

4.7 BIOLOGICAL RESOURCES

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Locally designated species (e.g., heritage trees)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Wetland habitat (e.g., marsh, riparian and vernal pool)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Wildlife dispersal or migration corridors?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Regional Setting

Edison's power production area includes facilities in the Sierra Nevada as far north as the San Joaquin River, but most of its generating plants are in desert, urban and coastal regions of southern California. Edison's generating plants on the west side of southern California's mountain ranges are mostly located on the broad, gently sloping coastal plains or inland alluvial valleys (ENTRIX 1996).

Edison's Environmental Affairs Division has had primary responsibility for the protection and management of sensitive resources at Edison's facilities, and has maintained a consistent program of stewardship. An example of this is Edison's Endangered Species Alert Program Manual, which serves as a training tool as well as providing very clear, specific guidance on protecting endangered species in different portions of Edison's service area (BioSystems 1989).

Biological Resources Regulatory Context

Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered (16 USC 1533(c)). Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and determine whether the proposed project could have a potentially significant impact on such species. In addition, the U.S. Fish and Wildlife Service (USFWS) is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536(3), (4)).

California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Department of Fish and Game (CDFG) has the responsibility for maintaining a list of threatened species and endangered species (California Fish and Game Code 2070). The CDFG also maintains a list of "candidate species" which are species that the CDFG has formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. The CDFG also maintains lists of "species of special concern" which serve as "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State listed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species.

The Clean Water Act

The regulations and policies of various federal agencies (e.g., the U.S. Army Corps of Engineers [Corps], U.S.D.A. Natural Resource Conservation Service [NRCS], U.S. EPA, USFWS, and National Marine Fisheries Service [NMFS]) mandate that the filling of wetlands be avoided unless it can be demonstrated that no practicable alternatives (to filling wetlands) exist. The Corps has primary federal responsibility for administering regulations that concern waters and wetlands within the project site. In this regard, the Corps acts under one statutory authority, the Clean Water Act (Section 404), which governs specified activities in "waters of the United States," including wetlands. The Corps requires that a permit be obtained if a project proposes placing structures within navigable waters and/or alteration of waters of the United States below the ordinary high water mark in nontidal waters.

The State's authority in regulating activities in wetlands and waters at the site resides primarily with the CDFG and the appropriate Regional Water Quality Control Board (RWQCB). The CDFG provides comment on Corps permit actions under the Fish and Wildlife Coordination Act. CDFG is also authorized under the State Fish and Game Code Sections 1600-1607 to develop mitigation measures and enter into a Stream Alteration Agreement (SSA) with applicants that propose a project that would obstruct the flow or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. The appropriate Regional Water Quality Control Board (RWQCB) must certify that a Corps permit action meets State water quality objectives (Section 401, Clean Water Act).

As described in Section 4.4, Water, each facility that discharges wastewater must operate within the parameters of the facility's National Pollution Discharge Elimination System (NPDES) permit issued by the RWQCB that limits the discharge flowrate, temperature, and concentration of constituents.

Local Setting

Unless otherwise noted, reference information is from ENTRIX (1996). This document does not fully describe on-site or adjacent resources, which in many cases are complex and thoroughly studied, in other cases equally complex but with little available published information. The setting section attempts to provide enough information to understand the presence (i.e., the ecological context) of sensitive, at-risk biological resources.

Alamitos

The Alamitos power plant is in an urbanized area near the mouth of the San Gabriel River, a major flood control channel in this area. There are no terrestrial resources, and intertidal areas have been reported as having low diversity and abundance of invertebrates and algae. Fish species most commonly entrained in the cooling water intake system are anchovy, white croaker and queenfish larvae. There are no federal or state threatened or endangered aquatic species known to occur in the marine waters near the station, although endangered green sea turtles and loggerhead turtles have been reported in the vicinity of the discharge waters.

Cool Water

The Cool Water power plant site is over 2400 acres in extent and includes natural vegetation such as Mojave Creosote Bush Scrub, which supports a variety of resident and transient wildlife species. The use of the natural habitat is augmented by the presence of evaporation ponds, which support insects and attract waterfowl, but this attribute is compromised by high levels of selenium, a problem noted by CDFG (Public Agency Meeting comment, April 9, 1997).

