Section 4.4
Biological Resources

Introduction

This section provides a description of biological resources within the project area and vicinity, and assesses the potential impacts of the proposed project on those resources. The impact assessment evaluates the project's potential to significantly affect biological resources and identifies feasible measures to reduce or eliminate potential impacts. Implementation of the APMs described in this section will reduce all potential impacts to a less-than-significant level.

Methodology

Methods to identify and describe biological resources in the project area included a prefield investigation (e.g., California Natural Diversity Database [CNDDB] literature review) to review existing information; a habitat suitability evaluation for wildlife; and detailed field surveys, including a botanical survey. The width of the field survey corridor varied from 500 feet to 1.2 miles depending on the type of biological resource. Detailed information on the survey areas is presented under each resource topic.

Review of Existing Information

Prior to conducting field surveys, existing and readily available information was collected and reviewed to establish lists of special-status plant and wildlife species and other sensitive biological resources likely to be present in the project vicinity. The key sources of data and information accessed during the prefield review are listed below:

- A search of the CNDDB for special-status wildlife occurrences within a 5-mile radius of the project area (CNDDB 2006, 2008) (Figure 4.4-1A);
- A search of the CNDDB for special-status plant occurrences in the San Juan Bautista, Hollister, Chittenden, Watsonville East, San Felipe, Prunedale, Salinas, Natividad, and Mt. Harlan 7.5-minute U.S. Geological Survey (USGS) quadrangles (CNDDB 2006, 2008) (Figure 4.4-1A);

- The California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Plants of California* (CNPS 2008);
- The USFWS species list for Monterey and San Benito Counties obtained from the USFWS Ventura Office website (USFWS 2006, 2008); and
- National Wetland Inventory maps (available at: http://wetlandsfws.er.usgs.gov/wtlnds/launch.html).

Vegetation and Wetlands Survey Methods

Vegetation and land cover mapping was completed for the project area from May to August 2006. In general, the vegetation mapping was completed concurrently with other biological surveys. Biologists mapped and described habitat types along the project route based primarily on the California Wildlife-Habitat Relationships System (WHR) classification system (Mayer and Laudenslayer 1988) (Figures 4.4-2 to 4.4-12). Plant species observed during the surveys were noted (Appendix A). In addition to mapping terrestrial habitats, biologists conducted preliminary mapping of potential wetlands and other waters to assist PG&E with project planning (Figures 4.4-13 to 4.4-17). Vegetation and wetland mapping generally was completed within an area approximately 1,000 feet wide (500 feet on both sides of the existing alignment).

Following receipt of more detailed project area maps (with potential staging areas, work areas, pull sites, and access road improvements identified), a delineation of waters of the United States, including wetlands, was conducted on June 26, 27, and 30 and July 1–2, 2008. Field work for the wetland delineation was conducted by a botanist and a soil scientist, using the routine onsite determination methods described in the *U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual* (Environmental Laboratory 1987) and, where applicable, the methods outlined in the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Supplement) (Corps 2006). Other waters were mapped and delineated in the field, in accordance with the guidelines in the Corps Regulatory Guidance Letter No. 05-05, dated December 7, 2005. The wetland delineation was submitted to the Corps for verification on January 28, 2009, and the Corps issued a Preliminary Jurisdictional Determination for the project in June 2009 (Appendix E). The wetland delineation report and correspondence with the Corps are included in Appendix F.

Wildlife Habitat Assessment Methods

Based on the review of existing information, a table of special-status wildlife species with the potential to occur in the project area was generated (Table 4.4-3, see "Special-Status Wildlife Species" below). General habitat assessment surveys were conducted on August 7–9, 2006, to characterize wildlife habitat types and evaluate the potential for occurrence of special-status wildlife species in the project area. The general habitat assessment surveys were conducted by

two wildlife biologists walking and driving the proposed project alignments, recording general habitat conditions, and noting habitat features associated with special-status species that could occur in the project area. Wildlife species observed during the surveys were noted (Appendix B). Habitat suitability was noted for California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), burrowing owl (*Athene cunicularia*), and San Joaquin kit fox (*Vulpes macrotis mutica*) during the general habitat assessment surveys. The habitat suitability evaluation for these species is described below.

California Red-Legged Frog and California Tiger Salamander Habitat Suitability Evaluation

The 2005 *Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog* (USFWS 2005) and the 2003 *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (USFWS 2003) were reviewed for guidance on conducting the habitat suitability evaluation for California red-legged frog and California tiger salamander. Based on the recommendations in these USFWS guidelines, a CNDDB (2008) records search was conducted for occurrences of California red-legged frog and California tiger salamander within 3.0 miles of the project area (Figure 4.4-1B). All aquatic features within 1.2 miles of the project area that could provide suitable breeding habitat for California red-legged frogs and California tiger salamanders were inventoried using topographic maps and aerial photographs (Exhibit 1). The distance of 1.2 miles is based on the distance that these amphibians can travel overland from breeding habitat during the rainy season and the distance from breeding habitat that these amphibians may be found in underground refugia. The habitat evaluation also included documenting surrounding upland habitat, including topography, plant communities, the presence of mammal burrows, and current land use. Based on the general habitat assessment, a map of the suitable habitat within the construction corridor was created (Exhibit 1).

Burrowing Owl and San Joaquin Kit Fox Habitat Suitability Evaluation

The *San Joaquin Kit Fox Survey Protocol for the Northern Range* (USFWS 2005), the *Burrowing Owl Survey Protocol and Mitigation Guidelines Interim Guidance on Site Assessment and Field Surveys* (The California Burrowing Owl Consortium 1993), and the *Staff Report on Burrowing Owl Mitigation* (CDFG 1995) were reviewed for guidance on conducting the habitat suitability evaluation for burrowing owl and San Joaquin kit fox. A CNDDB (2008) records search was conducted for occurrences of burrowing owl and San Joaquin kit fox within 5 miles of the project area (Figure 4.4-1A). During the general habitat assessment and subsequent surveys, portions of the project area that provide suitable habitat for burrowing owls and San Joaquin kit foxes were noted

based on the habitat requirements for these species (e.g., open grassland habitat with suitable burrows). The presence of ground squirrel burrows, evidence of burrowing owl presence (owl pellets, feathers, and white wash at the entrance of suitable burrows), evidence of San Joaquin kit fox presence (scat of suitable size and prey remains), and burrows of suitable size for these species were noted. Based on the general habitat assessment, a map of the suitable habitat within the construction corridor was created (Exhibit 1).

Special-Status Species Survey Methods

Special-Status Plant Surveys

Field surveys for special-status plants were conducted on May 30–June 1, 2006, and on August 7–8, 2006. Botanists walked transects at 50-foot intervals within a 500-foot-wide corridor along the project route. Several areas with very steep slopes or dense vegetation were surveyed using a larger transect spacing, up to a 100-foot interval. PG&E further defined the project in 2008 and identified areas that were located outside the corridor surveyed in 2006. Additional botanical surveys for late-blooming species were conducted on August 28–29, 2008. Surveys for early-blooming species within staging areas and work areas were conducted on May 4–6, 2009.

The botanical surveys completed to date were conducted in accordance with guidelines provided by USFWS (1996), CDFG (2000), and the CNPS (2001), which generally specify that surveys should be floristic (i.e., all species encountered are identified) and that surveys should be conducted during the time of year that special-status plants from the region would be identifiable. In general, survey intensity varied depending on species richness, habitat type and quality, and the probability of special-status plants occurring in a particular habitat type. Surveys were conducted in more detail in the portions of the study area with the highest potential for special-status plants to occur (e.g., sandy soils and coastal scrub). Consistent with agency guidelines, all plant species observed during the surveys were recorded. When possible, plants were identified to the lowest taxonomic level necessary to determine whether they were special-status plants or were species with unusual or significant range extensions.

Special-Status Wildlife Surveys

ICF Jones & Stokes biologist Will Kohn contacted Doug Cooper with the Ventura Office of USFWS in March 2008 to discuss the potential for federally listed wildlife species to occur in the project area. In a phone conversation (Cooper pers. comm.), Mr. Cooper stated that, because of the high number of CNDDB records for California red-legged frog and California tiger salamander near the project area as well as the large number of ponds and drainages that could provide breeding habitat within 1.2 miles of the project area, negative findings from protocol surveys for these species would not negate the potential

for the species to occur in the upland grassland habitat within the project area. Mr. Cooper also stated that USFWS was unsure whether least Bell's vireo (*Vireo bellii pusillus*) would occur in the vicinity of the project area. If it is determined that protocol surveys would be necessary for least Bell's vireo, the results would be valid for only 1 year; therefore, surveys for least Bell's vireo have not been undertaken to date. Mr. Cooper indicated the potential for San Joaquin kit fox to occur in the Flint Hills portion of the project area. In summary, protocol surveys for these federally listed species have not been conducted.

ICF Jones & Stokes wildlife biologists Will Kohn and Erin Hitchcock conducted western burrowing owl surveys on July 1 and July 2, 2009. Surveys were conducted between Poles 15/00 and 20/02 the morning of July 1 and the afternoon of July 2; and between Towers 5/34 and 6/40A the afternoon of July 1 and the morning of July 2. Surveys would have been conducted between Towers 5/33 and 5/31; however, the property was surrounded by an electric fence and could not be accessed. The pedestrian surveys were conducted in the project area and within 500 feet of the survey centerline. The surveyors used binoculars to scan ahead for burrowing owls and inspected the entrances to burrows for burrowing owl sign (pellets, white wash, and feathers).

Numerous ground squirrel burrows that provide suitable burrowing habitat were observed between Towers 5/34 and 6/38. Few burrows were observed between Towers 6/38 and 6/40A. Numerous ground squirrel burrows that provide suitable burrowing habitat were observed between Poles 18/13 and 20/02, in the new section of Poles 15/00 and 16/01, and between Poles 16/01 and 16/05. Between Poles 16/05 and 18/13, ground squirrel activity was observed only in the drainages. No burrowing owls or definitive burrowing owl sign were observed during the survey.

Affected Environment

Regulatory Setting

This section provides an overview of the laws and regulations that influence the management of biological resources in the project area. Although many of these regulations will not apply to the project if the resources in question are avoided, they are discussed to provide context in determining which biological resources are considered *sensitive* for the purposes of this report and to determine potential project-related impacts.

Federal Regulations

Endangered Species Act

USFWS and the National Marine Fisheries Service (NMFS) have jurisdiction over species listed as threatened or endangered under Section 9 of the federal Endangered Species Act (ESA). In general, NMFS is responsible for protection of ESA-listed marine species and anadromous fish, and USFWS is responsible for other listed species. ESA protects listed species from *take*, which is broadly defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." For any project involving a federal agency (e.g., the Corps) in which a listed species could be affected, the federal agency must consult with USFWS in accordance with Section 7 of ESA. USFWS issues a biological opinion and, if the project does not jeopardize the continued existence of the listed species, issues an incidental take permit. Consultation with USFWS will be required if the proposed project will affect federally listed species or their habitat.

Section 404 of the Clean Water Act

The Corps and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States under Section 404 of the CWA. Project proponents must obtain a permit from the Corps for all discharges of fill material into waters of the United States, including wetlands, before proceeding with a proposed action. Biological communities on the project site that could qualify as waters of the United States are described under "Wetland and Aquatic Resources."

Although a majority, if not all, of the wetlands in the project area would likely be considered jurisdictional by the Corps, a relatively recent federal ruling (January 9, 2001, Solid Waste Agency of Northern Cook County [SWANCC] vs. United States Army Corps of Engineers [121 S.CT. 675, 2001]) may affect whether some isolated wetlands are considered jurisdictional under Section 404 of the CWA. In response to the ruling, guidance on innavigable, isolated, and intrastate waters was published on January 19, 2001, by Counsel for EPA and the Corps. The guidance essentially resulted in the determination that innavigable isolated waters may not be regulated by the Corps. Nevertheless, for the purposes of this report and determining effects on waters of the United States, it is assumed that all potential waters would be considered jurisdictional by the Corps. If the project will affect potential waters, a final determination on the jurisdiction of those waters must be made through consultation with the Corps.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (Title 16, United States Code [USC], Part 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 Code of Federal Regulations [CFR] 21, 50 CFR 10). Most actions that result in taking of or the permanent or temporary possession of a protected species constitute violations of the MBTA. The MBTA also prohibits destruction of occupied nests. The Migratory Bird Permit Memorandum (MBPM-2) dated April 15, 2003, clarifies that destruction of most unoccupied bird nests is permissible under the MBTA; exceptions include nests of federally threatened or endangered migratory birds, bald eagles, and golden eagles. USFWS is responsible for overseeing compliance with the MBTA. Most bird species and their occupied nests that occur in the project area are protected under the MBTA.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act makes it illegal to import, export, take (which includes molest or disturb), sell, purchase, or barter any bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*), or parts thereof. The USFWS oversees enforcement of this act. The 1978 amendment authorizes the U.S. Secretary of the Interior to permit the taking of golden eagle nests that interfere with resource development or recovery operations.

State of California

California Endangered Species Act

California implemented its own Endangered Species Act (CESA) in 1984. CESA prohibits the take of state-listed 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. CDFG administers CESA and authorizes take through Section 2081 agreements (except for species designated as fully protected). Consultation with CDFG will be required if the proposed project will affect CESA-listed species.

Regarding listed rare and endangered plant species, CESA defers to the California Native Plant Protection Act of 1977 (NPPA), which prohibits importing of rare and endangered plants into California, and taking and selling of rare and endangered plants. CESA includes an additional listing category for threatened plants that are not regulated under the NPPA. In this case, plants listed as rare or endangered under the NPPA are not protected under CESA but can be protected under CEQA. In addition, plants that are not state listed but meet the state standards for listing are protected under CEQA. In practice, this is generally interpreted to mean that all species on Lists 1B and 2 of the CNPS inventory are protected.

California Environmental Quality Act

CEQA is the regulatory framework by which California public agencies identify and mitigate significant environmental impacts. Although threatened and endangered species are protected by specific federal and state laws, the State CEQA Guidelines Section 15380(b) provides that a species not listed under ESA or CESA may be considered rare or endangered if it can be shown that the species meets certain specific criteria. The criteria have been modeled after the definitions of ESA and sections of the California Fish and Game Code discussing rare and endangered plants and animals.

A project normally is considered to result in a significant environmental effect (in the context of biological resources) if it *substantially* adversely affects a threatened, endangered, or rare species or *substantially* adversely affects the habitat of such species; *substantially* adversely affects wetlands under jurisdiction of Section 404 of the CWA; *substantially* interferes with the movement of native resident or migratory fish or wildlife; conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy; or conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Substantial evidence includes fact, a reasonable assumption predicated on fact, or expert opinion supported by fact. The State CEQA Guidelines define rare, threatened, or endangered species as those listed under ESA and CESA, as well as any other species that meets the criteria of the resource agencies or local agencies—for example, CDFG-designated species of special concern and plant species identified by CNPS as being of conservation interest. The State CEQA Guidelines specify that the lead agency (in this case, the CPUC) preparing a CEQA compliance document must consult with and receive written findings from USFWS and CDFG concerning project impacts on species that are listed as endangered or threatened. The effects of the project on these species and habitats will be important in determining whether the project is considered to cause significant environmental impacts under CEQA. In addition, although CDFG does not specifically regulate the discharge or placement of material into wetlands (or waters of the state), impacts on these sensitive habitats could be considered significant under CEQA–depending on the magnitude of impact.

