

C.3 BIOLOGICAL RESOURCES

C.3.1 ENVIRONMENTAL BASELINE AND REGULATORY SETTING

Biological resources include all the native and naturalized plants and animals, and the habitats that support them, within the project's region of influence. For the purpose of this EIR, the environmental setting (Section C.3.1.1) will be divided into a regional overview (Section C.3.1.1.1) and a local environment section (Section C.3.1.1.2), followed by a regulatory setting section (Section C.3.1.2). The regional overview discusses the major vegetation types in the Norwalk to Carson area, the habitat value of the rivers in the Los Angeles basin, and the role of these areas for sensitive plants and animals. The local environment section concentrates on the resources within and immediately adjacent to the proposed right-of-way (ROW) and the existing facilities. This section will cover the vegetation, wildlife, and aquatic biota in these areas, and include a special emphasis on sensitive species that utilize the rivers and/or their resources.

C.3.1.1 Environmental Setting

The Proposed Project is situated in a highly urbanized sector of the Los Angeles basin. The proposed pipeline is concentrated within existing roads and facilities, but the pipeline route does cross three waterways (Los Angeles River, San Gabriel River, and Compton Creek). Although the areas where the pipeline crosses these waterways are not considered biologically sensitive, the downstream areas have several biologically sensitive resources.

C.3.1.1.1 Regional Overview

The Proposed Project traverses several land cover types including urban development (paved areas), ornamental landscaping (community parks), disturbed riparian (within Compton Creek), and ruderal (vacant lots). Urban development is the most common type of land cover utilized by the ROW, it includes industrial, commercial and residential buildings, and roads. Ornamental landscaping occurs on the private lands and community parks that surround the existing facilities and ROW, and occurs along the edges of the rivers. This landscaping typically includes non-native perennial and annual plants and eucalyptus trees. These areas typically have a high amount of habitat homogeneity which discourages use by many wildlife species. However, eucalyptus trees can provide roosting and nesting habitat for some resident and migratory birds. The most typical species are those that have adapted to an urban disturbance regime such as ravens (*Corvus corax*), European starlings (*Sturnus vulgaris*), and mourning doves (*Zenaida macroura*). The ruderal habitat areas have little or no native vegetation and are dominated with non-native weedy species such as brome (*Bromus* spp.) grasses, mustards (*Brassica* spp.), and Russian thistle (*Salsola tragus*).

The Los Angeles River, San Gabriel River, and Compton Creek are highly modified for flood control. The Los Angeles River and San Gabriel River are lined with concrete for a large portion of their length and generally provide little natural habitat for species. Compton Creek is soft-bottomed in the project area and contains some

disturbed riparian habitat that provides a limited amount of natural habitat for species. The vegetation in Compton Creek was removed during November of 1997 in preparation for anticipated winter storms. The largest concern is that if oil spilled into these systems, it could potentially affect the freshwater and marine species that inhabit the harbor and mouths of these rivers (see Section 3.1.1.2 for more details).

Development of the Los Angeles Basin during the last 150 years has resulted in the outright loss and general degradation of native habitat such that they are no longer capable of supporting breeding populations of sensitive animals. Therefore, construction along the ROW is not expected to encounter any sensitive animals. No sensitive plants are capable of living within the concrete-lined sections of the Los Angeles and San Gabriel river or within the urban development zones. The disturbance of Compton Creek has likely eliminated any sensitive plants. Therefore, construction along the ROW is not expected to encounter any sensitive plants.

C.3.1.1.2 Local Environment

The Proposed Project includes installation of new pipeline (primarily within roads) and modifications at four facilities. The new pipeline would cross the Los Angeles and San Gabriel Rivers and Compton Creek. Compton Creek flows into the Los Angeles River which, along with the San Gabriel River, empties into Long Beach Harbor. Anaheim Bay National Wildlife Refuge is near the mouth of the San Gabriel River. Following is a discussion of these prominent features.