The only threatened or endangered species associated with these habitats in this area is the Mohave ground squirrel (state-listed as threatened), although several other special status species (see definition below) are known to occur, e.g., crucifixion thorn and prairie falcon.

Ellwood

The energy support facility is partially bounded by undeveloped land in Santa Barbara County. No site-specific information is available. The site is small, however (3.5 acres), fully developed within its fence lines and unlikely to support sensitive resources.

El Segundo

The site and surrounding land uses are industrial, although there is sparse beach vegetation along the Pacific Ocean to the west of the plant. An extant population of the federally endangered El Segundo blue butterfly occurs on the Chevron refinery, 0.25 miles northeast of the facility. The El Segundo blue is dependent on dune buckwheat, on which it lays its eggs and feeds as an adult, and is known from only three locations.

A wide variety of fish species are entrained in the cooling water. All are abundant in the waters off the Southern California Bight, but the diversity suggests that there is a mixture of habitat types available, perhaps provided by the intake and discharge structures themselves. Endangered green sea turtles are known from the area and have been captured in the cooling water intake system.

Etiwanda

The Etiwanda facility in San Bernardino County is largely industrialized, although open space areas managed by Edison occur to the south and west and there are evaporation ponds and a drainage channel on site (the Chadwick Channel). Open water areas support minimal wetland vegetation and the open space is cropland which has reverted to a semi-natural ruderal (weedy) ground cover. However, the plant is within a critical habitat area for Delphi sand-flower-loving fly (federally endangered) and the residual open space could harbor several special status species such as the burrowing owl, orange-throated whiptail, the San Bernardino Merriam's kangaroo rat and the San Diego horned lizard.

Highgrove

The Highgrove power plant and the adjacent land uses do not support open space or wildlife habitats.

Huntington Beach

The Huntington Beach plant is fully developed and in an urban area but is adjacent to saltmarsh, coastal dune and coastal strand vegetation. Both the saltmarsh and dune habitats are degraded, in the former case by isolation and hypersalinity, in the latter by human use. However, as with many southern California remnant habitat patches, listed species are a concern. There is suitable habitat for the federally endangered saltmarsh bird's beak in the immediate area (outside the plant fence but on Edison property), and the state- and federally endangered California least tern is known to nest in the coastal strand to the west.

The fish species encountered offshore are those common in the waters off the Southern California Bight, and there are no state- or federally threatened or endangered aquatic species known to occur.

Long Beach

Although the California Natural Diversity Data Base (1997) records occurrences of a few listed species in the project vicinity (e.g., saltmarsh bird's beak), the Long Beach power plant itself is in a thoroughly industrialized urban landscape in Long Beach Harbor and has no significant biological resources.

The fish species encountered offshore are those common in the waters off the Southern California Bight, and there are no state- or federally threatened or endangered aquatic species known to occur.

Mandalay

The Mandalay plant is within an area of significant biological resources, occupying 200 acres of largely open space in an undeveloped area of the Pacific shoreline. McGrath-Mandalay Beach is one of two stretches of coastal sand dunes remaining in Ventura County, and the site also contains dune scrub and is near freshwater coastal marsh. Saltmarsh bird's beak (state- and federally endangered) and three other special status plant species are expected to occur. California brown pelican, California least tern and western snowy plover (all federally listed) should be presumed present as well.

Offshore, fish species are typical of the area. Steelhead trout, a species recently listed by the USFWS in its local "evolutionarily significant unit," has been collected in the Santa Clara River two miles to the north, but is unlikely at the plant since cooling water is drawn from Oxnard Harbor through the inland Edison Canal.

Ormond Beach

The Ormond Beach power plant is larger than Mandalay, almost 700 acres. It is in the same geographic area and shares the same environmental sensitivities but in greater amount, diversity and recorded incidences of special status species. In addition to the species mentioned above, Belding's savannah sparrow, a state-endangered species, is known to breed on Edison property.

The fish species encountered offshore are those common in the waters off the Southern California Bight. Federally endangered green sea turtles and tidewater goby are known to occur in the general area.