California Fish and Game Code

Fully Protected Species

The California Fish and Game Code prohibits take of *fully protected species*. Section 5050 lists fully protected amphibians and reptiles, Section 3515 lists fully protected fish, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals. The California Fish and Game Code 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. CDFG cannot issue take permits for fully protected species.

Sections 3503 and 3503.5

Section 3503 of the California Fish and Game Code prohibits killing birds and destruction of occupied bird nests. Section 3503.5 prohibits killing raptor species and destruction of occupied raptor nests. Consultation with CDFG will be required if nesting birds will be affected by project-related activities.

Section 1600 – Streambed Alteration Agreements

In addition to listed and special-status species, CDFG regulates activities that would interfere with the natural flow of, or substantially alter the channel, bed, or bank of a lake, river, or stream. These activities are regulated under California Fish and Game Code Sections 1600–1616 and require a Streambed Alteration Agreement Permit. Requirements to protect the integrity of biological resources and water quality are often conditions of streambed alteration agreements. Conditions that CDFG may require include avoidance or minimization of vegetation removal, use of standard erosion control measures, limitations on the use of heavy equipment, limitations on work periods to avoid impacts on fisheries and wildlife resources, and requirements to restore degraded sites or compensate for permanent habitat losses. If the project will not affect a streambed, a streambed alteration agreement will not be required.

Several creeks and drainages, and wetlands in the project area will be affected by installation or replacement of culverts. These activities will require a Streambed Alteration Agreement Permit from CDFG.

Porter-Cologne Act

Water Code Section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." Under the Porter-Cologne Act definition, the term *waters of the state* is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." The SWANCC ruling (described above) has no bearing on the Porter-Cologne definition. Although all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—in other words, waters of the United States is a subset of waters of the state. Thus, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether the Corps has concurrent jurisdiction under Section 404 of the CWA.

If the project will require disturbance of a wetland and the Corps determines that the wetland is not subject to regulation under Section 404 of the CWA, Section 401 water quality certification is not required. However, the Regional Water Quality Control Board (Regional Water Board) may require waste discharge requirements (WDRs) if fill material is placed into waters of the state. If all wetlands cannot be avoided as part of the project, PG&E will be required to file an application for WDRs with the Regional Water Board.

Local Regulations

Because the CPUC has exclusive jurisdiction over siting, design, and construction of the project, the project is not subject to local discretionary land use regulations. The following analysis of local regulations relating to biological resources is provided for informational purposes and to assist with CEQA review.

San Benito County General Plan

Goals and policies in the Open Space and Conservation Element of the San Benito County General Plan (San Benito County 1988) related to biological resources include:

1. ***Development restrictions:*** *Major subdivisions or intense development shall not be allowed within potential habitat of federal or state listed rare, threatened, or endangered plant or animal species until said development(s) prepared habitat plans for these species unless interim measures have been taken to mitigate the effect of development.*
2. ***Maintain corridors for habitat:*** *In rural areas, roads and development sites shall be designed to maintain habitat connectivity with a system of corridors for wildlife or plant species and avoiding fragmentation of open space areas.*
3. ***Mitigation for wetland development:*** *Development shall be sited to avoid encroachment on wetlands. Mitigation shall be required for any development proposals that have the potential to reduce wetland habitat from primary or secondary effects of the development.*
4. ***Avoid loss of habitat from other mitigation measures:*** *Mitigation measures to reduce other environmental hazards (e.g. fire hazard, flood hazard, soil erosion) shall not be acceptable if they significantly degrade existing habitat, riparian areas, or isolate habitat.*
5. ***Stimulate regeneration of oak woodland communities:*** *Through a combination of the habitat conservation plan, interagency coordination, and development review procedures, the County will promote the restoration, restocking, and protection of oak woodland habitat on public and private lands in the county.*
7. ***Development in drainage basins:*** *It is the County's policy to minimize development within drainage basins that could alter the path of water courses and impede groundwater recharge.*

San Benito County Tree Ordinance

The San Benito County Interim Woodland Management ordinance 757 (San Benito County 2002) makes the following provisions for oak tree retention and replacement:

- A permit is required for tree removal on parcels with 10% woodland removal.
- Clearcutting and grading to remove woodlands is prohibited.
- Permit conditions may include a revegetation plan and a performance bond.

Monterey County General Plan

Goals and policies in the Monterey County General Plan (Monterey County 2006) that relate to biological resources in the project area are as follows:

Goal ER-2 – Open Space for Conservation of Natural Resources

> ***Policy ER-2.1: Direct Growth to Conserve Resources.*** *The County shall protect open space and environmentally sensitive resource areas from land development by directing future urban growth to incorporated cities and Community Areas and by managing development in rural areas of the county where environmental resources may exist.*
>
> ***Policy ER-2.5: Mitigation Measure to Avoid Disturbance to Critical Habitats and Natural Plant Communities.*** *In rural areas, development projects shall mitigate potential impacts through an approved "building envelope" approach, locating development on least environmentally sensitive areas or incorporating mitigation measures to offset the impacts of the development and its appurtenant uses.*
>
> ***Policy ER-2.7: Biological Survey.*** *New development or land disturbance that may adversely impact critical habitat or special-status natural plant communities listed on the State Department of Fish and Game Natural Diversity Database or within State Coastal Commission "environmentally sensitive habitat areas" (ESHA), or State Water Quality Control Board "Area of Special Biological Significance" (ASBS), or within 100 feet of the foregoing, shall require the preparation of a detailed biological survey where there is scientific basis for preparation of such a survey. Determination of whether a biological survey is required shall be based on study and field review of the project site by the County Planning and Building Inspection Department.*
>
> ***Policy ER-2.10: Native Vegetation and Natural Plant Communities.*** *The County is committed to protect, maintain, and restore the ecosystem of "natural plant communities" as listed in the State Department of Fish and Game Natural Diversity Database.*
>
> ***Policy ER-2.11: Natural Plant Communities.*** *Impacts to "natural plant communities" as listed by the State Department of Fish and Game for Monterey County are to be avoided to the maximum extent feasible.*
>
> ***Policy ER-2.19: Riparian and Wetland Habitat.*** *The County shall comply and coordinate with state and federal regulations and agencies*

to maintain floodplains, rivers, streams, and other water courses to sustain native fish and wildlife habitats, and preserve riparian and wetland habitat and native vegetation. When development impacts cannot be avoided, mitigation measures shall be required to minimize adverse impacts.

Monterey County Tree Ordinance

Monterey County's zoning ordinance (Section 21.64.260 of the General Plan) for the protection of oaks and other protected trees requires:

- A permit for removal of oaks 6 inches in diameter at breast height in most sections of the county and a 1:1 replacement. Removal of more than three protected trees per lot per year requires a Forest Management Plan prepared by a Registered Professional Forester and a Use Permit and is subject to CEQA.
- A permit for removal of landmark oak trees, [24 inches or more in diameter or visually or historically significant, or exemplary].

The following tree removal activities are exempted from the provisions of this section:

- Tree removal pursuant to Public Utilities Commission General Order 95 or by governmental agencies within public rights-of-way.
- Tree removal for construction of structures, roads, and other site improvements included in an approved subdivision, Use Permit, or similar discretionary permit.

Project Setting

The proposed project is located in San Benito and Monterey Counties and is regionally located within the Inner South Coast Ranges in the California Floristic Province (Hickman 1993). Vegetation in this region is influenced by Mediterranean climate and coastal weather patterns with cool wet winters and hot dry summers. Elevation of the study area ranges from 140 to 580 feet above mean sea level, with topography ranging from relatively level in the agricultural areas to the rolling slopes of the foothills. The study area consists of a mixture of agricultural lands, low-density residential development, and large tracts of privately owned grazing pasture for livestock.

Vegetation Communities and Habitats

The following habitats were identified and mapped within the study area: annual grassland, coastal scrub, coastal oak woodland, eucalyptus, irrigated row and field crop, valley foothill riparian, fresh emergent wetland, seasonal wetland, drainage, lacustrine, urban, and disturbed. The biologists mapped and described

habitat types along the project route based on the California Wildlife-Habitat Relationships (WHR) classification system (Mayer and Laudenslayer 1988). A description of each of these habitats, including a list of the dominant species, is provided below. Locations of each habitat are shown in Figures 4.4-2 to 4.4-12. Appendix A provides a list of common and scientific names of the plant species identified in the project area and referenced in text.

Sensitive natural communities are communities that are especially diverse; regionally uncommon; or of special concern to local, state, and federal agencies. Elimination or substantial adverse effects to these communities would constitute a significant impact under CEQA. For the purposes of this report, sensitive natural communities may include areas that provide habitat for special-status species. Vegetation and habitat types that qualify as sensitive natural communities are indicated in each of the descriptions below.

Upland Vegetation and Habitat Types

Annual Grassland

Annual grassland is a common vegetation community in San Benito and Monterey Counties. Annual grassland is a herbaceous-dominated habitat often dominated by several nonnative annual grass species with mixtures of native and nonnative forbs (Mayer and Laudenslayer 1988). Annual grasslands are common and occur throughout the study area; dominant species observed in the annual grasslands are soft chess, ripgut brome, hare barley, wild oat, and Italian ryegrass. Other species observed include narrow-leaved clover, long-beaked filaree, Ithuriel's spear, and common catchfly. Native wildflowers also may occur within the annual grassland community; these species may include common fiddleneck, lupines, popcorn flowers, and California poppy.

Annual grasslands are used by a large variety of wildlife species. Amphibians in this community include western toad, Pacific tree frog, and California tiger salamander. Reptiles that breed in annual grassland habitats include western fence lizard, western skink, gopher snake, and western rattlesnake. Mammals typically found in this habitat include California vole, western harvest mouse, California ground squirrel, black-tailed jackrabbit, and coyote. Short-eared owl, western meadowlark, and horned lark are common birds that breed in annual grasslands. Annual grasslands provide foraging habitat for red-tailed hawk and turkey vulture, whereas other species occupy annual grassland only when special habitat features such as cliffs, caves, ponds, or woody plants are available for breeding, resting, or as escape cover. In addition, many species that nest or roost in adjacent woodlands may forage in grasslands, including western bluebird, western kingbird, and some species of bats.

Annual grassland habitat in the project area can be considered potential habitat for several special-status species, including the federally listed California tiger salamander and California red-legged frog. Annual grassland is considered a sensitive natural community in this document on that basis.

Coastal Oak Woodland

Coastal oak woodland is a tree-dominated habitat with coast live oak as the dominant, and often only, overstory species—which is typical of coastal oak woodland in many coastal regions (Mayer and Laudenslayer 1988). This habitat occurs primarily on north-facing slopes in the study area. In dense stands of coastal oak woodland, the shrub understory is composed of shade-tolerant species such as poison oak, Pacific blackberry, toyon, and snowberry. Herbaceous species found in coastal oak woodland include miner's lettuce and bedstraw.

Sudden oak death, a disease caused by the pathogen *Phytophthora ramorum*, affecting oaks and several other native species in coastal California has been recorded in Monterey County. It is not currently known to occur in the project area based on a review of records at the California Oak Mortality Task Force website (available at: http://www.suddenoakdeath.org/). The nearest confirmed occurrence of the pathogen is approximately 5 miles east from the southern end of the project area.

Many of the same wildlife species that can be found in annual grassland habitat are found in coastal oak woodlands. Coastal oak woodlands also provide nesting and foraging habitat for many bird species.

Coastal Scrub

Coastal scrub is a shrub-dominated community of shrub species in moderately dense stands that occurs in numerous locations in the coastal foothills (Mayer and Laudenslayer 1988). In the study area, coastal scrub is composed of a variety of shrub species, including bush monkeyflower, black sage, California sagebrush, and coyote brush. Other species observed included chamise; California coffeeberry; poison oak; and manzanita species, including the Pajaro manzanita, a special-status plant.

Wildlife species that use coastal scrub habitat include California towhee, California quail, California thrasher, brush rabbit, and coyote. Because coastal scrub supports Pajaro manzanita, it can be considered a sensitive natural community.

Eucalyptus

Eucalyptus habitats are usually dense, monotypic stands with a closed canopy and vary in understory composition from a few shrubs to a well-developed herbaceous and shrubby understory (Mayer and Laudenslayer 1988). Eucalyptus habitat in the project area is restricted to a small, dense stand located north of Towers 06/40A that borders a pond and contains a sparse understory composed of a small strip of willows along the water's edge.

Eucalyptus forests are not often productive wildlife habitats. However, eucalyptus trees are used by raptors for nesting habitat.

Irrigated Field and Row Crop

Irrigated row and field crop habitat occurs between Poles 13/10 and 14/15and Poles 20/04 and 22/05 in the project area. The habitat consists of currently cultivated lands (i.e., row crops) and fallow fields (Mayer and Laudenslayer 1988). Dominant vegetation in irrigated row and field crop in the study area consists of agricultural cultivars such as alfalfa, cabbage, onions, and lettuce. In addition, "dry farming" occurs in the vicinity of Poles 15/10 to 16/04.

Agricultural lands were established on fertile soils that historically supported an abundance of wildlife. The diversity of wildlife greatly diminishes when row crops are planted. The understory consists of low-growing grasses and is commonly sprayed with herbicides to prevent the growth of herbaceous vegetation. Many species of rodents and birds have adapted to agricultural lands but are controlled by fencing, trapping, and poisoning to prevent excessive crop losses. Wildlife species associated with agricultural land include mourning dove, American crow, Brewer's blackbird, and many species of rodents, among others.

Urban

Urban habitat occurs in several portions of the study area and consists primarily of residential development, although some outbuildings associated with commercial and agricultural activities also are included. Vegetation in urban areas is dominated by horticultural trees and shrubs that have been planted for landscaping.

Urban areas of the study area in general provide low habitat value for wildlife species. Typical wildlife species that occur in these areas are those that have adapted to an urban landscape, including house sparrow, European starling, Brewer's blackbird, Virginia opossum, and raccoon.

Disturbed

Disturbed areas, although not designated as WHR habitats, are distinct habitats within the study area. Disturbed habitats are mostly bare areas that support ruderal species (e.g., yellow star-thistle) whose life history enables them to quickly colonize areas that have undergone some level of disturbance, either as the result of human activity or natural events (e.g., fire).

Disturbed areas typically provide low habitat value for many wildlife species, although there are exceptions, as in the case of burrowing owls and other species that are adapted to disturbance. California ground squirrels often colonize disturbed areas; their burrows often provide habitat for other wildlife species. Other wildlife species that commonly utilize disturbed areas include mourning dove, house sparrow, American crow, Brewer's blackbird, and Virginia opossum.