The biological characteristics of the four facilities and the proposed pipeline route have been greatly altered as a result of human development and activity (see also Section C.8, Land Use and Public Recreation, for discussion of current land uses along the ROW). The Carson, Watson, and Norwalk facilities are completely developed with buildings, facility equipment, and paved areas, and the pipeline is being installed in existing graveled areas, where no natural vegetation, or animal habitat is present. The proposed alteration to the Industry Station entails two crossings of a disturbed rail-road right-of way and altering a graveled impoundment; both areas have no natural vegetation or animal habitat present. There is no appreciable plant or animal habitat in the vicinity of these sites since they are isolated within residential and industrial areas. The majority of the Proposed Project is being installed within existing paved streets (see Table B.3-2) except where the pipeline crosses the disturbed railroad ROW or a river. These paved streets lack and cannot support biological resources. Because of the lack of biological resources on the facilities and along the majority of the Proposed Project, the most significant project impact on biological resources would be to adversely impact the water quality of the three rivers the pipeline is proposed to cross (see also Section C.7 Hydrology and Water Quality). Therefore, this section focuses on the environmental baseline and impacts related to these waterways.

The upper reaches of the Los Angeles River are concrete lined with the exception of a six-mile reach of cobble-bottomed channel in the vicinity of Glendale, and at the downstream end of the river which is rip-rap lined with a soft-bottom for 2.6 miles south of Willow Street. The Proposed Project will require boring under one of the concrete-lined sections of the river. The “clean” concrete channel contains no in-channel vascular plant growth but does have mats of algal growth that are attractive to invertebrates and therefore shorebirds (Charadriiformes; Garrett, 1993). The areas surrounding the river where entrance and exit pits would be created for the boring contain ornamental landscaping or ruderal habitat. Nesting migratory and resident birds

may be present in summer, especially in DeForest Park. The soft-bottomed channel at the lower reaches supports some aquatic vegetation and fish, but is highly invaded with exotic species (Garrett, 1993). The mouth of the channel up to Willow Street provides feeding grounds for a variety of shorebirds, including the federally endangered California brown pelican (*Pelecanus occidentalis californicus*) and California least tern (*Sterna antillarum browni*) among others (see Table C.3-1). Within the river itself, some reptiles and amphibians may occur especially in the lower, soft-bottomed areas (Garrett, 1993). However, the presence of exotic predators such as mosquitofish (*Gambusia affinis*) in the freshwater and brackish area of the lower stretch (County of Los Angeles 1991) make it unlikely that sensitive reptiles and amphibians (e.g. western spadefoot [*Scaphiopus hammondi*]) could survive in the area.

Table C.3-1 Sensitive Species Potentially Occurring in the Vicinity of Project or Downstream

Scientific Name Common Name	Status*		Habitat and Potential Locations
	State	Fed'l	
BIRDS			
<i>Agelaius tricolor</i> Tricolored Blackbird	CSC		Riparian Habitat; Compton Creek Crossing
<i>Charadrius alexandrinus</i> Snowy Plover		T	Coastal shores; Mouth and downstream areas of Los Angeles River
<i>Falco peregrinus</i> Peregrine Falcon	E	E	Forages on shorebirds; mouth of Los Angeles and San Gabriel Rivers, downstream areas of both rivers
<i>Larus californicus</i> California Gull	CSC		Coastal shores; Foraging in mouth of Los Angeles River
<i>Pandion haliaetus</i> Osprey	CSC		Forages on fish; Mouth of Los Angeles and San Gabriel Rivers, downstream areas of both rivers
<i>Pelecanus occidentalis californicus</i> California Brown Pelican	E	E	Coastal saltwater and open ocean; mouth of Los Angeles and San Gabriel Rivers
<i>Phalacrocorax auritus</i> Double-crested Cormorant	CSC		Coastal shores; Mouth of Los Angeles and San Gabriel Rivers
<i>Rynchops niger</i> Black Tern	CSC		Coastal shores; Long Beach harbor, mouth of Los Angeles and San Gabriel Rivers
<i>Sterna antillarum browni</i> California Least Tern	E	E	Coastal shores; nests on protected sandy areas near the mouth of the Los Angeles Rivers
<i>Sterna elegans</i> Elegant Tern	CSC		Coastal shores; Mouth of Los Angeles River, Long Beach Harbor

* E= Federal or State Endangered, T = Federal or State Threatened, CSC = California Species of Special Concern
 Sources: Garrett, 1993; Woodward-Clyde, 1995

The Los Angeles River attracts winter visitants including northern harriers (*Circus cyaneus*) and peregrine falcons (*Falco peregrinus*). It is possible these birds will roost in the eucalyptus trees along the river overnight and feed during the day over the river. These roosts are important during winter months for thermo regulation and energy conservation. During extremely cold days, the birds may enter torpor (a state of lowered metabolic rate) and arousal from a roost will be both difficult and demand an immediate payback in food intake (Ehrlich et al., 1988).

