

6.6 BIOLOGICAL RESOURCES

The Canyon Power Plant (CPP) will consist of a nominal 200-megawatt (MW) simple-cycle plant, using four natural gas-fired General Electric LM 6000PC Sprint combustion turbines and associated infrastructure. The project site is located at 3071 East Miraloma Avenue, in a City of Anaheim (COA)-designated industrial zone.

The CPP and associated construction laydown areas will be located on approximately 10 acres of disturbed land located at 3071 East Miraloma Avenue. Main access to the CPP site will be at the southeast corner of the project site from East Miraloma Avenue. A second gated entrance will be accessible via East Miraloma Avenue with a third gate off the alley to the east of the site. (Total land disturbance will be approximately 10 acres.)

The existing CPP site is predominantly paved (concrete and asphalt). Principal land use for the site was food catering for a fleet of approximately 75 to 100 trucks, formerly operated by Orange County Food Service. Onsite structures include a kitchen/warehouse building, maintenance garage (9 service bays), truck wash facility (5 bays), two ice manufacturing buildings, several storage sheds, and an outdoor truck repair shop which includes storage lockers and petroleum products, all of which will be demolished as a part of the CPP project.

The following activities are not part of the CPP project:

- Three residential houses along East Miraloma Avenue have recently been removed and are not a part of this Application for Certification (AFC). The COA Risk Manager and Fire Department determined that the residential units posed security and fire risks, and therefore they were removed. A letter from the COA Risk Manager to the Public Utilities Department is included in Appendix Q.
- Soil remediation activities associated with Phase I, Phase II, and Supplemental Phase II reports. The COA, now as owner of the property, has determined that it will conduct any soil remediation activities to limit its environmental liability for future uses of the site. These activities will occur regardless of whether the CPP project obtains a CEC license.
- Installation of a temporary, 8-foot-high security fence around the perimeter of the entire 10-acre site.
- General maintenance activities including site cleanup and trash removal.

The project will include the construction and/or installation of the following components:

- **Proposed CPP site.** In addition to the four natural gas-fired GE LM 6000PC Sprint gas turbines, the plant will include generator step-up transformers (GSUs), a 69 kilovolt (kV) switchyard, onsite fuel gas compressors, a gas pressure control and metering station, a packaged chilled water system for combustion turbine engine (CTG) power augmentation

with associated heating ventilation and air conditioning (HVAC)-type four-cell cooling tower, selective catalytic reduction system (SCR) emission control systems, and other associated plant infrastructure.

- **Gas Pipeline.** Natural gas will be provided via a new 3,240-foot-long, 12-inch, 350 pounds per square inch gauge (psig) gas line owned and maintained by SoCal Gas Company (SCGC), which will be connected to new onsite fuel gas compressors that will be part of the CPP facility. From the CPP site, this new pipeline will run approximately 580 feet east in East Miraloma Avenue to Kraemer Boulevard, then north 2,660 feet in Kraemer Boulevard to East Orangethorpe Avenue to connect into SCGC's transmission line L-1218 in East Orangethorpe Avenue. (Total land disturbance will be 0.219 acre.)
- **Process water.** Process water for the project will be recycled water supplied from the Orange County groundwater replenishment system (GWRS) via a new 2,185-foot-long, 14-inch pipeline utilizing a new offsite booster pump station. The water pipeline will run east of the site on the north side of East Miraloma Avenue for 1,850 feet to the new pumping station located north of the curb in the COA-owned easement of East Miraloma Avenue, then north 210 feet in new easement from the Orange County Water District (OCWD), then 125 feet easterly in new easement to the GWRS line on the western side of the Carbon Canyon Diversion Channel. There, it will connect to the 60-inch-diameter GWRS recycled water line at an existing 36-inch stub up. (Total land disturbance for both line and pumping station will be 0.246 acre.)
- **Electrical interconnection.** Underground 69 kV cables will connect from GSUs to the onsite switchyard, which will use gas-insulated switchgear (GIS). There will be four new underground 69 kV circuits leaving the site. Two will proceed underneath and to the south side of East Miraloma Avenue approximately 100 feet to rise up and connect to the existing 69 kV overhead Vermont-Yorba lines via two new transition structures. The second two 69 kV underground circuits will proceed eastward approximately 4,000 feet in East Miraloma Avenue, turn south on Miller, then proceed approximately 3,000 feet to connect to the Dowling-Yorba 69 kV line at East La Palma Avenue. (Total land disturbance for both sets of cables will be 0.489 acre.)
- **Communications.** Fiber optic cable will run in a common trench with the approximately 7,000-foot 69 kV electric cables, where it will tie into existing underground fiber optic cable for the supervisory control and data acquisition (SCADA) system.

The existing biological resources within the CPP site and a one-mile radius around the CPP site are the subject of this section. In addition, the potential impacts to biological resources as a result of the proposed project are assessed. Refer to Figure 6.6-1 for a map of the project site and vicinity.

6.6.1 Affected Environment

The proposed CPP site and vicinity was historically utilized largely as an agricultural and light residential area prior to around the late 1960s and the early 1970s, when a conversion from agriculture to heavy industrial land use gradually. Currently, the project area consists entirely of industrial and associated public infrastructure facilities such as roadways and utilities. There are no areas within, or adjacent to, the project area that support natural vegetative communities; vegetative communities present consist entirely of ornamental landscaping and ruderal roadside vegetation.