Wetland and Riparian Habitat Types

Valley Foothill Riparian

Valley foothill riparian habitat is a tree-dominated woodland habitat that generally occurs along low-gradient creeks and rivers (Mayer and Laudenslayer 1988). In the study area, it is characterized by shrubby riparian willow thickets dominated by narrowleaf willow, red willow, and arroyo willow. Some mature overstory trees are also present, including California sycamore, Fremont's cottonwood, and coast live oak; other components of the shrub layer include Pacific blackberry, poison oak, and California wild rose.

The vegetation is diverse and well developed in valley foothill riparian communities; therefore, these communities provide high-value habitat for many wildlife species, including special-status species. Invertebrates, amphibians, and aquatic reptiles (e.g., turtles and garter snakes) live in riparian and adjacent upland habitats. Raptors, herons and egrets, and other birds nest in the upper canopy. A variety of songbirds use the shrub canopy for foraging and nesting, and cavity-nesting birds occupy dying trees and snags. Raccoons and striped skunks are common in riparian communities, as are many species of small mammals.

State and federal agencies have adopted no-net-loss policies for riparian habitats such as the Valley foothill riparian habitat in the project area, and they are considered sensitive from that standpoint.

Fresh Emergent Wetland

Fresh emergent wetland habitat (i.e., freshwater marsh) occurs in several portions of the study area. This habitat is characterized by frequent flooding and supports erect, rooted herbaceous hydrophytic species whose roots can thrive in an anaerobic environment (Mayer and Laudenslayer 1988). The largest area of fresh emergent wetland within the study area is located near the San Benito River crossing. Dominant species found in fresh emergent wetland in the study area are narrow-leaved cattail, common tule, and American tule. Other representative species observed were iris-leaved rush and soft rush. Fresh emergent wetlands are considered sensitive habitats and are potential waters of the United States.

Fresh emergent wetlands are among the most productive wildlife habitats. They provide food, cover, and water for many species of amphibians, reptiles, birds, and mammals, including California red-legged frog, California tiger salamander, Pacific tree frog, and western toad use emergent marshes for breeding habitat; and common garter snake, beaver, raccoon, and muskrat use emergent wetlands for foraging, rearing, or cover. A variety of migratory birds such as mallard, wood duck, red-winged blackbird, common yellowthroat, marsh wren, and song sparrow also use these habitats.

Seasonal Wetland

Seasonal wetlands are considered sensitive habitats and are potential waters of the United States. Seasonal wetlands occur in several portions of the project area. This habitat is not recognized as a distinct habitat by WHR (Mayer and Laudenslayer 1988). For the purposes of this biological analysis, however, it is important to distinguish seasonal wetland from fresh emergent wetland because of its distinct hydrologic regime and wildlife value. Unlike fresh emergent wetlands, which are generally wet year-round, seasonal wetlands tend to be inundated only during winter and spring. This shortened inundation period precludes the establishment of non-native bullfrogs and fish.

Seasonal wetlands provide habitat for many aquatic invertebrates whose eggs are able to survive the dry period and then hatch shortly after the wetlands are inundated. Seasonal wetlands also provide suitable breeding habitat for California red-legged frog, California tiger salamander, Pacific tree frog, and western toad as long as they remain inundated long enough for the larvae to metamorph. Many species of birds, including ducks and songbirds utilize seasonal wetlands for foraging habitat.

State and federal agencies have adopted no-net-loss policies for riparian habitats such as the Valley foothill riparian habitat in the project area, and they are considered sensitive from that standpoint.

Drainage

Numerous drainages occur throughout the study area and include seasonal drainages, intermittent drainages, perennial drainages, and human-made irrigation ditches. Many of the drainages appear to be intermittent, particularly those located in the foothills. Although not recognized as a distinct habitat by WHR (Mayer and Laudenslayer 1988), drainages are potential waters of the United States.

Drainages provide habitat for aquatic insects and fishes, and may provide breeding habitat for amphibians depending on the duration of water flow. Drainages are used for foraging by species such as great egret, great blue heron, belted kingfisher, common garter snake, and raccoon.

Lacustrine

Lacustrine habitats (i.e., open water) are typically inland depressions or dammed riverine channels with standing water that exhibit a wide range of surface areas and depths (Mayer and Laudenslayer 1988). Within the study area, lacustrine habitat occurs in the form of several natural and constructed ponds. Dominant organisms are diatoms and filamentous green algae as well as aquatic plants. Lacustrine habitats are considered sensitive because they could provide habitat for special-status species and are potential waters of the United States.

Lacustrine habitats provide aquatic and breeding habitat for amphibians such as Pacific tree frog and western toad. Reptile species that utilize aquatic habitats

include common garter snake and western pond turtle. Introduced species that utilize aquatic habitats include mosquitofish, sunfish, and bullfrog.

Waters of the United States

ICF Jones & Stokes conducted a delineation of waters of the United States for the proposed project in 2008 (Appendix F). The wetland delineation encompassed all potential disturbance areas (i.e., tower sites, staging areas, pull sites, landing zones, and access roads) and documented a total of 6.92 acres of potential waters of the United States (Table 4.4-1) in the study area. The wetland delineation was submitted to the Corps on January 28, 2009, and was verified by the Corps on June 12, 2009.

Table 4.4-1. Types and Acreage of Potential Wetlands and Other Waters of the United States in the Project Study Area

Habitat Type	Jurisdictional Status[a]	Acres in Wetland Delineation Study Area
Riverine wetland	Wetland	2.78
Emergent wetland	Wetland	0.41
Seasonal wetland	Wetland	3.16
Detention basin	Wetland	0.25
Subtotal wetlands		*6.60*
Intermittent drainage[b]	Other water	0.060
Ephemeral drainage[c]	Other water	0.26
Subtotal other waters		*0.32*
Total waters of the United States		**6.92**

[a] A Preliminary Jurisdictional Determination was issued by the U.S. Army Corps of Engineers, San Francisco District in June 2009.

[b] An intermittent drainage has flowing water during certain times of the year, when groundwater provides water for streamflow. During dry periods, intermittent drainages may not have flowing water. Runoff from rainfall is a supplemental source of water for streamflow. (Federal Register, Vol. 67, No. 10/Tuesday, January 15, 2002.)

[c] An ephemeral drainage has flowing water only during (and for a short duration following) precipitation events in a typical year. Ephemeral drainages are located above the water table year-round. Groundwater is not a source of water for the drainage. Runoff from rainfall is the primary source of water for drainage flow. (Federal Register, Vol. 67, No. 10/Tuesday, January 15, 2002.)

Special-Status Species

For the purposes of this document, *special-status species* are plants and animals that are legally protected under ESA, CESA, or other such regulations, and species considered sufficiently rare by the scientific community to quality for such listing. For the purposes of this report, special-status species include:

- Species listed or proposed for listing as threatened or endangered under ESA(50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the Federal Register [proposed species];
- Animal species of special concern to CDFG;
- Animals fully protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]);
- Species listed or proposed for listing by the State of California as threatened or endangered under CESA (14 California Code of Regulations [CCR] 670.5);
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines, Section 15380);
- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
- Plants considered by CNPS to be "rare, threatened, or endangered in California" (Lists 1B and 2 in CNPS 2008); and
- Plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in CNPS 2008), (plants on these lists may be included as special-status species on the basis of local significance or recent biological information).

Special-Status Plant Species

Searches of the CNDDB (2006, 2008) conducted during the prefield investigation identified 40 special-status plant species with the potential to occur in the region surrounding the project area (Table 4.4-2). Surveys for special-status plants were conducted in 2006 and 2008, and resulted in detection of one special-status species in the project area, Pajaro manzanita (*Arctostaphylos pajaroensis*). A list of plant species observed during botanical surveys is included in Appendix A. A summary of the status and distribution of Pajaro manzanita, as well as its extent within the project area, is provided below.

Table 4.4-2. Special-Status Plant Species with the Potential to Occur in the Project Area

Common and Scientific Name	Legal Status[a] Federal/State/ CNPS	Geographic Distribution/California Floristic Province	Habitat Requirements	Blooming Period
Hickman's onion *Allium hickmanii*	–/–/1B.2	Central Coast in Monterey and San Luis Obispo Counties, especially Monterey Peninsula and Arroyo de la Cruz	Closed-cone coniferous forest, maritime chaparral, coastal prairie, coastal scrub, valley and foothill grassland; 16–656'	Mar–May
Santa Cruz manzanita *Arctostaphylos andersonii*	–/–/1B.2	Western San Francisco Bay region; Santa Cruz mountains in San Mateo, Santa Clara, and Santa Cruz Counties	Edges and openings in chaparral, broad-leaved upland forest, North Coast coniferous forest; 197–2,395'	Nov–Apr
Gabilan Mountains manzanita *Arctostaphylos gabilanensis*	–/–/1B.2	Known from only two occurrences in the Gabilan Mountains in San Benito and Monterey Counties	Granitic soils in chaparral, cismontane woodland; 984–2,296'	Jan
Hooker's manzanita *Arctostaphylos hookeri* ssp. *hookeri*	–/–/1B.2	Central and northern Central Coast and in the western San Francisco Bay area (Santa Cruz Mountains south to Carmel)	Sandy soils in closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub; 279–1,758'	Jan–Jun
Toro manzanita *Arctostaphylos montereyensis*	–/–/1B.2	Central Coast (Fort Ord), northern Outer South Coast Ranges (Toro Mountain, northwestern Monterey County)	Sandy soils in maritime chaparral, cismontane woodland, coastal scrub; 98–2,395'	Feb–Mar
Pajaro manzanita *Arctostaphylos pajaroensis*	–/–/1B.1	Central and northern Central Coast, southern San Francisco Bay (Pajaro Hills)	Sandy areas in chaparral; 98–2,493'	Dec–Mar
Sandmat manzanita *Arctostaphylos pumila*	–/–/1B.2	Central Coast, especially Monterey Bay, Monterey County	Sandy soils, openings in closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, coastal scrub; 10–672'	Feb–May
Kings Mountain manzanita *Arctostaphylos regismontana*	–/–/1B.2	Western San Francisco Bay area; northern Santa Cruz Mountains in Santa Clara, Santa Cruz, and San Mateo Counties	Granitic or sandstone soils in broad-leaved upland forest, chaparral, North Coast coniferous forest; 1,001–2,395'	Jan–Apr
Alkali milk-vetch *Astragalus tener* var. *tener*	–/–/1B.2	Merced, Solano, and Yolo Counties; historically more widespread	Alkaline soils in playas; adobe clay in valley and foothill grassland, vernal pools; below 197'	Mar–Jun
San Joaquin spearscale *Atriplex joaquiniana*	–/–/1B.2	West edge of Central Valley from Glenn to Tulare Counties	Alkaline soils in chenopod scrub, meadows and seeps, valley and foothill grassland; below 2,739'	Apr–Oct
Round-leaved filaree *California macrophylla* (formerly *Erodium macrophyllum*)	–/–/1B.1	Sacramento Valley, northern San Joaquin Valley, Central Western California, South Coast, and northern Channel Islands (Santa Cruz Island)	Clay soils in cismontane woodland, valley and foothill grassland; 49–3,937'	Mar–May
Pink creamsacs *Castilleja rubicundula* ssp. *rubicundula*	–/–/1B.2	Scattered occurrences in the southern Inner North Coast Ranges from Shasta to Santa Clara Counties	Serpentine soils in chaparral, valley and foothill grassland, cismontane woodland, meadows and seeps; 66–2,953'	Apr–Jun

Table 4.4-2. Continued

Common and Scientific Name	Legal Status[a] Federal/State/ CNPS	Geographic Distribution/California Floristic Province	Habitat Requirements	Blooming Period
Condgon's tarplant *Cedntromadia parryi* ssp. *condgonii*	–/–/1B.2	Central and southern-central western California	Alkaline soils in valley and foothill grassland; below 755'	May–Oct (uncommonly Nov)
Hernandez spineflower *Chorizanthe biloba* var. *immemora*	–/–/1B.2	Eastern Inner South Coast Ranges in Fresno, Monterey, and San Benito Counties	Chaparral, cismontane woodland; 1,968–2,625'	May–Aug (uncommonly Sep)
Monterey spineflower *Chorizanthe pungens* var. *pungens*	T/–/1B.2	Central and northern Central Coast; San Francisco Bay in Monterey, Santa Cruz, and San Luis Obispo* Counties	Sandy soils in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; 10–1,476'	Apr–Jun (uncommonly Jul)
Robust spineflower *Chorizanthe robusta* var. *robusta*	E/–/1B.1	Central and northern Central Coast; southwestern San Francisco Bay area in Alameda*, Monterey, San Francisco*, San Mateo*, Santa Clara*, and Santa Cruz Counties	Sandy or gravelly soils in maritime chaparral, coastal bluff scrub, coastal dunes, openings in cismontane woodland; 10–984'	Apr–Sep
Seaside bird's-beak *Cordylanthus rigidus* ssp. *littoralis*	–/E/1B.1	Central and southern Central Coast in Monterey and Santa Barbara Counties	Sandy, often disturbed areas in closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, coastal scrub; below 1,394'	Apr–Oct
Hutchinson's larkspur *Delphinium hutchinsoniae*	–/–/1B.2	Known from approximately 10 occurrences in Monterey County	Broad-leaved upland forest, chaparral, coastal prairie, coastal scrub; below 1,400'	Mar–Jun
Eastwood's goldenbush *Ericameria fasciculata*	–/–/1B.1	Known from fewer than 20 occurrences in the Monterey Bay area, Monterey County	Sandy soils and openings in closed-cone coniferous forest, maritime chaparral, coastal dunes, coastal scrub; 98–902'	Jul–Oct
Pinnacles buckwheat *Eriogonum nortonii*	–/–/1B.3	Northern South Coast Ranges in Monterey and San Benito Counties	Sandy soils, often on recent burns, in chaparral, valley and foothill grassland; 984–3,199'	May–Aug (uncommonly Sep)
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	–/–/1B.1	Southern San Francisco Bay area; South Coast Ranges in San Benito, Santa Clara, and San Luis Obispo Counties	Vernal pools; 10–148'	Jul
Coast wallflower *Erysimum ammophilum*	–/–/1B.2	Central Coast in Monterey, San Mateo, and Santa Cruz Counties; northern Channel Islands (Santa Rosa Island); San Diego County	Sandy soils and openings in maritime chaparral, coastal dunes, coastal scrub; below 1,987'	Feb–Jun
Fragrant fritillary *Fritillaria liliacea*	–/–/1B.2	Coast Ranges from Marin County to San Benito County	Serpentine soils in cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland; 10–1,345'	Feb–Apr