The San Gabriel River is concrete lined with the exception of a five mile stretch (upstream of the pipeline crossing) from Santa Fe Dam to Valley Boulevard which has cobbly soft-bottom. The area between Westminster Avenue and San Diego Freeway (downstream) supports a low density of emergent vegetation (USACE, 1991). Several linear parks are present along the channel's right-of-way, especially in the Bellflower area and near the San Diego Freeway crossing in Carson. Animals that adapt well to urban environments could be using these parks as corridors. The mouth of the river does provide foraging areas for the brown pelican, and the mouth is expected to have many of the same aquatic species described for the Los Angeles River.

Compton Creek has concrete sidewalls, but is a soft-bottom channel for its entire length with the exception of a 200 foot concrete bottom where the Creek has its confluence with the Los Angeles River. While all vegetation has now been removed, field visits in October of 1997 indicated that the vegetation was dominated with bulrush (*Scirpus* spp.) and ground cover composed of sedges (*Carex* spp.), giant reed (*Arundo donax*) and smartweed (*Polygonum* spp.; County of Los Angeles, 1994). The area is accessible to the public and vegetation has shown signs of trampling. The creek lacks the constituent elements for least Bell's vireo (*Vireo bellii pusillus*) nesting (USACE, 1991; County of Los Angeles, 1994), however other birds such as killdeer (*Charadrius vociferus*), red-winged black bird (*Agelaius phoeniceus*), and red-tailed hawk (*Buteo jamaicensis*) utilize the creek for nesting and foraging. Additionally, the tri-colored black bird (*Agelaius tricolor*), a California Species of Special Concern, could utilize the riparian habitat present along Compton Creek. Aquatic resources are limited because of the lack of permanent water.

Long Beach Harbor, at the mouth of the Los Angeles and San Gabriel Rivers supports limited populations of plant and animal life because of the long term disturbance associated with harbor development and operation, and due to stormwater and wastewater discharges. Potential species in the area include invertebrates such as polychaete worms, crustaceans, and mollusks, intertidal communities such as barnacles, mussels, and algae, and some fish such as white croaker (*Genyonemus lineatus*) and northern anchovy (*Engraulis morax*; County of Los Angeles, 1994; Aspen, 1995).

Anaheim Bay, just east of the mouth of the San Gabriel River, includes the Anaheim Bay National Wildlife Refuge. This lagoon area supports many types of wildlife.

C.3.1.2 Applicable Laws, Regulations, and Standards

Federal Endangered Species Act. Five sections of the Federal Endangered Species Act (FESA) are relevant to the preparation, approval, and implementation of the Proposed Project.

Section 4. Section 4 covers designation of critical habitat, the listing process, issuance of special rules for the protection of threatened species, and preparation of recovery plans. Provisions on which species may be proposed for listing and the time-frame in which decisions are made are outlined in this section. Under this section, critical habitat is designated and recovery plans are assigned to be prepared and implemented. The U.S. Fish and Wildlife Service (USFWS) can also issue special regulations for the protection of threatened species in any State that has entered into a cooperative agreement with the USFWS pursuant to Section 6 of the FESA.

Section 6. Under this section of the FESA, the USFWS creates cooperative agreements with States and establishes a protocol for the conservation of listed plants. The State is required to establish conservation programs for all resident plant species in that state and furnish a copy to the Secretary. California has entered into a cooperative agreement with the USFWS based on the California Endangered Species Act (CESA), the Native Plant Protection Act, and California Native Desert Plants Act.

The Proposed Project does not anticipate a need for a conservation program for plants. However, any program would be restricted to mechanisms provided under the CESA.