Redondo

The Redondo facility is surrounded by a variety of land uses, including high-density residential, commercial and light industrial. The plant and the adjacent land uses do not support open space or wildlife habitats.

The Redondo power plant is on Santa Monica Bay, classified as a "water quality limited coastal water body" by the Clean Water Act, Section 303(d), due to high levels of numerous contaminants. The fisheries resource is consequently compromised, but federally endangered green sea turtles and loggerhead turtles are known to occur in the area and one of each species have been captured in the cooling water intake system.

San Bernardino

There is little native vegetation within the generation complex. The area surrounding the plant is predominantly cropland, with some riparian (streamside) vegetation providing limited habitat along the Santa Ana River and the Riverside Canal, into which the station discharges its wastewater. Due to the degree of disturbance at the station, there is a low probability of special status species occurring there. The station transmission corridor supports the state-endangered Nevin's barberry and the nearby Santa Ana River has known occurrences of the state- and federally endangered Santa Ana River woolstar and the slender-horned spineflower. The state-endangered yellow-billed cuckoo may also use the riparian habitat along the River.

CHECKLIST ISSUES

For all of the issues discussed below, this analysis assumes that the range of potential effects at the plant sites is defined by: 1) limited construction activity (e.g, fences) in connection with separating land to be sold from that to be retained by the divesting utility or soil remediation activities; and 2) potential activities related to potential increases in energy being generated, including thermal changes in cooling water discharge and additional entrainment of marine organisms.

a) Endangered, Threatened, or Rare Species or their Habitats

These species are defined for the purpose of this assessment to include species in the following categories, including those considered to meet CEQA *Guidelines* Section 15380 criteria as rare, threatened or endangered: plants or animals listed or proposed for listing as rare, threatened, or endangered under the California Endangered Species Act or the Federal Endangered Species Act; plants included on lists 1A, 1B, and 2 of the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 1994); animals designated by the CDFG as "Species of Special Concern" or that have been designated as "Protected" or "Fully Protected" by the state or federal government under law (e.g., the Bald Eagle Protection Act). Collectively, these species are also referred to as "special status" species.

Marine Organisms

For all of the plants utilizing ocean water for cooling, environmental regulation of intake and discharge effects are concentrated in the Federal Water Pollution Control Act of 1972 (for entrainment of marine organisms in intake structures) and in the State Water Resources Control Board's *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*. The current compliance status is in part dependent on compliance with existing NPDES permits. NPDES permits limit the volume of wastewater discharge, the temperature of discharge, and concentration of constituents.

Endangered, threatened or rare species concerns are limited to the mortality of sea turtles when entrained during cooling water intake. Currently, incidences of turtle entrainment appear to be rare. As explained in Section 4.4, Water, an increase in operation of the plant due to the project would not directly result in increases in volume of cooling water extracted from the ocean, however, it is likely that somewhat more water would be used. More water pumped from the ocean would increase the potential for marine organisms to be entrained, however these incidences are currently rare and it is unlikely that project conditions would substantially change this effect. The impact of the project is less than significant.

Local Issues

Alamitos

There are no terrestrial resources at the facility, and therefore, no potential for impacts.

Cool Water

Mojave Creosote Bush Scrub supports a variety of resident and transient wildlife species. Mohave ground squirrels are the most likely listed species to be affected, as they readily use areas with a high level of human disturbance but can be entombed during their periods of

hibernation and estivation. Since construction activities, if any, would be minimal, there would be no impact on the species.

El Segundo

The population of the federally endangered El Segundo blue butterfly, 0.25 miles northeast of the facility, is already severely constrained by the ambient level of disturbance and development. No reasonably foreseeable changes will alter the situation; therefore, the impact of the project is less than significant.

The plant is within a critical habitat area for Delphi sand-flower-loving fly (federally endangered). The species is known from only five small sites, all on private land within an eight mile radius and is considered highly at risk (Thelander and Crabtree, 1994). However, the weedy fields in the area do not appear to provide suitable habitat for the species. Therefore, the impact of the project is less than significant.

Huntington Beach

The endangered California least tern is known to nest in the coastal strand to the west. Their preference to make their homes in open areas of light-colored sand and gravels with little vegetation has caused their populations to decline in southern California. Since the project does not include construction in this habitat, the project would likely not impact this species.