6.6.1.1 Survey Methods

Pedestrian-based biological field surveys of the project area were conducted by URS biologist Greg Hoisington on September 25, 2007, according to California Energy Commission (CEC) regulations (CEC, 2000). Refer to Appendix H for a copy of the biologist's resume. Conditions within the project area during the survey consisted of clear skies, light winds, and temperatures ranging from approximately 80-85 degrees Fahrenheit (°F). The survey was performed to assess biological resources within the project area and determine the potential for occurrence of common and special-status species, their habitats, and special aquatic resources. The "project area" is defined as the area that could potentially be directly disturbed during project construction and includes the power plant site, construction laydown area, electric transmission line, natural gas line, water line and an approximate 1,000-foot buffer around all facilities, where feasible. Where access to the entire project area was not possible as a result of private property and/or physical barriers, observations were made from nearest appropriate vantage points with binoculars and/or via aerial photographic interpretation.

Prior to conducting field surveys, a literature review was performed, which included a search of the California Native Plant Society (CNPS) Inventory of Rare Plants Database and the September 2007 California Natural Diversity Database (CNDDDB) in order to determine special-status species known to occur, or that could potentially occur, within the project area. "Special-status species" include any species that has been afforded special recognition by federal, state, or local resources agencies (e.g., U.S. Fish and Wildlife Service [USFWS], California Department of Fish and Game [CDFG]), etc.) and/or resource conservation organizations (e.g., CNPS). The term "special-status species" excludes those avian species solely identified under Section 10 of the Migratory Bird Treaty Act (MBTA) for federal protection. The project area falls within the Orange USGS 7.5-minute quadrangle, which was queried for records of special-status species, in addition to the surrounding Yorba Linda, La Habra, Anaheim, Newport Beach, Tustin, El Toro, Black Star Canyon, and Prado Dam quadrangles (see Figure 6.6-1). Special-status species with a potential to occur in the vicinity of the project site are listed in Table 6.6-1.

TABLE 6.6-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING
IN THE VICINITY OF THE CPP SITE

Common Name	Scientific Name	Status ¹	Occurrence
Wildlife			
Coast (San Diego) horned lizard	<i>Phrynosoma coronatum blainvillii</i>	FSC, CSC	Unlikely to occur due to lack of suitable habitat. Last documented 1.5 miles from the CPP site prior to 1985.
Great blue heron	<i>Ardea herodias</i>	"Special-Animal"	Unlikely to occur due to lack of suitable habitat. Last official documentation in 2004 was approximately 1.2 miles from the CPP site.
Santa Ana Sucker	<i>Catostomus santaanae</i>	FT, CSC	Not expected to occur due to lack of suitable habitat. Last official documentation two miles east of the CPP site in 1987.

¹ U.S. Fish and Wildlife Service (Federal)

FE = Endangered (In danger of becoming extinct throughout all or a significant portion of its range).

FT = Threatened (Likely to become endangered in the foreseeable future in the absence of special protection).

FC = Federal Candidate (Candidate for FT or FE listing).

FSC = Species of Concern (Sufficient information exists which warrants concern over that species' status and warrants study).

California Department of Fish and Game (State)

SE = Endangered (In danger of becoming extant throughout all or a significant portion of its range).

SC = State Candidate (Candidate for SE or State Threatened [likely to become endangered in the foreseeable future in the absence of special protection]).

CSC = Species of Concern (Information exists which warrants concern over that species' status and warrants study).

"Special-Animal" (In danger of becoming CSC because it is directly connected to a habitat that is declining).

Prior to beginning field surveys, the Orange USGS 7.5-minute topographic map was examined to determine the locations of potential special aquatic resource areas. Lands within the project area that were identified as potential special aquatic resource areas (i.e., Waters of the United States, Waters of the State, or wetlands) were then assessed by visual observation and analysis in the field. Potential special aquatic resource areas were evaluated by determining the presence of definable channels and/or hydrophytic vegetation, riparian habitat, and hydrologic regime. However, this preliminary evaluation was not intended to meet the substantive provisions of the Clean Water Act (CWA) Section 404, 401 and California Fish and Game Code 1600 (*et seq.*) requirements for jurisdictional delineations.

The reconnaissance field survey included pedestrian transects through the CPP site and 1,000-foot buffer, to the maximum extent practical. All botanical and wildlife species observed were documented. All plant communities and habitat within the project area and one-mile buffer that could support potentially occurring special-status species were described (Figure 6.6-2) All plant and wildlife species observed during the survey within the CPP site and 1,000-foot buffer zone are listed in Table 6.6-2. Plant nomenclature follows Hickman (1993).

6.6.1.2 Plant Communities

The vast majority of the project area and one-mile buffer zone is developed and contains heavy industrial and public infrastructure land uses, and as a result, no native plant communities are present within the project area or one-mile buffer zone (Figure 6.6-2). Vegetation communities include ornamental landscaping and ruderal roadside communities containing cultivated varieties and high percentages of non-native grasses and weeds. Native plant species constituted 34 percent of plant species observed, and of these, many are ornamental including California fan-palm (*Washingtonia filifera*), Western sycamore (*Platanus racemosa*), pine (*Pinus* sp.), cypress (*Cupressus* sp.) and California ash (*Fraxinus dipetala*). All other native species are characteristic of disturbed/developed areas or areas containing standing water. A species list of all plants observed within the project area is presented above in Table 6.6-2.