Section 7. Section 7 outlines the instances when the USFWS can authorize incidental take resulting from federal actions. The USACE as a federal agency is required to consult with the USFWS on actions involving listed species. The USFWS is to conduct an internal consultation regarding the effects of any proposed action. A Section 7 consultation is initiated when a federal agency presents a biological assessment that examines the potential effects of a specified action on a species and is concluded when the USFWS issues a written statement that pronounces whether the action would jeopardize a listed or proposed species or adversely affect critical habitat. If the species is not in jeopardy, the written statement will include authorization for incidental take. If a species is in jeopardy, mitigation and minimization actions will be included in the written statement.

To obtain a Section 7 permit for incidental take of a listed species requires a federal nexus be present. The application and issuance of a Section 404 (Clean Water Act) permit is considered a federal nexus. If a Section 404 permit is issued for the Proposed Project, the U.S. Army Corps of Engineers (USACE) will need to contact the USFWS (see Fish and Wildlife Coordination Act below) for a Section 7 consultation.

Section 9. Section 9 prohibits the import, export, take, possession, transport, receipt, or sale of species protected under the FESA. The USFWS has defined under Section 9 the “taking” of listed species. Under the FESA, “taking” means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or to attempt to engage in such conduct.”

The mouths of the Los Angeles and San Gabriel rivers currently have two listed species (California least tern, and Brown Pelican) that are protected under Section 9. The Proposed Plan does not however contain actions within it that would result directly in the “take” of an endangered species.

Section 10(a). Section 10(a) outlines the instances when the USFWS can authorize incidental take of listed species to non-federal jurisdictions, and approves Habitat Conservation Plans for listed and/or unlisted species. The USFWS is authorized to approve “incidental take” permits to non-federal applicants provided they have met certain conditions. The applicant must in most cases submit a Habitat Conservation Plan (HCP). The HCP must follow the Code of Federal Regulations and conservation planning guidelines prepared by the USFWS. The HCP allows “incidental taking” if the taking is incidental to an otherwise lawful activity that has been properly mitigated and the impacts minimized to the maximum extent possible.

Because there is not intended take of an endangered species under the Proposed Project, the applicant is not required to apply for a Section 10(a) permit.

Fish and Wildlife Coordination Act. The Fish and Wildlife Coordination Act requires that all federal agencies consult with the USFWS and the head of the state wildlife agency with jurisdiction (the Act allows some categorical exclusions). The Act focuses on preventing loss or damage to wildlife resources and provides mechanisms for the development of wildlife conservation measures (e.g. add structures, acquire lands). If the proposed project requires a Section 404 (Clean Water Act) permit, the USACE will have to consult with USFWS on the proposed permitting of the proposed pipeline.

Migratory Bird Treaty Act. The Migratory Bird Treaty Act makes it unlawful to pursue, hunt, capture, kill, or possess or attempt such an action towards any bird listed in wildlife protection treaties between the United States and several countries including Great Britain, Mexican States, Japan, and Union of Soviet States. A “migratory bird” includes the living bird, any parts of the bird, its nests or eggs. Disturbance of the nest of a migratory bird requires a permit issued by the USFWS pursuant to Title 50 of the Code of Federal Regulations (CFR).

The Proposed Project must ensure compliance with the Act by avoiding all direct harm to any bird and its nest that is covered in the Act (see Title 50 of the CFR for a list of the migratory birds covered).

California State Endangered Species Act. Four sections of the California Endangered Species Act (CESA) are relevant to the preparation, approval, and implementation of the Proposed Project.

Sections 2070-2079. Under these sections, the CDFG recommends which species should be listed as threatened or endangered to the Fish and Game Commission. The Fish and Game Commission then adopts criteria for determining a species status.

Section 2080. Section 2080 prohibits the import, export, take, possession, transport, receipt, or sale of species protected under the CESA. The CESA defines “take” as “to hunt, pursue, capture, or kill or attempt the same.” The CESA does not recognize harm or harassment as “take.” Candidates for listing under CESA are fully protected for one year until the final listing is made.

