the restoration of 1.67 acres of ESHA on the site and permanent protection of restored ESHA through deed restrictions or open space and scenic easements (see measure BIO/mm-3.1), consistent with this policy.

The proposed project was sighted and designed to reduce the conversion of ESHA to residential uses.

The conversion of ESHA and subsequent residential uses would not significantly degrade the remaining adjacent ESHA. As proposed the project would allow the continuance of the ESHA adjacent to the construction area, consistent with this policy.

Mitigation has been identified that prohibits the use of invasive species in landscaped areas adjacent to ESHA (see measures BIO/mm-3.4 through 3.6), consistent with this policy. Approval of the project, as mitigated, would remain potentially inconsistent with this policy.

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easements to the Del Monte Forest Foundation. Except in the case of voluntary easements, each instrument for effecting such restriction or easement shall be subject to approval by the County and Coastal Commission as to form and content; shall provide for enforcement, if need be, by the County or other appropriate enforcement agency; shall be accompanied by adequate funding to allow the management and protection objectives and requirements of the easement to be fully realized; and shall name the County as beneficiary in event the Del Monte Forest Foundation ceases or is unable to adequately manage these easements for the intended purpose of natural habitat preservation.

- 9. Near environmentally sensitive habitat areas, native vegetation removal and land disturbance (grading, excavation, paving, etc.) shall be restricted to the minimum amount necessary to accommodate reasonable development. Development shall be sited and designed to prevent impacts that would significantly degrade those nearby areas, and shall be compatible with the continuance of those habitat areas.
- 10. The use of plant species native to the Del Monte Forest shall be required in landscape materials used in projects. A limited amount of landscape located immediately around developed areas may include non-native, non-invasive plant species, subject to review and approval of a Landscape Plan by the Planning Department. Said Landscape Plan shall be considered as part of the development application. Invasive plant species shall be prohibited. Removal of non-native and/or invasive plant species is encouraged, and may be exempt from coastal development permit requirements pursuant to Section 20.70.120.

20.147.040 Environmentally Sensitive Habitat Areas

- D. Additional Development Standards By Habitat Type
 - 1. Dune Habitat
 - (a) The remnant native sand dune habitat along the shore in the Spanish Bay planning area, on Signal Hill near the former Spyglass Quarry, and adjacent to 17-Mile

The intent of this section is to protect particular types of ESHA, including remnant dune habitat.

Potentially Inconsistent. Mitigation has been identified that would require the permanent protection of 1.67 acres of restored dune habitat through deed restriction or open space and scenic conservation easement. However, increased residential development in

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Drive in the Spyglass Cypress planning area, shall be preserved through open space conservation and scenic easements conveyed to the Del Monte Forest Foundation, as part of the approval of any development in adjacent areas. (b) Uses of remnant native sand dune habitat shall be limited to low-intensity scientific, educational, and/or recreational activities dependent on the resource. Particular attention shall be given to protection of sensitive plant species from trampling. Such uses must be consistent with restoration and enhancement of the habitat. (c) To prevent further degradation and to allow for restoration of degraded dune and bluff habitats, parking along 17-Mile Drive shall be restricted to designated turnouts through the use of barriers (structural and vegetational) and enforcement signs that are sited and designed to avoid impacting scenic views.		areas of disturbed dune habitat surrounding the existing residence are not resource-dependent uses, and would be potentially inconsistent with this policy. No parking along 17-Mile Drive is expected to result from the project. Approval of the project, as mitigated, would remain potentially inconsistent with this policy.
 20.147.040 Environmentally Sensitive Habitat Areas D. Additional Development Standards By Habitat Type 2. Monterey Cypress Habitat (a) Indigenous Monterey cypress habitat is an environmentally sensitive habitat area within the Del Monte Forest, and is presumed present within the area mapped in LUP Figure 2a. All proposed development in this area shall be accompanied by a biological report pursuant to Section 20.147.040.A. (b) Within their indigenous range (see LUP Figure 2a), Monterey cypress trees shall be protected to the maximum extent possible. All development that would impact Monterey cypress trees and/or Monterey cypress habitat in this area shall be sited and designed to avoid adverse impacts to individual cypress and cypress habitat. (c) All use and development in or adjacent to indigenous Monterey cypress habitat area shall be compatible with 	The intent of this section is to protect sensitive Monterey cypress habitat within the Del Monte Forest.	Potentially Consistent. Although the project site supports 11 individual Monterey cypress trees, the project is not located within identified Monterey cypress habitat and would not affect adjacent areas of Monterey cypress habitat.

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Intent of the Policy in Relation to **Preliminary** Goals, Policies, Plans, Programs and Standards Avoiding or Mitigating Consistency Determination* **Significant Environmental Impacts** the objective of protecting this environmentally sensitive coastal resource. (d) All improvements (such as structures and driveways, etc.) shall be carefully sited and designed to avoid potential damage or degradation of Monterey cypress habitat, including the micro-habitat of individual trees, and must be located within existing hardscaped areas and outside of the dripline of individual cypress trees. (e) Removal of native trees or other indigenous vegetation, grading, paving, building construction activity, landscape alterations and summer watering are all prohibited within the perimeter of the identified cypress habitat area for a site, including at a minimum as defined by the driplines of the outermost indigenous Monterey cypress trees on a site. (f) On the inland side of 17-Mile Drive within the indigenous Monterey cypress habitat area, driveways are allowed only where the driveway does not come within the dripline of individual cypress trees. (g) Within the indigenous Monterey cypress habitat area: (1) Underground residential utilities are allowed on the inland side of 17-Mile Drive. (2) Fences shall be designed with see-through materials or spaced in a manner to protect views of the natural habitat from 17-Mile Drive (e.g., wrought iron with openings). (h) Open space conservation and scenic easements are required for all undeveloped areas of a parcel within the Monterey cypress habitat area. (i) The Del Monte Forest Foundation shall be encouraged to maintain an interpretive and educational program at Crocker Grove. Said program shall be under careful supervision and designed for the protection of the indigenous Monterey cypress habitat. The type and

regulated.

intensity of access to Crocker Grove shall be carefully

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

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20.147.040 Environmentally Sensitive Habitat Areas D. Additional Development Standards By Habitat Type 5. Wetland, Shoreline, and Marine Habitats (a) A setback of at least 100 feet as measured from the edge of wetlands and from the mean high water line of the ocean shall be provided within which development, other than landscaping and public access areas and facilities, shall be prohibited. No landscape alteration is allowed in this setback area unless accomplished in conjunction with restoration and enhancement, and unless it is demonstrated that no significant disruption of environmentally sensitive habitat areas will result.	The intent of this policy is to protect significant wetland, shoreline, and marine habitat areas within the Del Monte Forest.	Potentially Consistent. The proposed construction and landscape area is located approximately 130 feet from the identified <i>Juncus mexicanus</i> dominated coastal wetland, consistent with this policy.
 20.147.050 Forest Resources A. Coastal Development Permit Requirements 1. Trees and other vegetation may be removed without a coastal development permit unless the trees/vegetation to be removed are: (a) sensitive tree or vegetation species; (b) landmark trees; (c) located in an environmentally sensitive habitat area; (d) located within 100 feet of an environmentally sensitive habitat area where removal would significantly degrade such habitat area or be incompatible with the continuance of such habitat area; (e) located in or within a public viewshed where removal would lead to degradation of the public view; or (f) not allowed to be removed pursuant to a coastal development permit, forest management plan, or similar instrument (e.g., recorded easements, restrictions, etc.). 2. Applicants shall notify the Planning Department prior to any removal of trees or vegetation for a determination of whether such removal meets the criteria for removal without a coastal 	The intent of this policy is to protect individual forest trees and resources within the Del Monte Forest.	Potentially Consistent. The project proposes removal of protected Monterey cypress trees in or adjacent to areas identified as ESHA and a coastal development permit is required as identified in Section 2.4 of the EIR, consistent with this policy.

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necessary for the Planning Department to make the permit determination.

3. Hazardous trees, as determined by the County, may be removed without a coastal development permit provided they do not meet any of the criteria listed under Section 20.147.050.A.1. Such cases may include removal of hazardous trees that pose an immediate danger to life, health, property or essential public services, or removal of diseased trees if it is determined by a qualified professional forester that such trees present a severe and serious infection hazard to the rest of the forest. A biological report may be required to determine what/how materials are to remain as an ecological resource in environmentally sensitive habitat areas. If removal of hazardous trees meets the criteria for a coastal development permit, the emergency coastal development permit provisions of Chapter 20.79 may apply.

20.147.050 Forest Resources

- C. Development Standards
 - All tree removal, land clearing for development and forest management activities within native forest areas shall conform to all development standards regarding freshwater and marine resources, environmentally sensitive habitat areas, and scenic visual resources. If standards conflict, the standards that provide the greatest long-term protection to the forest resource shall apply.
 - 2. In reviewing requests for tree removal, land clearing, and other development, preservation of scenic resources shall be a primary objective. Because of the regional significance of the forest resources, special consideration shall be given to the ridgeline silhouette, as well as views from significant public viewing areas, such as the corridors along Highway 68 and 17-Mile Drive, and the view from distant publicly accessible shoreline areas such as Point Lobos State Natural Reserve.
 - When reviewing requests for tree removal, environmental considerations shall include review of forest plant associations, native soil cover, fuel management aesthetic

The intent of this policy is to protect forest resources and trees in the Del Monte Forest.