6.6.1.3 Wetlands and Other Special Aquatic Resources

The project area contains the Orange County Water District Kraemer Basin Groundwater Recharge Facility and several diversion channels, all of which appear to be artificially created, and hydrologically connected to the Santa Ana River. The Santa Ana River, which is concrete-lined in the vicinity of the project area, lies approximately one mile south of the project area. The retention basin facility was completely dry at the time of the survey and is thought to be a seasonal water source. Heavy earth-moving equipment was recontouring the retention basin bed and banks during the survey. The basin contains no wetland or riparian vegetation, no apparent hydric soils, and artificially-constructed bed and banks. There were some wetland indicator species, broad-leaved cattails (*Typha latifolia*), annual beard grass (*Polypogon monspeliensis*), and tall cyperus (*Cyperus eragrostis*), present within a small depression (three feet by three feet) within the basin property fenceline along East Miraloma Avenue that receives water from irrigation sprinklers; however, this depression is not hydrologically connected to the basin or any other water feature and does not have a defined bed and bank. This feature is not considered a jurisdictional waters or a wetland due to the developed nature of the site and artificial source of water maintaining the feature. The proposed project will not directly impact the basin or the small depression feature.

The proposed project's water line linear does not cross the Carbon Canyon Diversion Channel, which appears to connect to the Santa Ana River and possibly the basin. The channel is approximately 50 feet wide and lined with rock riprap. Standing water and emergent wetland vegetation were present within the channel during the survey; annual beard grass, curly dock (*Rumex crispus*), and sedge, (*Carex* sp.) were observed. However, an up-close examination of the channel was not possible due to limited access. The channel is likely seasonally inundated and contained water following a large rainfall event the week prior to the survey.

TABLE 6.6-2
PLANT AND WILDLIFE SPECIES OBSERVED DURING FIELD SURVEY

Scientific Name	Common Name
Reptiles	
<i>Sceloporus occidentalis</i>	Western fence lizard
Birds	
<i>Cathartes aura</i>	Turkey vulture
<i>Columba livia</i> ¹	Rock dove
<i>Corvus brachyrhynchos</i>	American crow
<i>Passer domesticus</i> ¹	House sparrow
<i>Sturnus vulgaris</i> ¹	European starling
<i>Zenaida macroura</i>	Mourning dove
Plants	
<i>Acacia</i> sp. ¹	Acacia
<i>Arundo donax</i> ¹	Giant reed
<i>Brassica nigra</i> ¹	Black mustard
<i>Bromus diandrus</i> ¹	Ripgut grass
<i>Bromus madritensis</i> ssp. <i>madritensis</i> ¹	Foxtail chess
<i>Carex</i> sp.	Sedge
<i>Chamaesyce albomarginata</i>	Rattlesnake weed
<i>Chenopodium album</i> ¹	Lamb's quarters
<i>Conyza canadensis</i>	Horseweed
<i>Cupressus</i> sp.	Cypress
<i>Cynodon dactylon</i> ¹	Bermuda grass
<i>Cyperus eragrostis</i>	Tall cyperus
<i>Distichlis spicata</i>	Saltgrass
<i>Erodium cicutarium</i> ¹	Red-stemmed filaree
<i>Eucalyptus</i> sp. ¹	Gum tree
<i>Ficus carica</i> ¹	Edible fig
<i>Fraxinus dipetala</i>	California ash
<i>Hedera helix</i> ¹	English ivy
<i>Helianthus annuus</i> ¹	Common sunflower
<i>Heterotheca grandiflora</i>	Telegraph weed
<i>Lonicera japonica</i> ¹	Japanese honeysuckle
<i>Magnolia grandiflora</i> ¹	Southern magnolia
<i>Malva parviflora</i> ¹	Cheeseweed
<i>Myoporum laetum</i> ¹	Myoporum

TABLE 6.6-2 (CONTINUED)
PLANT AND WILDLIFE SPECIES OBSERVED DURING FIELD SURVEY

Scientific Name	Common Name
<i>Nicotiana glauca</i> ¹	Tree tobacco
<i>Pinus</i> sp.	Pine
<i>Piptatherum miliaceum</i> ¹	Smilo grass
<i>Plantago lanceolata</i> ¹	English plantain
<i>Platanus racemosa</i>	Western sycamore
<i>Polypogon monspeliensis</i> ¹	Annual beard grass
<i>Ricinus communis</i> ¹	Castor-bean
<i>Rumex crispus</i> ¹	Curly dock
<i>Salsola tragus</i> ¹	Russian thistle
<i>Sonchus oleraceus</i> ¹	Common sow thistle
<i>Tamarix ramosissima</i> ¹	Mediterranean tamarisk
<i>Taraxacum officinale</i> ¹	Common dandelion
<i>Typha latifolia</i>	Broad-leaved cattail
<i>Washingtonia filifera</i>	California fan palm

¹ Non-native species

The proposed project's gas line linear crosses Carbon Creek near the intersection of Kraemer Boulevard and East Orangethorpe Avenue. Carbon Creek is a partially rock-riprap-lined, channelized creek that appears to also drain into the Kraemer Basin facility and/or the Santa Ana River. The creek is apparently a seasonal water-conveyance facility and contained a small amount of standing water at the time of the survey. Vegetation within the creek consisted of desiccated emergent wetland vegetation similar in species composition to the Carbon Canyon Diversion Channel. The proposed natural gas facilities will cross under the creek through jack and bore pits. No disturbances to Carbon Creek are anticipated as a result of these activities; however, there is potential for a frac-out (i.e., unauthorized release of drilling fluids) to occur. Due to the potential for streambed alteration, a formal wetland delineation is highly recommended given its potential nexus to waters of the U.S./State. Carbon Creek is potentially subject to: U.S. Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the CWA; Regional Water Quality Control Board (RWQCB) legal authority in accordance with Section 401 of the CWA; and California Department of Fish and Game (CDFG) jurisdiction pursuant to Section 1600 (et seq.) of the CFG Code.