Section 2081 and 2052. Section 2081 and 2052 authorize CDFG to allow “incidental take” of species and specify that mitigation measures must be commensurate with the magnitude of the impact. The original wording of the Section 2081 allowed CDFG to enter into memoranda of understanding with “individuals, public agencies, universities, zoological gardens, and scientific or educational institutions, to import, export, take or possess species for scientific, educational or management purposes.” The new wording under 2081(b), in effect as of January 1, 1998, allows “take” when it is incidental to an otherwise lawful activity, when impacts are minimized and fully mitigated (as stated in Section 2052.1), and when adequate funding is committed to implement and monitor compliance with mitigation. The newly appended Section 2052.1 requires mitigation to be commensurate with the magnitude of the impact, capable of successful implementation, and of a nature that maintains the objectives of a project to the greatest extent possible while upholding the State’s conservation, preservation, restoration, enhancement, and habitat acquisition obligations.

Additional legislation in 1997 allows agencies to apply for incidental “take” by submitting a copy of a Federal “take” statement or permit to the CDFG. If the CDFG determines the permit or statement is not consistent with CESA requirements, then a separate authorization will be required, otherwise the proposed action is permitted.

Sections 2090-2097. These sections outline the steps to follow in the State Consultation Program.

C.3.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

C.3.2.1 Significance Criteria

Consistent with the California Environmental Quality Act (CEQA) Guidelines (Appendix G), an impact is considered significant if it would:

- Conflict with locally adopted environmental plans, policies, and ordinances, especially those that protect biological resources of recognized ecological, scientific, educational, or recreational importance, including established thresholds and guidelines on impact significance
- Substantially affect an endangered, rare or threatened species, or its habitat as recognized by local, state or federal agencies or scientific organizations
- Interfere substantially with the movement of resident or migratory fish and wildlife species
- Substantially diminish habitat for plants, fish or wildlife.

An impact is considered to be substantial if it is potentially of large magnitude and/or long duration, taking into account the abundance, distribution, and sensitivity to impact of the affected resource.

C.3.2.2 Applicant Proposed Measures

SFPP’s PEA does not provide any proposed measures that directly relate to mitigating impacts to biological resources. However, some of the SFPP’s plans in other issue areas provide prescriptions that will help protect biological resources from impacts, including:

1. SFPP has prepared an Oil Spill Response Plan which outlines procedures for containing and recovering the spilled products at the earliest possible moment so that the area of contamination is limited.
2. Construction in Compton Creek would occur during the “dry season.”
3. SFPP would use “standard pipeline stream-crossing techniques including Best Management Practices for storm water” to prevent sedimentation (PEA, page 3-44).
4. The Applicant’s PEA prescribes spill containment measures for the refueling and lubrication of construction equipment (PEA, page 3-44) which should prevent accidental spills.
5. Pipe welding, coating, and similar work would occur only outside the water course (PEA, page 3-44).

6. The pipeline would be trenched to a minimum depth of 4 feet below the 100-year scour depth where it crosses Compton Creek.

C.3.2.3 Impacts and Mitigation Measures: Pipeline Construction

SFPP's proposed construction methodologies for waterway crossings are as follows (see Section B.4.1.8 for additional detail).

- Los Angeles River: boring from the utility corridor between the 710 Freeway and the River into DeForest Park
- San Gabriel River: hanging pipe on bridge at Artesia Boulevard
- Compton Creek: open cut trenching.

The impacts of pipeline construction on biological resources are based on the following assumptions (in addition to the Applicant Proposed Measures described in Section C.3.2.2 above):

- The Los Angeles River will be bored beneath the concrete liner
- Bore pits created to install the pipeline at the Los Angeles River will be approximately 15 to 30 feet long by 8 feet wide
- Construction equipment during the installation of the pipeline across the San Gabriel River on Artesia bridge will be restricted to the existing bridge and roadway
- The pipeline on the Artesia Boulevard bridge will be installed on the downstream side of the bridge.

Any alteration from these construction methods could result in additional, unanticipated impacts.

The great majority of construction will take place within existing maintained urban roads. These habitat types lack sensitive wildlife and plant values and cannot support native vegetation.

Human and vehicular traffic is expected to occur along the proposed route including the bore pit staging areas and the construction equipment storage areas. In such areas, construction may expose previously vegetated soil to wind and water erosion. However, erosion impacts would likely be minimal due to the level topography of the area.