Potentially Inconsistent. The habitat onsite is not considered "forest ESHA"; however, the undeveloped area of the site are comprised of dune sands and therefore considered ESHA. The proposed project would require removal of two Monterey cypress trees and grading adjacent to trees to remain after construction. The trees to be removed are 22-inch Monterey cypress and tree removal would adversely impact existing views as described in Section 4.1, Aesthetic Resources, potentially inconsistent with this policy.

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values, tree health and applicable forest management plans as well as maintenance of the overall health of the stand. Forest-wide specific criteria for removal of Del Monte Forest's native tree species are as follows:

- (a) Within a forest ESHA, or for any individual tree considered ESHA, tree removal shall be prohibited unless it is part of restoration and enhancement efforts.
- (b) Removal of trees generally recognized and accepted as visually, historically, or botanically significant individual specimens, such as the Monterey cypress in the Pescadero Point/Cypress Point area and Coast live oaks over 24 inches in diameter shall be prohibited.
- (c) Native trees that are not ESHA and/or are not part of a forest area considered ESHA may be removed consistent with site and building plans that otherwise comply with LCP requirements if it is not feasible to retain them and removal is consistent with an approved Forest Management Plan.
- (d) Any native tree that has been determined by a certified Forester/Arborist to be a hazard because it exhibits extreme failure potential that could lead to loss or damage of life or property, and that hazard cannot be abated by methods other than removal of the tree, may be removed subject to the coastal development permit criteria of Section 20.147.050.A (and may qualify for an emergency coastal development permit under Chapter 20.79).
- 4. In considering proposed development projects, siting and design is required to minimize to the extent feasible the removal of trees and understory vegetation and damage to soil resources. Siting, design, and land use concepts that minimize removal and damage should be applied and are preferred. Retained trees located close to construction areas shall be protected from damage by construction equipment through fencing off sensitive root zones to prevent disturbance in that area (e.g. equipment, staging, storage), bridging or tunneling under major roots where exposed in foundation or

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utility trenches, and other measures appropriate and necessary to protect the well-being of the retained trees, including as determined by Planning staff or the Forest Management Plan developed for the site. The requirements for fencing root zones, bridging or tunneling under major roots and other mitigations as proposed in the Forest Management Plan shall be imposed upon the development as specific conditions of approval.

- 5. Development, including driveways and parking areas, shall be sited and designed to minimize removal of trees, especially trees that significantly contribute to the visual character of the public viewshed (e.g., along 17-Mile Drive) and that screen development from public view and neighboring properties. Clustered developments within proposed subdivisions are required as topographic and habitat constraints allow.
- 6. Where removal of native trees is allowed for development. such removal shall be mitigated through replanting or forest preservation either on- or off-site, whichever is better overall for forest resources. Mitigation may include but is not limited to: replacement on-site equating to an equal number of trees of the same variety, provided such replacement will not result in an overcrowded, unhealthy forest environment; tree planting of an equal number of trees of the same variety and/or preservation of an equal area of forest off-site in the Del Monte Forest; payment of a fee to the Del Monte Forest Foundation for tree planting and/or forest preservation in the Del Monte Forest, commensurate with the number and type of trees and/or area of forest to be removed; other similar tree replacement or forest preservation strategy within the Del Monte Forest; or a combination of any of the above strategies. Replacement trees shall be retained and maintained in good condition. Trimming, where not injurious to the health of the tree(s), may be performed consistent with terms and conditions of the approved coastal development permit and the Forest Management Plan.
- 7. The natural forest soil cover shall be retained in place to the maximum extent possible.

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 Commercial harvesting for timber or firewood is prohibited. Development associated with The Inn at Spanish Bay shall be designed to maximize the retention of the Monterey pine forest as much as possible seaward of 17-Mile Drive. Development that includes preparation of a Forest Management Plan shall require recording a notice that all tree removal on the parcel must be in accordance with said Plan and consistent with the terms and conditions of this coastal development permit. Said notice shall be recorded prior to issuance of building or grading permits. 		
County of Monterey General Plan (1982)		
Goals, objectives, and Policies for Natural Resources		
VEGETATION AND WILDLIFE HABITATS		
Goal 7: To preserve the diversity and conserve the extent of the county's native vegetation	The intent of this goal is to preserve the diversity and extent of the county's native vegetation.	Potentially Consistent. The proposed project includes restoration of 1.67 acres of native dune habitat on-site, consistent with this goal.
Policy 7.1.1 Development shall be carefully planned in, or adjacent to, areas containing limited or threatened plant communities, and shall provide for the conservation and maintenance of the plant communities.	The intent of this policy is to protect limited and threatened plant communities by regulating development located in or adjacent to these sensitive communities.	Potentially Consistent. The proposed project would be located within and adjacent to areas of disturbed dune habitat and central dune scrub that are threatened in their range and suitable to support sensitive wildlife species. The proposed project includes restoration of the central dune scrub habitat. In addition, this EIR identifies mitigation designed to permanently preserve the habitat and ensure adjacent landscaping is compatible with the restored habitat. With implementation of the identified mitigation, the proposed project would be consistent with this policy.

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Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
Policy 7.1.2 The County shall encourage the protection of limited or threatened plant communities through dedications of permanent conservation easements and other appropriate means.	The intent of this policy is to protect limited and threatened plant communities through dedications of permanent conservation easements and other means.	Potentially Consistent. The project includes the restoration of 1.67 acres of ESHA on the site. Mitigation has been identified that requires protection of the 1.67 acres of restored ESHA in perpetuity through a deed restriction or permanent open space and conservation easement (see measure BIO/mm-3.1). With implementation of the identified mitigation, the proposed project would be consistent with this policy.
Policy 7.2.2 Native and native compatible species, especially drought resistant species, shall be utilized to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits.	The intent of this policy is to encourage the use of compatible drought-resistant plants for landscaping.	Potentially Consistent. Mitigation measures have been identified to ensure landscaping in areas near the proposed residence would utilize native, or native compatible, drought resistant species (see mitigation measure BIO/mm-3.5). With implementation of the identified mitigation, the proposed project would be consistent with this policy.
Goal 9: To conserve the abundance and diversity of the county's wildlife.	The intent of this goal is to conserve the abundance and diversity of wildlife.	Potentially Consistent. The project would replace an existing single family residence with a new single family residence and would not significantly affect wildlife. The project includes dune restoration on 1.67 acres of the site, which would improve habitat for special-status species at the project site. Mitigation has also been identified to protect special-status species during project construction and disturbance activities. With implementation of the identified mitigation, the proposed project would be consistent with this goal.

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Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
Policy 9.1.1 Development shall be carefully planned in areas known to have particular value for wildlife and, where allowed, shall be located so that the reasonable value of the habitat for wildlife is maintained.	The intent of this policy is to protect valuable wildlife habitat by regulating development located in or adjacent to these areas.	Potentially Consistent. The project site contains central dune scrub habitat that is suitable to support sensitive wildlife species. Project development would occur generally within the area occupied by the existing residence, and the remainder of the property (extending towards 17-Mile Drive) would be restored to central dune scrub habitat. Mitigation has been identified in this EIR to permanently conserve the habitat and avoid or minimize impacts to wildlife. With implementation of identified mitigation, the proposed project would be consistent with this policy.
Policy 9.1.2 Development shall be carefully planned in areas having high value for fish and wildlife production.	The intent of this policy is to protect areas with high value for fish and wildlife production.	Potentially Consistent. The project site does not support habitat suitable for fish production. The project site contains central dune scrub habitat that is suitable to support sensitive terrestrial wildlife species. Project development would occur generally within the area occupied by the existing residence, and the remainder of the property (extending towards 17-Mile Drive) would be restored to central dune scrub habitat. Mitigation has been identified in this EIR to permanently conserve the habitat and avoid or minimize impacts to wildlife. With implementation of identified mitigation, the proposed project would be consistent with this policy.
Policy 9.2.1 Land use practices which could result in siltation and pollution of inland and marine waters shall be carefully managed in order to assure a clean and productive habitat.	The intent of this policy is to assure quality freshwater and marine habitats through the management of land use	Potentially Consistent. The proposed project does not include any direct or indirect discharges into aquatic environments. The project includes implementation of erosion and pollution

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	practices which would result in adverse effects to water resources.	control measures during construction, to prevent down-gradient sedimentation, consistent with this policy.
ENVIRONMENTALLY SENSITIVE AREAS		
Goal 11: To conserve natural habitats for native plant and animal species and to promote preservation of rare and endangered plant and animal species	The intent of this goal is to promote preservation of rare and endangered plant and animal species through the conservation of natural habitats.	Potentially Consistent. The project site contains central dune scrub habitat that is suitable to support sensitive wildlife species. Project development would occur generally within the area occupied by the existing residence, and the remainder of the property (extending towards 17-Mile Drive) would be restored to central dune scrub habitat. Mitigation has been identified in this EIR to permanently conserve the habitat and avoid or minimize impacts to wildlife. With implementation of identified mitigation, the proposed project would be consistent with this policy.
Policy 11.1.1 The California Native Plant Society shall be consulted and appropriate measures shall be taken to protect rare and endangered plant species and their habitats.	The intent of this policy is to establish protective measures to protect rare and endangered plant species and their habitats.	Potentially Consistent. Preparation of the EIR included review of current data and plant lists obtained from CNPS, consistent with this policy. Eleven individual Monterey cypress and two young Monterey pines were documented onsite (both are CNPS List 1B species). The project site supports central dune scrub, a Natural Community of Concern. No state or federally listed plant species were documented onsite. The EIR includes mitigation measures to address the proposed removal of two Monterey cypress trees and grading activities proximate to additional Monterey cypress trees (refer to BIO Impact 1 and BIO/mm-1.1 and BIO/mm-1.2). In addition to the

