Section 3.3
Biological Resources

This section identifies impacts on biological resources located in and around the Project site. This section includes the following information.

- Description of sensitive natural communities (e.g., Monterey pine forest and waters of the United States and State).
- Identification of special-status plant and wildlife species, including listed and non-listed rare, threatened, or endangered species and habitats.
- Identification of direct and indirect impacts on sensitive habitats; special-status plant and wildlife species; wildlife habitat, populations, movements, breeding, and nesting; and trees. The impact analysis also identifies:
    - Impacts of removing Monterey pine trees (*Pinus radiata*) and other native trees [coast live oak (*Quercus agrifolia*)] on the native forest habitat, existing native seed stock, and other sensitive habitat areas, and in relation to County regulations.
    - Impacts of tree removal and construction activities upon known or potential nesting raptors protected under the Migratory Bird Treaty Act (MBTA).

This analysis is based on review of an extensive body of existing studies and data, including the 2011 DEIR for the Pebble Beach Company Project (Monterey County 2011/2012), technical studies, and biological surveys of the Project site conducted in 2011, 2012, and 2013 by Zander Associates and in 2014 by ICF International. A detailed description of the biological resources setting, including details of existing studies, reviews, and species characteristics, is presented in this section. Impacts are summarized in **Table 3.3-1**. The detailed impact analysis is presented later in this section.

Table 3.3-1. Summary of Project Impacts on Biological Resources

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
A. Sensitive Habitats			
BIO-A1. The Project would result in direct removal and could result in indirect impacts on Monterey pine forest.	Significant	BIO-A1. Develop and implement a site-specific resource management plan for the Project's open space preservation area. BIO-A2. Dedicate conservation easements to the Del Monte Forest Conservancy for the open space preservation areas.	Less than significant
B. Waters and Wetlands			
BIO-B1. The Project could degrade quality of waters extending through the Project site.	Significant	BIO-B1. Avoid, minimize and/or compensate for degradation of water quality and loss of waters; and implement resource management measures to maintain waters and water quality in the project preserve areas.	Less than significant

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
C. Special-Status Species			
BIO-C1. The Project could result in direct mortality of California red-legged frog, degradation of aquatic habitat, and loss and degradation of upland habitats.	Significant	BIO-A1, BIO-A2, BIO-B1. BIO-C1. Conduct preconstruction surveys for California red-legged frog, implement protection measures if found, and conduct construction monitoring.	Less than significant
BIO-C2. The Project could result in loss of or disturbance to habitat occupied by non-listed special-status wildlife species.			
Black or Silvery Legless Lizards	Significant	BIO-A1, BIO-A2. BIO-C2. Conduct preconstruction surveys for legless lizard and implement protection measures if found.	Less than significant
California Horned Lizard	Less than significant	None required	--
Western Pond Turtle	Less than significant	None required	--
Pallid Bats	Significant	BIO-C3. Conduct a preconstruction survey for bat roosts, and implement construction monitoring during tree removal activities.	Less than significant
Hoary bat	Less than significant	None required	--
Ringtail and Monterey Ornate Shrew	Significant	BIO-A1, BIO-A2.	Less than significant
BIO-C3. Project construction and development would result in loss of Monterey pine, a California Rare Plant Rank of 1B.1 special-status species.	Significant	BIO-A1, BIO-A2.	Less than significant
D. Common Wildlife Habitat/Populations/Plant Communities			
BIO-D1. The project would remove habitat of common wildlife species and plant communities within the Project site.	Less than significant	None required	--
E. Indirect Impacts on Habitat Resulting from Human Use			
BIO-E1. The Project could increase human disturbance of Monterey pine forest within the proposed open space preservation area.	Significant	BIO-A1, BIO-A2.	Less than Significant
F. Wildlife Movement			
BIO-F1. The Project would fragment existing forested habitats and could interfere with wildlife movement.	Less than Significant	None required	--

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
G. Wildlife Breeding and Nesting			
BIO-G1. Project construction, including tree removal and grading, could result in potential disturbance to nesting raptors and migratory birds, including several special-status raptor species, if present during construction.	Less than Significant	None required	--
H. Tree Removal			
BIO-H1. The Project would result in removal or disturbance of native Monterey pine trees and coast live oak trees.	Significant	BIO-A1, BIO-A2.	Less than significant
-- = Not Applicable			

Regulatory Setting

This section describes the federal, state, and local plans, policies, and laws that are relevant to biological resources in the Project vicinity.

Federal

Federal Endangered Species Act

The federal Endangered Species Act (ESA) protects species, and their habitats, that have been identified by the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration (NOAA) Fisheries (formerly known as the National Marine Fisheries Service) as threatened or endangered. "Endangered" refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range; "threatened" refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

The ESA is administered by USFWS and NOAA Fisheries. In general, USFWS has authority over listed terrestrial plants on lands under federal jurisdiction and over listed wildlife species, regardless of whether publicly or privately owned. However, when an applicant seeks a permit from USACE in regard to CWA Section 404, USACE will need to consult with USFWS on listed federal species; depending on the scope of the area for which USACE consults with USFWS, this consultation may or may not include listed federal plants. In general, NOAA Fisheries is responsible for protection of ESA-listed marine species and anadromous fish, whereas other listed species are under USFWS jurisdiction. Because no habitats that might contain listed fish would be directly affected by the proposed project, NOAA Fisheries and its responsibility under the ESA are not discussed further in this section. Provisions of ESA Sections 7, 9, and 10 could be relevant to the Project and are summarized below.

Section 9 - Prohibitions (Section 9)

ESA Section 9 prohibits the take of any fish or wildlife species listed under the ESA as endangered. Take of threatened species is also prohibited under Section 9, unless otherwise authorized by federal regulations. As defined by the ESA, "take"means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" is defined as "any act that kills or injures the species, including significant habitat modification." In addition, Section 9 prohibits removing, digging up, cutting, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction. Section 9 does not prohibit take of federally listed plants on sites not under federal jurisdiction.

Sections 7 and 10 - Authorization Process

Take of listed species can be authorized through either the Section 7 consultation process for actions by federal agencies or the Section 10 permit process for actions by nonfederal entities. Federal agency actions include activities that are:

- On federal land.
- Conducted by a federal agency.
- Funded by a federal agency.
- Authorized by a federal agency (including issuance of federal permits and licenses).

Under Section 7, the federal agency conducting, funding, or permitting an action (the lead federal agency) must consult with USFWS, as appropriate, to ensure that the proposed action will not jeopardize endangered or threatened species or destroy or adversely modify designated critical habitat. If a proposed project "may affect" a listed species or designated critical habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the expected effect. In response, USFWS issues a biological opinion with one of two determinations regarding the proposed action.

- Might jeopardize the continued existence of one or more listed species (jeopardy finding) or result in the destruction or adverse modification of critical habitat (adverse modification finding).
- Will not jeopardize the continued existence of any listed species (no jeopardy finding) or result in adverse modification of critical habitat (no adverse modification finding).

The biological opinion issued by USFWS may stipulate discretionary "reasonable and prudent" conservation measures. If the project would not jeopardize a listed species, USFWS issues an incidental take statement to authorize the proposed activity.

In cases where a nonfederal entity is undertaking an action that does not require federal authorization, the take of listed species must be permitted by USFWS through the Section 10 process. If the proposed project would result in the incidental take of a listed species, the project proponent must first obtain a Section 10(a)(1)(B) incidental take permit (ITP). "Incidental take" is defined under Section 10 as the take of federally listed fish and wildlife species "that is incidental to, but not the purposes of, otherwise lawful activities."

To receive an ITP, the nonfederal entity is required to prepare a Habitat Conservation Plan (HCP). The HCP must include conservation measures that avoid, minimize, and mitigate the project's impact on listed species and their habitat.

Applicability to Project

The ESA could apply to the Project through several distinct regulatory processes. Absent any other federal permit, this process would be conducted in accordance with ESA Section 10, necessitating preparation of an HCP. As part of its review, USFWS would need to review, through an internal Section 7 consultation, the potential effects of issuing an ITP on federally listed species. An ITP can be issued through the Section 10 process that can allow for take of a federal species.

ESA requirements could also apply to any permit issued by USACE for fill of any jurisdictional waters or wetlands (see discussion below). The applicant has proposed certain activities that are within the jurisdiction of CWA Section 404 and will require authorization for these activities from USACE. USACE is required to consult with USFWS regarding actions that may affect federally listed species and for which a permit application is submitted. This process is conducted in accordance with ESA Section 7. A biological opinion can be issued through the Section 7 process that can allow for take of a federal species. The consultation may be limited to only those parts of the Project involving federal jurisdictional waters or wetlands.

Migratory Bird Treaty Act

The MBTA (16 USC 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 21; 50 CFR 10). Most actions that result in taking or in permanent or temporary possession of a protected species constitute MBTA violations. Examples of permitted actions that do not violate MBTA are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird-banding, and other similar activities. USFWS is responsible for overseeing compliance with MBTA, and the U.S. Department of Agriculture's Animal Damage Control Officer makes recommendations on related animal protection issues.

MBTA applies to migratory birds, their occupied nests, and eggs within the Project site.

Clean Water Act

CWA was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. CWA now serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

The following discussions address specific sections of CWA. Refer to Section 3.7, Hydrology and Water Quality, for additional information about the Clean Water Act.

Section 404 – Discharge or Fill in Waters and Wetlands

CWA Section 404 regulates the discharge of dredged and fill material into waters of the United States. Waters of the United States refers to oceans, bays, rivers, streams, lakes, ponds, and wetlands, including any or all of the following areas.:

- Areas within the ordinary high water mark of a stream, including non-perennial streams with a defined bed and bank.
- Any stream channel that conveys natural run-off, even if it the channel has been realigned.
- Seasonal and perennial wetlands, including coastal wetlands.

Applicants must obtain a permit from the USACE for all discharges of dredged or fill material into waters of the United States, including wetlands, before proceeding with a proposed activity. As stated by the Counsel for EPA's January 19, 2001, determination in response to the *Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers* ruling, non-navigable, isolated waters may not be regulated by the USACE as jurisdictional waters based solely on their use as habitat by migratory waterfowl.