Table 4.4-2. Continued

Common and Scientific Name	Legal Status[a] Federal/State/ CNPS	Geographic Distribution/California Floristic Province	Habitat Requirements	Blooming Period
Sand gilia *Gilia tenuiflora* ssp. *arenaria*	E/T/1B.2	Known from fewer than 20 occurrences near Monterey Bay in Monterey and Santa Cruz Counties	Sandy soils and openings in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub; below 148’	Apr–Jun
Loma Prieta hoita *Hoita strobilina*	–/–/1B.1	San Francisco Bay area in Alameda*, Contra Costa, Santa Clara, and Santa Cruz Counties	Mesic, typically serpentine areas in chaparral, cismontane woodland, riparian woodland; 98–2,821’	May–Jul (uncommonly Aug–Oct)
Santa Cruz tarplant *Holocarpha macradenia*	T/E/1B.1	Northern Central Coast, southwestern San Francisco Bay from coastal California in Marin* to Monterey Counties	Clay, often sandy soils in coastal prairie, coastal scrub, valley and foothill grassland; 33–722’	Jun–Oct
Kellogg’s horkelia *Horkelia cuneata* ssp. *sericea*	–/–/1B.1	Central Coast with scattered occurrences from Marin* to Santa Barbara Counties	Sandy or gravelly soils in openings in closed-cone coniferous forest, coastal dunes, coastal scrub, maritime chaparral; 33–656’	Apr–Sep
Contra Costa goldfields *Lasthenia conjugens*	E/–/1B.1	Scattered occurrences in Alameda, Contra Costa, Mendocino*, Napa, Santa Barbara*, Santa Clara*, Solano, and Sonoma Counties	Mesic areas in alkaline playas, cismontane woodland, valley and foothill grassland, vernal pools and swales; below 1,542’	Mar–Jun
Woolly-headed lessingia *Lessingia hololeuca*	–/–/3	Southern North Coast Ranges, southern Sacramento Valley, northern San Francisco Bay area	Clay or serpentine soils in broad-leaved upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland; 49–1,001’	Jun–Oct
Indian Valley bush mallow *Malacothamnus aboriginum*	–/–/1B.2	Inner South Coast Ranges in Fresno, Monterey, San Benito, and San Mateo Counties	Chaparral and cismontane woodland in rocky, granitic soils, often in burned areas; 492–5,577’	Apr–Oct
San Antonio Hills monardella *Monardella antonina* ssp. *antonina*	–/–/3	Scattered occurrences in the central South Coast Ranges from Alameda(?) to Monterey Counties	Chaparral, cismontane woodland; 1,640–3,281’	Jun–Aug
Prostrate navarretia *Navarretia prostrata*	–/–/1B.1	Western San Joaquin Valley, Inner South Coast Ranges, central South Coast Ranges, Peninsular Ranges	Mesic areas in coastal scrub, meadows and seeps, alkaline valley and foothill grassland, vernal pools; 49–2,296’	Apr–Jul
Monterey pine *Pinus radiata*	–/–/1B.1	Only three native stands occur in Ano Nuevo, Cambria, and the Monterey Peninsula	Closed-cone coniferous forest, cismontane woodland; 82–607’	N/A
Santa Cruz Mtns. beardtongue *Penstemon rattanii* var. *kleei*	–/–/1B.2	Known from fewer than 10 occurrences in Santa Clara and Santa Cruz Counties	Chaparral, lower montane coniferous forest, North Coast coniferous forest; 1,312–3,609’	May–Jun
Yadon’s rein orchid *Piperia yadonii*	E/–/1B.1	Known only from Monterey County	Sandy soils in coastal bluff scrub, closed-cone coniferous forest, maritime chaparral; 33–1,673’	May-Aug (uncommonly Feb)

Table 4.4-2. Continued

Common and Scientific Name	Legal Status[a] Federal/State/ CNPS	Geographic Distribution/California Floristic Province	Habitat Requirements	Blooming Period
Hairless popcornflower *Plagiobothrys glaber*	–/–/1A	Historically known from the Central Coast and southern San Francisco Bay area	Alkaline meadows and seeps, coastal salt marshes and swamps; 49–590'	Mar–May
Pine rose *Rosa pinetorum*	–/–/1B.2	Monterey, Plumas, and Santa Cruz Counties	Closed-cone coniferous forest below 984'	May–July
Most beautiful jewel-flower *Streptanthus albidus* ssp. *peramoenus*	–/–/1B.2	Eastern San Francisco Bay area; central Outer South Coast Ranges; Contra Costa to San Luis Obispo Counties	Chaparral, cismontane woodland, valley and foothill grassland on serpentinite outcrops; 308–3,281'	Apr–Sep (uncommonly Mar–Oct)
Santa Cruz clover *Trifolium buckwestiorum*	–/–/1B.1	Scattered occurrences from Mendocino to Monterey Counties	Gravelly areas, margins of broad-leaved upland forest, cismontane woodland, coastal prairie; 344–2,001'	Apr–Oct
Saline clover *Trifolium depauperatum* var. *hydrophilum*	–/–/1B.2	Scattered occurrences in Sacramento Valley, central western California from Sonoma to San Luis Obispo Counties	Marshes and swamps, vernal pools, and mesic, alkaline areas in valley and foothill grassland; below 984'	Apr–Jun

[a] Status explanations:

Federal

E = Listed as endangered under the federal Endangered Species Act.
T = Listed as threatened under the federal Endangered Species Act.
– = No listing.

State

E = Listed as endangered under the California Endangered Species Act.
T = Listed as threatened under the California Endangered Species Act.
– = No listing.

California Native Plant Society (CNPS)

1A = List 1A species: presumed extinct in California.
1B = List 1B species: rare, threatened, or endangered in California and elsewhere.
3 = List 3 species: plants about which more information is needed to determine their status.
0.1 = Seriously endangered in California.
0.2 = Fairly endangered in California.
0.3 = Not very endangered in California.
– = No listing.
* = Known populations believed extirpated from that County.
? = Population location within County uncertain.

Pajaro Manzanita

Pajaro manzanita is an evergreen shrub in the heath family (Ericaceae). It is not listed under the state or federal ESAs but is a CNPS List 1B species (CNPS 2008). CNPS considers Pajaro manzanita rare, threatened, or endangered in California; and it has been assigned the highest threat category (seriously endangered in California) by CNPS. Currently, 19 known occurrences of Pajaro manzanita have been recorded in the CNDDB (2008) as of May 2008, the most recent update available. Three of the 19 known occurrences are listed as "possibly extirpated," and the remaining occurrences are listed as "presumed extant." The majority of known occurrences are located in Monterey County, although the species also occurs in several locations in San Benito and Santa Cruz Counties.

Documented habitat for Pajaro manzanita consists of coastal scrub and chaparral on sandy soils, at elevations from 98 to 2,493 feet. The population present in the project area was found in Monterey County in a coast scrub chaparral community with sandy soils, at an elevation of approximately 394 feet. This is consistent with the habitat, range, and elevation characteristics for this species. The identified population is located near PG&E Tower 0/04 (Figure 4.4-2).

Special-Status Wildlife Species

Table 4.4-3 lists the special-status wildlife and fish species with the potential to occur in the project area or in the vicinity of the project area. Appendix B provides a list of the common and scientific names of wildlife species identified in the project area and mentioned in text.

A summary of the status, distribution, and extent of habitat in the project area for special-status wildlife is provided below.

California Red-Legged Frog

The California red-legged frog is federally listed as threatened under ESA and is a California species of special concern. Critical habitat was designated by USFWS on April 13, 2006, but the project area does not fall within critical habitat (USFWS 2006a). The California red-legged frog is one of two subspecies of red-legged frog (*Rana aurora*) found on the Pacific coast. The historical range of California red-legged frog (red-legged frog) extended coastally from the vicinity of Point Reyes National Seashore in Marin County and inland from the vicinity of Redding, southward to northwestern Baja California. Its current range consists of isolated locations in the Sierra Nevada and North Coast and northern Transverse Ranges. It is relatively common in the San Francisco Bay area and along the central coast and is still present in Baja California (USFWS 2002).

Table 4.4-3. Special-Status Wildlife Species with the Potential to Occur in the Project Area

Species	Status		California Distribution	Habitat	Potential for Occurrence
	Federal	State			
Amphibians					
California tiger salamander *Ambystoma californiense*	T	SSC	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy	High – 20 occurrences within 3.2 miles of the project area; 46 ponds and wetlands that could provide suitable breeding habitat were identified within 1.24 miles of the project area.
California red-legged frog *Rana draytonii*	T	SSC	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semipermanent aquatic habitats, such as creeks and coldwater ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods	High – 5 CNDDB occurrences within 1.24 miles of the project area; 45 ponds and numerous drainages that could provide suitable aquatic habitat for California red-legged frogs were identified within 1.24 miles of the project area.
Western spadefoot *Spea hammondii*	--	SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands.	Moderate – a CNDDB record southwest of Hollister. Several suitable breeding ponds occur within 0.5 mile of the project area.
Reptiles					
California horned lizard *Phrynosoma coronatum frontale*	--	SSC	Sacramento Valley, including foothills, south to southern California; Coast Ranges south of Sonoma County; below 4,000 feet in northern California	Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging	Moderate – No CNDDB records. Project area contains annual grasslands, live oak woodland, and coastal scrub, which provide suitable habitat.

Table 4.4-3. Continued

Species	Status		California Distribution	Habitat	Potential for Occurrence
	Federal	State			
Western pond turtle *Actinemys marmorata*	--	SSC	Occurs along the central coast of California east to the Sierra Nevada and along the southern California coast inland to the Mojave and Sonora Deserts; range overlaps with that of the northwestern pond turtle throughout the Delta and in the Central Valley	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests	Moderate – a CNDDB record in the San Benito River. San Benito River and other drainages, agriculture ditches, and large ponds crossed by the project provide aquatic suitable habitat
San Joaquin whipsnake *Masticophis flagellum ruddocki*	--	SSC	From Colusa County in the Sacramento Valley southward to the grapevine in the San Joaquin Valley and westward into the Inner Coast Ranges. An isolated population occurs at Sutter Buttes. Occurs to approximately 2,000 feet in elevation.	Occurs in open, dry, vegetative associations with little or no tree cover; occurs in valley grassland and saltbush scrub associations; often occurs in association with mammal burrows	Moderate – a CNDDB record west of Hollister. Project area contains annual grasslands, live oak woodland, and coyote bush scrub, which provide suitable habitat.
Birds					
Bank swallow *Riparia riparia*	--	T	Occurs along the Sacramento River from Tehama County to Sacramento County, along the Feather and lower American Rivers, in the Owens Valley; and in the plains east of the Cascade Range in Modoc, Lassen, and northern Siskiyou Counties. Small populations near the coast from San Francisco County to Monterey County	Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam	Low – a CNDDB record northwest of where the project crosses the San Benito River. The north banks of the San Benito River provide suitable nesting habitat, although species not currently known to occur in the vicinity of the project area.

Table 4.4-3. Continued

Species	Status: Federal	Status: State	California Distribution	Habitat	Potential for Occurrence
Golden eagle *Aquila chrysaetos*	--	SSC/ FP	Foothills and mountains throughout California; uncommon non-breeding visitor to lowlands such as the Central Valley	Nest on cliffs and escarpments or in tall trees overlooking open country; forages in annual grasslands, chaparral, and oak woodlands with plentiful medium- and large-sized mammals	High – No CNDDB records. Observed during field visit. Large trees within 0.5 mile of the project area provide suitable nesting habitat. Suitable foraging habitat in annual grasslands.
Least Bell's vireo *Vireo bellii pusillus*	E	E	Small populations remain in southern Inyo, southern San Bernardino, Riverside, San Diego, Orange, Los Angeles, Ventura, and Santa Barbara Counties	Riparian thickets either near water or in dry portions of river bottoms; nests along margins of bushes and forages low to the ground; also may be found using mesquite and arrow weed in desert canyons	Low – CNDDB record approximately 6 miles north of project area along Llagas Creek near Gilroy. Drainages within the project area provide marginal habitat. Species not currently known to occur in the vicinity of the project area.
Loggerhead shrike *Lanius ludovicianus*	--	SSC	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches	High – No CNDDB records. Observed during field visits. Oak woodland and coastal scrub habitats provide suitable nesting habitat.
Tricolored blackbird *Agelaius tricolor*	--	SSC	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails; or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs.	Moderate – a CNDDB record near Lagunitas switches. Marshes with large stands of tule provide suitable nesting habitat.

Table 4.4-3. Continued

Species	Status		California Distribution	Habitat	Potential for Occurrence
	Federal	State			
Western burrowing owl *Athene cunicularia*	--	SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	High – a CNDDB record approximately 1 mile west of where the project crosses the San Benito River. Grassland habitats with California ground squirrel burrows provide suitable nesting and burrowing habitat
White-tailed kite *Elanus leucurus*	--	FP	Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging	High – No CNDDB records within 3 miles of project area. Observed during field visits. Large trees near project area provide suitable nesting habitat. Agricultural fields and annual grasslands provide suitable foraging habitat.
Mammals					
American badger *Taxidea taxius*	--	SSC	Found throughout most of California except in the northern North Coast area. Suitable habitat is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils.	Occurs in most habitats in California except alpine and montane habitats; digs burrows in friable soils for cover; frequently uses old burrows.	Moderate – CNDDB record approximately 0.25 mile east of Lagunitas to Anzar Junction alignment and at TAP 1 eastern terminus. Annual grasslands throughout the project area provide suitable habitat.
Pallid bat *Antrozous pallidus*	--	SSC	Occurs throughout California except the high Sierra from Shasta County to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest; most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California	Low – No CNDDB records within 3 miles of project area. Bridge and barn near Tower 1/11 provide suitable roosting habitat.

Table 4.4-3. Continued

Species	Status		California Distribution	Habitat	Potential for Occurrence
	Federal	**State**			
San Joaquin kit fox *Vulpes macrotis mutica*	E	T	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub and grassland habitats	Low – CNDDB record boundary approximately 1 mile north, south, and east of eastern terminus of project. Annual grasslands in the Flint Hills provide suitable habitat.
Fish					
South-central California coast steelhead *Oncorhynchus mykiss*	T	--	Occurs from the Pajaro River south to, but not including, the Santa Maria River.	Primary habitat consists of shaded pools of small, cool, low-flow upstream reaches	High – Critical habitat designated in the San Benito River for steelhead.

[a] Status definitions:

Federal

E = Listed as endangered under the federal Endangered Species Act.
T = Listed as threatened under the federal Endangered Species Act.
-- = No listing status.

State

E = Listed as endangered under the California Endangered Species Act.
T = Listed as threatened under the California Endangered Species Act.
SSC = Species of special concern.
FP = Fully protected species.
-- = No listing status.

Red-legged frogs use a variety of aquatic, riparian, and upland habitat types. However, some individuals may complete their entire life cycle in a pond or other aquatic site that is suitable for all life stages. Red-legged frogs require cool-water habitats, including pools, streams, and ponds, with emergent and submergent vegetation. Red-legged frogs are found in habitats with deep (at least 2.3 feet [0.7 meter]) and still or slow-moving water, and vegetation consisting of willows, tules, or cattails. Juvenile frogs seem to favor open, shallow aquatic habitats with dense submergent vegetation. Although red-legged frogs can inhabit either ephemeral or permanent streams or ponds, populations probably cannot persist in ephemeral streams in which all surface water disappears (Jennings and Hayes 1994, USFWS 2002).