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
		applicant's proposed Dune Restoration Plan, the EIR identifies mitigation specific to restoration of environmentally sensitive habitat (central dune scrub) (refer to BIO Impact 3 and mitigation measures BIO/mm-3.1 through BIO/mm-3.5). With implementation of identified mitigation, the proposed project would be consistent with this policy.
Policy 11.1.2 The California Department of Fish and [Wildlife] shall be consulted and appropriate measures shall be taken to protect Areas of Special Biological Importance.	The intent of this policy is to establish protective measures to protect Areas of Special Biological Importance.	Potentially Consistent. CDFW has had opportunities to comment on the environmental review process, including but not limited to the NOP and circulation of the Draft EIR. The project site contains central dune scrub habitat that is suitable to support sensitive wildlife species. The proposed project would result in the permanent loss of 0.39 acre of dune habitat, but also includes restoration of 1.67 acres of central dune scrub habitat. Mitigation is identified in this EIR to permanently conserve the habitat and avoid or minimize impacts to wildlife in the habitat. With implementation of identified mitigation, the proposed project would be consistent with this policy.
Policy 11.1.5 The County shall support efforts to obtain and preserve natural areas of particular biologic, scientific, or educational interest and restrict incompatible uses from encroaching upon them.	The intent of this policy is to protect natural areas of particular biologic, scientific, or educational interest.	Potentially Consistent. Construction of the proposed residence and adjacent landscaping would result in the direct loss of 0.39 acre of disturbed sand dune habitat, which is considered ESHA. However, the project would also restore 1.67 acres of ESHA on the remainder of the parcel and mitigation has been identified to ensure permanent conservation of the restored area. The loss of 0.39 acre of environmentally

Table 4.2-3. Applicable Local Plans and Policies Relevant to Biological Resources

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination*
		sensitive habitat would not disrupt or significantly degrade the habitat values of the remaining habitat at the project site and measures have been identified to ensure proposed landscaping is compatible with surrounding ESHA. With implementation of identified mitigation, the proposed project would be consistent with this policy.
Greater Monterey Peninsula Area Plan (1984)		
Supplemental Policies		
NATURAL RESOURCES		
Vegetation and Wildlife Habitats		
Policy 7.1.5. In recognition of their function as important habitat for many wildlife species and their substantial contribution to scenic resources within the Planning Area, coastal and interior wetlands should be retained as open space through conservation easements or, where necessary, fee acquisition.	The intent of this policy is to protect coastal and interior wetlands.	Potentially Consistent. The project's proposed construction footprint is greater than 100 feet from the identified <i>Juncus mexicanus</i> dominated coastal wetland. Dune restoration activities, would not significantly disrupt wetland areas, consistent with this policy.
Policy 7.1.6. A setback of 100 feet from all wetlands shown on Figure 3 (Environmentally Sensitive Areas Map) shall be provided and maintained in open space use. No new development shall be allowed in this setback area. No landscape alterations will be allowed in this setback area unless accomplished in conjunction with a restoration and enhancement plan approved by the California Department of Fish and Game.	The intent of this policy is to protect coastal and interior wetlands.	Potentially Consistent. The project's proposed construction footprint is greater than 100 feet from the identified <i>Juncus mexicanus</i> dominated coastal wetland. Mitigation has been identified to ensure dune restoration activities would not significantly disrupt wetland areas. With implementation of identified mitigation, the proposed project would be consistent with this policy.

^{*} Although a preliminary determination regarding project consistency is made, it is the responsibility of the County Planning Commission or Board of Supervisors, the lead CEQA decision makers, to make the final determination regarding consistency issues.

4.2.3 Thresholds of Significance

The significance of potential biological impacts are based on thresholds identified within Appendix G of the State CEQA Guidelines and the County's Initial Study Checklist, which provide the following thresholds for determining impact significance with respect to biological resources. Biological impacts would be considered significant if the proposed project would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service:
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites;
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.2.4 Impact Assessment Methodology

This section was developed based on a review of existing literature and documentation and a field survey conducted by SWCA on June 19, 2015. Prior to conducting a site visit, SWCA biologists reviewed existing data to gain familiarity with the project area. The review consisted of a search of the CNDDB that focused on the following U.S. Geological Survey (USGS) topographic maps: Seaside, Monterey, Soberanes Point, Mt. Carmel, and Marina. SWCA also queried the USFWS IPaC to obtain a Trusted Resources List of federally protected species that may occur on the property. To augment the CNDDB and IPaC data, SWCA referred to the CNPS Electronic Inventory of Rare and Endangered Plants of California (CNPS 2015) to provide additional information on rare plants that are known to occur in the area. The official species lists are included in Appendix C, Biological Resources Background Information.

Utilizing the CNDDB and USFWS lists as a guide, the SWCA biologist evaluated the species on the lists for potential to occur on the property. Tables 4.2-1 and 4.2-2, above, provide SWCA's evaluation of the species that were included on the lists.

Impact assessment focused on identifying potential project-related impacts associated with implementation of the project, and was based on details presented within the project description. Identified impacts represent a reasonable worst-case scenario based on the provided project plans. Potential impacts were expected to occur where proposed construction or development activities would result in temporary or permanent modification of sensitive communities or habitats

occupied by special-status species. Impacts to biological resources within the study area were evaluated by determining the sensitivity, significance, or rarity of each resource that would be adversely affected by the proposed project, and thresholds of significance were applied to determine if the impact constituted a significant impact. The significance threshold may be different for each habitat or species and is based on the resource's rarity or sensitivity and the level of impact that would result from the proposed project. Where potential project-related impacts to sensitive resources were identified, measures for avoiding or minimizing adverse effects to these resources were recommended.

4.2.5 Impact Assessment and Mitigation Measures

4.2.5.1 Special-Status Species

Special-status Plants

The parcel supports 11 Monterey cypress trees; three of the trees are remnants of the native cypress forest habitat (Hamb 2011). Two of the trees were planted for prior mitigation efforts. The remaining trees are landscape elements that contribute to the parcel's tree inventory. Due to the project site location in the native range of Monterey cypress and the confirmed presence of at least three individuals from the native forest genetic stock, this evaluation treats all Monterey cypress trees on the parcel equally. The Monterey cypress trees located on the property are within the species' native range; therefore, the 11 Monterey cypress trees are classified as a CNPS Rank 1B.2 species, indicating that the species is rare, threatened, or endangered in California. In addition, Monterey County Code Section 20.147.050 and the Del Monte Forest Area LUP restrict and discourage the removal of native trees in the area.

Implementation of the proposed project would require the removal of two 22-inch Monterey cypress trees to accommodate development of the larger residence and grading in the vicinity of nine additional Monterey cypress trees. Grading around existing trees has the potential to disrupt the health and vigor of the affected trees by disturbing the root zone and altering drainage patterns around the trees. Grading will occur within approximately 5 feet of at least two trees considered to be remnants of the native stand. Mitigation has been identified to avoid or reduce potentially significant impacts on Monterey cypress trees.

There are two Monterey pine trees located within the lower dune restoration area of the project site. Monterey pine trees are classified as a CNPS Rank 1B.2 species, indicating that the species is rare, threatened, or endangered in California. Proposed project activities in the vicinity of the Monterey pine trees would be limited to dune restoration activities (invasive species vegetation removal and native plantings). No grading or use of heavy equipment is proposed within this area. Therefore, potential impacts on the Monterey pine trees at the site would be *less than significant*.

Implementation of the proposed project would require the removal of two Monterey cypress trees and grading in the vicinity of nine additional Monterey cypress trees, resulting in a potentially significant impact.

Mitigation Measures (mm) and Mitigation Monitoring Actions (mma)

BIO/mm-1.1 The applicant shall submit a Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan to the County of Monterey Resource Management Agency for review and approval by the Director of Planning. The plan shall be prepared by a licensed arborist and provide for the installation, maintenance, and monitoring of four 36-inch box Monterey cypress trees to ensure all removed Monterey cypress trees are replaced on site at a 2:1 ratio.

The Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan shall include provisions for the installation and maintenance of the replacement trees to be monitored by a qualified arborist. The arborist shall monitor the health and vigor of the replacement trees for a minimum of 3 years following installation. If at any time, the arborist determines that the replacement trees are in poor vigor, the arborist will recommend management actions to remedy the concerns. The applicant or applicant's representative shall implement the arborist recommendation(s) within 1 month of receiving the recommendation. If any replacement tree(s) die, the applicant shall replace the tree(s) at a 1:1 ratio per the arborist's recommendation. Each replacement tree shall be monitored by the arborist for a minimum of 3 years following the tree installation date.