6.6.1.4 Wildlife Community

No native habitat for wildlife occurs within the project area or one-mile buffer. Due to the substantial amount of commercial and public development, wildlife abundance and diversity

within the project area was very low. All of the wildlife species observed are typical of disturbed/developed areas and are assumed to be acclimated to high levels of human disturbance. There are, however, opportunities for migratory and nesting bird activity within ornamental trees, flood control channels and retention basins, and on transmission poles and other similar facilities within the project area. Table 6.6-2 lists all wildlife species observed within the project area during the field survey.

6.6.1.5 Special-status Species Occurrence

6.6.1.5.1 Plants. A total of 29 special-status plant species and 12 special-status vegetative communities are reported to occur within the nine project quadrangles queried in the CNDDDB and CNPS databases for the project. However, none of these special-status plants or communities were observed within the project area and none are expected to occur due to the industrial infrastructure and lack of native habitat within the project area. All of these species are extirpated from the project area. The closest record of occurrence is chaparral sand-verbena (*Abronia villosa* var. *aurita*; CNPS 1B.1), which occurs approximately 1.3 miles northeast of the project area; however, no suitable habitat for this species occurs within the project area. No other special-status species or communities occur within approximately five miles of the project area; most special-status species and communities occur in the Santa Ana foothills to the north and east of the project area.

6.6.1.5.2 Wildlife. A total of 56 special-status wildlife species are reported to occur in the CNDDDB within the nine project quadrangles queried for the project. However, none of these special-status wildlife species were observed within the project area and none are expected to occur due to the industrial infrastructure and lack of suitable native habitat within the project area. All of these species are likely extirpated from the project area. The closest record of occurrence is great blue heron (*Ardea herodias*), a State Special Animal, observed within 1.2 miles of the CPP site; however, no suitable breeding or foraging habitat for great blue herons occur within the project area. Additionally, coast horned lizard (*Phrynosoma coronatum blainvillii*), a State Species of Concern and Federal Special Concern Species, was observed within 1.5 miles from the CPP site; however, no suitable habitat or foraging base for coast horned lizard exist within the CPP site. The Santa Ana sucker (*Catostomus santaanae*) was observed two miles east of the project area in the earthen bottom improved portion of the Santa Ana River; however, no suitable habitat is present in the project area. These species are discussed further below. No other special-status species occur within approximately three miles of the project area; most special-status species occur within unchannelized, upstream sections of the Santa Ana River to the east and within the Santa Ana foothills to the north and east of the project area.

Great Blue Heron (*Ardea herodias*). Great blue herons are not state or federally listed, but are designated as a “Special Animal” by the CDFG due to their colonial breeding habits. These birds are often seen along shores of ponds, lakes, streams, and rivers hunting for frogs,

mice, fish, and other foods (<http://www.delta.dfg.ca.gov/gallery/gbh.asp>). They are colonial nesters and nest in large trees such as western sycamores or eucalyptus. Suitable foraging habitat is absent in the project area and the nearest suitable foraging habitat is at Anaheim Lake, less than one mile from the CPP site. Great blue herons typically require foraging habitat to be within 10 miles of a breeding site. However, due to the highly developed project vicinity, it is unlikely that great blue herons will occur or breed within the project area (Oregon Institute of Marine Biology, 1976). The nearest CNDDDB record of Great Blue Heron is approximately 1.2 miles northeast of the CPP site nesting in pine trees adjacent to Anaheim Lake. The last record was in 2004 with a minimum of forty nesting adults.

Coast (San Diego) Horned Lizard (*Phrynosoma coronatum blainvillii*). The Coast (San Diego) horned lizard is a State Species of Concern and Federal Special Concern Species that occurs in areas with abundant, open vegetation such as chaparral or coastal sage scrub and sandy soil habitats. Suitable habitat for this species is absent; therefore it is unlikely to occur in the project area (San Diego Natural History Museum, 2007). The nearest CNDDDB record of Coast (San Diego) horned lizard is 1.5 miles southeast of the project area and is a historic (pre-1985).

Santa Ana Sucker (*Catostomus santaanae*). The Santa Ana sucker is identified as a Federally Threatened by the USFWS and a State Species of Concern. This species is endemic to the Los Angeles, San Gabriel, and Santa Ana river drainages of southern California. These fish prefer sand-rubble-boulder bottoms in cool, clear water with some algae. From the area nearest to the CPP site all the way to the Pacific Ocean the Santa Ana River is concrete lined and lacks suitable habitat. The nearest potential habitat is approximately 4.25 miles upstream from the CPP site where the Santa Ana River contains an earthen channel bottom. Due to unsuitable habitat within the concrete portion of the Santa Ana River and concrete drainage channels within the study area that connect to the river, resident populations of Santa Ana suckers are not expected to occur in the project area. There is a low potential that during high storm flow events, the Santa Ana sucker could get washed downstream into the channelized portions of the watershed. (Thomas, 2001). The nearest CNDDDB record of the Santa Ana Sucker is approximately two miles east of the CPP site in the Santa Ana River. The last record was in 1987.