Section 404 permits may be issued only for the project's least environmentally damaging practicable alternative. That is, authorization of a proposed discharge is prohibited if there is a practicable alternative that would have less adverse impacts and lacks other significant adverse consequences. Sawmill Gulch is a potentially jurisdictional water of the United States and the Project's proposed storm drain outfall from the retention basins to this drainage may affect jurisdictional areas; therefore, a Section 404 permit may be required for construction.

Section 402 - Stormwater Discharge

Section 402 of the CWA regulates construction related stormwater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program, administered by the EPA. NPDES permits are required for projects that disturb more than 1 acre of land. The NPDES permitting process requires the applicant to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which includes required BMPs to prevent soil erosion and discharge of other construction-related pollutants (e.g., petroleum products, solvents, paints, cement) that could contaminate nearby water resources. Refer to Section 3.7, *Hydrology and Water Quality*, for additional information.

Section 401 - Water Quality Certification

CWA Section 401 requires that applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401. As noted above, the Project may affect Sawmill Gulch which is a potentially jurisdictional water of the U.S., and thus a Section 401 certification may be required for construction.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act requires consultation by federal agencies with USFWS when the waters of any stream or other body of water are proposed, authorized, permitted, or licensed to be impounded, diverted, or otherwise controlled or modified under a federal permit or license (16 USC 661-667[e]).

Most USFWS comments on applications for permits under CWA Section 404 are conveyed to USACE through the consultation process required by this coordination act. This act may apply to the proposed project through USACE relevant to permitting for the project.

The USFWS provides advisory comments and recommends mitigation measures to avoid impacts on wetlands or to modify activities that may directly affect wetlands. Mitigation recommended by USFWS may include restoring or creating habitat to avoid a net loss of wetland functions and values. Although consultation with USFWS is required, USACE is not required to implement USFWS recommendations.

Federal Executive Order 13112—Invasive Species

Executive Order (EO) 13112 (February 3, 1999) directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. The order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species.

USFWS and the USACE may be issuing permits for the proposed project and would therefore be responsible for ensuring that permitted activities comply with EO 13112 and do not contribute to the spread of invasive species.

State

California Environmental Quality Act

CEQA is the regulatory framework by which California public agencies identify and mitigate significant environmental impacts. A project normally has a significant environmental impact on biological resources if it substantially affects a rare or endangered species or the habitat of that species; substantially interferes with the movement of resident or migratory fish or wildlife; or substantially diminishes habitat for fish, wildlife, or plants. The State CEQA Guidelines define rare, threatened, or endangered species as those listed under the California Endangered Species Act (CESA) and ESA, as well as other species that meet the criteria of the resource agencies or local agencies—for example, California Department of Fish and Wildlife (DFW)-designated species of special concern and some California Native Plant Society (CNPS)-listed species (see further discussion below in the *Special-Status Species* section). The State CEQA Guidelines state that the lead agency preparing an EIR must consult with and receive written findings from DFW concerning project impacts on species listed as endangered or threatened. The effects of a proposed project on these resources are important in determining whether a project has significant environmental impacts under CEQA.

California Endangered Species Act

CESA was implemented in 1984. The act prohibits the take of endangered and threatened species; however, habitat destruction is not included in the state's definition of take. Section 2090 of CESA requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. DFW administers the act and authorizes take through Section 2081 agreements (except for species designated as fully protected). DFW recently adopted the authority to authorize incidental take of plant species listed as "rare" under the California Native Plant Protection Act (NPPA) (Title 14 California Code of Regulations Section 786.9). DFW previously could authorize incidental take of only "endangered" and "threatened" species. However, there are no "rare", "threatened", or "endangered" species with potential to occur in areas affected by the Project and thus a CESA permit will not be necessary for this Project.

California Native Plant Protection Act

Regarding rare plant species, CESA defers to the NPPA of 1977, which prohibits importing rare and endangered plants into California, taking rare and endangered plants (in certain circumstances), and selling rare and endangered plants. State-listed plants are protected mainly in cases where state agencies are involved in projects under CEQA. The NPPA does not prohibit take of rare and endangered plants incident to possession or sale of real estate (California Fish and Game Code Section 1908); consequently, it does not prohibit removal of a rare or endangered plant in the course of development of land, but rather only in the context or removal of the plant for the purposes of sale. Owners of land with known rare or endangered species are required to notify DFW of plans to change land use a minimum of 10 days prior to the change to allow DFW time to salvage the plants. However, if DFW fails to respond within these 10 days, then the land owner may proceed with the land use change (California Fish and Game Code Section 1913(c)). As discussed below, there are no state-listed rare, threatened or endangered plant species that would be affected by the Project and thus the NPPA would not apply.

California Fish and Game Code

Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 3511 lists fully protected birds, Section 3515 lists fully protected fish, Section 4700 lists fully protected mammals, and Section 5050 lists fully protected amphibians and reptiles. The California Fish and Game Code, Section 86, defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Except for take related to scientific research, all take of fully protected species is prohibited.

Ringtail (*Bassariscus astultus)*, golden eagle (*Aquila chrysaetos*), American peregrine falcon (*Falco peregrinus*), and white-tailed kite (*Elanus leucurus*) are the only fully protected species with potential to occur in the Project vicinity.

Additional Wildlife Protections

Section 3503 of the California Fish and Game Code prohibits the killing, possession, or destruction of bird eggs or of bird nests. Section 3503.5 and 3513 prohibit the killing, possession, or destruction of all nesting birds (including raptors and passerines). Section 3513 prohibits the take or possession of

any migratory nongame birds designated under the federal MBTA. Section 3800 prohibits take of nongame birds. Mammals are protected under Section 4700.

Streambed Alteration Agreements (Section 1600 et seq.)

DFW has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under the California Fish and Game Code Sections 1600–1607. DFW has the authority to regulate all work under the jurisdiction of the State of California that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. In practice, DFW marks its jurisdictional limit at the top of the stream or lake bank or the outer edge of the riparian vegetation, where present, and sometimes extends its jurisdiction to the edge of the 100-year floodplain. Therefore, jurisdictional boundaries under Section 1600 may encompass a greater area than those regulated under Section 404.

DFW enters into a streambed alteration agreement with an applicant and can impose conditions on the agreement to ensure that no net loss of wetland values or acreage will be incurred. The lake or streambed alteration agreement is not a permit but, rather, a mutual agreement between DFW and the applicant. DFW has jurisdictional authority over Sawmill Gulch, and the Project's proposed storm drain outfall from the retention basin could result in streambed alteration; therefore, a Section 1600 agreement may be required for construction.

Local

2010 Monterey County General Plan

Within the General Plan, the Conservation and Open Space Element guides the long-term conservation and preservation of open space lands and natural resources while protecting private property rights. The Greater Monterey Peninsula Area Plan (GMPAP) provides supplemental policies that apply to the inland areas of the Monterey Peninsula, including the Project site. The following policies are applicable to biological resources (Monterey County 2010).

Conservation and Open Space Element

Policy OS-5.25: Occupied nests of statutorily protected migratory birds and raptors shall not be disturbed during the breeding season (generally February 1 to September 15). The county shall

A. Consult, or require the developer to consult, with a qualified biologist prior to any site preparation or construction work in order to:

   1. determine whether work is proposed during nesting season for migratory birds or raptors,
   2. determine whether site vegetation is suitable to nesting migratory birds or raptors,
   3. identify any regulatory requirements for setbacks or other avoidance measures for migratory birds and raptors which could nest on the site, and
   4. establish project-specific requirements for setbacks, lock-out periods, or other methods of avoidance of disruption of nesting birds.

B. Require the development to follow the recommendations of the biologist. This measure may be implemented in one of two ways:

1. preconstruction surveys may be conducted to identify active nests and, if found, adequate buffers shall be provided to avoid active nest disruption until after the young have fledged; or
2. vegetation removal may be conducted during the non-breeding season (generally September 16 to January 31); however, removal of vegetation along waterways shall require approval of all appropriate local, state, and federal agencies.

This policy shall not apply in the case of an emergency fire event requiring tree removal. This policy shall apply for tree removal that addresses fire safety planning, since removal can be scheduled to reduce impacts to migratory birds and raptors.

Greater Monterey Peninsula Area Plan

Policy GMP-3.5: Removal of healthy, native oak, Monterey pine, and redwood trees in the Greater Monterey Peninsula Planning Area shall be discouraged. An ordinance shall be developed to identify required procedures for removal of these trees. Said ordinance shall take into account fuel modification needed for fire prevention in the vicinity of structures and shall include: a) Permit requirements, b) Replacement criteria, and c) Exceptions for emergencies and governmental agencies.

Policy GMP-3.8: Open space areas should include a diversity of habitats with special protection given to ecologically important zones, such as: a) areas where one habitat grades into another, or b) areas used by wildlife for access routes to water or feeding grounds.

Policy GMP-3.9: Critical habitat areas should be preserved as open space. When an entire parcel cannot be developed because of this policy, a low intensity, clustered development may be approved. However, the development should be located on those portions of the land least biologically significant so that the development will not upset the natural function of the surrounding ecosystem.

Monterey County Tree Ordinance

Chapter 16.60 – Preservation of Oak and Other Protected Trees, Monterey County Municipal Code 2014, is applicable throughout the unincorporated area of the County of Monterey outside the Coastal Zone.

Section 16.60.030, Regulations:

D. No oak tree may be removed in any other area of the County of Monterey designated in the applicable area plan as Resource Conservation, Residential, Commercial or Industrial (except Industrial, Mineral Extraction) without approval of the permit(s) required in Section 16.60.040 of this Chapter.

Section 16.60.040 Permits Required:

A. Permit Required. No person shall do, cause, permit, aid, abet, suffer or furnish equipment or labor to remove, cut down or trim more than one-third of the green foliage of, poison or otherwise kill or destroy any tree as specified in this Section until a tree removal permit for the project has first been obtained.

All provisions of this Section shall apply to any person removing trees on behalf of any other person, including all companies or persons in the business of removing trees or construction. It is unlawful for any person or company to remove or cause to be removed or undertake any work for which a permit is required under this Section, unless a valid permit has been obtained and is in effect.

C. Removal of More Than Three Protected Trees.

1. Removal of more than three protected trees on a lot in a one-year period shall require a Forest Management Plan and approval of a Use Permit by the Monterey County Planning Commission.
2. The Forest Management plan shall be prepared by a qualified professional forester, as selected from the County's list of Consulting Foresters. Plan preparation shall be at the applicants expense.
3. The Director of Planning shall prescribe the format and content requirements for the Forest Management Plan and maintain a list of qualified and acceptable foresters to prepare the Forest Management Plan.
4. All tree removal requests coming under this Subsection shall be subject to the requirements of the California Environmental Quality Act (CEQA).