The plan shall identify the Critical Root Zone for all Monterey cypress trees at the project site that will remain in place. In addition, the plan shall provide for the installation of tree protection measures around the trees to remain. Tree protection measures may include installation of temporary fencing and/or straw bale barricades in the trees' Critical Root Zone, as identified by the arborist. All replacement trees and tree protection measures must be clearly shown on the project construction and landscape plans.

If root pruning within a tree's Critical Root Zone is necessary, root pruning shall be performed by the monitoring arborist or skilled labor at the direction of the monitoring arborist per the approved Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan.

- BIO/mma-1.1.1 Prior to issuance of demolition, grading, or construction permits, the applicant shall submit the Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan to the County of Monterey Resource Management Agency Planning Department for review and approval.
- BIO/mma-1.1.2 Prior to issuance of demolition, grading, or construction permits, the applicant shall submit photographic evidence and a letter from a qualified arborist verifying that tree protection measures have been installed as recommended in the Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan to the County of Monterey Resource Management Agency.
- BIO/mma-1.1.3 During construction, a County of Monterey-approved arborist shall be on-site to monitor any grading activities that occur within the Critical Root Zone of trees to remain in place per the approved Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan.
- BIO/mma-1.1.4 Prior to final inspection, the applicant shall submit to the County of Monterey Resource Management Agency Planning Department photographic evidence and a letter from a qualified arborist verifying that replacement trees have been planted as specified in the Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan.
- BIO/mma-1.1.5 After replacement planting has been completed, the applicant shall submit to the Monterey County Resource Management Agency Planning Department reports from the arborist detailing the results of the monitoring efforts and the status of the trees. Reports shall be submitted on a

yearly basis or as specified in the Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan.

Residual Impacts

Implementation of the project would result in the loss of two Monterey cypress trees. These effects would be mitigated by the replacement and maintenance of four 36-inch box Monterey cypress. Therefore, with implementation of the above mitigation measures, residual impacts to special-status plants would be *less than significant*.

Special-Status Wildlife

Demolition of the existing structure, site clearing, and dune scrub restoration activities have the potential to adversely affect California legless lizards and/or coast horned lizards. Legless lizards commonly seek shelter and forage in sandy substrates that abut debris, vegetation, or structures that provide shade. Coast horned lizards forage in open habitats such as the dune scrub areas on the parcel. Demolition of the existing structure would require the use of mechanical equipment that could crush or unearth legless and/or coast horned lizards. Dune restoration activities include the removal of iceplant and European beachgrass. Legless lizards are known to seek shelter under these species and removal of the plants can unearth legless lizard(s) and result in adverse impacts to the individual(s). Adverse impacts to legless lizards and coast horned lizards may include being struck by equipment, entrapped in stockpiled materials or trenches, unearthed during vegetation removal, trampled or collected by construction personnel, or preyed upon by opportunistic predators. Mitigation has been identified to avoid or reduce potentially significant impacts on California legless lizards and/or coast horned lizards.

Common passerines (i.e., California towhee [Pipilo crissalis], white-crowned sparrow [Zonotrichia leucophrys], and other species in the order Passeriformes) may use the dune scrub habitat for nesting and/or foraging. The available nesting habitat would be permanently impacted by the proposed removal of Monterey cypress trees. Construction activities, vegetation removal, and other disturbances would further temporarily impact nesting and foraging habitat. Construction and restoration activities that are conducted during the common nesting season (between March and September) could directly or indirectly impact nesting birds. Potential direct impacts include loss of active nests during vegetation removal. Potential indirect impacts include disturbance near an active nest that may cause an individual to abandon the nest.

Operational impacts associated with adverse effects due to lighting and increased human presence would not differ substantially from existing conditions; therefore, operational impacts would be *less than significant* and no additional mitigation is necessary.

The proposed project has potential to impact California legless lizards and coast horned lizards that are considered to be California Species of Special Concern. The proposed project has potential to impact nesting birds that are protected under the Migratory Bird Treaty Act and California Fish and Game Code. These impacts are potentially significant.

Mitigation Measures (mm) and Mitigation Monitoring Actions (mma)

BIO/mm-2.1

Prior to issuance of demolition, grading, or construction permits, the applicant shall enter into a funding agreement with County of Monterey Resource Management Agency – Planning Department to fund, and the County of Monterey shall retain, an environmental monitor for all measures requiring environmental mitigation to ensure compliance with the Environmental Impact Report mitigation measures. The monitor shall be granted unlimited access to the project site in accordance with timelines specified in Environmental Impact Report mitigation measures and shall be responsible for:

- ensuring that procedures for verifying compliance with environmental mitigations are implemented;
- b. establishing lines of communication and reporting methods;
- c. conducting weekly compliance visits and reporting;
- d. conducting construction crew training regarding environmentally sensitive habitat areas and special-status species; and,
- e. outlining actions to be taken in the event of non-compliance.

Unless otherwise specified in applicable mitigation measures, monitoring shall be conducted weekly during residential demolition and construction and monthly following completion of the residential development and into the first year of the habitat restoration program. Additional monitoring visits may occur based on findings from these monitoring actions.

BIO/mma-2.1.1

Prior to issuance of demolition, grading, or construction permits, the applicant shall enter into an agreement with the County of Monterey to finance the County's contract with an environmental monitor.

BIO/mm-2.2

Prior to commencement of demolition, site grading, or vegetation removal, the environmental monitor shall conduct an environmental awareness training for all construction and habitat restoration personnel. The environmental awareness training shall include discussions of the California legless lizards, coast horned lizards, and nesting birds that may occur in the project area. The training shall include: a description of the species and their habitats; general provisions and protections afforded by the California Environmental Quality Act and Migratory Bird Treaty Act; measures implemented to protect the species; review of the project boundaries and special conditions; the monitor's role in project activities; lines of communication; and procedures to be implemented in the event a special-status species is observed in the work area. The environmental training shall include distribution of an environmental training brochure, and collection of signatures from all attendees acknowledging their participation in the training. Subsequent trainings shall be provided by the environmental monitor as needed for additional construction or restoration operations workers throughout the duration of project construction and restoration.

BIO/mma-2.2.1

Prior to commencement of demolition, site grading, or vegetation removal, the environmental monitor shall submit to the County a collection of signatures from all construction and habitat restoration personnel acknowledging their participation in the environmental awareness training.

BIO/mm-2.3

Within 30 days prior to any structure demolition and site grading within the construction footprint, the environmental monitor shall conduct surveys for California legless lizards and other reptiles. The surveyor shall utilize hand search methods in areas of planned disturbance where legless lizards and other reptiles are expected to be found (e.g., under shrubs and ice plant, against the residence foundation, or under debris). If a California legless lizard, coast horned lizard, or other native reptiles are observed, the surveyor shall capture the individual(s) from the disturbance

area and relocate the individual(s) into suitable habitat in the dune scrub restoration area. Care shall be taken to identify habitat in the restoration area that is dominated by native plant species.

The environmental monitor shall be present during site grading activities to walk behind the grading equipment and capture native reptiles that were overlooked during the pre-disturbance survey and are unearthed by the equipment. The surveyor shall capture and relocate any legless lizards, coast horned lizards, or other native reptiles observed. The captured individuals shall be removed from the disturbance area and placed in suitable habitat within native plant species on the parcel but outside of the development area.

- BIO/mma-2.3.1 Within 30 days prior to any structure demolition and site grading within the construction footprint, the applicant shall submit to the County of Monterey Resource Management Agency Planning Department a letter from the environmental monitor detailing the results of the surveys.
- BIO/mm-2.4 It is anticipated that legless lizards and other reptiles will be encountered during the invasive species removal efforts that will be conducted under the Dune Restoration Plan. The proposed Dune Restoration Plan provides best management practices designed to minimize impacts to legless lizards during implementation of the plan. The proposed best management practices shall be implemented. In addition, at least one member of the habitat restoration crew shall be qualified to recognize, capture, and relocate any California legless lizards, coast horned lizards, and other reptiles that may be encountered during invasive species removal efforts in the dune scrub restoration area. The qualified individual shall be on-site during all invasive species removal efforts. If a native reptile is observed during the vegetation removal, the individual shall be captured and relocated to suitable habitat away from the vegetation removal. Care shall be taken to place the lizard(s) among native plant species.

The proposed Dune Restoration Plan includes a monitoring and reporting schedule. The species and amounts of reptiles captured and relocated shall be documented in the monitoring reports that will be submitted to the County of Monterey. In the event that a special-status species is observed, the monitoring biologist shall submit a California Natural Diversity Database report of the sighting to the California Department of Fish and Wildlife.

- BIO/mma-2.4.1 Prior to invasive species removal efforts, the applicant shall provide the County of Monterey Resource Management Agency Planning Department notification identifying the qualified specialist designated to identify, capture, and relocate legless lizard or other reptiles encountered during implementation of the Dune Restoration Plan.
- BIO/mm-2.5 Demolition, construction, and grading activities shall be timed to avoid the nesting season to the extent feasible. If any demolition, construction, or grading activities occur during the typical nesting bird season (March 1 through September 30), the environmental monitor shall conduct a nesting bird survey and verify that migratory birds are not occupying the disturbance area. If nesting activity is detected, the following measures should be implemented:
 - a. The monitor shall determine whether it is appropriate to establish a 500-foot no work buffer around any raptor or special-status species nest and shall establish a 100-foot no work buffer around any common passerine species nest. If appropriate, the monitor has the discretion to require that no work may occur in the buffer zone while the nest is active.
 - b. If adhering to the established buffer zone is not feasible or other unique circumstances exist, the monitor may contact the California Department of Fish and Wildlife to establish a reduced buffer area and monitoring protocol for work to continue in the buffer zone. The monitor shall document all active nests and submit a letter report to the County of Monterey and California Department of Fish and Wildlife, documenting project compliance with the Migratory Bird Treaty Act and applicable project mitigation measures.

significant.