As adults, red-legged frogs are highly aquatic when active but depend less on permanent water bodies than do other frog species. Adults may take refuge during dry periods in rodent holes or leaf litter in riparian habitats. Although red-legged frogs typically remain near streams or ponds, marked and radio-tagged frogs have been observed to move more than 2 miles (3.2 kilometers) through upland habitat (USFWS 2002). These movements are typically along riparian corridors. However, some individuals move directly from one site to another through normally inhospitable habitats, such as heavily grazed pastures or oak-grassland savannas, especially on rainy nights (Fellers and Kleeman 2007). Suitable habitat for red-legged frogs potentially includes all aquatic, riparian, and upland areas within the range of the species and includes any landscape features that provide cover, such as existing animal burrows, boulders or rocks, organic debris such as downed trees or logs, and industrial debris. Agricultural features such as drains, watering troughs, spring boxes, abandoned sheds, or hay stacks also may be used. Accessibility to sheltering habitat is essential for the survival of red-legged frogs within a watershed and can be a factor limiting frog population numbers and survival (Fellers and Kleeman 2007).

CNDDB (2008) indicated 11 California red-legged frog occurrences within 3 miles of the project area (Figure 4.4-1B). Based on field observations, analysis of aerial maps, and analysis of topographic maps, 56 ponds occurring within 1.2 miles of the alignment could provide suitable breeding habitat for California red-legged frogs (Exhibit 1). Additionally, several seasonal and perennial drainages, including the San Benito River, occur within 1.2 miles of the project (Exhibit 1). Upland grassland habitats within 1.2 miles of these seasonal wetlands and drainages could be utilized by red-legged frogs for aestivating habitat. Exhibit 1 indentifies the portions of the project area that provide suitable upland habitat for California red-legged frogs.

California Tiger Salamander

The central population of California tiger salamander is federally listed as threatened under ESA. Distinct population segments in Santa Barbara and Sonoma Counties are federally listed as endangered. Critical habitat was designated on August 23, 2005, but the project area does not fall within any designated critical habitat (USFWS 2005). The California tiger salamander is also a California candidate species for listing under CESA. The species is

endemic to the San Joaquin–Sacramento River Valleys, bordering foothills, and coastal valleys of central California. The species' range is from Sonoma County and the Colusa-Yolo County line south to Santa Barbara County in the Coast Ranges and from southern Sacramento County south to Tulare County in the Central Valley (Jennings and Hayes 1994).

The California tiger salamander is a lowland species restricted to annual grasslands and foothill oak savanna regions where its breeding habitat occurs. Breeding habitat consists of temporary ponds or pools, some permanent waters, and rarely slower portions of streams. Permanent aquatic sites are unlikely to be used for breeding unless they lack predators. California tiger salamanders also require dry-season refuge sites in the vicinity of breeding sites. California ground squirrel burrows are important dry-season refuge sites for adults and juveniles (Jennings and Hayes 1994). Other types of small mammal burrows, logs, and shrink-swell cracks also are utilized for dry-season refuge.

Adult California tiger salamanders move from subterranean burrow sites to breeding pools during November–February after warm winter and spring rains. Eggs are laid in January–February, at the height of the rainy season. Nine to 12 weeks are needed to complete development through metamorphosis. During winter, California tiger salamanders take refuge in damp places near the surface of the ground during the day and emerge at night to forage. During dry weather, these salamanders take refuge in ground squirrel burrows, crevices in the soil, or in other burrows. California tiger salamanders are known to travel large distances from breeding ponds into upland habitats. One study found that 20–25% of individuals captured at one pond were recaptured at ponds approximately 1,900 and 2,200 feet away (Trenham et al. 2001). In addition to traveling long distances during migration to or from ponds, tiger salamanders may reside in burrows that are a far distance from ponds. Dry-season refuge sites within approximately 1 mile of suitable breeding habitat are likely a necessary requirement since this species is absent from sites with seemingly suitable breeding habitat where surrounding upland habitats are lacking in small mammal burrows (Jennings and Hayes 1994).

CNDDB (2008) indicated 17 California tiger salamander occurrences within 3 miles of the project area (Figure 4.4-1B). Based on field observations, analysis of aerial maps, and analysis of topographic maps, 56 ponds occurring within 1.2 miles of the alignment could provide suitable breeding habitat for California tiger salamanders (Exhibit 1). Upland grassland habitats within 1.2 miles of these ponds could be utilized by California tiger salamanders for aestivating habitat. Exhibit 1 indentifies the portions of the project area that provide suitable upland habitat for California tiger salamanders.

Western Spadefoot

The western spadefoot is a California species of special concern. The western spadefoot is distributed among the Sierra Nevada foothills, Central Valley, Coast Ranges, and coastal counties in southern California (Jennings and Hayes 1994).

The western spadefoot can be found in dry grassland habitat close to seasonal wetlands such as vernal pool complexes, typically near extensive areas of friable (but usually not sandy) soil. They require seasonal wetlands for reproduction and metamorphosis. Adult western spadefoots spend most of the year in self-excavated underground retreats and possibly in mammal burrows (Stebbins 2003). They emerge from underground retreats during heavy rains in autumn and winter, and spawn in seasonal wetlands (e.g., vernal pools) in late winter or early spring (Jennings and Hayes 1994).

The closest CNDDB (2008) record for western spadefoot is located approximately 4.0 miles southeast from the eastern terminus of the Hollister Pole Segment (Figure 4.4-1A). Seasonal wetlands that occur in the study area provide suitable breeding habitat for western spadefoots. Annual grasslands in the study area could be used by western spadefoots as aestivating habitat.

Western Pond Turtle

The western pond turtle is a California species of special concern. The western pond turtle is the only turtle native to California (CDFG 2006). It was found historically in most Pacific slope drainages between the Oregon and Mexican borders. It is still found in suitable habitats west of the Sierra-Cascade crest (Jennings and Hayes 1994).

Western pond turtles require some slow-water aquatic habitat and are uncommon in high-gradient streams (Jennings and Hayes 1994). The banks of inhabited waters usually have thick vegetation; but basking sites such as logs, rocks, or open banks must also be present (CDFG 2008). Depending on the latitude, elevation, and habitat type, the western pond turtle may become inactive over winter or remain active year-round. Nest sites typically are found on slopes that are unshaded, with a high clay or silt composition (Jennings and Hayes 1994). Eggs are laid from March to August, depending on local conditions; and incubation lasts from 73 to 80 days. Western pond turtles are omnivorous and feed on aquatic plant material, aquatic invertebrates, fishes, frogs, and even carrion (CDFG 2008).

CNDDB (2008) indicated that western pond turtle occurrences are located within the San Benito River approximately 5.0 miles west of where the Hollister Pole Segment crosses the San Benito River and in drainages east of the Hollister Tower Segment (Figure 4.4-1A). The San Benito River, drainages, and larger ponds in the vicinity of the project area provide suitable aquatic habitat for western pond turtles; and associated uplands provide suitable nesting habitat.

California Horned Lizard

The California horned lizard (*Phrynosoma coronatum frontale*) is a California species of special concern. This species occurs throughout the Central Valley and Coast Ranges from Shasta County south to Los Angeles, Ventura, and Santa Barbara Counties (Stebbins 2003). California horned lizards occur in a variety of habitats, including clearings in riparian woodlands, chamise chaparral, and grasslands with loose, friable soils. During periods of inactivity, California

horned lizards utilize small mammal burrows or burrow into loose soils under surface objects (Jennings and Hayes 1994). No California horned lizards have been reported within 5.0 miles of the project area (CNDDB 2008), and none were observed during the field surveys. Grassland habitats in the project area provide potential habitat for California horned lizards.

San Joaquin Whipsnake

The San Joaquin whipsnake (*Masticophis flagellum ruddocki*) is a California species of special concern. San Joaquin whipsnakes occur along the Coast Ranges from Alameda and San Joaquin Counties south to Kern County. They are found in open, dry habitats with little or no tree cover. They require mammal burrows or rocky outcrops for refuge and may use them as oviposition sites (Jennings and Hayes 1994). One San Joaquin whipsnake has been reported in the project vicinity along the San Benito River (CNDDB 2008) (Figure 4.4-1A) although none were observed during the field surveys. Grassland habitats in the project area provide suitable habitat for the San Joaquin whipsnake.

Bank Swallow

The bank swallow (*Riparia riparia*) is state listed as threatened under CESA, and its nests are protected under the MBTA. The bank swallow historically occurred along the rivers of central and southern California. In southern California, this species occurs principally along the coast. The species has been extirpated from southern California, and its range has been reduced by 50% since 1900. Bank swallows occur in the greatest numbers along the banks of the Sacramento River (CDFG 2005).

The bank swallow is a migrant that winters in South America and arrives in California in early April, with numbers peaking in May. By mid-September, the bank swallow is mostly absent from California. During migration, this species may mingle with other swallow species. The bank swallow requires bluffs or banks with soft sand, sandy loam, or clay soils—often overlooking water. The species breeds from early May through July, peaking in mid-May to mid-June (CDFG 2008).

No bank swallows were observed in the vicinity of the project area during the August 2006 field survey. CNDDB (2008) indicated an old observation of cliff swallows nesting along the banks of the Pajaro River near its confluence with the San Benito River (Figure 4.4-1A). The cliffs along the banks of the San Benito River near where the Hollister Pole Segment crosses the San Benito River provide potential nesting habitat for bank swallows.

Golden Eagle

Golden eagles are a fully protected species under California Fish and Game Code Section 3511, are a California species of special concern, and are protected by both the MBTA and Bald Eagle and Golden Eagle Protection Act. Golden eagles typically inhabit open grassland areas in foothills surrounding the Central Valley. Golden eagle nests are commonly built on cliff ledges, as well as in large trees in

open areas. They typically forage in open grasslands, where they prey on California ground squirrels and black-tailed jackrabbits (Kochert et al. 2002).

No golden eagles were reported by the CNDDB (2008). A potential golden eagle nest was observed in a eucalyptus tree approximately 500 feet west of Tower 1/11 during the August 2006 surveys. Large trees and towers occurring in or near the project area provide suitable nesting habitat for this species, and grasslands and agricultural areas provide suitable foraging habitat.

Least Bell's Vireo

The least Bell's vireo is listed as endangered under the federal ESA is listed as endangered under CESA, and its nests are protected under the MBTA. Critical habitat was designated on February 2, 1994 (USFWS 1994), but the project area does not fall within critical habitat. The least Bell's vireo is a summer resident that utilizes riparian woodlands for nesting and foraging. Preferred habitat is dense riparian woodlands that are dominated by willows and with a well-developed understory. Most nest sites are located near the edge of riparian thickets (CDFG 2005).

Least Bell's vireos are a migrant species that winters in Mexico. Migrants generally arrive from Mexico by the end of March. Nest building and mating occur in April and early May. Peak egg laying occurs in late May and early June. Incubation lasts approximately 14 days, and the young fledge about 11–12 days after hatching. Least Bell's vireos begin to migrate south generally by the end of August (CDFG 2008).

No least Bell's vireos were seen or heard in the vicinity of the project area during the August 2006 general field surveys. There is a CNDDB (2008) record of a least Bell's vireo approximately 6.0 miles north of project area, along Llagas Creek near Gilroy. Least Bell's vireos were observed in this location in June 1997, May 2001, and July 2001. Nesting could not be confirmed. In 2005 and 2006, the first pair of least Bell's vireos nesting was recorded in the San Joaquin Valley, at the San Joaquin National Wildlife Refuge in Stanislaus County (USFWS 2006b). Recent incidental sightings of least Bell's vireos have also been observed in the Salinas Valley, although territorial and reproductive success of these birds has not been established (USFWS 2006b).

The riparian woodlands in the channel of the San Benito River where the Hollister Pole Segment crosses, and along the creek paralleled by the Hollister Tower Segment from Towers 1/11 to 2/16, provide potential nesting habitat for least Bell's vireo.

Loggerhead Shrike

The loggerhead shrike (*Lanius ludovicianus*) is a California species of special concern, and its nests are protected under the MBTA. It is a common year-round resident throughout the lowlands and foothills of California. Loggerhead shrikes prefer open habitats with shrubs, fences, utility poles and lines, or other perches. They tend to avoid urbanized areas but often frequent open croplands and

rangelands. Nests are usually hidden in densely foliaged shrubs or trees. The breeding season is from March through August (Yosef 1996).

Loggerhead shrikes were observed throughout the project area during the August 2006 and the July 2009 field surveys. Shrubs and trees in the study area provide suitable nesting habitat for the species.

Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) is a California species of special concern, and its nests are protected under the MBTA. Tricolored blackbirds are largely endemic to California, with more than 99% of the global population occurring in the state. In any given year, most of the largest colonies can be found in the Central Valley. Tricolored blackbird colonies require open, accessible water; a suitable nesting substrate; and open-range foraging habitat of natural grassland, woodland, or agricultural cropland (Beedy and Hamilton III 1999).

Tricolored blackbirds often nest in dense cattails or tules and in willow thickets, blackberry, California wild rose, and tall herbs. Nests usually are located a few feet above the water. Generally, nesting habitat is large enough to support a minimum of about 50 breeding pairs (CDFG 2008).

CNDDB (2008) indicated tricolored blackbird occurrences in a large tule thicket just south of the southern terminus of the Hollister Tower Segment (Tower 37/232 [Figures 3-3 and 4.4-1A]). Additionally, the emergent wetlands located in the San Benito River channel where the Hollister Pole Segment crosses provide potential nesting habitat for tricolored blackbirds (Figure 3-12). No tricolored blackbirds were observed during the general wildlife field surveys in 2006 and 2007.

Western Burrowing Owl

The western burrowing owl is designated as a California species of special concern, and its nests are protected under the MBTA. Western burrowing owls were formerly a common permanent resident throughout much of California, but population declines were noticeable by the 1940s and have continued to the present. Farming has taken a major toll on western burrowing owl populations and their habitat by destroying nesting burrows and exposing breeding pairs and their young to the toxic effects of pesticides (CDFG 2008).

Western burrowing owls prefer open, dry, short grassland habitats with few trees and are often associated with burrowing mammals such as California ground squirrels. They occupy burrows, typically abandoned by ground squirrels or other burrowing mammals, but also use artificial burrows such as abandoned pipes, culverts, and debris piles. Prey includes arthropods, amphibians, small reptiles, small mammals, and birds—particularly horned larks (CDFG 2008).

The breeding season usually extends from late February through August. Western burrowing owls often nest in roadside embankments, on levees, and

along irrigation canals. This species is more diurnal than most owls and often can be observed during the day standing outside the entrance to its burrow (CDFG 2008).

No burrowing owls or burrowing owl sign were observed during the August 2006 general wildlife surveys and the focused surveys conducted in July 2009. Protocol surveys based on CDFG guidelines will be conducted during late winter/early spring 2010. CNDDB (2008) indicates burrowing owl observations in the Flint Hills approximately 2.0 miles west of where the Hollister Pole Segment crosses the San Benito River (Figure 4.4-1A).