D. Relocation or Replacement. As a consideration of the granting of a permit pursuant to Subsections B or C, the applicant shall be required to relocate or replace each removed protected tree on a one-to-one ratio. This requirement may be varied upon a showing that such a requirement will create a special hardship in the use of the site or such replacement would be detrimental to the long-term health and maintenance of the remaining habitat.

E. Required Findings. In order to grant the permit for tree removal, the appropriate authority shall make the following findings based on substantial evidence:

1. The tree removal is the minimum required under the circumstances of the case; and
2. The removal will not involve a risk of adverse environmental impacts such as:
    a. Soil erosion;
    b. Water Quality. The removal of the trees will not substantially lessen the ability for the natural assimilation of nutrients, chemical pollutants, heavy metals, silt and other noxious substances from ground and surface waters;
    c. Ecological Impacts. The removal will not have a substantial adverse impact upon existing biological and ecological systems, climatic conditions which affect these systems, or such removal will not create conditions which may adversely affect the dynamic equilibrium of associated systems;
    d. Noise Pollution. The removal will not significantly increase ambient noise levels to the degree that a nuisance is anticipated to occur;
    e. Air Movement. The removal will not significantly reduce the ability of the existing vegetation to reduce wind velocities to the degree that a nuisance is anticipated to occur;
    f. Wildlife Habitat. The removal will not significantly reduce available habitat for wildlife existence and reproduction or result in the immigration of wildlife from adjacent or associated ecosystems; or
3. The tree is diseased, injured, in danger of falling too close to existing or proposed structures, creates unsafe vision clearance, or is likely to promote the spread of insects or disease.

F. Conditions of Approval. In granting any permit as provided herein, the appropriate authority may attach reasonable conditions to mitigate environmental impacts and ensure compliance with the provisions of this Chapter, including but not limited to replacement of trees removed.

Monterey County Conditions of Approval

The Project would be required to comply with Monterey County's Standard Conditions of Approval which include, but may not be limited to, the following applicable conditions (Monterey County 2014). Refer to Chapter 2, *Project Description*, for the full text of the conditions of approval.

PD007: Grading – Winter Restriction

PD011:Tree and Root Protection (for trees located close to construction sites)

PD011(A): Tree Removal

PD022(B): Conservation and Scenic Easement in the Del Monte Forest

PD027: Debris Removal

PD033: Restoration of Natural Materials

PD048: Tree Replacement/Relocation

PD050: Raptor/Migratory Bird Nesting

Environmental Setting

The Project site is located within the Monterey pine forest on the Monterey Peninsula, an area that is overlain by nutrient-poor, sandy soils derived from uplifting ancient marine terraces and decomposed granite soils. Most of the Monterey pine forest is subject to marine fog incursion and other maritime climatic influences, such as wind and salt spray. Historically, fires occurred frequently and were an integral part of ecosystems found on the peninsula. All these physical influences have resulted in the evolution and persistence of many plants, biological communities, and conditions that are endemic to the Monterey Peninsula.

To establish the environmental setting, ICF biologists conducted a site visit in September 2014 and reviewed information from the following sources.

- A record search of the California Natural Diversity Database (CNDDB) for the Monterey U.S. Geological Survey (USGS) 7.5-minute quadrangles (California Department of Fish and Wildlife 2014).
- The California Native Plant Society (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* for the Monterey USGS 7.5-minute quadrangle (CNPS 2014b).
- A USFWS list of endangered and threatened species that may occur on the PBC property (California Department of Fish and Wildlife 2014).
- DFW's *Natural Communities List Arranged Alphabetically by Life Form* (California Department of Fish and Game 2010).
- Technical reports that address Monterey pine as a species and Monterey pine forest as a natural community (Huffman and Associates 1994; Jones & Stokes 1994a, 1994b, 1996; Monterey County 1995, 1997; Zander Associates 2002).
- Pebble Beach Company DEIR (Monterey County 2011/2012).
- Seasonal Plant Surveys Area D Inclusionary Housing Site Report (Zander Associates 2012b) and reconnaissance level biological resources assessment in 2013 to confirm that conditions are relatively unchanged from the earlier period (Zander Associates 2013).

- Other biological references cited below in the text and included in the *Biological Resources* section of Chapter 7, *References*.

Biological Communities

The Project site is dominated by two biological communities, Monterey pine forest with a herbaceous understory and Monterey pine forest with a woody shrub understory. Additionally, there are waters of the United States (Sawmill Gulch) on the Project site. **Table 3.3-2** shows the total amount of each biological community on the Project site.

As a natural community, the overstory and understory composition and structure of Monterey pine forest vary depending on site conditions. In the reports listed above, different approaches were used to divide Monterey pine forest into forest subtypes that could be used in establishing a priority for protection of forest. For the purposes of this analysis, Monterey pine forest is divided into two forest subtypes based on plant associations.

- Monterey Pine with Herbaceous Understory.
- Monterey Pine with Woody Shrub Understory.

Table 3.3-2. Total Area of Vegetation by Biological Community Type in the Project Site

Community Type	Area within the Project Site (Acres)	Area within 2.7-Acre Development Footprint (Acres)	Area within Open Space Preservation
Monterey Pine Forest			
with Herbaceous Understory	2.5	0.9	1.6
with Woody Shrub Understory	10.5	1.8	8.7
Subtotal	*13.0*	*2.7*	*10.3*
Waters (Sawmill Gulch)	0.2	0	0.2
Total	**13.2**	**2.7**	**10.5**

Monterey Pine Forest

The natural range of native Monterey pine forest comprises five areas: three in California and two on islands off the coast of Baja California. The three occurrences of Monterey pine forest in California are on and adjacent to the Monterey Peninsula, near Año Nuevo in San Mateo and Santa Cruz Counties, and in and around Cambria in San Luis Obispo County. Monterey pine forest on the Monterey Peninsula and surrounding areas has been substantially reduced from its historical extent. Huffman and Associates (1994) estimated that 57–63% of historical Monterey pine forest remained in undeveloped stands. Jones & Stokes (1996) estimated that 51% of historical Monterey pine forest remained in undeveloped stands (i.e., Monterey pine forest stands with natural or relatively undisturbed understory).

The Monterey Peninsula supports the largest Monterey pine forest of the extant natural occurrences. It is estimated that Monterey pine forest historically covered approximately 18,000 acres on the Monterey Peninsula and vicinity, of which approximately 9,400 acres of Monterey pine forest with natural understory (i.e., undeveloped forest) remained as of 1994 (Jones & Stokes 1994a). Estimates of the historical extent and remaining undeveloped forest vary depending on

inventory methodology. Another study conducted in the mid-1990s (Huffman and Associates 1994) estimated that the historical extent of the Monterey pine forest in the Monterey area covered 11,000 to 12,000 acres and that the remaining undeveloped natural stands cover about 6,400 acres (Huffman and Associates 1994). The remaining native stands of Monterey pine forest at Año Nuevo (1,500 acres), Cambria (2,300 acres), Cedros Island (370 acres), and Guadalupe Island (220 trees in 2001) are far smaller than those on the Monterey Peninsula (Jones & Stokes 1996; Rogers 2002).

For this analysis, the estimate of undeveloped Monterey pine forest used is 9,289 acres (Monterey County 2005). Although there has been some development since 2005 that has removed a small amount of pine forest, the changes are minimal enough that this number is a reasonable estimate of current extent. Of the estimated extant undeveloped Monterey pine forest, approximately 3,950 acres are protected through local or state public ownership in parks or preserves (such as Point Lobos State Reserve and Rancho Aguajito), are protected through ownership by conservation organizations (such as the SFB Morse Preserve, owned by the Del Monte Forest Conservancy), or are on private lands with prior dedication of scenic and conservation easements (such as Huckleberry Hill Natural Habitat Area, owned by PBC).

Monterey pine forest provides a variety of microhabitat conditions that may be used by several common wildlife species. The canopy may be used as perching, roosting, and nesting sites by raptors such as red-tailed hawks (*Buteo jamaicensis*). Small insectivorous birds, such as pygmy nuthatch (*Sitta pygmaea*) and Townsend's warbler (*Setophaga townsendi*), forage on the trunks and branches of the pines. Dark-eyed junco (*Junco hyemalis*), Northern flicker (*Colaptes auratus*), and rufous-sided towhee (*Pipilo erythrophtahlmus*) forage on or near the forest floor. Anna's hummingbird (*Calypte anna*) also occurs in Monterey pine forest, foraging on nectar produced by shrub and herbaceous plant species in the understory. The scattered coast live oak trees in the Monterey pine forest produce acorns, an important food source for Western scrub-jays (*Aphelocoma californica*), acorn woodpeckers (*Melanerpes formicivorus*), and black-tailed deer (*Odocoileus hemionus*). Downed wood on the forest floor provides cover for amphibians such as California slender salamanders (*Catrachoseps attenuates*) and arboreal salamanders (*Aneides lugubris*).

DFW identified Monterey pine forest a natural community of special concern in the CNDDB (2014). Natural communities of special concern are habitats that are especially diverse, regionally uncommon, or of special concern to local, state, and federal agencies. Monterey pine trees have a California Rare Plant Rank of 1B.1 (California Department of Fish and Wildlife 2014), but the species is not listed as rare, threatened, or endangered by the state or federal government.

Monterey Pine Forest with Herbaceous Understory

Monterey pine forest with a herbaceous understory (MPFH) is the dominant biological community in the northern portion of the Project site (**Figure 3.3-1**), occupying approximately 2.5 acres. In the Project site, MPFH is dominated by Monterey pine with coast live oak as a common associate as a canopy or subcanopy tree. Trees within this area are dense, and the MPFH canopy tends to be moderately to completely closed. The herbaceous understory vegetation is dominated by nonnative big quakinggrass (*Briza maxima*) but also includes French broom (*Genista monspessulana*), velvet grass (*Holcus lanatus*), oat grass (*Avena* spp.), ripgut brome (*Bromus diandrus*), smooth's cats ear (*Hypochaeris glabra*), and native bracken fern (*Pteridium aquilinum*). The understory is very dense in most areas, creating a continuous field of vegetation beneath the overstory canopy. The invasive understory vegetation indicates that this area is heavily disturbed.