BIO Impact 2	
BIO/mma-2.5.1	If any demolition, construction, or grading activities occur during the typical nesting bird season (March 1 through September 30), the environmental monitor shall submit a letter report to the County of Monterey Resource Management Agency – Planning Department detailing the project's compliance with this measure. If no demolition, construction or grading activities occur during the typical nesting bird season (March 1 through September 30), the environmental monitor shall submit a letter report to the County of Monterey Resource Management Agency – Planning Department confirming implementation of this measure is not necessary.
BIO/mm-2.6	Vegetation removal activities associated with the Dune Restoration Plan have the potential to disturb nesting passerines. If an active bird nest is encountered during invasive plant species removal efforts, the monitoring biologist shall establish a 100-foot radius buffer around the ness site. No vegetation removal activities (including herbicide applications) shall occur within the 100-foot buffer. Invasive species removal efforts may continue after the monitoring biologist confirms that the nest is no longer active.
BIO/mma-2.6.1	If an active bird nest is encountered during invasive plant species removal efforts, the environmental monitor shall submit a letter report to the County of Monterey Resource Management Agency – Planning Department detailing the project's compliance with this measure. If no active bird nest is encountered during invasive plant species removal efforts, the environmental monitor shall submit a letter report to the County of Monterey Resource Management Agency – Planning Department confirming implementation of this measure is not necessary.

There is a potential for special-status wildlife to be impacted by the construction of the proposed project. With implementation of the above mitigation measures, including the presence of a biological monitor to ensure compliance with identified measures, residual impacts to special-status wildlife would be considered *less than*

4.2.5.2 Environmentally Sensitive Habitat Area

The project site is located on a stabilized sand dune that is part of a larger fragmented dune system. The areas within the parcel that contain native sand dune substrate are considered ESHA per the Del Monte Forest Area LUP (refer to Sections 4.2.1.3 and 4.2.2.3, above). Based on field surveys conducted in 2015 and a review of applicable policies and information, all areas containing native sand dune substrates on the ground surface of the site are considered ESHA. Approximately 2.05 acres of ESHA are present on the parcel (refer to Figure 4.2-2).

As proposed, construction of the new residence and installation of the associated landscaping would occur within a 0.55-acre construction footprint (refer to Figure 4.2-2). Areas that would be directly converted into the expanded footprint of the proposed residence would be permanently impacted (approximately 0.11 acre of direct conversion into building footprint). Existing paving in other areas would be demolished and removed and those areas would be landscaped (approximately 0.05 acre; refer to Figure 4.2-3). It is unclear at this time how other areas within the construction footprint would be landscaped or what species or planting specifications are proposed within the landscape area (aside from several tree removals and plantings identified in the Landscape Plan [refer to Figure 2-13]). These areas would also be subject to ongoing disturbance associated with the adjacent residential uses, including trampling, runoff, erosion, landscaping and maintenance activities, or other disturbances. Because it is unclear how the landscaped area would be treated or whether dune habitat would be protected or restored in this area, and because this area will be subject to increased disturbance associated with the adjacent

residential use, impacts to ESHA within the proposed landscape area are also considered permanent (refer to Figure 4.2-2 and 4.2-3).

Dune restoration is proposed for the remainder of the parcel located downslope of the proposed construction footprint (refer to Figures 2-3 and 4.2-2). The dune restoration area contains native sand dune substrate and is therefore considered ESHA per the LUP. This area also supports central dune scrub habitat, which is considered a sensitive community by the CDFW. In addition, the central dune scrub habitat supports a small coastal wetland dominated by Mexican rush, a Facultative wetland plant species (refer to Figure 4.2-2). Due to the presence of native sand dune substrates and sensitive habitats, the entire 1.67-acre dune restoration area is considered ESHA as defined under the LUP.

As proposed, the applicant would restore central dune scrub habitat within a 1.67-acre dune restoration area. The habitat restoration plan would include removal of invasive European beachgrass and ice plant from the central dune scrub habitat and replacing the invasive species with native dune scrub plant species. Per the applicant's Dune Restoration Plan (Ballerini 2015) restoration activities may also include sand stabilization and erosion control measures. Removal of the invasive species and expansion of the native dune scrub habitat would ultimately result in beneficial effects to ESHA in the restoration area and neighboring areas. However, restoration activities would require vegetation removal, plantings, monitoring and maintenance activities, and associated disturbances within this area. Accidental egress of construction equipment and/or materials from the project development area into the downslope ESHA could also result in unnecessary impacts to the ESHA. Therefore, the project would result in temporary impacts to 1.67 acre of ESHA.

Areas within the project site identified as ESHA and impacts to ESHA are identified in Table 4.2-4, below, and shown on Figures 4.2-2 and 4.2-3.

Table 4.2.52-4. Project Area Impacts

Project Area	Amount Impacted
Existing Conditions	
Project Site	2.2 acres
Existing building (paved) footprint	0.16 acre
Existing ESHA	2.05 acres
Existing coastal wetland	0.13 acre
Proposed Conditions	
Proposed Dune Restoration Area (temporary impacts to ESHA)	1.67 acres
Proposed Construction Area	0.55 acre
Proposed building (paved) footprint	0.23 acre
Permanently impacted ESHA (including direct conversion into the proposed building footprint and adjacent landscaped areas)	0.39 acre
Existing native sand to be paved	0.11 acre
Existing paving to be removed/landscaped	0.05 acre

Figure 4.2-2. Project Site ESHA Map

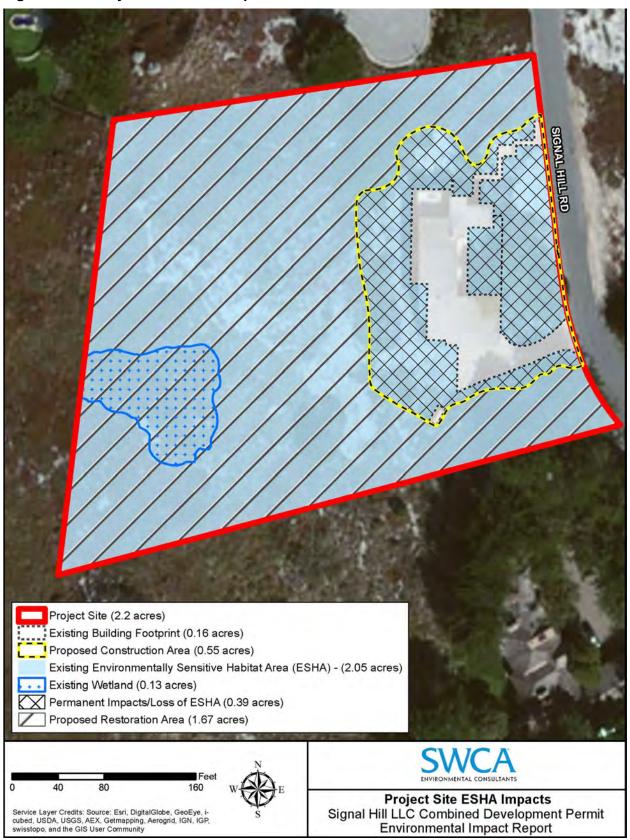
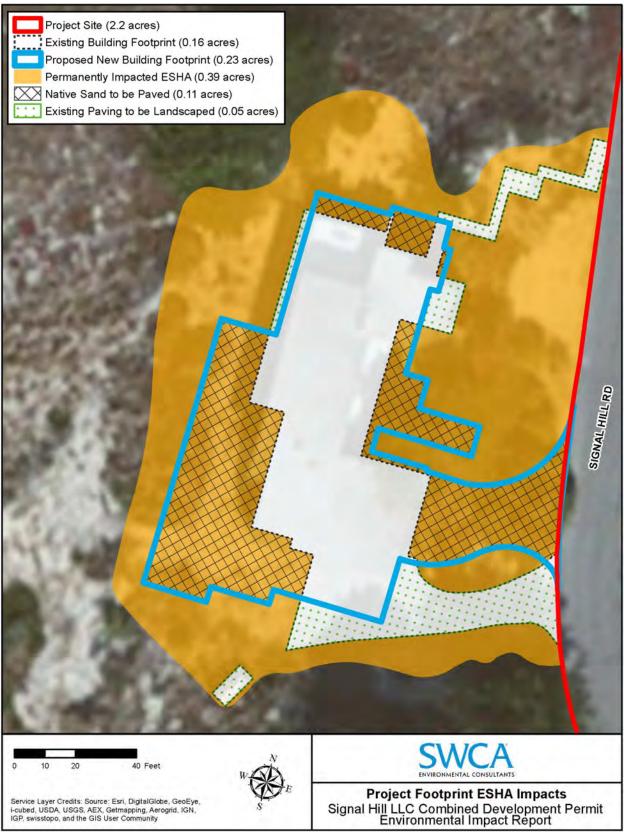


Figure 4.2-3. Project Footprint ESHA Map



The proposed project would result in the permanent loss of 0.39 acre and the temporary disturbance of 1.67 acres of Environmentally Sensitive Habitat Area, resulting in a potentially significant impact.