The grassland habitats of the Flint Hills north of the San Benito River from Poles 15/00 to 15/10 and 16/04 to 20/02, and the grasslands north of SR 156 from Towers 5/34 to 6/40A and Poles 13/2 to 13/8 provide suitable habitat for burrowing owls (Exhibit 1).

White-Tailed Kite

The white-tailed kite (*Elanus leucurus*) is a fully protected species under California Fish and Game Code Section 3511, and its nests are protected under the MBTA. The species has a restricted distribution in the United States, occurring only in California and western Oregon and along the Texas coast. The species is common in California's Central Valley lowlands. White-tailed kites nest in riparian and oak woodlands and forage in nearby grasslands, pastures, agricultural fields, and wetlands. Voles and mice are common prey species (Dunk 1995).

No white-tailed kite nest sites have been documented in or near the project area (CNDDB 2008); however, large trees and towers occurring in and near the project area provide suitable nesting habitat for this species, and grasslands and agricultural areas provide suitable foraging habitat. White-tailed kites were observed foraging over the project area near Towers 20/18 and 21/00 during August 2006 general field surveys.

American Badger

The American badger (*Taxidea taxus*) is a California species of special concern. The species is found throughout the state except in the north coast region. Badgers are most abundant in drier areas with friable soils and sparse vegetation. Other fossorial (burrowing) animals often use burrows made by badgers. Badgers are carnivorous and prey upon fossorial rodents, especially ground squirrels and pocket gophers, as well as reptiles, insects, earthworms, eggs, and carrion (CDFG 2008).

The CNDDB (2008) indicates an American badger occurrence within 1 mile of the Hollister Tower Segment (Figure 4.4-1A). The grassland habitats of the project area provide potential habitat for American badgers.

San Joaquin Kit Fox

The San Joaquin kit fox is listed as endangered under ESA and is listed as threatened under CESA. No critical habitat has been designated for this species. The historical range of San Joaquin kit fox included most of the San Joaquin Valley as well as low-elevation basins and ranges along the eastern side of the central Coast Ranges. By 1930, this range had been reduced by more than half, with the largest populations occurring in the southern and western portions of the San Joaquin Valley. Today, the San Joaquin kit fox occurs in the remaining native valley and foothill grasslands and chenopod scrub communities of the valley floor and surrounding foothills from southern Kern County north to Los Baños, Merced County. Smaller, less dense populations may be found farther north and in the narrow corridor between Interstate 5 and the Interior Coast Ranges from Los Baños to Contra Costa County. The San Joaquin kit fox's range also includes portions of Monterey, Santa Clara, and San Benito Counties and the upper Cuyama River watershed in northern Ventura and Santa Barbara and southeastern San Luis Obispo Counties (USFWS 1998).

The San Joaquin kit fox inhabits a variety of habitats, including grasslands; scrublands; vernal pool areas; alkali meadows and playas; and agricultural irrigated pastures, orchards, vineyards. They prefer habitats with loose-textured soils and are primarily found in arid grasslands and open scrublands that are suitable for digging, but they occur on virtually every soil type (USFWS 1998).

Dens generally are located in open areas with grass or grass and scattered brush, and seldom occur in areas with thick brush. Preferred sites are relatively flat, well-drained terrain. They are seldom found in areas with shallow soils resulting from high water tables or impenetrable bedrock or hardpan layers. However, kit fox may occupy soils with high clay content where they can modify burrows dug by other animals, such as ground squirrels (USFWS 1998).

The CNDDB (2008) indicated a kit fox occurrence within 1 mile of the alignment (Figure 4.4-1A). No evidence of San Joaquin kit fox presence was observed during the August 2006 and July 2009 surveys, although numerous burrows of suitable size were observed in the eastern section of the Flint Hills. The grassland habitats of the Flint Hills north of the San Benito River from Poles 15/00 to 15/10 and 16/04 to 20/02, and the grasslands north of SR 156 from Towers 5/34 to 6/40A and Poles 13/2 to 13/8 provide suitable habitat for San Joaquin kit foxes (Exhibit 1).

Bats

Pallid bats (*Antrozous pallidus*), a California species of special concern, and other bat species including Yuma myotis (*Myotis yumanensis*) and Brazilian freetail bat (*Tararida brasillensis*) occur throughout lower elevation areas of California. Bridges and buildings often are used for day roosts and can be used by females for maternity roosts. Pallid bats have been documented within 5.0 miles of the project area (CNDDB 2008). Buildings, bridges, other structures, or natural features (rock formations, tree cavities) within the project area can provide potential day and/or maternity roosting habitat for bats.

Special-Status Fish Species

South-Central California Coast Steelhead

The south-central California coast steelhead (*Oncorhynchus mykiss*) distinct population segment (DPS) is listed as threatened under ESA (62 FR 43937 August 18, 1997) and has no state status. The south-central California coast steelhead DPS includes populations from the Pajaro River south to, but not including, the Santa Maria River. Critical habitat has been designated throughout the San Benito River (70 FR 52575 September 2, 2005).

South-central California coast steelhead generally enter fresh water between December and April, with most migration occurring from January through March (The Habitat Restoration Group 1997). Migration timing is determined by winter storms that provide sufficient flows to permit upstream migration. The preferred migration temperatures for steelhead range between 7.8 and 11.1ºC (46 and 52ºF) (NMFS 2000). Spawning generally begins when trout reach spawning areas.

During spawning, the female excavates a redd (gravel nest), into which the eggs are deposited and then fertilized by the male. Steelhead prefer substrate no larger than 10 centimeters (4 inches) (Bjornn and Reiser 1991). Steelhead spawn in cool, well-oxygenated water. Optimal water temperatures for spawning and incubation range between 3.9 and 11 ºC (39 and 52 ºF) (Myrick and Cech 2001). Incubation lasts from 1.5 to 4 months, depending on water temperature (Moyle 2002).

Instream and overhead cover, in the form of undercut banks, downed trees, and overhanging tree branches, are important for juvenile rearing. The addition of cover increases spatial complexity and may increase productivity. Fine-textured instream woody material provides the hydraulic diversity necessary for selection of suitable velocities, access to drifting food, and escape refugia from predatory fish (Raleigh et al. 1984).

Juvenile steelhead feed on a variety of aquatic and terrestrial insects and other small invertebrates. They may rear for 1 to 2 years in their natal streams. Steelhead smolts (1 to 2 year olds) emigrate from March to May. Ocean rearing lasts for 2 to 3 years.

The San Benito River serves as a migration pathway for adult steelhead migrating to spawning and nursery habitat in the upper watershed reaches of the Pajaro River; smaller tributaries are used by steelhead smolts (1- to 2-year-old juveniles) migrating from that habitat to the ocean. Population estimates for steelhead in this DPS vary widely. McEwan and Jackson (1996) estimated annual runs of 1,000 to 2,000 returning adult steelhead in the Pajaro River in the 1960s. Steelhead runs were estimated to be as low as 500 fish in 1990 for the five rivers combined in this DPS (Pajaro River, Salinas River, Carmel River, Little Sur River, and Big Sur River) (61 FR 41553). No specific survey information for the San Benito River was found, although steelhead are said to occur in the watershed (Sustainable Conservation 2008). CalFish (2008) indicates that steelhead occur in the San Benito River in the project area.

Non-Special-Status Wildlife Species

Non-Special-Status Migratory Birds and Raptors

Migratory birds and raptors, such as red-tailed hawk, red-shouldered hawk, and great horned owl, have the potential to nest in the project area and vicinity. The breeding season for migratory birds and raptors generally extends from early February through early August, although specific nesting timeframes vary by species. Forested nesting habitat may include riparian and woodland areas, although non-native trees and electrical towers also are used. Riparian areas often support a diverse assemblage of nesting species. Some raptors, such as northern harriers and western burrowing owls, nest on or under the ground in grassland settings. The main prey species for raptors include California ground squirrels, black-tailed jackrabbits, voles, pocket mice, and harvest mice (CDFG 2008). Non-active nests were observed throughout the project area during the August 2006 surveys.

Two species of swallows, cliff swallows and barn swallows, were observed in the project area during the August 2006 and July 2009 survey. These swallow species build mud nests on the undersides of artificial structures such as bridges and roof overhangs on barns and other buildings. Cliff swallows and barn swallows are colonial nesters and often nest in colonies of hundreds of birds. Both of these species are migratory and winter in South America. They return to California in March and April to breed. Nesting occurs from April to August, and southward migration occurs in September and October (CDFG 2008). Bridges and barns and other man-made structures occurring in the project area provide suitable nesting habitat.

Environmental Effects

This section addresses potential impacts on biological resources resulting from the proposed project. It describes the thresholds used to conclude whether an impact would be significant. Measures to mitigate potentially significant impacts accompany each impact discussion.

Significance Criteria

The following criteria are based on professional practice and Appendix G of the State CEQA Guidelines (14 CCR 15000 et seq.). For this analysis, an impact pertaining to biological resources was considered potentially significant if it would result in any of the following environmental effects:

- Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations—or by CDFG or USFWS;

- Have a substantial adverse effect on federally protected wetlands, as defined by CWA Section 404 (including marsh, vernal pool, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat conservation plan (HCP); natural communities conservation plan (NCCP); or other approved local, regional, or state HCP.

Impacts and Mitigation Measures

Applicant-Proposed Measures

As part of PG&E's standard construction practices, the following general APMs will be incorporated into the project design and will be implemented to avoid or minimize impacts to biological resources:

APM BIO-1: CONDUCT AN ENVIRONMENTAL TRAINING AND MONITORING PROGRAM FOR CONSTRUCTION CREWS BEFORE BEGINNING CONSTRUCTION.

An Environmental Training and Monitoring Program for construction crews will be conducted before beginning construction and will be ongoing during construction activities for new crew members. The education program will include information about the federal and state Endangered Species Acts, the consequences for noncompliance with environmental laws, identification of special-status plant and wildlife species and wetland habitats, and review of mitigation measures. (Also see APM HYDRO-2 [Develop and implement a Spill Prevention Control and Countermeasure Plan], which requires communicating environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and applicable BMPs, to all construction and operations personnel in an Environmental Training and Monitoring Program.)

APM BIO-2: RESTRICT VEHICLES TO ESTABLISHED ROADWAYS AND APPROVED ACCESS ROUTES AND STAGING AREAS.

APM BIO-3: RETAIN AN ENVIRONMENTAL MONITOR ONSITE DURING CONSTRUCTION ACTIVITIES NEAR SENSITIVE HABITAT.

An environmental monitor will be onsite during any construction activity near sensitive habitat to ensure implementation of, and compliance with, APMs. The monitor will have authority to stop construction activities and develop alternative

work practices, in consultation with construction personnel and resources agencies, if construction activities are likely to impact special-status species or other sensitive biological resources.

APM BIO-4: SET BACK STAGING AREAS FROM WATERBODIES TO AVOID IMPACTS ON RIPARIAN HABITAT.

Staging areas will be set back at least 50 feet from streams, creeks, or other water bodies to avoid impacts on riparian habitat.

APM BIO-5: CONTACT THE ENVIRONMENTAL MONITOR IF SPECIAL-STATUS SPECIES ARE LOCATED.

If construction personnel observe special-status species within the work area prior to, or during construction activities, construction personnel will contact the environmental monitor. The monitor will notify PG&E contacts via an established communication protocol that will be developed prior to the start of construction. The USFWS biological opinion will state agency notification protocols should a federally-listed species be observed within the work area.

APM BIO-6: COMPLETE PHOTODOCUMENTATION OF SENSITIVE HABITAT CONDITIONS BEFORE BEGINNING AND IMMEDIATELY AFTER COMPLETING CONSTRUCTION ACTIVITIES.

Photodocumentation of preconstruction habitat conditions will occur at all construction locations within sensitive habitats prior to the start of construction and immediately after completing construction activities.

APM BIO-7: PROHIBIT TRASH, FIREARMS, AND PETS IN THE PROJECT AREA DURING CONSTRUCTION.

Additional APMs (identified below) to avoid and minimize specific potential impacts to biological resources will be implemented as necessary to reduce potentially significant impacts. In some cases, conducting preconstruction surveys to determine the presence or absence of special-status plant and wildlife species within the project area and subsequent avoidance of identified resources will avoid significant impacts. Due to the extent of the project, however, specific project components—such as grading new access roads and digging new tower footings—will affect areas where the presence of special-status species is presumed based on occurrence of suitable habitat, CNDDB occurrences in relation to the project area, or results of prior biological resource assessment surveys.

Construction Impacts

Impacts on upland and riparian vegetation types – less-than-significant impact

The proposed project will impact upland vegetation during the establishment of staging areas, pull sites, and access roads, including annual grassland and coastal scrub which are considered sensitive. Additionally, creation or maintenance of stream crossings may impact a small amount of riparian vegetation, also considered a sensitive habitat. Impacts may be permanent (as in the construction of new access roads) or temporary (as in the location of pull sites and staging areas).

Implementation of APM BIO-8 described below will reduce potential impacts on sensitive upland and riparian vegetation types to a less-than-significant level.

APM BIO-8: RESTORE UPLAND AND RIPARIAN HABITAT TYPES TEMPORARILY DISTURBED DURING CONSTRUCTION.

Following construction, PG&E will restore upland and riparian habitat types temporarily disturbed during construction. As part of a Habitat Mitigation Plan (HMP) developed for the project, a list of specific actions necessary to restore habitats disturbed onsite will be prepared by a qualified biologist prior to construction. While some habitats in the project area may require minimal restoration actions, such as restoration of the topography and topsoil following construction, the HMP will detail the specific measures necessary for each habitat and area disturbed to ensure that the functions and values of the disturbed habitat are restored.

Potential Impacts on Oak Woodlands from Sudden Oak Death – less-than-significant impact

Sudden oak death is known to occur approximately 5 miles east of the project area. Although the disease is not currently known to occur in the project area, the spread of the disease into the project area would result in a significant impact because it is known to substantially alter habitats for common and special-status species. The preventative measures outlined below in APM BIO-9 will reduce this impact to a less-than-significant level.

APM BIO-9: IMPLEMENT SUDDEN OAK DEATH PREVENTATIVE MEASURES WHEN TRIMMING OR REMOVING OAK TREES.

PG&E will implement BMPs to control the potential introduction or spread of sudden oak death when trimming or removing trees as part of the project. At a minimum, the BMPs will include the following measures:

- All debris from host species (wood, branches, and chips) shall be left onsite following trimming.

- All tools used to perform the work shall be disinfected before leaving infested areas.

Potential impacts on protected trees – less-than-significant impact

The proposed project will require removal and trimming of several trees during construction of new access roads and maintenance of existing access roads. Some tree trimming or removal also may be required at some staging areas and pull sites. Monterey County requires a permit for the removal of oak trees that are at least 6 inches in diameter at breast height and requires a 1:1 replacement. Monterey County also requires a permit for removal of landmark oak trees that are 24 inches or more in diameter, or oak trees that are visually or historically significant or exemplary. The exact number of trees that may be removed has not been determined; however, PG&E will minimize the removal of trees to the extent feasible. Implementation of APM BIO-10 described below will reduce potential impacts on trees protected by county ordinances to a less-than-significant level.