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Source: Imagery, ESRI.

Figure 3.3-1
Biological Communities

Monterey Pine Forest with Woody Shrub Understory

Monterey pine forest with a woody shrub understory (MPFW) is the dominant biological community in the southern portion of the Project site (**Figure 3.3-1**), occupying approximately 10.5 acres. Similar to MPFH, MPFW is dominated by Monterey pine and coast live oak trees. However, trees are moderately to sparsley scattered, establishing an open canopy. Dominant woody understory vegetation include shaggy-barked manzanita (*Arctostaphylos tomentosa* subsp. *tomentosa*), sticky monkeyflower (*Mimulus aurantiacus*), California huckleberry (*Vaccinium ovatum*), California blackberry (*Rubus ursinus*), poison-oak (*Toxicodendron diversilobum*), bracken fern, coyote brush (*Baccharis pilularis*), California coffeeberry (*Frangula californica* subsp. *californica*), toyon (*Heteromeles arbutifolia*), and honeysuckle (*Lonicera* sp.), which are shrubs that are also typical of central maritime chaparral. The MPFW also shows signs of substantial disturbance, with numerous cut trees, social trails, encampments, and a bicycle jump course, which has severely degraded the woody understory.

Birds such as orange-crowned warbler (*Vermivora celata*), rufous-sided towhee (*Pipilo erythrophthalmus*), California thrasher (*Toxostoma redivivum*), and California quail (*Callipepla californica*) feed and nest in shrubs. California mouse (*Peromyscus californicus*), brush rabbit (*Sylvilagus bachmani*), Heerman's kangaroo rat (*Dipodomys heermanii*), and brush mouse (*Peromyscus boylii*) find forage and cover in dense shrub cover, while narrow-faced kangaroo rat (*Dipodomys venustus*) favors sparsely vegetated openings within the thick vegetation. These small mammals are preyed upon by gray fox (*Urocyon cineraoargenteus*), bobcat (*Lynx rufus*), spotted skunk (*Spilogale* spp.), and western rattlesnake (*Crotalus viridis*). Shrubs also provide important forage and cover for resident black-tailed deer (*Odocoileus hemionus columbianus*).

Waters of the United States and State (Sawmill Gulch Drainage)

Sawmill Gulch drainage, a water of the United States and State, extends through the southern portion of the Project site (**Figure 3.3-1**), and occupies approximately 0.2 acre in the proposed open space preservation area. Refer to **Figure 3.7-1** in Section 3.7, *Hydrology and Water Quality*, to see the entire Sawmill Gulch watershed.

This drainage feature consists of an approximately 750-foot-long gulch that is a natural swale that has been eroded over time by stormwater runoff from SFB Morse Drive, Congress Road, and adjacent areas upslope. Culverts underneath SFB Morse Drive and Congress Road also direct water through Sawmill Gulch. Sawmill Gulch outlets into Monterey Bay approximately 1 mile northwest of the Project site (**Figure 3.7-1**). Therefore, Sawmill Gulch is a potentially jurisdictional water of the United States and State.

A May 7, 2012 report from Michael Zander (Zander Associates 2012a) identifies Sawmill Gulch in the southern section of the Project site as a marginally perennial stream. The reconnaissance level site visit conducted by ICF International in 2014 confirmed that conditions had not changed since the survey conducted by Zander Associates in 2012. The channel was dry, but the soil was saturated. Patchy vegetation in the gulch consisted of horsetail (*Equisetum* sp.*)*, California blackberry, watercress (*Nasturtium officinale*), fringed willowherb (*Epilobium ciliatum*), tall flatsedge (*Cyperus eragrostis*), and white sweetclover (*Melilotus albus*).

A formal wetland delineation of the Project site has not been conducted; however, Sawmill Gulch is located south of the development footprint and may be affected by the Project (See Impact BIO-C1). No other waters or wetlands were identified on the Project site.

Special-Status Species

Special-status species are plants and animals that are legally protected under CESA, the federal ESA, or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing (such as Species of Special Concern identified by DFW or other species that meet the CEQA definition of "rare").

For the purpose of this EIR, special-status species are those that meet any of the following definitions.

- Species listed or proposed for listing as threatened or endangered under the ESA (50 CFR Section 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various notices in the Federal Register [FR] for proposed species).
- Species that are candidates for possible future listing as threatened or endangered under the ESA (77 FR 69993, November 21, 2012).
- Species that are listed or proposed for listing by the State of California as threatened or endangered under CESA (Title 14 California Code of Regulations Section 670.5).
- Plants listed as rare under the NPPA (California Fish and Game Code, Section 1900 et seq.).
- Plants with a California Rare Plant Rank of 1B or 2B[1].
- Species that meet the definitions of rare or endangered under the State CEQA Guidelines, Section 15380.
- Wildlife species fully protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Wildlife species of special concern to DFW (Remsen 1978 [birds]; Williams 1986 [mammals]; and Jennings and Hayes 1994 [amphibians and reptiles]).

Appendix E includes a table listing special-status plant species (Table E-1) and a table listing special-status wildlife species (Table E-2) evaluated for their potential to occur on the Project site. Special-status species were included in the analysis if suitable habitat is present on the Project site and if the species has been documented in the Monterey pine forest or surrounding region.

Special-Status Plants

Several special-status plants, primarily associated with Monterey pine forest and coastal dune and terrace communities, have been identified in the Project vicinity based on the extensive botanical surveys that have been conducted in Pebble Beach and the entire Monterey pine forest on Monterey Peninsula. The most recent and comprehensive surveys of the Project site were conducted in March and April of 2012. The results of these surveys are reported in the Seasonal Plant Surveys Area D Inclusionary Housing Site Report (Zander Associates 2012b) and are summarized in this section. Zander Associates also conducted a reconnaissance level biological resources assessment in 2013 to confirm that conditions are relatively unchanged from the 2012 survey (Zander Associates 2013).

Based on a review of botanical survey results, the CNDDB (2014), CNPS (2014a and 2014b), Calflora (2014), Jepson Manual (Jepson Flora Project 2015) and habitat conditions, only one special-status plant species, Monterey pine, occur on the Project site (**Table 3.3-3** and **Appendix E**, Table E-1).

[1] No List 2B plant species were identified with potential to occur at the Project site.

Reconnaissance level surveys conducted in December 2011 by Zander Associates and September 2014 by ICF International determined that several perennial special-status plant species such as Hooker's manzanita (*Arctostaphylos hookeri*), Gowen cypress (*Cupressus goveniana*), Eastwood's ericameria (*Ericameria fasciculata*), and sandmat manzanita (*Arctostaphylos pumila*), are not present on the Project site. In addition, Zander Associates conducted spring surveys during the blooming periods for Yadon's piperia (*Piperia yadonii*), Hickman's onion (*Allium hickmanii*), Pacific Grove clover (*Trifolium polyodon*), and pine rose (*Rosa pinetorum*), and determined these annual herbaceous species are not present on the Project site.

As described above, the habitat on the Project site is degraded by both nonnative species invasion and unofficial recreation activities; therefore,the Project site provides low-quality habitat for any potentially occurring special-status plant species.

Additionally, in accordance with the Fire Defense Plan for Pebble Beach (adopted in 1988 and most recently updated in 2012), the PBCSD and CALFIRE periodically reduce vegetation at the Project site with goat grazing to reduce the risk of fire. Goat grazing at the Project site has been occurring annually or every other year for the last 10 years (Harris pers. comm.). Goat grazing may have suppressed the presence of special-status species such as Yadon's piperia or other special-status plants, but it may also help to reduce the presence of non-native and invasive plants.