Mandalay and Ormond Beach

Five threatened or endangered species should be presumed to occur at these facilities (see Local Setting). Because the only construction impacts expected would be related to separation of properties, no impact is expected.

Redondo

There are no terrestrial resources at the facility, and therefore, no potential for impacts.

San Bernardino

Threatened, endangered or rare species near this facility are associated predominantly with the Santa Ana River. The riparian corridor is not expected to be altered by the project; therefore, the impact of the project is less than significant.

Combined Issues

Currently, the power plants are operated in compliance with environmental permits, regulations, and policies. However, several of the plants either contain special status species or are immediately adjacent to highly productive and sensitive habitats. As discussed above, Edison currently has access to in-house biological and regulatory experts familiar with individual sites and the unique context of environmental protection at power stations. Important species and habitat at the plants could be threatened in the future if new owners were unaware of the presence and sensitivity of such biological resources. This could be a significant impact.

Mitigation Measures

- 4.7.a.1** Edison shall provide each new owner, for the respective plant, with Edison's jurisdictional wetlands and special status species and habitats informational materials and training documents regarding resources associated with the respective plant, to assist new owners in knowing the location of jurisdictional wetlands, special status species and habitats, and in meeting their legal obligations regarding endangered, threatened, or rare species or their habitats.

Monitoring Action: Edison will provide the CPUC mitigation monitor with disclosure form signed by the new owner listing documents received to accomplish this condition.

Responsibility: CPUC

Timing: At least three business days prior to transfer of title of the plant(s)

Conclusion

With implementation of the above mitigation measure, the impact on endangered, threatened, and rare species would be less than significant.

b) Locally Designated Species

These species are those not meeting the *CEQA Guidelines* criteria but of other public concern, i.e., plants or animals which have been identified for local protection or concern.

For power plants with offshore discharge, it is possible that substantial changes in cooling water amounts or temperature could alter food chains which have developed during long term operation under relatively stable conditions. As noted previously, the discharge characteristics are regulated by permit conditions that would be passed on to new owners, so substantial changes are not anticipated. Minor changes to the discharges within permit conditions may have minor effects to locally important resources such as a recreational fishery but these effects are not considered significant.

Conclusion

No reasonably foreseeable significant effects are anticipated; therefore, impacts on locally designated species would be less than significant.

c) Locally Designated Natural Communities

Areas of locally-designated concern are in the vicinity of the Mandalay and Ormond Beach plants. The Ventura County General Plan lists protection and preservation of coastal beaches and sand dunes as a general goal (Ventura County, 1991), and the Mandalay power plant is also within an area of Significant Biological Resources as defined by the County. There is a strong community awareness of, and interest in, the protection of wetlands at the Ormond Beach plant (Ormond Beach Task Force, Public Meeting Notes, March 27, 1997). Important species and habitat at the plants could be threatened in the future if new owners were unaware of the presence and sensitivity of such biological resources. This could be a significant impact.

Mitigation Measures

- 4.7.c.1** See mitigation measure 4.7.a.1. This information will include biological information for areas of locally designated concern at the Mandalay and Ormond Beach plants.

Conclusion

With implementation of the above mitigation, the impact on locally designated natural communities would be less than significant.

d) Wetland Habitat

As described above, the Cool Water, Etiwanda, Mandalay, and Ormond Beach facilities are likely to contain highly sensitive wetlands under the jurisdiction of the Corps or the CDFG, that could be affected by operational changes. Important species and habitat at the plants could be threatened in the future if new owners were unaware of the presence and sensitivity of such biological resources. This could be a significant impact.

Mitigation Measures

- 4.7.d.1** See Mitigation Measure 4.7.a.1.

Conclusion

With implementation of the above mitigation, the impact on jurisdictional wetlands would be less than significant.

e) Wildlife Dispersal or Migration Corridors

None of the power plants would be more obstructive to wildlife movements than is presently the case, given any reasonably foreseeable change in operation or use of the sites.

Conclusion

Because the project would not adversely affect wildlife dispersal and migration corridors, the impact would be less than significant.