6.6.1.6 Special Environmental Areas in the Project Vicinity

Special environmental areas within the project vicinity include the Santa Ana River (one mile southeast of the project site) and the Peralta Hills (about four miles southeast of the project site and south of the Santa Ana River). The Santa Ana River is channelized from approximately eight miles upstream of the CPP site to the Pacific Ocean; however, the eight-mile stretch between Prado Dam and Wier Canyon downstream contains one of the last remaining relatively large-scale riparian areas within southern California. Numerous special-status species occur within this natural portion of the river, including the Santa Ana sucker

(FT), southwestern willow flycatcher (FE, SE), and least Bell's vireo (FE, SE) (see Figure 6.6-1). The Santa Ana River functions as a riparian mitigation bank in northern portions of the watershed. The Peralta Hills are a relatively undeveloped area in the foothills along the northwest side of the Santa Ana Mountains containing a host of special-status plant and wildlife species and a wide variety of habitats, including mixed woodlands, chaparral, coastal sage scrub and riparian communities (see Figure 6.6-1). Although some of the Peralta Hills has been developed with residential housing, surface streets, and a toll road, much of the area remains as open space.

6.6.2 Environmental Consequences

Potential and expected direct and indirect impacts to biological resources are discussed below. Significant impacts are those that would involve the loss of a sensitive plant or wildlife species, or degradation of their habitat. The project would have significant impacts to vegetation and wildlife if it would:

- Cause a fish or wildlife population to drop below self-sustaining levels (California Environmental Quality Act [CEQA] Guidelines, Section 15065 (a))
- Threaten to eliminate a plant or animal community (CEQA Guidelines, Section 15065 (a))
- Substantially affect, reduce the number, or restrict the range of unique, rare, or endangered species of animal or plant, or the habitat of the species (CEQA Guidelines, Section 15065 (a), Appendix G (c), Appendix I (II.4.b) and (II.5.b))
- Substantially diminish or reduce habitat for fish, wildlife, or plants (CEQA Guidelines, Section 15065 (a), Appendix G (t))
- Interfere substantially with the movement of resident or migratory fish or wildlife species (CEQA Guidelines, Appendix G (d))
- Change the diversity of species, or number of any species of plants (including trees, shrubs, grass crops, and aquatic plants) or animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects) (CEQA Guidelines, Appendix I (II.4.1) and (II.5.a))
- Introduce new species of plants or animals into an area, or act as a barrier to the normal replenishment of existing species (CEQA Guidelines, Appendix I (II.4.c) and (II.5.c))
- Deteriorate existing fish or wildlife habitat (CEQA Guidelines, Appendix I (II.5.d))
- Conflict with any regional Habitat Conservation Plans (HCPs)

The above criteria are used to evaluate the proposed project's impacts to plant communities and wildlife. The potential impacts associated with the construction and operation of the CPP are discussed below.

6.6.2.1 CPP Site

The proposed project would not result in significant impacts to biological resources because it would not:

- Cause a fish or wildlife population to drop below self-sustaining levels
- Threaten to eliminate a plant or animal community
- Substantially affect, reduce the number, or restrict the range of unique, rare, or endangered species of animal or plant, or the habitat of the species
- Substantially diminish or reduce habitat for fish, wildlife, or plants
- Interfere substantially with the movement of resident or migratory fish or wildlife species
- Change the diversity of species, or number of any species of plants (including trees, shrubs, grass crops, and aquatic plants) or animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects)
- Introduce new species of plants or animals into an area, or act as a barrier to the normal replenishment of existing species
- Deteriorate existing fish or wildlife habitat
- Conflict with any regional HCPs

Less-than-significant impacts associated with the proposed project construction and operations are discussed further below.

6.6.2.1.1 Site Preparation and Construction Impacts. Construction of the CPP facilities (detailed above), including site grading, would have minor impacts to native plant species because the project area has very little native vegetation. In addition, impacts to common native wildlife species in the project area would be minimal because the area is highly disturbed and there was little sign of animal activity in the project area during the field survey. Some individuals of common terrestrial and avian wildlife species such as those listed in Table 6.6-2 may be adversely affected by heavy equipment or vehicles in the construction area. This impact is considered adverse, but not significant due to the relatively small area affected. Impacts, though minimal, may be decreased further if construction did not occur during the bird breeding season (February 1 to August 31).

Air Emissions and Noise. Increased air emissions (Section 6.2) and noise (Section 6.12) as a result of the construction of the proposed power plant and linear facilities are not expected to

cause significant impacts to wildlife. The project survey area provides limited habitat for wildlife due to a high amount of development. Most of the wildlife observed in the project area includes species that are often found in disturbed or developed areas and are expected to adapt to the new noise levels and air emissions.

6.6.2.1.2 Operations Impacts. Potential impacts to biological resources as a result of the operations and maintenance associated with the proposed project include air emissions, noise, and collision hazards. These potential impacts are discussed further below.