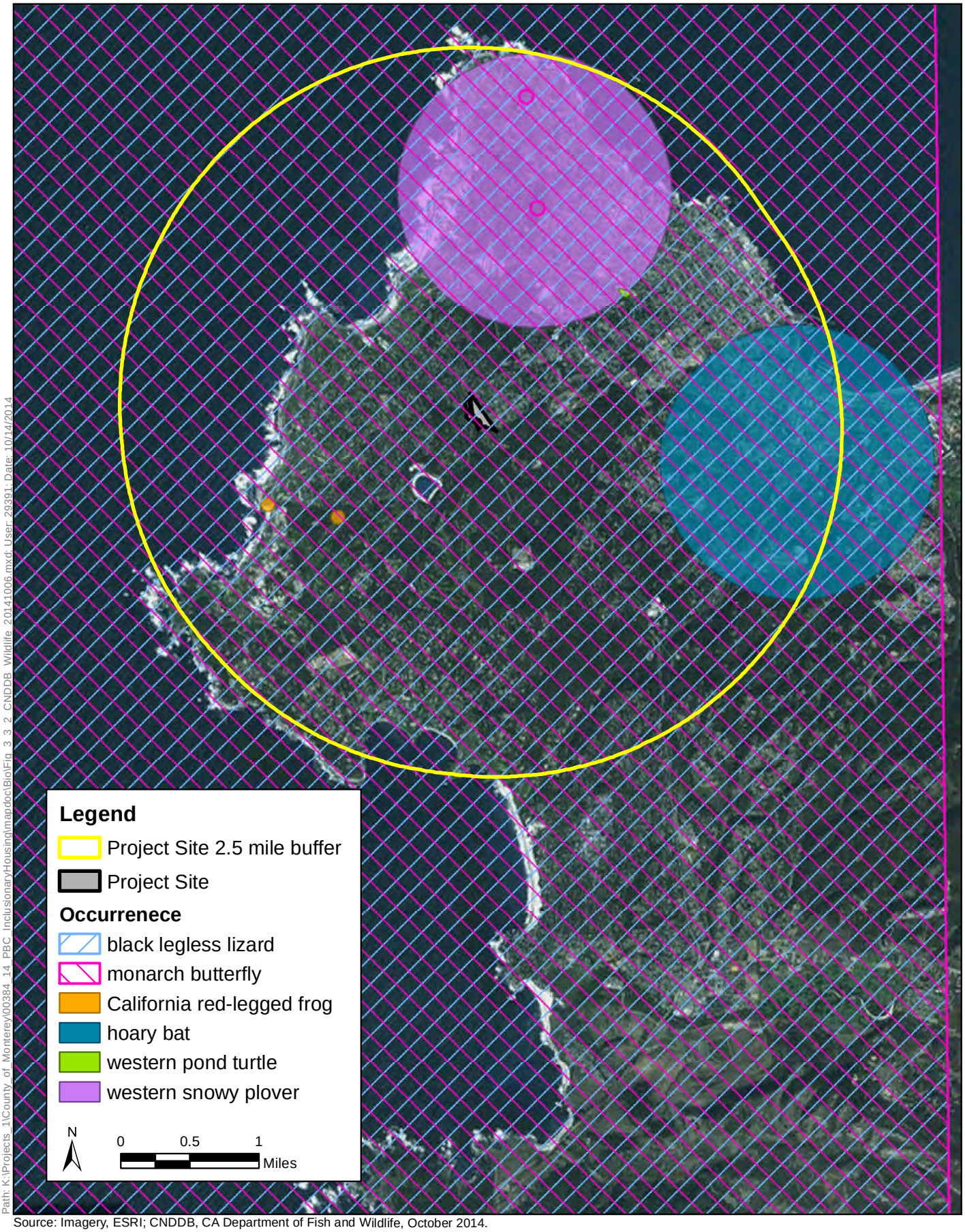
Special-Status Wildlife

Numerous special-status wildlife species were initially identified as having the potential to occur on the Project site and immediate vicinity based on a review of wildlife survey results (Zander Associates 2001 and 2010), the CNDDB (California Department of Fish and Wildlife 2014), the uncertified Final EIR (Monterey County 1997) and the certified Final EIR (Monterey County 2005) for the Pebble Beach Company Project, and California red-legged frog (CRLF) assessments and surveys (Wetlands Research Associates 2002a, 2002b, and 2003). Of the special-status species having potential to occur, 13 were determined to be present in the Project vicinity or to have suitable habitat within the Project site (**Table 3.3-3** and **Appendix E**, Table E-2). Those for which the Project site provides suitable habitat are evaluated in the impact analysis.

Figure 3.3-2 shows all CNDDB documented records for special-status wildlife species within 2.5 miles of the Project site.

Table 3.3-3. Special-Status Species Potentially Present at Project Site

Special-Status Species	Status	Documented in Project Vicinity	Suitable Habitat on Project Site	Evaluated in Impact Analysis
Plant Species				
Monterey pine	California Rare Plant Rank 1B.1	X	X	X
Wildlife Species				
California red-legged frog	Federally Threatened	X	X	X
Monterey dusky-footed woodrat	State species of special concern			
Sharp-shinned hawk	Nests protected under Migratory Bird Treaty Act (MBTA)	X	X	X
White-tailed kite	State fully protected, Nests protected under MBTA	X	X	X
Black legless lizard	State species of special concern		X	X
Silvery legless lizard	State species of special concern		X	X
California horned lizard	State species of special concern		X	X
Western pond turtle	State species of special concern		X	X
Pallid bat	State species of special concern		X	X
Hoary bat	Not listed but rare		X	X
Ringtail	State fully protected species		X	X
Monterey ornate shrew	State species of special concern		X	X
Cooper's hawk	Nests protected under MBTA		X	X
Refer to Appendix E for additional information.				



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Source: Imagery, ESRI; CNDDB, CA Department of Fish and Wildlife, October 2014.

Figure 3.3-2
Wildlife CNDDB Occurrences

Impacts Analysis

Methodology

Criteria for Determining Significance

In accordance with CEQA, the State CEQA Guidelines, Monterey County plans and policies, and agency and professional standards, a project impact would be considered significant if the project would result in any of the following conditions.

A. Sensitive Habitats

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local, state, or federal regional plans, policies, or regulations, including resulting in long-term degradation of a sensitive plant community because of substantial alteration of a land form or site conditions (e.g., alteration of wetland hydrology).
- For direct and indirect effects on Monterey pine forest within Del Monte Forest, a "substantial adverse effect" is defined in this document as removal, alteration, or fragmentation of Monterey pine forest such that the natural forested character is not retained to the maximum extent feasible and/or that the long-term protection of the forest's ecological values are not achieved.

B. Waters

- Result in direct loss through direct removal or filling of wetlands or waters as defined by CWA Section 404, or result in substantial adverse effects on wetlands by hydrological interruption or other means. Result in direct or indirect impacts on state waters as defined by CWA Section 401, the Porter-Cologne Water Quality Act, or streams as defined by Section 1600 of the California Fish and Game Code.

C. Special-Status Species

- 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 designation of DFW or USFWS, including reducing the number or restricting the range of an endangered, rare, or threatened species.

D. Wildlife Habitat/Populations/Plant Communities

- Substantially reduce fish or wildlife species habitat, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community.

E. Indirect Habitat Impacts Resulting from Human Use

- Result in substantial disturbance of protected wildlife species or their habitats from human activities related to recreation and trail use.

F. Wildlife Movement

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, by blocking or fragmenting access, or by permanently eliminating known wildlife corridors in areas known for frequent and substantial wildlife movement that provide important links between habitat areas.

G. Wildlife Breeding and Nesting

- Impede the use of native wildlife nursery sites or directly harm nesting species protected under the provisions of the MBTA.

H. Tree Removal

- Remove any Monterey pine or coast live oak trees within their indigenous range except in cases where life, property, or existing access is immediately threatened, or where a diseased tree is determined by a qualified professional forester to represent a severe and serious infection hazard to the rest of the forest.
- Inadvertently remove or damage trees not planned for removal, or introduce non-local tree stock such that genetic diversity is diminished or tree disease (such as pitch canker) is spread.

Project Impacts and Mitigation Measures

A. Sensitive Habitats

Impact BIO-A1. The Project would result in direct removal and could result in indirect impacts on Monterey pine forest. (Less than significant with mitigation)

Grading, construction, and landscaping activities on the 2.7-acre development site would result in the direct loss of 2.7 acres of existing undeveloped Monterey pine forest (0.9 acre of MPFH and 1.8 acres of MPFW). To offset this loss, the Project includes open space preservation of the remaining 10.5 acres of Monterey pine forest. Refer to **Figures 2-3** and **3.3-1**.

In addition to direct removal of 2.7 acres of Monterey pine forest, the Project could result in indirect impacts on the remaining 10.5 acres of Monterey pine forest in open space preservation from any of the following activities or conditions.

- Disturbance of the root zone and soil compaction from adjacent grading and trenching activities.
- Disturbance, degradation and introduction of invasive species from increased foot traffic and recreational use.
- Changes in soil and hydrologic conditions from increased irrigation and runoff.
- Increased pollutants from cats, dogs, yard waste, and trash.
- Increased exposure to fertilizers and herbicides from adjacent developed areas.
- Fragmentation of remnant stands.
- Increased susceptibility to insects and diseases, including pitch canker for Monterey pine.
- Loss of genetic diversity for Monterey pine.

As mature trees die and tree regeneration is suppressed over time, native Monterey pine and coast live oak canopy could be replaced by non-native ornamental trees (such as blackwood acacia (*Acacia melanoxylon*) and blue gum eucalyptus (*Eucalyptus globulus*)), which are present in and adjacent to the Project site. Direct habitat conversion and indirect habitat effects are significant impacts.

In light of the prior reduction of forest areas, current threats posed by development, alteration of natural forest succession (through fire suppression), the effect of pathogens (such as pitch canker), and the introduction of exotic species, a conservative approach to avoid and minimize further losses of Monterey pine forest is warranted until a regional forest conservation plan can be adopted and implemented.

In concept, the direct and indirect effects of the Project could be mitigated through habitat preservation of 10.5 acres on the Project site. However, the Project includes no formal commitment to manage the preservation areas for the benefit of Monterey pine forest. The Monterey pine forest on the Project site is degraded in part because of past and ongoing human activity and use of the unofficial recreation trails. By constructing 24 housing units and introducing new residents on the Project site, it is reasonable to expect the use and degradation of the forest would continue and likely increase.

Therefore, this impact would be significant. Implementing **Mitigation Measures BIO-A1** and **BIO-A2** to formalize dedication of the open space preservation area and to implement a site-specific resource management plan (RMP) would reduce this impact to a less-than-significant level. These measures would be implemented consistent with applicable County Conditions of Approval, including: PD022(B) (Conservation and Scenic Easement), PD027 (Debris Removal), and PDO33 (Restoration of Natural Materials).

Separate from the on-site preservation described above, per Condition No. 143 in the approval of the Pebble Beach Company Project, if the inclusionary housing is built, then the Company would dedicate the 135-acre Old Capitol Site, which contains an additional 75 acres of Monterey pine forest, to the County or an entity approved by the County for parkland purposes.[2] Thus, the total amount of preserved Monterey pine forest as part of the inclusionary housing project would be 85 acres. Although Condition No. 143 provides that preservation of the natural resources on Old Capitol Site shall be applied or credited as mitigation, the additional dedication is not considered mitigation for the inclusionary housing project, but rather a consequence of the Project, as the on-site preservation and management is considered adequate to reduce Project impacts to a less than significant level.

Mitigation Measure BIO-A1. Develop and implement a site-specific resource management plan for the Project's open space preservation area.

The applicant shall be required to develop and implement a site-specific resource management plan (RMP) for the 10.5-acre open space preservation area on the Project site. Additionally, the site-specific RMP will include native infill plantings.

[2] Most of the Old Capitol Site is designated for low-density residential development in the 2010 City of Monterey General Plan) (City of Monterey 2010). The Applicant has previously committed to the U.S. Fish and Wildlife Service to preserve 16 acres of Monterey pine forest habitat containing Yadon's piperia as part of a separate agreement with USFWS that is not a condition of prior approval for the buildout project.

The draft site-specific RMP shall be developed by a qualified third-party biologist under contract to the County prior to issuance of the first Project construction permit, and it shall be reviewed and approved by the County RMA-Planning. The site-specific RMP shall be based on the guidance and framework provided in the County-approved Master RMP for the Pebble Beach Company Project (also called the buildout project). The Master RMP is included in Appendix C of the Pebble Beach Company Project EIR, which was certified by Monterey County in 2012.

The site-specific RMP shall include planting of replacement trees per the requirements of the Tree Ordinance. The applicant shall be required to plant 590 coast live oak trees and 135 Monterey pine trees as replacement. The first priority for tree planting shall be on the proposed preservation areas within the 13.2-acre Project site, unless the qualified biologist determines it is preferable for overall forest health to plant the replacement trees within nearby areas dedicated to preservation, such as HHNHA or SFB Morse Preserve, or other areas, where appropriate to the Site-Specific RMPs for such areas.