Mitigation Measures (mm) and Mitigation Monitoring Actions (mma)

BIO/mm-3.1 Prior to issuance of demolition, grading, or construction permits, and consistent with Del Monte Forest Land Use Plan Environmentally Sensitive Habitat Area Policies 13 and 17, the applicant shall permanently protect all Environmentally Sensitive Habitat Areas located outside the construction area by establishing deed restrictions or a permanent open space conservation and scenic easement to be granted to the Del Monte Forest Foundation. The deed restrictions/easement shall encompass the approximately 1.67 acres proposed for dune scrub restoration shown in Figures 2-3 and 4.2-2. The restrictions shall designate the easement area as a native dune scrub restoration area and Environmentally Sensitive Habitat Area, where only habitat restoration and other resource dependent uses are permitted. The only deviations from such restrictions may be to repair existing sewer cleanouts and associated sewer pipes that are located in the area. The deed restrictions shall require any future work on the sewer cleanouts and associated piping to be monitored by a qualified biologist and all disturbance areas to be restored to central dune scrub habitat per the specifications put forth in the applicant's Dune Restoration Plan.

- BIO/mma-3.1.1 Prior to issuance of demolition, grading, or construction permits, the applicant shall submit to the County of Monterey Resource Management Agency Planning Department a recorded easement reflecting compliance with this measure.
- BIO/mm-3.2 The Applicant shall submit a bond to the County of Monterey Resource Management Agency Planning Department for an amount determined by the County of Monterey to be sufficient to cover the estimated cost of planting and establishing the proposed 1.67-acre habitat restoration area. The bond shall be held for a minimum of 5 years and shall be extended if necessary and shall not be terminated until the Dune Restoration Plan has been deemed successfully completed to ensure the successful establishment and maintenance of the habitat restoration.
- BIO/mma-3.2.1 Prior to issuance of demolition, grading, or construction permits, the applicant shall submit to the County of Monterey Resource Management Agency Planning Department appropriate documentation reflecting compliance with this measure.
- BIO/mm-3.3 The Applicant shall enter into a contract with a qualified professional for the purpose of monitoring the success of the habitat restoration area. At a minimum, the monitoring contract shall include a requirement that the monitor conduct an annual site visit and assessment of the restoration success for 5 years. At the end of the 5-year monitoring period, the monitor shall prepare a monitoring report, which shall be submitted to the Monterey County Resource Management Agency Planning Department for approval and shall be used as a determining factor in assessing the successful establishment of the restoration as it relates to the bond posted by the applicant.
- BIO/mma-3.3.1 Prior to finalization of building permits and occupancy, the applicant shall submit to the County of Monterey Resource Management Agency Planning Department a contract with a qualified professional reflecting compliance with this measure.
- BIO/mm-3.4 Prior to issuance of demolition, grading, or construction permits, all demolition, grading, and construction plans shall clearly show the location of project delineation fencing that excludes adjacent Environmentally Sensitive Habitat Area from disturbance. Immediately prior to construction, the project site shall be clearly fenced so that the contractor is aware of the limits of allowable site access and disturbance. The fencing shall consist of highly visible construction fence supported by steel T-stakes that are driven into the soil. The environmental monitor shall field-fit the placement of the project delineation fencing to minimize impacts to adjacent Environmentally Sensitive Habitat Area and other sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project construction

	BIO Impact 3
	and landscaping activities. All disturbances except habitat restoration activities shall be prohibited outside of the delineated construction area. No wood chipping shall be allowed onsite.
BIO/mma-3.4.1	Prior to issuance of demolition, grading, or construction permits, the applicant shall submit revised project plans to the County of Monterey Resource Management Agency – Planning Department showing compliance with this measure.
BIO/mma-3.4.2	Throughout the duration of construction activities, the environmental monitor shall provide monthly monitoring reports to the County of Monterey Resource Management Agency – Planning Department reflecting compliance with this measure.
BIO/mm-3.5	Prior to issuance of demolition, grading, or construction permits, the applicant shall submit demolition, grading, and construction plans that identify all stockpile and construction staging areas, which shall be located within the construction area and outside the adjacent dune restoration area. Stockpiles and staging areas shall not be placed in areas that have potential to experience significant runoff during the rainy season. All project-related spills of hazardous materials within or adjacent to the project site shall be cleaned up immediately. Spill prevention and cleanup materials shall be onsite at all times during project construction. Cleaning and refueling of equipment and vehicles shall occur only within designated staging areas. The staging areas shall conform to current Best Management Practices applicable to attaining zero discharge of stormwater runoff. No maintenance, cleaning, or refueling shall occur within 50 feet of the dune restoration area. At a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks and spills. The grading plan shall be subject to review and approval by the County of Monterey Resource Management Agency.
BIO/mma-3.5.1	Prior to issuance of demolition, grading, or construction permits, the applicant shall submit revised project plans to the County of Monterey Resource Management Agency – Planning Department for review and approval.
BIO/mma-3.5.2	Throughout the duration of construction activities, the environmental monitor shall provide monthly monitoring reports to the County of Monterey Resource Management Agency – Planning Department reflecting compliance with this measure.
BIO/mm-3.6	Prior to issuance of demolition, grading, or construction permits, project plans shall be submitted that do <u>not</u> include any rain gutter outfall or other stormwater or wastewater outfall that directs concentrated flows capable of eroding the sand dune substrates in the adjacent Environmentally Sensitive Habitat Area, consistent with Del Monte Forest Area Land Use Plan Environmentally Sensitive Habitat Area Policy 8.
BIO/mma-3.6.1	Prior to issuance of demolition, grading, or construction permits, the applicant shall submit revised project plans to the County of Monterey Resource Management Agency – Planning Department for review and approval, reflecting compliance with current Post-construction Stormwater Management requirements and demonstrating that stormwater and wastewater outfalls will not concentrate flows to sand dune substrates adjacent to Environmentally Sensitive Habitat Areas.
BIO/mm-3.7	Prior to issuance of demolition, grading, or construction permits, project landscape plans shall be revised and resubmitted to the County of Monterey Resource Management Agency for review and approval that clearly list all plant species to be planted and/or seeded in the landscape areas. The listed plant species shall be drought tolerant, and the landscape materials shall not include any plant species that is identified on the most recent version of the California Invasive Plant Council Invasive Plant Inventory. All listed plant species shall be appropriate for the dune habitat in the Del Monte Forest area. Examples of appropriate species include but are not limited to the following: All species included on the applicant submitted Dune Restoration Plans (Ballerini 2015, page 2; Zander 2012, Page 5), dune lupine (Lupinus chamissonis), Monterey cypress (Hesperocyparis macrocarpa), Monterey pine (Pinus radiata), California saltbush (Atriplex californica), dune sedge (Carex pansa), Pt. Reyes Ceanothus (Ceanothus gloriosus gloriosus), San Luis Obispo Ceanothus (Ceanothus maritimus), California croton (Croton californicus), California brittlebush (Encelia californica), leafy daisy (Erigeron foliosus), coastal buckwheat

(Eriogonum cinereum), island wallflower (Erysimum insulare), California poppy (Eschscholzia californica maritima), gumweed (Grindelia stricta), wedge leaf horkelia (Horkelia cuneata), cardinal monkeyflower (Mimulus cardinalis), crisp monardella (Monardella undulata ssp. crispa), and black sage (Salvia mellifera). Other dune appropriate species shall include those listed in the San Francisco Bay Conservation and Development Commission's publication "Shoreline Plants: A Landscape Guide for the San Francisco Bay Area" (pages 18 through 33).

BIO/mma-3.7.1

Prior to issuance of demolition, grading, or construction permits, the applicant shall submit revised project landscape plans to the County of Monterey Resource Management Agency – Planning Department for review and approval that clearly list all plant species to be planted and/or seeded in the landscape areas.

BIO/mm-3.8

Prior to issuance of demolition, grading, or construction permits, the landscape plans shall specify that the use of imported soils for amendment in the landscape areas is prohibited. The native sand dune substrates shall be retained in the landscape area and dune appropriate species shall be utilized in the landscaping.

BIO/mma-3.8.1

Prior to issuance of demolition, grading, or construction permits, the applicant shall submit revised landscape plans that reflect compliance with this measure.

BIO/mm-3.9

Prior to the issuance of a building or grading permit, the applicant/owner shall submit to HCD-Planning for review and approval an offsite dune habitat restoration plan that provides for restoration of dune habitat within the Asilomar Dunes system at a ratio of 1:1 for any new dune habitat coverage over existing conditions (i.e., for any new areas of the site that are being converted from dune habitat to residential uses). The plan shall clearly identify each type of new dune habitat coverage (structural and non-structural) in site plan view with accompanying square footage calculations.