Air Emissions. The operational sources of air pollutant emissions associated with the proposed CPP include four natural gas-fired CTGs, a diesel internal combustion engine to drive an emergency black start generator (tested only one hour per month) and a small chiller cooling tower. The CTGs will be equipped with modern emission control systems that comply with the requirements of the South Coast Air Quality Management District. Impacts to wildlife in the area as a result of these emissions will be less than significant, because the common wildlife that occurs in the vicinity of the project area is expected to have adapted to the current air quality conditions, which will not be changed significantly by the project's emissions. Maximum modeled ground-level concentrations of criteria air pollutants that would be emitted by the CPP site, including particulate matter (PM₁₀ and PM_{2.5}), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and carbon monoxide (CO) are below levels that would cause violations of the ambient air quality standards or contribute significantly to existing violations (see Section 6.2, Air Quality). Significance levels for air emissions along with ambient air quality standards are set to protect human health and ecosystems. Since native vegetation communities are absent within a one-mile radius of the proposed CPP site, no impacts to native vegetation communities associated with air emissions and subsequent ground deposition are anticipated.

A rough order-of-magnitude estimate of the average deposition rates of nitrogen and sulfur near the project site was obtained by multiplying the maximum model-predicted annual average concentrations of NO₂ and SO₂ due to the operational emissions from the CPP by an approximate deposition velocity of 0.02 meter/second. All of the nitrogen and sulfur in the resulting deposition of these pollutants was then conservatively assumed to be in the form of elemental nitrogen and sulfur. The results show that the maximum deposition levels adjacent to the facility would be 0.192 kilogram (kg) nitrogen per hectare per year and sulfur deposition would be 0.032 kg sulfur per hectare per year. These results are based on the highest predicted annual NO₂ and SO₂ concentrations due to the CPP emissions, regardless of location, and even with very conservative assumptions, the resulting deposition rates were predicted to be at nearly undetectable levels within 1,000 feet of the site. Predicted values would drop even lower at greater distances.

Noise. The existing development and power lines in the project area generate some noise near the proposed CPP site. The CPP would generate a greater level of noise than currently

exists in the project area especially near turbines, compressors and the cooling towers; however, noise levels at the CPP property line will not exceed 65 decibels “A” scale (dBA) and there are no sensitive wildlife receptors. The potential impacts to biological resources are considered less than significant because the area is already disturbed by intense commercial, residential, and agricultural use. No noise-sensitive wildlife species would be affected by noise.

Collision Hazards. The proposed 86-foot-tall turbine stacks and silencer associated with the CPP may present a collision hazard for birds. There are also four cooling towers and a water storage tank at approximately 48 feet. Additionally, two 90-foot-tall transmission poles will be installed on the south side of East Miraloma Avenue. The transmission lines will connect to an existing transmission corridor, therefore no new line will be constructed. The new transmission poles are not expected to impact migratory birds, as the transmission lines are an existing structure. The exhaust stacks will not incorporate lights since the Federal Aviation Administration (FAA) guidelines do not require lighting of 86-foot stacks for aviation safety. Birds that would most likely be affected include migrating waterfowl and some songbirds that tend to migrate at night. The collision hazards for birds in the areas of the CPP site are anticipated to be minor considering waterfowl present in the project vicinity have adapted to the existence of tall urban structures. No migratory pathways occur in the CPP project area, providing further evidence that impacts are expected to be minor.

6.6.2.1.3 Impacts on Special-status Species. No federally-listed or state-listed threatened or endangered species are expected to occur at the CPP site due to lack of suitable habitat, so no impacts as a result of the proposed project are anticipated.

6.6.2.1.4 Impacts to Wildlife Corridors. Substantial wildlife movement through the area is lacking and the project area is not a significant wildlife corridor, so no significant impacts to wildlife movement are expected. The nearest wildlife corridor is the Santa Ana River and no impacts to the river are anticipated as a result of the proposed project.

6.6.2.2 Parking and Laydown

The proposed parking and laydown area is within the project area or on an existing parking lot, where minimal native vegetation exists, so impacts associated with construction are expected to be those discussed for the CPP site. Wildlife that commonly occurs in urban areas is present in the project area and may be impacted by the proposed project. Avoidance and minimization measures listed in Section 6.6.3 would be implemented in order to reduce the potential for impacting common wildlife species to a level less than significant.

6.6.2.3 Cumulative Impacts

The purpose of the cumulative impacts discussion for the proposed project is to:

- Identify past, present, and reasonably foreseeable actions in the project vicinity that could affect the same resource(s) as the CPP
- Determine if impacts of the CPP and the other actions would overlap in time or geographic extent
- Determine if the impacts of the proposed project would interact with, or intensify, the impacts of other actions
- Determine if this AFC overlaps another existing or planned AFC
- Identify any potentially significant cumulative impacts

Projects that could potentially contribute to cumulative impacts with the CPP are those within the same geographic area of influence. For this cumulative impact assessment, the area of influence is within a five-mile radius of the CPP. In addition, projects or proposed projects with potential for regional significance are also included in the analysis. Information was gathered on projects that either: 1) have submitted an application for required approvals and permits; 2) have been previously approved and may be implemented in the near future; or 3) are contemplated and reasonably anticipated, but have not been formally proposed. Information for the cumulative impacts assessment was obtained primarily through personal communications. In addition, information from the internet was reviewed. The CEC and COA also provided information. Table 6.18-1 in Section 6.18, Cumulative Impacts, shows a list of potential projects considered in the cumulative impact assessment and the timeframe of these projects.

No cumulative impacts of significance are anticipated.