The site-specific RMP shall comply with California Public Resources Code Section 4291 et seq., which mandates 100 feet of "defensible space" by vegetation reduction and treatment around all homes and buildings to help protect from wildland fire hazards. This includes creating a 30-foot Lean, Clean and Green Zone and a 70-foot Reduced Fuel Zone, as established in the Preliminary Fuel Management Plan.

The site-specific RMP shall identify existing unofficial trails to be either 1) retained for pedestrian access through the open space preservation area or 2) closed for restoration. The following general guiding principles apply to the site-specific RMP.

- Formalize some existing trails to provide pedestrian access through the open space preservation area and to connect to other formal trails offsite as follows:
    - Formalize the existing informal trail along the 20-foot drainage easement south of the project development site from Shafter Avenue to SFB Morse Drive.
    - Create a trail connection from the 20-foot drainage easement southward to SFB Morse Drive east of Congress Road at a point across the road from the existing formal trail within the HHNHA. This trail connection shall use areas disturbed by existing informal trails as much as feasible. The crossing of Sawmill Gulch shall be provided by a small clear-span bridge. Signage shall be placed along SFB Morse Drive indicating to motorists of a trail crossing and at the trail road crossing should be striped. The trail shall be routed to minimize vegetation removal. Any necessary vegetation removal for formal trail establishment shall be compensated by planting on a 1:1 basis as part of management of the remaining preserve area.
    - Wooden fence barriers shall be placed at the end of Lincoln, Miles, and Lawton avenues with signage saying "Forest Preserve: Do Not Enter" or equivalent language.
    - Signage shall be placed on the new trails indicating that no motorized vehicles are allowed and bicycles must be walked.
- Close all remaining existing informal trails for restoration and to minimize foot traffic near residences. The dirt bike trail and any associated bike ramps or other bike improvements shall be removed and the disturbed area restored.
- Provide signage and barriers to guide pedestrians to formal trails and away from closed trails, and to educate them about the sensitivity of the Monterey pine forest habitat.

The site-specific RMP shall include specific management measures for the following biological resources in the preservation area.

- Monterey pine forest.
- California red-legged frog.
- Black and silvery legless lizards.
- Nesting raptors and bird species regulated under Migratory Bird Treaty Act.
- Pallid bat (standing dead trees throughout the Project site).

For each resource being protected, the RMP shall include the following elements.

- A description of the resource and a detailed description of the management measures to protect the resource.
- Specific protection, restoration, and management methods, including timing and personnel.
- Monitoring methods, success criteria, and reporting procedures, including timing and personnel.
- Adaptive management plan (including weed control).

The RMP shall incorporate the following measures to control and minimize human use impacts.

- Implement an annual program of erosion control and trail maintenance for the formal trails.
- Provide environmental education (e.g., onsite signage, distribution of pamphlets) about the Monterey pine forest for new residents and existing adjacent residents. Educational signage and materials should specify measures that individuals can implement to lower their impact, such as staying on existing trails, crossing drainages only at existing crossings, and avoiding the introduction of invasive species.
- Monitor closed trails and informal "social" trail creation, bike jumps, encampments, etc. and close or remove them as appropriate. Monitor trail crossings of Sawmill Gulch during the wet season, and install erosion control measures along trails if monitoring identifies that a substantial erosion potential exists. Conduct periodic maintenance as necessary to prevent soil erosion and sedimentation from subsequent storm events. The applicant shall develop a protocol for implementing periodic monitoring and maintenance that shall be incorporated into the RMP for the Project site.
- Conduct at least annual (and more frequent if necessary) invasive weed control surveys both along trails and off trails and use manual, mechanical, and appropriate chemical or other means of control where infestation of noxious weeds is identified. Continued use of goat grazing may be determined appropriate for weed control.

The RMP will include native infill plantings around the development footprint to maximize screening of public views from roadways (refer to Mitigation Measure AES-B1, Incorporate native infill plantings in areas outside of the development footprint).

The RMP shall include an annual work plan and monitoring report to be approved by the County. The work plan shall include an education program for maintenance staff whereby a qualified biologist shall provide information on special-status plant and wildlife species. The

applicant shall ensure that the measures are implemented by monitoring for a minimum period of 20 years.

Mitigation Monitoring: Prior to issuing the first construction permit, Monterey County RMA-Planning shall review and approve the site-specific RMP. After construction, annually for a minimum of 20 years, Monterey County RMA-Planning, or a qualified biologist on the County's behalf, will visit the site to ensure the measures in the RMP are being implemented.

Mitigation Measure BIO-A2. Dedicate conservation easements to the Del Monte Forest Conservancy for the open space preservation area.

Prior to Project occupancy, the applicant shall be required to dedicate conservation easements to the Del Monte Forest Conservancy or other approved entity for the entire open space preservation area (10.5 acres), including 4 acres west of SFB Morse Drive and 6.5 acres east of SFB Morse Drive, as shown in Figure 2-3 in the EIR.

The conservation easements shall incorporate specific development prohibitions based on the protection measures outlined in the Master RMP (Monterey County 2011/2012) and the site-specific RMP to be developed in accordance with Mitigation Measure BIO-A1. The conservation easements shall contain specific restrictive language that permanently prohibits all future development in the preservation areas, including the creation or expansion of trails, with the following exceptions.

- Existing trails to be retained, as identified in the site-specific RMP per the requirements of Mitigation Measure BIO-A1.
- Existing utility uses and their maintenance, as identified in the site-specific RMP.

The conservation easements shall also contain the following provisions.

- A guarantee of full funding for implementation and monitoring by the applicant of all agency-approved resource management methods established in all agreements and memoranda of understanding.
- A statement that these dedicated areas cannot be used for the mitigation of any other past, present, or future projects.

The intent of this language is to prevent the possibility of later revision, amendment, or interpretive disputes concerning the conservation easements that might directly or indirectly result in the loss of habitat area and quality that is intended and required solely as mitigation for this Project's effects. The intent is also to ensure the implementation of proposed resource management activities that are intrinsic to enhancing and maintaining the forest's ecological values, such as implementation of resource and wildfire management practices.

Mitigation Monitoring: Prior to Project occupancy, Monterey County RMA-Planning shall review and approve the conservation easements to the Del Monte Forest Conservancy or other approved entity.

B. Waters

Impact BIO-B1. The Project could degrade quality of waters extending through the Project site. (Less than significant with mitigation)

The Sawmill Gulch drainage, a water of the United States and State, is located on the Project site in the open space preservation area southwest of the development footprint, on both sides of SFB Morse Drive (**Figure 3.3-1**). As described in Section 3.7, *Hydrology and Water Quality*, Project construction and operation could degrade the quality of waters (refer to Impact HYD-C1 in Section 3.7) due to discharge of stormwater runoff, and installation of the storm drain outfall to Sawmill Gulch could affect the drainage directly. Waters are considered a sensitive natural community, provide aquatic habitat, and are regulated by the United States Army Corps of Engineers and Regional Water Quality Control Board.

In summary, construction and operation of the Project could create sediments and contaminants in stormwater runoff that violate water quality standards or otherwise substantially degrade surface water quality or contribute substantial nonpoint sources of pollution to receiving waters.

Construction

As described in the discussion for Impact HYD-D1 in Section 3.7, *Hydrology and Water Quality*, the impacts, from construction activities that could degrade water quality, would be reduced to a less-than-significant level by implementing County Condition of Approval PD007(Grading – Winter Restriction) and standard erosion control measures and best management practices (BMPs) identified in the required Construction General Permit and SWPPP. The following typical BMPs would be considered for inclusion in the SWPPP.

- Temporary sediment control: silt fence, sandbag, straw bale, and fiber roll barrier; desilting basin.
- Temporary soil stabilization: hydraulic or straw mulch; seeding; soil binders; and erosion control mats or blankets.
- Preservation of existing vegetation.
- Scheduling construction to avoid rainfall season.
- Stockpile management: size restriction, runoff control, and covers.
- Sediment tracking control: street sweeping, covered hauling trailers.
- Waste management: spill prevention, concrete waste management, material delivery and storage, vehicle fueling and cleaning.

The implementation of BMPs required for the SWPPP by the Construction NPDES would mitigate construction erosion and associated sedimentation to a less than significant level.

The installation of the storm drain outfall to Sawmill Gulch could disturb the drainage bank and associated riparian vegetation. This would be a significant impact before mitigation. **Mitigation Measure BIO-B1** would reduce this impact to a less than significant level, because it would protect water quality and minimize impacts to the drainage and would compensate for any residential permanent impacts associated with the outfall.

Mitigation Measure BIO-B1. Avoid, minimize, and/or compensate for degradation of water quality and loss of waters; and implement resource management measures to maintain waters and water quality in the project preserve areas.

During Project construction, the applicant shall minimize disturbance of the drainage ravine leading to Sawmill Gulch and any associated riparian vegetation due to the construction of the storm drain outfall to the drainage ravine. The outfall shall be constructed so that it shall not result in erosion of the drainage bed or bank through use of energy dissipating rock or other structure. The applicant shall restore any temporary disturbance areas. The applicant shall compensate for the loss of waters through restoration actions along the drainage ravine leading to Sawmill Gulch within the proposed preserve areas. These restoration actions shall include replanting of vegetation to compensate for any permanent loss of riparian vegetation due to outfall installation and restoration of drainage bed or bank at a minimum ratio of 1:1 for any permanent areas of disturbance of the drainage ravine leading to Sawmill Gulch. The amount of compensation included in this mitigation is a minimum requirement; additional compensation may be required as permit conditions from the USACE, RWQCB or CDFW, as appropriate.

In addition to the above requirements, the drainage ravine leading to Sawmill Gulch shall be managed for its habitat as part of the site-specific RMP required pursuant to Mitigation Measure BIO-A1 above, including removal of invasive species, stabilization of any unnatural areas of erosion that may be causing sedimentation of the creek, and removal of any unnatural fills not necessary to roadway or utility infrastructure.

Mitigation Monitoring: During Project construction, Monterey County RMA-Planning, or a qualified biologist on the County's behalf, shall ensure that the applicant minimizes disturbance to the drainage ravine leading to Sawmill Gulch and shall restore any areas that are temporarily disturbed.