APM BIO-10: AVOID IMPACTS TO PROTECTED TREES, TRACK PROTECTED TREES REMOVED DURING CONSTRUCTION, AND MITIGATE FOR IMPACTS TO PROTECTED TREES.

PG&E will avoid impacts to protected trees to the extent feasible. If avoidance is not feasible, PG&E will track the trees removed, including their species and size, and will replace protected trees as stipulated in applicable local regulations. To avoid removal of active nests, tree trimming, vegetation removal, and removal of towers should be conducted during the non-breeding season (August 16–March 1).

Potential impacts on waters of the United States, including wetlands – less-than-significant impact

Potential waters of the United States, including wetlands, are located in the project area and will be impacted as part of the proposed project. Where feasible, PG&E has committed to establishing 50-foot setbacks from staging areas for streams, creeks, and other water bodies to avoid impacts to these resources (see Environmental Commitment 4). This commitment will avoid and minimize impacts to most waters of the United States in the project area. Although the overall amount of impact is small, several project components and activities will require some disturbance of waters of the United States. Table 4.4-4 summarizes the impacts to waters of the United States that would occur under the proposed project.

Table 4.4-4. Potential Impacts on Waters of the United States

Feature Type	Type of Impact [a]	Temporary Impact[b] (acres)	Permanent Impact[b] (acres)
Riverine wetland	Temporary disturbance may be necessary to access Tower 1/11 and Tower 2/13. No permanent impact or culvert installation.	0.030	0.000
Emergent wetland	Temporary disturbance may be necessary to remove Tower 2/13. Footings will be left in place. No permanent impacts.	0.001	0.000
Seasonal wetland	Temporary and permanent impacts from installation of light-duty steel poles.	0.123	0.001
Intermittent drainage	Culvert installation between Towers 2/15 and 2/16.	0.002	0.000
Ephemeral drainage[c]	Culvert replacement and installations at various locations. Temporary impacts only.	0.026	0.000
Total		**0.182**	**0.001**

[a] Impact acreages provided for project components may be avoided partially or in full by implementation of applicant-proposed measures.

[b] A Preliminary Jurisdictional Determination was issued by the U.S. Army Corps of Engineers, San Francisco District in June 2009.

[c] An ephemeral drainage has flowing water only during (and for a short duration following) precipitation events in a typical year. Ephemeral drainages are located above the water table year-round. Groundwater is not a source of water for the drainage. Runoff from rainfall is the primary source of water for drainage flow. (Federal Register, Vol. 67, No. 10/Tuesday, January 15, 2002.)

Wetlands are considered important natural communities by CDFG and the USFWS, and both agencies have adopted no-net-loss policies regarding impacts to wetlands. Because of the no-net-loss standard, impacts from the proposed project—although relatively minor—would be considered significant under CEQA. Implementation of APM BIO-11 and APM BIO-12 described below will reduce this impact to a less-than-significant level.

APM BIO-11: IMPLEMENT GENERAL PROTECTION MEASURES FOR WATERS OF THE UNITED STATES.

During construction, PG&E will implement the following measures to minimize or avoid impacts on waters of the United States:

- Establish exclusion zones and minimize the amount of area disturbed to the minimum amount necessary to complete the work. Align work areas to avoid wetland areas and margins as much as feasible.

- Delineate wetland areas, and restrict construction personnel and equipment from entering fenced protected areas.
- Conduct all fueling of vehicles, equipment, and helicopters at least 100 feet from wetlands and other waterbodies.
- To the extent feasible, complete road construction adjacent or within waters of the United States during the dry season. If it is not feasible to complete road construction work during the dry season, PG&E will use appropriate erosion control measures for the site that will be identified in the SWPPP (see APM HYDRO-1 in Section 4.8).

APM BIO-12: DEVELOP A WETLANDS MITIGATION PLAN.

PG&E will develop a wetlands mitigation plan to offset effects to waters of the United States, including wetlands. The plan will be developed in consultation with the Corps and will include, at a minimum, plans for restoration of any temporarily disturbed wetlands and other waters of the United States and methods to achieve mitigation for permanent impacts at a minimum ratio of 1:1. Mitigation may include onsite restoration and improvement of existing wetlands or other offsite compensation.

Potential temporary and permanent impacts on special-status plants – less-than-significant impact

Surveys for special-status plants have been conducted at most proposed tower locations and pull sites; however, they have not been completed for all staging areas, helicopter landing areas, and new access roads located south of proposed Tower 1/10 due to landowner access issues related to ranching activities. At least one special-status plant, Pajaro manzanita, is known to occur in the project area on the southern end of the Hollister Tower Segment (Figure 4.4-2).

Impacts on other potentially occurring special-status plants may result from vegetation clearing, grading, or access road construction; impacts may be temporary or permanent, depending on the type of activity proposed. Because the extent of the impact is unknown at this time, the impact must be assumed potentially significant. Implementation of APM BIO-13, APM BIO-14, APM BIO-15, and APM BIO-16 described below will reduce this impact to a less-than-significant level.

APM BIO-13: COMPLETE SPRING SURVEYS FOR SPECIAL-STATUS PLANTS IN ALL UNSURVEYED DISTURBANCE AREAS.

Prior to construction, a qualified botanist will complete spring surveys for special-status plants at all unsurveyed staging areas, helicopter landing areas, and new access roads to determine the presence or absence of special-status plants. The surveys should be completed by qualified botanists and should be conducted during the appropriate period(s) necessary to observe special-status plants known to occur in the region.

APM BIO-14: AVOID IMPACTS ON SPECIAL-STATUS PLANTS.

PG&E will, under the direction of a qualified botanist and to the extent possible, adjust the location of staging areas, pull sites, helicopter landing areas, access roads, and other project components to completely avoid impacts on Pajaro manzanita and other special-status plants that are discovered prior to or during construction. If this avoidance measure is not feasible, PG&E will implement APM BIO-15 (Minimize impacts on special-status plants) and APM BIO-16 (Restore habitat for special status plants disturbed during construction).

APM BIO-15: MINIMIZE IMPACTS ON SPECIAL-STATUS PLANTS.

Avoidance areas will be clearly staked and flagged in the field by a qualified botanist prior to construction. If Pajaro manzanita and other special-status plants cannot be avoided during construction, PG&E will minimize impacts by reducing the work area to the smallest area necessary to complete the work. Where temporary disturbance is necessary, PG&E will conduct project activities and necessary ground disturbance in a manner that is consistent with the successful reestablishment of the species to the extent feasible. The specific actions necessary will depend on the biology of the species in question; however, the actions will be designed to ensure successful reestablishment of the species following temporary disturbance. As part of an HMP, a list of specific actions will be prepared by a qualified botanist prior to construction that will include onsite restoration actions, or reseeding plans specific to any impacted construction areas (described below in APM BIO-16).

To minimize impacts to Pajaro manzanita, which is already known to occur in the project area, PG&E will implement the following measures:

- Vegetation clearing in occupied Pajaro manzanita habitat should be conducted after Pajaro manzanita has set seed and before flowering begins (typically between May and November).

- If mechanical brushing is conducted in occupied Pajaro manzanita habitat, mastication implements should not come within 6 inches of the ground surface to avoid disturbing the seed bank.

- Where feasible, removal of entire Pajaro manzanita plants from the ground should be avoided.

The Environmental Training and Monitoring Program (see APM BIO-1) will also include information on the location of special-status plants in the project area and the measures that will be implemented to avoid or minimize impacts on the plants.

APM BIO-16: RESTORE HABITAT FOR SPECIAL-STATUS PLANTS DISTURBED DURING CONSTRUCTION.

If impacts on special status plants are unavoidable, PG&E will develop a special-status plant restoration plan as part of the HMP and in consultation with CDFG.

The specific actions necessary will depend on the biology of the species in question and the type of impact (i.e., temporary or permanent); however, the actions will be designed to ensure successful reestablishment of the species following disturbance. The plan will be prepared by a qualified botanist prior to construction and will indicate when and where the actions will be implemented during construction.

Potential introduction or spread of invasive species – less-than-significant impact

Ground-disturbing activities are some of the principal vectors for the introduction or spread of invasive species. Construction of staging areas, access roads, and other ground-disturbing activities may introduce noxious weeds into previously uninfested areas. Noxious weeds are known to result in negative effects on the abundance of native species and are known to result in modifications to habitats, which ultimately may cause an area to become unsuitable for common and special-status species. This impact is considered potentially significant. Implementation of APM BIO-17 described below will reduce this impact to a less-than-significant level.

APM BIO-17: IMPLEMENT MANAGEMENT PRACTICES TO CONTROL THE INTRODUCTION AND SPREAD OF INVASIVE PLANTS.

Prior to construction, PG&E will identify the location of noxious weed species of concern within areas that will be disturbed as part of the project. Appropriate management practices will be designed by a botanist and implemented during construction to reduce the likelihood of spreading already established weeds into new areas or increasing their abundance, and of introducing new weed species to the project area. Actions to prevent noxious weed establishment will be described within the HMP and will be consistent with PG&E's draft Invasive Plant Management Strategy. The project SWPPP will include BMPs such as using construction equipment that has been cleaned of soil and plant parts, including seeds, before entering the project area and using weed-free straw for erosion control. Disturbed areas will be revegetated with appropriate locally based native seed mixes. Implementing the management practices described above will reduce potentially significant impacts related to non-native invasive plants to a less-than-significant level.

Temporary and permanent loss of aquatic and upland habitat, potential loss of individual California red-legged frogs and California tiger salamanders, and potential disruption of movement during the breeding season – less-than-significant impact

Fifty six ponds that provide suitable aquatic breeding habitat for California red-legged frogs and California tiger salamanders occur within 1.2 miles of the alignment (Exhibit 1). Several seasonal and perennial drainages, including the San Benito River, that potentially provide suitable red-legged frog breeding habitat also occur within 1.2 miles of the alignment (Exhibit 1). Construction

activities (i.e., staging, grading, and excavation) will result in temporary impacts (i.e. staging areas and pull sites) and permanent impacts (i.e., new access roads, new towers and poles) to suitable upland habitat that occurs within 1.2 miles of suitable breeding habitat. Suitable habitat includes annual grassland, coastal oak woodland, freshwater marsh, seasonal wetland, and riparian woodland. Current project design maps of the construction area indicate that construction activities associated with the proposed project could directly affect an unnamed creek near Towers 2/14 and 2/15 that provides suitable aquatic habitat for California red-legged frogs. Based on the availability of aquatic breeding habitat in the vicinity of the project, annual grasslands and coastal oak woodland are anticipated to provide potential upland habitat (i.e., refuge sites or dispersal) for both California red-legged frogs and California tiger salamanders. Uplands located within 1.2 miles of potential suitable breeding habitat occur throughout most of the project area. If California red-legged frogs or California tiger salamanders are present within upland habitats in the construction area, construction activities could result in direct loss of individuals and/or disruption of movement patterns during the breeding season.

Project-related activities are anticipated to result in temporary and permanent loss of upland habitat spread out over a large distance, which could result in the loss of individual California red-legged frogs and California tiger salamanders from localized populations. Project-related activities also may result in temporary and permanent impacts to aquatic features and could disrupt the seasonal movement of these species during the breeding season. Because these potential impacts could reduce the localized populations of federally threatened California red-legged frogs and California tiger salamanders, they are considered significant. Implementation of APM BIO-18 and APM BIO-19 described below will reduce these potential impacts to a less-than-significant level.

APM BIO-18: IMPLEMENT AVOIDANCE AND MITIGATION MEASURES OUTLINED IN THE USFWS BIOLOGICAL OPINION.

The USFWS will specify avoidance and mitigation measures to minimize impacts to California red-legged frogs and California tiger salamanders in the biological opinion they will draft for the project. PG&E will follow and implement the measures that are outlined in the biological opinion.

APM BIO-19: COMPENSATE FOR PERMANENT IMPACTS ON CALIFORNIA RED-LEGGED FROG AND CALIFORNIA TIGER SALAMANDER UPLAND HABITAT.

It was determined that the project would result in permanent impacts to suitable upland habitat for California red-legged frogs and California tiger salamanders. To compensate for anticipated permanent impacts to suitable upland habitat for California red-legged frogs and California tiger salamanders, PG&E may preserve additional upland habitat within a USFWS-approved conservation area; specific actions will be determined in coordination with USFWS. The ratio of compensation, specific mitigation acreages, and location of the conservation area will be determined through formal consultation with USFWS.

Direct and indirect impacts on western pond turtle – less-than-significant impact

Suitable aquatic habitat for western pond turtles occurs in the San Benito River and in a large pond located in the vicinity of Tower 6/40A. Impacts to these areas are considered significant because they could reduce the numbers of western pond turtle in the general area. However, the project is not anticipated to directly or indirectly impact western pond turtles because the turtles are not anticipated to occur or nest within the project area. The pond in the vicinity of Tower 6/40A is perennial, and pond turtles would forage and bask in close proximity to the pond during the period of construction. Additionally, the pond is greater than 500 feet from the project area and western pond turtles are not expected to travel that distance from the pond to nest. The banks of San Benito Creek are very steep, and western pond turtles would not be able to be traverse the banks to the project area. Finally, measures identified in the SWPPP will be implemented to prevent sediments or hazardous materials from entering suitable aquatic habitat. Therefore, the project will result in a less-than-significant impact on western pond turtles.

Potential loss of western spadefoot, California horned lizard, and San Joaquin whipsnake – less-than-significant impact

Construction of the proposed project will result in the temporary and permanent impact to annual grasslands that provide suitable habitat for western spadefoots, California horned lizards, and San Joaquin whipsnakes. Construction activities including grading, excavation, and movement of equipment in grasslands, could crush western spadefoots, California horned lizards, and San Joaquin whipsnakes. This impact is considered significant because it could reduce the numbers of these species in the project area. However, measures identified to minimize impacts to suitable upland habitat for California red-legged frog and California tiger salamander will minimize impacts on suitable habitat for these wildlife species.

Disturbance of nesting special-status and non-special-status raptors and migratory birds – less-than-significant impact

Construction activities such as tree and shrub removal and trimming, modification to or removal of existing towers, excavation and grading, and use of helicopters within or directly adjacent to the project area could result in direct impacts on nesting special-status and non-special-status raptors and migratory birds. These activities have the potential to cause nesting birds to prematurely abandon an active nest, resulting in the death of chicks or failure of eggs. Premature abandonment of an active nest that results in the death of chicks or failure of eggs is considered a significant impact because it could result in a reduction of the local populations of birds. Implementation of APM BIO-20, APM BIO-21, and APM BIO-22 described below will reduce the potential impact to a less-than-significant level.

APM BIO-20: CONDUCT TREE TRIMMING, VEGETATION REMOVAL, AND, IF POSSIBLE, TOWER REMOVAL DURING THE NON-BREEDING SEASON.