6.6.3 Avoidance and Minimization Measures

In order to avoid and minimize impacts to common wildlife and any potential special-status wildlife species, the following stipulations must be implemented:

- Biological orientation training for workers on site to educate them on procedures for minimizing impacts to common wildlife species and, although not expected, any rare occurrences of great blue heron or coast horned lizards.
- An approved, designated biologist shall implement the above measures.
- Best Management Practices will be implemented during the installation of project linear to avoid impacts to Carbon Creek and Carbon Canyon Diversion Channel.

6.6.3.1 Mitigation Measures

No mitigation measures are proposed for biological resources because native vegetation communities are absent and special-status species are not expected to occur in the project area.

6.6.4 Applicable Laws, Ordinances, Regulations, and Standards (LORS)

LORS that are applicable or potentially applicable for biological resources associated with the proposed project are discussed below and presented in Table 6.6-3. Construction and operation associated with the proposed project will adhere to the LORS pertinent to biological resources.

6.6.4.1 Federal Authorities and Administering Agencies

6.6.4.1.1 Endangered Species Act of 1973: 16 USC Section 1531 et seq.; 50 CFR Parts 17 and 222. The Endangered Species Act provides for the protection of threatened or endangered plants and animals and their determined critical habitats. The USFWS is the agency responsible for administering the act, designating critical habitat, and determining if a species should have a change in listing status. With implementation of the avoidance and minimization measures in conjunction with the lack of suitable habitat, the CPP does not impact any federally listed threatened or endangered plants or animals or their designated critical habitats. Therefore, the CPP will not violate the Endangered Species Act.

6.6.4.1.2 National Environmental Policy Act: 42 USC Section 4321 et seq. The National Environmental Policy Act (NEPA) requires an evaluation of the environmental impacts of projects taking place on federal lands or receiving federal funding. The USFWS is the administering agency for the above authority. Evaluation determined that there are only temporary minor impacts to common plants and wildlife associated with the laydown yard and project linears. The CPP is in compliance with NEPA.

6.6.4.1.3 Migratory Bird Treaty Act: 16 USC Sections 703 – 711; 50 CFR Subchapter B. The MBTA protects most native birds, their eggs, and their nests, and prohibits any taking not in accordance with federal regulation. The USFWS is responsible for administering the MBTA. By implementing the avoidance and minimization measures the project will not result in the deaths of birds or the destruction of any active nests, so the CPP will not violate the MBTA.

6.6.4.1.4 Fish and Wildlife Coordination Act: 48 Stat. 401, amended; 16 USC 661 et seq. The Fish and Wildlife Coordination Act requires all federal agencies to coordinate with the USFWS to preserve fish and wildlife when implementing federal actions. The USFWS is responsible for administering this Act. Because there are only minor impacts to biological resources, the CPP will comply with this Act.

**TABLE 6.6-3
APPLICABLE LORS**

AFC Section	Authority	Administering Agency	Requirements/Compliance
Federal			
6.6.4.1.1	Endangered Species Act of 1973; 16 USC 1531 <i>et seq.</i> ; 50 CFR Parts 17 and 222	USFWS	Protection and management of federally listed threatened or endangered plants and animals and their designated critical habitats (terrestrial and avian species). Section 7 Endangered Species Act consultation with USFWS (or Section 10A)
6.6.4.1.2	National Environmental Policy Act; 42 USC 4321 <i>et seq.</i>	USFWS	Analysis of impacts of Federal action
6.6.4.1.3	Migratory Bird Treaty Act; 16 USC 703-711; 50 CFR Subchapter B.	USFWS	Protection of migratory birds
6.6.4.1.4	Fish and Wildlife Coordination Act; 16 USC 661-666	USFWS	Conservation of fish and wildlife
6.6.4.1.5	Clean Water Act of 1977; 33 USC 1251-1376; 30 CFR 330.5(a)(26)	ACOE and the RWQCB	Acquire Section 404 and Section 401 permits for potential impacts to Carbon Creek.
State			
6.6.4.2.1	California Fish and Game Code 1600-1616	CDFG	Acquire Section 1600 Streambed Alteration Agreement permit for potential impacts to Carbon Creek.
6.6.4.2.2	California Endangered Species Act of 1984; California Fish and Game Code 2050-2098.	CDFG	Consultation Requirement
6.6.4.2.3	California Species Preservation Act of 1970; California Fish and Game Code 900-903	CDFG	Protection and enhancement of the birds, mammals, fish, amphibians, and reptiles of California
6.6.2.1.4	California Fish and Game Code 3503 and 3503.5.	CDFG	No taking or possessing of the nests or eggs of birds
6.6.2.1.5	California Fish and Game Code Section 3511, Section 4700, Section 5050, Section 5515	CDFG	Prohibits the taking of birds, mammals, reptiles and fish listed as fully protected.
6.6.2.2, 6.6.2.3, and 6.6.4.2.6	CEQA; California Public Resources Code 21000 <i>et seq.</i>	CEC	Protection of environment
6.6.4.2.7	California PRC 25523(a); 20 CCR 1752, 1752.5, 2300-2309; Chapter 2, Subchapter 5, Article I, Appendix B, Part (I)	CEC	Protection of environmental quality

**TABLE 6.6-3 (CONTINUED)
APPLICABLE LORS**

AFC Section	Authority	Administering Agency	Requirements/Compliance
Local			
6.6.4.3.1	Green Element of the City of Anaheim General Plan	COA Planning Department	Ensure that proposed development projects demonstrate a high degree of compatibility with any listed species and sensitive biological resources. Intends to beautiful the city through the creation of open spaces. Aims to reduce locally generated emissions through improved construction management practices.