Operation

As described in the *Utilities and Stormwater Management* section of Chapter 2, *Project Description*, the Project includes a storm drainage system with an oil/water separator in the parking area and a retention basin that would provide water quality treatment by allowing sediment particles to settle. The basin would also reduce peak drainage flow rates during storm events, before stormwater is discharged to the drainage ravine leading to Sawmill Gulch (**Figure 2-7**). Also refer to the discussion for Impacts HYD-B1, HYD-C1, and HYD-D1 in Section 3.7, *Hydrology and Water Quality* This would reduce operation impacts on water quality, and the impact would be less than significant.

C. Special-Status Species

This section addresses potential impacts on special-status plant and wildlife species.

Impact BIO-C1. The Project could result in direct mortality of California red-legged frog, degradation of aquatic habitat, and loss and degradation of upland habitats. (Less than significant with mitigation)

The CRLF is listed as a threatened species. Species listed as threatened are likely to be endangered (i.e., close to extinction) in the immediate or near future, and even small increments of loss to the species (i.e., loss of a small number of individuals) would be considered substantial.

CRLF is rare locally and was only recently found on the Monterey Peninsula. Wetland Research Associates (Wetlands Research Associates 2002a, 2002b, and 2003) conducted surveys in 2002 and 2003 of areas within the Monterey pine forest on Monterey Peninsula watersheds containing suitable aquatic habitat for CRLF. The nearest known occurrence of CRLF is in Seal Rock Creek, located approximately 1.17 miles southwest of the Project site near the Spyglass Hill Golf Course. Other suitable aquatic habitat was identified in portions of Sawmill Gulch tributaries within SFB Morse Botanical Preserve/Huckleberry Hill Natural Habitat Area near Congress Road. Surveys in 2002 and 2003 did not identify any CRLF in these areas.

Based on information to date, the lower portion of Seal Rock Creek is occupied breeding habitat for CRLF. No other occupied breeding habitat has been identified in the Monterey pine forest on Monterey Peninsula. The lower portion of Seal Rock Creek appears to be the center of the known local population of CRLF.

The portion of Sawmill Gulch within the Project site is not considered CRLF breeding habitat because of its seasonal character and lack of in-stream pools, and because the site is surrounded by relatively busy roads that sever the upland habitat from the surrounding forest. However, the Sawmill Gulch area may provide foraging and dispersal habitat for CRLF. The Project could result in direct and indirect impacts on CRLF during construction and operation.

Direct impacts on CRLF could result from construction and grading activities that would remove approximately 2.7 acres of upland Monterey pine forest and would also include installation of a storm drain outfall to Sawmill Gulch and could kill or injure CRLF, if present.

Indirect impacts on CRLF within the open space preservation areas located adjacent to the development site could result from the following activities and conditions.

- Open space management activities, including brush clearing and mowing.
- Increased disturbance by pedestrians and unofficial recreation activity in and near upland habitat adjacent to development.
- Deleterious effects on aquatic habitat for CRLF from degradation of water quality, as described above for Impact BIO-B1.

Therefore, although protection of the open space preservation areas would reduce the level of project-related impacts on CRLF by preserving a large area of habitat, the potential direct and indirect effects would still be significant. **Mitigation Measures BIO-C1** (described below) and **BIO-A1, BIO-A2,** and **BIO-B1,** (described above) would reduce impacts on CRLF to a less-than-significant level by ensuring that CRLF individuals are not impacted during construction and that the proposed open space preservation areas are effectively managed for CRLF.

Mitigation Measure BIO-C1. Conduct preconstruction surveys for California red-legged frog, implement protection measures if found, and conduct construction monitoring.

Prior to issuance of the first Project construction permit, the applicant shall hire a qualified biologist and ensure the following measures are incorporated into construction specifications and implemented to protect CRLF.

- The qualified biologist shall conduct preconstruction surveys up to 3 days prior to initial grading and ground disturbing activities in all upland areas within 300 feet of the drainage ravine leading to Sawmill Gulch in areas proposed for temporary or permanent disturbance

in the Project site. During rain conditions, the preconstruction survey shall be conducted the same day as grading and ground disturbing activities.

- If CRLF are found within an area to be disturbed, a USFWS-approved biologist shall capture and relocate any individuals to nearby suitable habitat within a preservation area
- After the preconstruction survey, the biologist shall supervise installation of barrier fencing around cosntruction areas within 300 feet from the drainage ravine leading to Sawmill Gulch to minimize the potential for CRLF to enter construction areas.
- Because preconstruction surveys may not eliminate the potential for CRLF to enter the construction site, the biologist shall be present during initial ground-disturbing construction activities at areas within 300 feet of aquatic habitat, and shall have the authority to temporarily stop construction activities if CRLF are found, and until they can be successfully relocated.

Mitigation Monitoring: Prior to the issuance of the first Project construction permit, Monterey County RMA-Planning shall ensure the CRLF protection measures are incorporated into construction specifications. During construction, Monterey County RMA-Planning shall verify the protection measures are being implemented by having a construction monitor visit the site or review and approve monitoring reports prepared by the qualified biologist monitoring construction.

Impact BIO-C2. The Project could result in loss of or disturbance to habitat occupied by non-listed special-status wildlife species. (Less than significant with mitigation)

The Project could result in loss or disturbance of habitat occupied by non-listed but rare wildlife species, specifically, black or silvery legless lizard, California horned lizard, Western pond turtle, pallid or hoary bat, and ringtails and Monterey Ornate shrew. Species listed as special concern are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their lifecycle. Potential impacts on special-status raptor species are discussed separately in Impact BIO-G1.

Black or Silvery Legless Lizards

Areas of potential habitat for legless lizards include the MPFW (**Figure 3.3-1**), which contains sandy, friable substrate, with scattered vegetation. Direct impacts on legless lizards and their habitat could result from grading activities that would remove 1.8 acres of MPFW and that could directly kill or injure legless lizards if present. Indirect impacts on legless lizard habitat (in the form of habitat degradation and/or loss) could result from open space management activities and increased disturbance by pedestrians and unofficial recreation activity. Although the species range is relatively widespread and protection of the proposed open space preservation areas would reduce the level of project-related impact, legless lizards are rare within dune habitat and habitats with sandy soils.

Therefore, the impacts on silvery and black legless lizards from the Project would be significant. Implementing **Mitigation Measures BIO-C2** (described below) and **BIO-A1** and **BIO-A2** (described above) would reduce this impact to a less-than-significant level by ensuring the potential direct construction impacts and indirect impacts from use and management of the open space preservation areas on these species are minimized. Therefore, potential impacts on silver and black legless lizards due to loss or disturbance of habitat would be reduced to a less-than-significant level.

Mitigation Measure BIO-C2. Conduct preconstruction surveys for legless lizard and implement protection measures if found.

Prior to issuance of the first Project construction permit, the applicant shall hire a qualified biologist and ensure the following measures are incorporated into construction specifications and implemented to protect legless lizard.

The qualified biologist shall conduct preconstruction surveys for legless lizards no more than 48 hours before initial grading and ground disturbing activities in or near areas of sandy, friable soil (shown as MPFW on Figure 3.3-1 in the EIR).This survey shall include: 1) systematic subsurface searching because legless lizards are fossorial (burrowing) and 2) staking the limits of the survey areas and fencing them with small-mesh construction fencing, buried to a minimum depth of 6 to 10 inches below grade to reduce the likelihood of lizards reentering the construction zone.

Mitigation Monitoring: Prior to the issuance of the first Project construction permit, Monterey County RMA-Planning shall ensure the legless lizard protection measures are incorporated into construction specifications. During construction, Monterey County RMA-Planning shall verify the protection measures are being implemented by having a construction monitor visit the site or review and approve monitoring reports prepared by a qualified biologist monitoring construction.

California Horned Lizard

California horned lizard is common throughout chaparral habitats across an extensive geographic range. No records of these species are known on the Monterey Peninsula; however, the MPFW provides marginal habitat, comprised of patchy native and non-native vegetation with sandy soils, for California horned lizards in the Project vicinity (**Figure 3.3-1**). Direct loss of California horned lizard habitat could result from grading, construction, and landscaping activities. Indirect effects could result from increased trail use in the adjacent open space areas.

This impact would be less than significant because the statewide status of the California horned lizard is relatively robust, the species is unlikely to occur in significant numbers in the small areas of marginal habitat that would be impacted by the Project (1.8 acres of MPFW), and the Project includes open space preservation of the remaining 8.7 acres of MPFW.

Western Pond Turtle

Western pond turtles have not been previously reported in the Project vicinity. Sawmill Gulch provides potential dispersal habitat for western pond turtle; however, it is unlikely to support a breeding population because it is a seasonal drainage that lacks in-stream pools and primarily conveys stormwater runoff from adjacent areas through a series of culverts. Direct and indirect effects on western pond turtle are not expected. Therefore, this impact would be less than significant.

Pallid and Hoary Bats

Pallid bats could use trees on the Project site for roosting. The Project would remove up to 725 trees, some of which may provide roosting sites. Removal of tree roosting sites could result in direct mortality of the pallid bad and eliminate potential habitat, resulting in an adverse effect on population levels. The following project activities and conditions could result in impacts.

- Grading and construction activities at the Project site, which could directly result in pallid bat mortality or injury and roost disturbance.
- Decrease of forested foraging habitat near the Project site resulting in reduced individual fitness and potential bat mortality.
- Open space management activities, such as brush clearing and mowing.
- Increased disturbance by pedestrian and recreational activities in open space preservation areas.

The Project would preserve 10.5 acres of open space area, including dead trees and snags that provide roosting habitat for bats. In addition, although clearing a portion of forest habitat for development may remove some foraging and roosting habitat, it could increase foraging opportunities (i.e., increased concentrations of insects on the Project site). However, preservation alone cannot offset the potential direct effects on bats.

The pallid bat is listed as species of special concern because the bats are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their lifecycle. Even small increments of loss of this species would be a significant impact. The hoary bat is not formally listed or legally protected, so the impact to that species would be less than significant.

Implementation of **Mitigation Measure BIO-C3** would reduce the impact on pallid bats to a less-than-significant level by minimizing the potential for direct mortality by requiring preconstruction surveys. Although not required to address impacts on hoary bats, this mitigation measure would also reduce impacts on the hoary bat.