To avoid removal of active nests, tree trimming, vegetation removal, and removal of towers should be conducted during the non-breeding season (August 16–March 1). If this is not possible, APM BIO-21 will be implemented.

APM BIO-21: CONDUCT PRECONSTRUCTION SURVEYS FOR NESTING MIGRATORY BIRDS AND RAPTORS, AND DEVELOP AN AVIAN PROTECTION PLAN.

Construction activities are anticipated to occur mainly during the nesting season for migratory birds and raptors (generally early February through early August) (Avian Power Line Interaction Committee and USFWS 2005). PG&E will retain a qualified wildlife biologist to conduct preconstruction surveys for nesting birds, for all construction activities that occur within or near suitable breeding habitat. The surveys will be staggered so that they are conducted no more than 1 week prior to the start of construction activities in any one area. Surveys will include the power line route, staging areas, pull sites, and areas of access road improvements where ground disturbance or vegetation clearing is required, at a frequency and timing appropriate for nest detection. If no active nests are detected, no additional mitigation measures are required.

PG&E will develop a project-specific Avian Protection Plan that will outline protection measures for nesting migratory birds and raptors, in the event that nesting migratory birds or raptors are identified in areas where construction activities will occur during preconstruction surveys.

APM BIO-22: AVOID DISTURBANCE OF ACTIVE NESTS BY HELICOPTER USE.

Use of helicopters will be restricted to necessary trips to install and remove towers and poles, install power lines, and deliver and remove equipment to areas lacking vehicle access. Helicopter flight paths will be designed to minimize impacts to nests, and buffers of active nests may be greater than those stated above to avoid helicopter disturbance of active nests identified in preconstruction surveys of the project sites. If active nests occur under planned helicopter flight paths, especially those near landing areas, coordination with CDFG will be required to determine whether modification of the flight path is necessary to avoid disturbance of active nests.

Loss of potential burrowing owl nesting and foraging habitat during construction – less-than-significant impact

Suitable habitat for burrowing owl is identified in Exhibit 1. Construction activities (i.e., staging, grading, and excavation) associated with the project could result in temporary and permanent impacts on burrowing owl nesting and foraging habitat. If burrowing owls are using burrows within 250 feet of the construction right-of-way, grading and excavation activities could result in removal of an occupied breeding or wintering burrow site and loss of adults,

young, or eggs. This potential impact is considered significant because construction could result in a reduction in the local population of burrowing owls. Implementation of APM BIO-23 and APM BIO-24, if necessary, as described below will reduce the potential impact to a less-than-significant level.

APM BIO-23: CONDUCT PRECONSTRUCTION SURVEYS FOR ACTIVE BURROWING OWL BURROWS.

CDFG (1995) recommends that preconstruction surveys be conducted in suitable habitat in the project study area (Exhibit 1) and in a 250-foot-wide buffer zone around the construction site to locate active burrowing owl burrows. PG&E will retain a qualified biologist to conduct preconstruction surveys for active burrows according to the CDFG guidelines. The surveys will include a nesting season survey and a wintering season survey, which is the season immediately preceding construction. The surveys will cover all affected areas, including the power line route, staging areas, pull sites, and areas of access road improvements where ground disturbance is required. If no burrowing owls are detected, no further mitigation is required. If active burrowing owl burrows are detected, PG&E will implement APM BIO-24 (Implement CDFG guidelines for burrowing owl mitigation, if necessary).

APM BIO-24: IMPLEMENT CDFG (1995) GUIDELINES FOR BURROWING OWL MITIGATION, IF NECESSARY.

Disturbance of occupied burrows will be avoided to the maximum extent feasible. Disturbance is generally defined as activities occurring with 250 feet of active burrowing owl nesting pairs during the breeding season (February 1 through August 31), or within 160 feet of occupied burrows in the non-breeding season (September 1–January 31).

During the non-breeding season, if direct impacts to an occupied burrow are unavoidable, passive relocation techniques may be considered after all other alternatives have been exhausted. Relocation may involve installing one-way doors at occupied burrow entrances and ensuring that alternative suitable burrows are available. Any relocation effort will be implemented in coordination with CDFG and in accordance with standard burrowing owl guidelines. Any burrowing owl exclusion process will be coordinated by a biologist with prior burrowing owl relocation experience.

PG&E will support site-specific mitigation measures for any burrowing owls with potential to be impacted by construction activities. Measures may include onsite burrow enhancement or artificial burrow installation, in coordination with CDFG. In the event that a site-specific burrowing owl relocation is implemented, PG&E will consult with CDFG regarding suitable replacement of foraging and burrow habitat.

Permanent loss of foraging habitat and disturbance of San Joaquin kit fox during installation of the Hollister Pole Segment – less-than-significant impact

Suitable habitat for San Joaquin kit fox is shown in Exhibit 1. Installation of the Hollister Pole Segment from Poles 15/00 to 15/09 in the Flint Hills north of the San Benito River would result in permanent loss of San Joaquin kit fox foraging habitat. Installation of the Hollister Pole Segment from Poles 15/00 to 20/02 in the Flint Hills north of the San Benito River and the grasslands north of SR 156 from Towers 5/34 to 6/40A would result in temporary impacts on the species. Additionally, construction activities could adversely affect San Joaquin kit foxes by:

- Damaging or destroying dens, which could cause direct harm or mortality;
- Causing harm or mortality from construction vehicles or heavy equipment; and
- Causing temporary disturbance and harassment from noise and human presence.

This impact is considered significant because construction activities could result in the loss of an individual San Joaquin kit fox, federally listed as endangered and state-listed as threatened. Implementation of APM BIO-25 described below will reduce this impact to a less-than-significant level.

APM BIO-25: IMPLEMENT AVOIDANCE AND MITIGATION MEASURES OUTLINED IN THE USFWS BIOLOGICAL OPINION.

USFWS will specify avoidance and mitigation measures to minimize impacts on San Joaquin kit foxes in the biological opinion they will draft for the project. PG&E will follow and implement the measures outlined in the biological opinion.

Potential loss of American badger – less-than-significant impact

Construction of the proposed project would result in temporary and permanent impacts on annual grasslands habitats used by American badgers. Construction activities such as grubbing and blading of new roads and tower pads could result in injury to or mortality of badgers. This impact is considered significant because construction could result in a substantial reduction of the badger population in the project area. However, badgers are mobile and would likely avoid the area during construction. Additionally, implementation of APM BIO-25 will minimize impacts to badgers and will reduce this impact to a less-than-significant level.

Potential disturbance of nesting swallows and roosting bats – less-than-significant impact

The potential exists for swallows to nest and bats to roost in the barn and under the existing bridge crossing near Tower 1/11. Potential impacts on nesting swallows and roosting bats include noise and vibrations associated with construction activities. The potential noise disturbance would be temporary, and vibration is not expected to directly affect nesting swallows and roosting bats because construction does not involve modification of the barn or bridge. This impact is considered less than significant, and no mitigation is required.

Temporary and permanent loss of habitat and potential loss of common wildlife species during construction of both segments of the project – less-than-significant impact

Construction activities throughout the project study area could temporarily disturb habitat for many common wildlife species. Construction activities also would remove a small amount of habitat for common wildlife species. Common wildlife species occur anywhere that is unpaved. Despite constructing in existing roads and road rights-of-way, a small amount of habitat inevitably would be temporarily disturbed. The amount of habitat that would be disturbed is small relative to the amount of habitat available to the common species in the project region. In addition, many species would move out of the project sites and into nearby habitat areas; inevitably, some individuals would be lost because of construction activities.

This loss of individual animals would not result in a significant impact on common wildlife species because it would not lead to a substantial reduction or elimination of species diversity or abundance in the project region. The impact is considered less than significant, and no mitigation is required.

Potential impacts on special-status fish species and their habitat in the San Benito River from construction activities – less-than-significant impact

The San Benito River is designated as critical habitat for the federally threatened south-central California coast steelhead. In the current line location and the projected alignment, the river consists of an intermittent dry channel in the low precipitation months and sandy substrate. This area of the river is used as a migratory corridor to upstream areas in the Pajaro River.

A new double-circuit power line that crosses the San Benito River (the Proposed River Crossing) will be constructed approximately 3,000 feet to the north of the existing alignment. The new poles will be steel and will span the San Benito River above the ordinary high water mark. To span the river and keep the new power line out of the floodplain, two newly engineered (approximately 92-foot-high) TSPs will be installed above and beyond each bank of the river channel

(Figures 3-13 and 3-14). The Proposed River Crossing does not involve any work within the river channel.

The existing wooden poles located in the San Benito floodplain will be left in place and will be cut off at the top, allowing the existing distribution line to remain. The top of the poles will be removed by helicopter. All pull sites, helicopter landing areas, and staging areas will be set back at least 50 feet from existing water bodies to avoid disturbing riparian vegetation or other trees located near the banks of the San Benito River and other drainages. Specific BMPs will be implemented to prevent any sediment transport, in accordance with the project-specific SWPPP. No direct impacts to the river channel are anticipated from these activities.

Sedimentation and contaminants released into water bodies can affect fish and other aquatic species. Once in the stream channel, mobilized sediments can directly affect resident fishes through gill damage and reduced capacity to take in oxygen. Indirect impacts can include reduced fitness because of decreased dissolved oxygen intake ability; increased metabolic costs associated with reduced dissolved oxygen intake ability, and reduced foraging ability as the result of decreased visibility. The assumed threshold for impacts is an exceedance of 100 milligrams per liter of total suspended solids above background over a 24-hour period (Lloyd 1987). Although such an event is unlikely, refueling, operation, and storage of construction equipment and materials could result in accidental spills of pollutants such as concrete, sealants, and oil or fuel. Pollutants entering water bodies in the plan area would cause mortality to, and reduced growth of, the egg, larval, and juvenile life stages of fish. Furthermore, these pollutants could adversely affect the movement of special-status species, such as steelhead.

PG&E has committed to the following measures to ensure that indirect impacts on aquatic species are avoided:

- APM BIO-1 requires conducting an Environmental Training and Monitoring Program for all construction crews before construction begins and during construction activities for new crew members. The education program will include information about the federal and state Endangered Species Acts; the consequences for noncompliance with environmental laws; identification of special-status plant, fish, and wildlife species and wetland habitats; and a review of mitigation measures. The program also will communicate environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and applicable BMPs to all construction personnel. A monitoring program will be implemented to ensure compliance with environmental laws and prevention plans during the construction project.
- APM HYDRO-1 (Prepare and implement a Storm Water Pollution Prevention Plan) and APM HYDRO-2 (Develop and implement a Spill Prevention Control and Countermeasure Plan) will limit the potential for contaminant input to the river.

Implementation of the measures listed above will eliminate the likelihood of any substantial contaminant or sedimentation input; therefore, potential impacts on special-status fish species and their habitat in the San Benito River from increased contaminant input are considered less than significant. No additional measures are required.

Operations Impacts

Potential impacts on special-status species, vegetation, and wetlands from maintenance activities – no impact

Vegetation trimming and clearing are required in the vicinity of power lines and power poles during the fire season. Tree trimming may affect some trees in riparian corridors. Tree ordinances in Monterey County provide exemption for tree trimming and removal that is necessary to maintain public utilities (see "Monterey County Tree Ordinance"). These exemptions apply to tree trimming and removal required during operation and maintenance of the proposed project.

Currently, Tower 2/13 is located in a perennial wetland. This tower will be moved out of the wetland as part of the project; however, the concrete footings will be left in place. No disturbance to the wetland is anticipated by removal of the tower. Moving the tower out of the wetland will eliminate potential future impacts on this wetland during operation and maintenance activities.

Impacts on special-status species or wetlands could occur if maintenance vehicles leave established access roads and drive through stream, seasonal, or perennial wetlands. Ongoing operations and maintenance activities along the existing transmission corridor are conducted in accordance with standard PG&E procedures to protect environmental resources. Operation and maintenance activities for the Proposed River Crossing will be consistent with ongoing inspection and maintenance activities for all of PG&E facilities. Because there is no change to the existing environmental baseline, and no new impacts are anticipated, no impact is associated with operations and maintenance activities for the proposed project.

Reduced risk of electrocution to raptors from upgrades to power lines – beneficial impact

Most of the project will be constructed in the existing alignment, except for the approximately 1.3-mile portion of the Proposed River Crossing. This portion will be relocated approximately 3,000 feet to the north with a new span across the San Benito River (Figure 3-1). Neither the Hollister Tower Segment nor the Hollister Pole Segment is located within any major bird migration routes (such as those in the Central Valley and along the California coast). However, the areas in and in the vicinity of the San Benito River corridor may support many raptors and other migratory birds because of the diverse habitat.

The towers for the new Hollister Tower Segment will be of similar size and design to the existing towers and there will be no additional changes. The potential for impacts on raptors and other birds is expected to decrease because current design guidelines require conductor spacing that all but eliminates electrocutions due to wing contact with two phases. No mitigation is required.

The new poles of the Hollister Pole Segment will be approximately 25 feet taller than the existing poles. While there is potential for birds to collide with the new power lines of the Hollister Pole Segment because of their increased height, the risk is relatively low and is not expected to be appreciably greater than that associated with the existing line. The new line for the Hollister Pole Segment will have higher ground clearance and likely greater visibility than the existing line.

In addition, a double-circuit line is proposed to replace the existing single-circuit line of the Hollister Pole Segment, which will increase the number and cross-sectional area of conductors. The extended wings of larger birds could potentially span the distance between energized phase conductors or from energized components to grounded objects such as power line poles and towers. To prevent electrocutions due to wing contact with two phases, the Avian Power Line Interaction Committee (APLIC) recommends that a minimum of 60 inches of separation be maintained between conductor phases (APLIC 2006). The project's design will use Gull cross arms that meet or exceed the APLIC recommendations for conductor phase separation. This should eliminate the possibility of electrocution from this cause. The new double-circuit power line is expected to result in fewer bird electrocutions than the existing single-circuit power line because of the greater spacing between the conductors and steel supports to minimize bird contacts with the line. The reduced risk of electrocution will be a beneficial impact of the project, and no additional impacts are expected due to collision. No mitigation is required.

Potential impacts on nesting birds from maintenance activities – no impact

Maintenance activities such as vegetation trimming and line repair could affect nesting birds if these activities occur during the nesting season. PG&E operating standards specify that, unless an active nest presents an immediate safety or operating hazard, it shall be left undisturbed. For situations where an active nest presents an immediate hazard, before disturbing the nest, PG&E's Avian Protection Program Manager or terrestrial biologists will be contacted to obtain necessary permission from the USFWS Migratory Bird Permit Office. If nest removal or relocation is necessary before USFWS permission can be obtained, appropriate action will be taken to correct the safety or operating hazard, and PG&E's Avian Protection Program Manager will make the appropriate notifications to USFWS. This is an ongoing program implemented as part of operations and maintenance procedures for the existing power line. Because there is no change to the environmental baseline and no new impacts are anticipated, no impact on nesting birds is associated with operations of the proposed project.

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