In lieu of providing for off-site dune habitat restoration, the applicant/owner may provide prior to permit issuance a dune restoration payment of \$2.40 per square foot, or the rate reflected in the current Fee Schedule for the Environmental Enhancement Fund, for the calculated square footage of new dune habitat coverage beyond existing conditions to be used for the sole purpose of financing dune habitat restoration and maintenance within the Asilomar Dunes system. The applicant/owner shall submit evidence of the calculation of square footage based on the construction permit design (anticipated to be equivalent to 7,840 square feet) and a receipt that indicates the total amount has been deposited into an interest-bearing account to be established and managed by one of the following entities as approved by the HCD-Planning Department: the City of Pacific Grove, Monterey County, or the California Department of Parks and Recreation. All of the funds and any accrued interest shall be used for the above-stated purpose.

BIO/mma-3.9.1

If the applicant/owner opts to directly provide off-site dune habitat restoration, prior to issuance of construction permits, the applicant/owner shall provide to HCD-Planning for review and approval the proposed restoration plan and the location and permissions required for it to be implemented. Prior to building final inspection, applicant/owner shall provide evidence to HCD-Planning for review and approval that the approved off-site restoration has been implemented by a County-approved biologist. If applicant/owner opts to pay in-lieu fees, prior to issuance of construction permits, the applicant/owner shall submit receipt(s) that reflect compliance with this measure.

Residual Impacts

With implementation of the above mitigation measures, residual impacts related to the loss of ESHA would be less than significant. Although the project would result in the permanent conversion of 0.39 acre of ESHA, only 0.07 acre would be converted directly into the developed footprint, whereas 0.32 acre would be landscaped with plant species appropriate for the dune habitat in the Del Monte Forest area. Because it is unclear at this time what landscaping specifications would be implemented, this conversion is considered a permanent impact to ESHA; however, native sand substrates and compatible plant species would be required within this area, minimizing the adverse impacts within the proposed landscape area.

Although the proposed residence is larger than the existing structure and would enlarge the developed footprint resulting in a direct and permanent conversion of ESHA, the proposed single-family residential use is largely consistent with the existing single-family residential use and the proposed development would not substantially change or increase the type or intensity of use at the site. Measures have been included requiring permanent conservation of the remainder of the parcel comprised of 1.67 acres of restored dune habitat for permanent open space conservation and scenic values, creating permanent beneficial impacts and preservation of 1.67 acres of ESHA. Successful implementation of the Dune Restoration Plan would result in the removal of invasive plants that directly contribute to the degradation of the dune system and installation of native plants that may enhance the habitat value of the dune system. An offsite dune restoration (or in-lieu fee) in 1:1 ratio to the square feet of impervious surface added by the project further mitigates for impacts to ESHA. Therefore, identified mitigation measures are considered adequate to reduce impacts associated with the permanent loss of ESHA to less than significant.

4.2.5.3 Wetlands

As discussed in Section 4.2.1.2, a small (approximately 0.13 acre), one-parameter, coastal wetland is located in the Dune Restoration Area. The wetland is dominated by Mexican rush, which is a Facultative wetland species. The dominance of a Facultative wetland species triggers the coastal wetland classification. Demolition of the existing residence and construction of the new residence and landscaping would occur approximately 130 feet away from the coastal wetland and would not impact the coastal wetland. Likewise, with implementation of the landscape mitigation measures discussed above, installation and maintenance of the landscaping would not impact the coastal wetland.

If not properly implemented, implementation of the Dune Restoration Plan has the potential to impact the coastal wetland, including herbicide drift or misidentification and accidental removal of the Mexican rush.

Existing wastewater infrastructure exists near the area of the identified coastal wetland, which may require future maintenance, repairs or removal, which would disturb the coastal wetland and adjacent ESHA. The proposed project does not propose any repair, maintenance, removal, or disturbance of this infrastructure; therefore, it is not discussed further in this EIR. Any future disturbances associated with the wastewater infrastructure would require separate and subsequent permits and/or approvals.

BIO Impact 4		
Implementation of the proposed project has the potential to impact a 0.13-acre coastal wetland, resulting in a potentially significant impact.		
Mitigation Measures (mm) and Mitigation Monitoring Actions (mma)		
BIO/mm-4.1	Project plans shall be revised to clearly show a minimum 100-foot setback and buffer zone between the project construction area (including all areas proposed for demolition, construction, staging, or landscaping) and the edge of the Juncus articus (var. balticus, mexicanus) Herbaceous Alliance vegetation, as shown in Figure 4.2-1 of the EIR.	
BIO/mma-4.1.1	Prior to issuance of demolition, grading, or construction permits, the applicant shall submit revised project plans to the County of Monterey Resource Management Agency – Planning Department demonstrating compliance with this measure.	

BIO Impact 4		
BIO/mm-4.2	Prior to initiating the proposed dune scrub restoration activities, the environmental monitor shall flag the perimeter of the coastal wetland. Application of herbicides shall be prohibited within 25 feet of the coastal wetland. No removal of Mexican rush shall be permitted, and any vegetation removal efforts within 25 feet of the coastal wetland shall be implemented by hand.	
BIO/mma-4.2.1	Prior to initiating the proposed dune scrub restoration activities, the environmental monitor contracted by the County shall submit a letter report detailing the project's compliance with this measure.	
BIO/mma-4.2.2	Throughout the duration of construction activities, the environmental monitor shall submit regular (weekly) monitoring reports demonstrating compliance with this measure.	
Residual Impacts		

Implementation of the project would not result in any direct adverse effects to a coastal wetland identified on the project site. Activities within 100 feet of the coastal wetland are limited to restoration actions. With implementation of the above mitigation measures, residual impacts to the coastal wetland would be *less than significant*.

4.2.5.4 Wildlife Corridors and Movement

The large residential lots along Signal Hill Road coupled with the open space areas, recreation areas, and forested areas in the Del Monte Forest contribute to the area's ability to support common wildlife species and wildlife movement through the area. Proposed improvements would replace the existing single-family residence with a generally similar single-family residential use in the same portion of the parcel. Proposed development would not restrict wildlife access to previously accessible areas or redirect the movement of wildlife species across the site. The project would not result in any development in the large lower portion of the parcel, which would continue to support wildlife movement. The project would not disturb drainages or streams suitable for fish migration. Therefore, potential impacts would be *less than significant*.

4.2.5.5 Consistency with Local Plans and Policies

State CEQA Guidelines §15125(d) requires an EIR to discuss any inconsistencies between the proposed project and applicable general plans, specific plans and regional plans. While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect on the environment would result from the inconsistency. The plans and policies applicable to the proposed project are described in Table 4.2-3, above. It is the responsibility of the County, the lead CEQA decision maker, to make the final determination regarding consistency issues as it relates to applicable County policies.

Each incidence in which it was determined that the project may be potentially inconsistent with a policy relevant to biological resources is discussed below to determine whether the potential inconsistency may result in significant adverse physical effects on the environment.

Policies for the Protection of Environmentally Sensitive Habitat Areas

The Del Monte Forest Area LUP and Monterey County Coastal Implementation Plan for the Del Monte Forest Area include various policies for the protection of ESHA. The Del Monte Forest Area LUP's key policy for ESHA states:

The environmentally sensitive habitat areas of the Del Monte Forest are unique, limited, and fragile resources that are sensitive and important biologically, as well as resources that enrich Del Monte Forest enjoyment for residents and visitors alike. Accordingly, these areas shall be protected, maintained, and, where possible, enhanced and restored in accordance with the policies of this LUP. Except where specifically and explicitly authorized by the LUP, all categories of land use and development, both public and private, shall be subordinate to the protection of these areas.

Several additional policies in the LUP and Coastal Implementation Plan limit new land uses within or adjacent to ESHA to those uses that are dependent on ESHA resources and/or protective of the long-term maintenance of the habitat area (Policy 8, Policy 18, Policy 71, §20.147.040[C], §20.147.040[D]). Implementation of the proposed project would expand the footprint of existing development and associated landscaping into areas of degraded dune habitat (ESHA), resulting in the direct permanent conversion of 0.39 acre of ESHA. The project does not propose a resource-dependent use and approving the project would make the protection of ESHA subordinate to the project, potentially inconsistent with these policies and standards (refer to Table 4.2-3 for additional detail).

The project's inconsistency with these policies and standards (specifically, conversion of 0.39 acre of ESHA to a non-resource-dependent use) would constitute an adverse physical effect on the environment and a potentially significant impact. However, the area of ESHA that would be converted is in a degraded condition and other proposed project components include restoration and permanent preservation of 1.67 acres of adjacent central dune habitat as ESHA (an ESHA preservation ratio of greater than 4:1 when compared to the area to be converted). The expanded residential use would not significantly degrade additional areas of surrounding ESHA, would not result in significant adverse effects to rare and endangered species (assuming implementation of identified mitigation measures), and would not adversely affect the scientific, educational, scenic and/or recreational resources associated with the surrounding ESHA.

The 1.67-acre area on the parcel proposed for restoration is located in the middle of a substantial stretch of remnant dune habitat extending from the ocean along a portion of Cypress Point Golf Course to Signal Hill (refer to Figure 2-2). This area of remnant dune habitat is afforded special protection in the Del Monte Forest Area LUP, Monterey County Coastal Implementation Plan, and Monterey County Coastal Zoning Ordinance. Restoration and permanent protection of ESHA as proposed by the project would provide a substantial benefit in meeting the County's goal of protecting contiguous areas of ESHA in the area of Signal Hill. This area would be placed in a scenic and conservation easement or deed restriction consistent with the provisions of the LUP (refer to BIO/mm-3.1).