Mitigation Measure BIO-C3. Conduct preconstruction surveys for bat roosts, and implement construction monitoring during tree removal activities.

Prior to issuance of the first Project construction permit, the applicant shall hire a qualified biologist and ensure the following measures are incorporated into the construction specifications and implemented to protect pallid bats.

- The qualified biologist shall conduct preconstruction surveys for pallid bats no more than 48 hours before tree removal activities in or near the proposed development area. This survey shall include: 1) systematic roost searching throughout the development area where there is potential for bats to be located and 2) monitoring of an occupied tree during initial disturbance confirming bats have vacated prior to tree removal.

Because bats could readily return to the site, the biologist shall be present during tree removal activities and shall have the authority to temporarily stop construction activities if pallid bats are found, and until such bats have left the occupied tree.

Mitigation Monitoring: Prior to the issuance of the first Project construction permit, Monterey County RMA-Planning shall ensure the pallid bat protection measures are incorporated into the construction specifications. During construction, Monterey County RMA-Planning shall verify the protection measures are being implemented by having a construction monitor visit the site or review and approve monitoring reports prepared by the qualified biologist monitoring construction.

Ringtail and Monterey Ornate Shrew

Monterey pine forest is potential habitat for ringtails and Monterey ornate shrews. The Project would result in the loss of 2.7 acres of Monterey pine forest, which represents a significant loss of habitat. Although the open space preservation areas would offset impacts on ringtail and Monterey ornate shrew habitat, the anticipated increase in use of the open space by residents for recreation activities could adversely affect these species. Implementation of **Mitigation Measures BIO-A1** and **BIO-A2** (described above) would reduce the impact to a less-than-significant level by ensuring the proposed open space preservation areas are managed to minimize disturbance.

Impact BIO-C3. Project construction and development would result in loss of Monterey pine, a California Rare Plant Rank of 1B.1 special-status species (Less than significant with mitigation).

As described above under *Sensitive Habitats*, Monterey pine trees are present at the Project site and would be removed as a result of grading, construction, and landscaping activities. Monterey pine trees could also be indirectly impacted by human disturbance, pollutants, and invasive species. Because Monterey pine trees are rare, this impact is considered significant.

This impact is offset by the proposed preservation of 10.5 acres of undeveloped Monterey pine forest (**Figure 2-3**) and compliance with the County's Tree Ordinance and Conditions of Approval prior to tree removal (refer to *H. Tree Removal* below). Additionally, implementation of **Mitigation Measures BIO-A1** and **BIO-A2,** which would formalize the commitment to manage Monterey pine forest, would reduce this impact to less than significant.

D. Common Wildlife Habitat/Populations/Plant Communities

Impact BIO-D1. The Project would remove habitat of common wildlife species and plant communities within Project site. (Less than significant)

The Project would remove 2.7 acres of Monterey pine forest habitat where there are currently common wildlife and plant species. Species found at the Project site are common elsewhere in the Monterey pine forest, Pebble Beach and the Monterey Peninsula as a whole. As such, these species would not be locally eliminated. Further, the Project would result in the open space preservation of 10.5 acres surrounding the 2.7-acre development site, providing permanent habitat for these species. Therefore, this impact would be less than significant.

E. Indirect Impacts on Habitat Resulting from Human Use

Impact BIO-E1. The project could increase human disturbance of Monterey pine forest within the proposed open space preservation area. (Less than significant with mitigation)

The proposed open space preservation area is currently used by adjacent residents for hiking and other recreational activity (e.g., biking) on the unofficial trails. The proposed residential development, which would be located on 2.7 acres in the middle of the 10.5-acre preservation area, could result in increased use of use of the unofficial trails. Indirect impacts from human disturbance could result in trampling of plant and animals and further degradation of the Monterey pine forest habitat. The habitat value of the open space preservation areas could be compromised by these activities, and non-native species could invade. Further degradation of Monterey pine forest would be a significant impact.

Implementation of **Mitigation Measures BIO-A1** and **BIO-A2** (described above) would reduce this impact to a less-than-significant level by formalizing the dedication of the open space preservation area and implementing a site-specific resource management plan to protect the resources and minimize further degradation from human use.

F. Wildlife Movement

Impact BIO-F1. The project would fragment existing forested habitats and could interfere with wildlife movement. (Less than significant)

The Project site is currently fragmented from surrounding areas by SFB Morse Drive extending through the west portion of the site and residential development east of the Project site. Although the existing degree of fragmentation reduces the likelihood that the site is used as a migratory corridor, the proposed residential development would further fragment the existing forested habitats east of SFB Morse Drive, which could interfere with wildlife movement through the 13.2-acre Project site. This impact would be less than significant given the degree of existing fragmentation from the larger, relatively contiguous areas of forest and natural land cover.

G. Wildlife Breeding and Nesting

Impact BIO-G1. Project construction, including tree removal and grading, could result in potential disturbance to nesting raptors and migratory birds, including several special-status raptor species, if present during construction. (Less that significant)

The Project site provides potential nesting habitat for raptors including common hawk species (such as red-shouldered hawk and American kestrel), special-status species of hawks (such as sharp-shinned hawk, Cooper's hawk, and white-tailed kite), and common owl species. The Project site also provides potential nesting habitat for migratory birds (such as the chestnut-backed chickadee (*Poecile rufescens*) and hairy woodpecker (*Picoides vilosus*)).

Project construction and grading activities, including removal of up to 725 trees, could disturb, injure or kill nesting raptors and migratory birds nesting within trees on the Project site. Raptors and migratory birds are protected against take, including destruction of nests, pursuant to Section 3503 and 3503.5 of the California Fish and Game Code and the MBTA. If construction occurs during the breeding season for nesting migratory birds (generally between February 1 and September 15), construction activities (e.g., vegetation removal, grading, noise) could result in direct take of adults, young, and eggs or nest abandonment at active nests located in or near the Project site. Disturbance from construction activities or destruction of any active raptor nest would violate these statutes and would be a significant impact.

The Project would be required to comply with the County's Standard Condition of Approval PD050 (Raptor/Migratory Bird Protection). As described in Chapter 2, PD050 requires that for any tree removal activity that occurs during the typical bird nesting season (February 1-September 15), a County qualified biologist will perform a nest survey to determine if any active raptor or migratory bird nests are present within the Project site or within 300 feet of proposed tree removal activity. During the typical nesting season, the survey will be conducted no more than 10 days prior to ground disturbance or tree removal. If nesting birds are found on the project site, an appropriate buffer plan shall be established by the project biologist. Additionally, PD011 (Tree and Root Protection) requires that trees which are located close to the construction site shall be protected

from inadvertent damage from equipment by fencing off the canopy drip-lines and/or critical root zones (whichever is greater) with protective materials. Any tree protection measures recommended by a County-approved tree consultant, in addition to the standard condition, shall be implemented.

Therefore, this impact would be less than significant.

H. Tree Removal

Impact BIO-H1. The Project would result in removal or disturbance of native Monterey pine trees and coast live oak trees. (Less than significant with mitigation)

The Project would result in the removal or disturbance of Monterey pine trees and coast live oak trees. The Monterey pine tree is considered a California Rare Plant Rank of 1B.1 special-status species. Oak trees six inches or more in diameter (2 feet above ground level) are protected under the Monterey County Tree Ordinance, Chapter 16.60 (Monterey County 2015).

Approximately 1,810 trees are present on a 6.2-acre site which includes the 2.7-acre development area plus a surrounding buffer, as determined by an estimate[3] of the number of trees that are 4 inches or greater in diameter at 24 inches above grade. Of these 1,810 trees, the Project would remove a total of 725 trees, 590 coast live oak trees and 135 Monterey pine trees (see **Appendix B,** *Tree Resource Assessment/Arborist Report*).

Additional short-term and long-term impacts on native trees could result from the following activities and conditions.

- Disturbance of the root zone and soil compaction from adjacent grading and trenching activities.
- Changes in soil and hydrologic conditions from increased irrigation and runoff.
- Increased exposure to fertilizers and herbicides from adjacent developed areas.
- Increased susceptibility to insects and diseases, including pitch canker for Monterey pine and potentially sudden oak death for coast live oaks (sudden oak death has not been reported on the Monterey Peninsula but has been reported in coast live oak in Big Sur and Prunedale).

Direct and indirect impacts on trees in the 2.7-acre development area would be offset by protecting the approximately 2,000 trees (both Monterey pine trees and coast live oak) in the 10.5-acre open space preservation area, as shown in **Figure 2-3**. However, this impact would be significant because the Project does not include formally dedicating the land or managing the forest to ensure that the trees are protected and that further degradation of the forest by unofficial recreation use is minimized. Therefore, this impact would be significant.

Implementing **Mitigation Measures BIO-A1** and **BIO-A2** would ensure 10.5 acres of Monterey pine forest and approximately 2,000 oak trees and Monterey pine trees are protected and managed in perpetuity.

Monterey County's Tree Ordinance, Chapter 16.60, Preservation of Oak and Other Protected Trees (Monterey County 2015) and Condition of Approval PD011(A) do not permit tree removal until a construction permit has been issued and the County ensures that tree loss would not conflict with the County Tree Ordinance. In addition, pursuant to PD011, trees adjacent to the development area

[3] Estimates of tree numbers were gathered through the use of 10 random 1/10 acre sample plots within or adjacent to proposed development areas (**Appendix B,** *Tree Resource Assessment/Arborist Report*).

which could be indirectly impacted by construction, will be fenced at the canopy dripline or critical root zone with protective materials, wrapping and avoiding fill at the base of the trunks. These protections will be approved by a certified arborist.

The Tree Ordinance also requires replacement of removed trees on a 1:1 basis. Thus, the Applicant will be required to plant 590 coast live oak trees and 135 Monterey pine trees as replacement. The first priority for tree planting shall be on the proposed preserve areas included with the Project as part of the site-specific RMP required by **Mitigation Measure BIO-A1**. If planting within the proposed on-site preserve areas of a portion of the required replacement trees would be detrimental to overall forest health, then planting of the replacement trees shall be within nearby areas dedicated to preservation, such as HHNHA or SFB Morse Preserve, or other areas.

Therefore, by complying with the County's Tree Ordinance and Conditions of Approval and by implementing **Mitigation Measures BIO-A1** and **BIO-A2**, this impact would be less than significant.