6.6.4.1.5 Clean Water Act of 1977: 33 USC Section 1251 – 1376; 30 CFR Section 330.5(a)(26). The CWA protects wetlands, regulates discharges of pollutants, requires set water quality standards for individual pollutants, and provides a framework for permitted pollutant discharge from a point source. The administering agencies for the CWA are the U.S. Army Corps of Engineers (ACOE) and the Regional Water Quality Control Board (RWQCB). Since the proposed project may impact wetlands or waters of the U.S./State at Carbon Creek due to the potential for a frac-out during the jack and bore operations, the CPP may be in violation of this Act if Section 404 and 401 permits are not obtained. Therefore, a formal wetland delineation should be conducted to quantify and mitigate for any potential impacts to wetlands or waters of the U.S./State.

6.6.4.2 State Authorities and Administering Agencies

6.6.4.2.1 California Fish and Game Code Sections 1600 – 1616. This code section requires notification to CDFG before beginning an activity that will substantially modify a river, stream, or lake. If CDFG determines that the activity could substantially adversely affect an existing fish and wildlife resource, a Lake or Streambed Alteration Agreement is required. Since the proposed project may impact Carbon Creek due to the potential for a frac-out during the jack and bore operations, the CPP should notify CDFG and it is strongly recommended that a Streambed Alteration Agreement be obtained.

6.6.4.2.2 California Endangered Species Act of 1984: California Fish and Game Code Sections 2050 – 2098. The California Endangered Species Act provides for the protection and management of plant and animal species listed as threatened or endangered, or designated as candidates for such listing. This Act requires consultation between the CDFG and other state agencies to ensure that projects do not jeopardize the continued existence of threatened or endangered species or habitats essential for the continued survival of any threatened or endangered species. The administering agency for this act is the CDFG. Because there are only temporary minor impacts to common wildlife, and avoidance and

minimization measures identified in Section 6.6.3 will be implemented, the CPP will comply with this Act.

6.6.4.2.3 California Species Protection Act of 1970: California Fish and Game Sections 900 – 903. The California Species Protection Act includes provisions for the protection and enhancement of the birds, mammals, fish, amphibians, and reptiles of California. The administering agency for this Act is the CDFG. Because there are only temporary minor impacts to common wildlife, and avoidance and minimization measures identified in Section 6.6.3 will be implemented, the CPP will comply with this Act.

6.6.4.2.4 California Fish and Game Code Section 3503 and 3503.5. This code section prohibits the taking and possessing of bird eggs and nests. The administering agency for this is the CDFG. Because there will be no disturbance to nesting birds, due to the implementation of avoidance and minimization measures identified in Section 6.6.3, the CPP will be in compliance with this law.

6.6.4.2.5 California Fish and Game Code Section 3511, Section 4700, Section 5050, Section 5515. This code section prohibits the taking of birds, mammals, reptiles, and fish listed as fully protected. The administering agency for these is the CDFG. Because there are not any fully protected birds, mammals, reptiles, or fish in the project area, the CPP will be in compliance with this law.

6.6.4.2.6 CEQA, Public Resources Code Section 21000 et seq. The CEQA provides for protection of the environment in the state of California. The administering agency for the above authority with regards to this project is the CEC. Because there are only very few natural resources at the project site and avoidance and minimization measures identified in Section 6.6.3 would reduce any potential impacts, the CPP is in compliance with CEQA.

6.6.4.2.7 California Public Resources Code Section 25523(a): 20 CCR Sections 1752, 1752.5, 2300 – 2309, and Chapter 2, Subchapter 5, Article I, Appendix B, Part (i). These code sections require the CEC to protect environmental quality. The administering agency for the above sections is the CEC with comment by the CDFG. Because there are no rare or endangered species at the project site, the CPP will be in compliance with these code sections.

6.6.4.3 Local Authorities and Administering Agencies

6.6.4.3.1 City of Anaheim General Plan, Green Element. The Green Element combines COA's Conservation, Open Space, Parks, Recreation and Community Services Elements into one comprehensive plan to add more green areas throughout the City and protect and enhance its natural and recreational resources (COA, 2004).

The objectives of the Green Plan are to:

1. Expand public parks and open space amenities
2. Improve the City's trail and bicycle network for local and regional connections
3. Beautify arterial corridors with landscape plans, edge treatments and gateways
4. Use existing opportunities, such as easements, vacant land and the Santa Ana River to expand accessible open space and recreation opportunities

The CPP will not discharge into the Santa Ana River or destroy any open spaces, thus it will be in compliance with the City's green policies. However, the CPP is in the Groundwater Protection Zone of the Santa Ana River and will need a Water Quality Management Plan to be in compliance of the city's green policies (Goal 7.1).

6.6.4.4 Agencies and Agency Contacts

Carbon Creek is potentially subject to: USACE jurisdiction pursuant to Section 404 of the CWA; RWQCB legal authority in accordance with Section 401 of the CWA; and CDFG jurisdiction pursuant to Section 1600 (et seq.) of the CFG Code; therefore, these agencies must be contacted.

6.6.4.5 Applicable Permits

The following permits are strongly recommended so that the project will be permitted to proceed in the event of a frac-out at Carbon Creek associated with the jack and bore operations: USACE Section 404; RWQCB Section 401; and CDFG Section 1600 (et seq.) Streambed Alteration Agreement.

6.6.5 References

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