Communications with the California Coastal Commission during the Public Draft review period and after indicated the need to add restoration of coastal dune habitat in proportion to the area of increased impervious surface associated with the project. Restoration is to be pursued in 1:1 ratio of square feet offsite within the Asilomar Dunes complex, or an in-lieu fee will be paid for a 1:1 ratio of square feet, to complete such restoration (refer to BIO/mm-3.9).

Since the ultimate physical effect on the environment resulting from the project's treatment of ESHA within the project site would be beneficial, primarily through the restoration and permanent conservation of 1.67 acres of ESHA habitat in an area adjacent to similarly undeveloped dune habitat (ESHA), and also through offsite dune restoration (or in-lieu fee) in 1:1 ratio to the square feet of increased impervious surface added by the project, the potential policy inconsistencies are

considered a less than significant impact under CEQA. Adverse physical effects on the environment resulting from the policy inconsistencies would further be reduced through implementation of identified mitigation measures (refer to measures BIO/mm-3.1 through BIO/mm-3.6, and BIO/mm-3.9, above).

Policies for the Protection of Forest Resources and Trees

Policy 31 of the LUP provides for the long-term protection of forest resources, including a prohibition on removal of any individual tree considered ESHA unless it is part of restoration and enhancement efforts. Although no forest ESHA is located on the project site, the site supports 11 Monterey cypress trees and two Monterey pines in areas of undeveloped dune habitat that qualifies as ESHA. Project construction would require removal of two Monterey cypress trees and grading in the vicinity of nine additional Monterey cypress trees that would remain after construction. The proposed tree removal is not a part of any restoration or enhancement effort, and is therefore considered potentially inconsistent with this policy.

Removed Monterey cypress trees would be protected through identified mitigation, including preparation of a Monterey Cypress Tree Protection, Replacement, Maintenance, and Monitoring Plan and construction monitoring by an arborist (refer to measures BIO/mm-1.1 and BIO/mm-1.2). Implementation of these measures would protect and/or replace these forest resources and would not adversely affect forest ESHA or other forest resources. Therefore, this potential inconsistency would not result in an adverse physical effect on the environment, and impacts related to the inconsistency would be *less than significant*.

4.2.5.6 Consistency with Adopted Habitat Conservation Plans

The project is not within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other habitat conservation plan. Therefore, *no impacts* would occur.

4.2.6 Cumulative Impacts

The proposed project is situated among a dune system that has been fragmented by residential, recreation, and other developments. The now fragmented dune system supports a mosaic of vegetative communities that are remnant of the historic system, some of which are considered rare or to be ESHA. Due to the size and complexity of the historic dunes in the area, the cumulative development scenario for the proposed project includes the entire Del Monte Forest Area.

Fragmentation of the dune system within the Del Monte Forest Area roughly began in the early 1900s when the Del Monte Properties Company (predecessor to the Pebble Beach Company) acquired the Del Monte Forest Area. Over time, the Del Monte Forest Company and Pebble Beach Company developed properties and sold properties to individual private holdings. As a result, much of the dune complex became fragmented with golf courses, resorts, privately held residences, roadways, and other amenities.

As part of the development review processes for projects in the area, remnants of the dune system have been preserved through conservation easements and State of California Department of Parks and Recreation (State Parks) holdings, whereas, other parts of the dune system have been identified for development. Even though remnants of the historic dune system have been preserved, development of the area has resulted in overall fragmentation of the dune system, a cumulatively significant effect. As proposed, the project aims to expand a residential structure into a small portion of the remnant dune system, which exacerbates the incremental fragmentation and overall degradation of the dunes; however, considered in context, the dune habitat on the

project site is already disturbed with existing residential development and uses. The additional development from this project is not a considerable contribution to the overall fragmentation of dune habitat within the context of the Del Monte Forest. The proposed project also includes the implementation of a Dune Restoration Plan to be conducted over 1.67 acres, approximately 71% of the parcel. Successful implementation of the Dune Restoration Plan would result in the removal of invasive plants that directly contribute to the degradation of the dune system and installation of native plants that may enhance the habitat value of the dune system, resulting in a potentially beneficial impact. As such, the project's contribution to dune fragmentation would be offset by restoring and preserving dune habitat on the parcel. The project's incremental effect on dune system habitat is not cumulatively considerable, and with implementation of the Dune Restoration Plan and BIO/mm-3.1, the project's cumulative contribution to dune fragmentation would be mitigated to *less than significant*.

4.2.7 References

- California Coastal Commission. 2015. Letter to Luis Osorio regarding Notice of Preparation for the Signal Hill LLC Single Family Residence (PLN100338) Draft Environmental Impact Report (SCH#2015021054). March 19, 2015.
- California Department of Fish and Wildlife (CDFW). 2015. Special Animals List. Periodic publication. California Department of Fish and Wildlife, Natural Diversity Database. 51 pp. October 2015. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID="https://nrm.dfg.ca.gov/FileHandler.ashx
- ——. 2018. California Natural Community List. January 24, 2018. Available at: <u>https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline</u>. Accessed June 2018.
- California Native Plant Society (CNPS). 2015. California Native Plant Society online inventory of rare and endangered plants. Available at: http://cnps.web.aplus.net/cgi-bin/inv/ inventory.cgi. Accessed August 2015.
- California Natural Diversity Data Base (CNDDB). 2015. Rarefind data output for the Monterey USGS 7.5-minute quadrangle and five surrounding quadrangles. California Department of Fish and Wildlife. Sacramento, California. July 2015, update.
- County of Monterey. 1982. *Monterey County General Plan*. Adopted on September 30, 1982. Available at: http://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency-rma-/planning/resources-documents/1982-general-plan. Accessed August 2015.
- . 1984. *Greater Monterey Peninsula Area Plan*. December 1984. Available at: http://www.co.monterey.ca.us/home/showdocument?id=37973. Accessed August 2015.
- . 2012a. Del Monte Forest Area Land Use Plan. June 22, 2012. Available at: http://www.co.monterey.ca.us/planning/docs/plans/Del_Monte_Forest_LUP_and_CIP_A mendment_Adopted_052212/DMF_LUP_Amended_052212_Complete_Version.pdf. Accessed August 2015.
- . 2012b. Monterey County Coastal Implementation Plan Part 5, Regulations for Development in the Del Monte Forest Land Use Plan Area (Title 20, Coastal Zoning Ordinance, Chapter 20.147). Certified by the California Coastal Commission on May 9, 2012. Adopted by the Monterey County Board of Supervisors. May 22, 2012. Available at: http://www.co.monterey.ca.us/planning/docs/plans/Del_Monte_Forest_LUP_and_CIP_Amendment_Adopted_052212/DMF_CIP_Part%205_Amended_052212_Complete_Version.pdf. Accessed August 2015.
- Entomological Consulting Services, Ltd. 2008. 1158 Signal Hill Road, Pebble Beach California. Report on Presence/Absence Surveys for the Smith's Blue Butterfly. September 6, 2008.
- Fred Ballerini Horticultural Services. 2013. *Dune Restoration Plan Massy Mehdipour Property APN: 08-261-007*. Prepared for Massy Mehdipour. March 13, 2013.

- ———. 2015. Dune Restoration Plan (To Restore 68,567 SF Natural Habitat Area) Massy Mehdipour Property APN: 08-261-007 PLN100338. Prepared for Massy Mehdipour. July 22, 2015.
- Hamb, Maureen. 2011. *Tree Resource Evaluation Construction Impact Analysis for 1170 Signal Hill Road*. Prepared by Maureen Hamb-WCISA, Certified Arborist WE2280, Professional Consulting Services for Massy Mehdipour June 27, 2011.
- Holland, R.F. 1986. *Preliminary Description of Terrestrial Natural Communities of California*. State of California, The Resources Agency, Department of Fish and Wildlife.
- NatureServe. 2017. National and Subnational Conservation Status Definitions. Available at: http://explorer.natureserve.org/nsranks.htm. Accessed June 2018.
- San Francisco Bay Conservation and Development Commission. 2007. Shoreline Plants: A Landscape Guide for the San Francisco Bay Area. March 2007. Available at: http://www.bcdc.ca.gov/pdf/planning/SPLG.pdf. Accessed August 2015.
- Sawyer, J., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. 2nd ed. California Native Plant Society.
- U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2015. Web Soil Survey. Available at: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed on August 4, 2015.
- U.S. Fish and Wildlife Service (USFWS). 2014. Endangered and Threatened Wildlife and Plants; Review of Native Species that are Candidates for Listing as Endangered or Threatened; Annual Notice of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions; Proposed Rule. *Federal Register* 79(234):72452–72455. Available at: http://www.fws.gov/policy/library/2014/2014-28536.html. Accessed August 2015.
- Zander Associates. 2010. *Biological Resources Assessment for 1170 Signal Hill Road*. Prepared for Massy Mehdipour. June 8, 2010.
- ———. 2011a. *Dune Restoration Plan for 1170 Signal Hill Road*. Prepared for Massy Mehdipour. June 2011.
- ——. 2011b. Supplemental Biological Resources Assessment for 1170 Signal Hill Road. Prepared for Massy Mehdipour. June 23, 2011.
- ——. 2012. Remnant Dune Restoration Plan, Mehdipour Property. Prepared for Massy Mehdipour. August 2012.

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