The impact of construction equipment on eucalyptus trees (DeForest Park) which serve as winter roosts for raptors could be adverse but not significant (**Class III**) if any eucalyptus trees were removed or damaged. A mitigation measure is presented below to minimize this potential impact.

At the Los Angeles River crossing, conventional boring would be used. The bore would occur below the concrete river bottom. Minimal disturbance to the aquatic habitat is expected using this technique.

The San Gabriel River crossing is planned as a bridge crossing. Because construction equipment is assumed to be restricted to the existing bridge, no impacts are expected to biological resources.

Construction impacts at Compton Creek were expected to be significant since the proposed trenching would have required the removal of riparian vegetation. However, since all vegetation has been removed during

preparation for the anticipated 1997/1998 “El Nino” storms, construction of the pipeline will not affect vegetation.

Construction impacts at Compton Creek could be significant in regards to sedimentation and erosion. Sedimentation of the waters directly downstream of the trenching could directly harm vegetation and wildlife by coating and “smothering” delicate water plants, either killing them or making them inaccessible to wildlife, and by obscuring prey species in the water to wildlife. Applicant Proposed Measures 2 and 3 will limit the potential sedimentation and erosion damage to Compton Creek species. However, sedimentation could still be significant because these measures do not provide enough specificity to allow monitoring for effectiveness. An additional mitigation measure is necessary to reduce the potential impacts of the Proposed Project for sedimentation and erosion to **Class II** (see below).

Applicant Proposed Measure 4 regarding refueling and lubrication of construction vehicles would reduce impacts to sensitive plants and wildlife from contamination during construction. No additional mitigation measures are necessary to mitigate this potential impact.

Mitigation Measures for Pipeline Construction

Impact: Construction of the proposed project at Compton Creek would involve trenching which has the potential to create sedimentation and erosion (**Class II**).

B-1 Construction within Compton Creek (including construction affecting the levee walls) shall be guided by the following restrictions:

- No construction in Compton Creek may occur between November 1 and April 30
- The construction schedule shall call for construction on Compton Creek to be completed as quickly as possible
- Excavation within the creek bed (including levee walls) shall be limited to the pipeline right-of-way, except as otherwise approved by appropriate permitting agencies
- Stockpiles shall be placed outside of the streambed, unless approved by the U.S. Army Corps of Engineers, California Department of Fish and Game, and the Los Angeles County Flood Control District. Stockpiles, diversion structures, and other materials in the streambed shall be removed as soon as possible, as specified in the construction schedule.
- Plans for topsoil stockpiling prior to trenching shall be created and replacement of topsoil shall take place after construction within Compton Creek.
- Temporary, in-channel diversion structures or construction of any other structure in the channel shall be no more extensive than necessary to achieve the desired purpose of diverting low flows around a construction area. In-channel diversion structures shall not be used for diverting anticipated flood discharge.

Impact: Construction of the Proposed Project has the potential to damage or remove eucalyptus trees which are winter roosting habitat for raptors (**Class III**).

- B-2** SFPP shall employ an environmental monitor, approved by CPUC, who shall monitor activity in DeForest Park during the excavation of the bore pit to ensure that eucalyptus trees are not damaged or removed.
- B-3** Three morning surveys by a CDFG-approved biologist shall take place one week prior to bore pit excavation in DeForest Park if construction will take place in the winter months (December 1 through March 31). If the biologist notes a raptor flushing or finds recent castings at the base of trees, raptors will be considered to be present. If raptors are present, then construction may not take place between the hours of 5 pm and 10 am.

C.3.2.4 Impacts and Mitigation Measures: Station Modifications

The impacts of construction methods at the stations (see Section B.4.1.7) on biological resources are based on the following assumptions:

- Trenching or boring will only occur within fenced station facilities including the bermed areas of Norwalk Station, Watson Station, and Colton Station.
- Trenching for the modifications to Industry Station will only occur within the Southern Pacific Railroad ROW, and the fenced facilities including the paved accessway and the bermed area.

Any alteration from these construction methods could result in additional, unanticipated impacts.

The construction at stations will take place within fenced station facilities which include existing maintained road easements or in industrial park areas. These microhabitats lack sensitive wildlife and plant values and cannot support native vegetation. The wildlife with the potential to be impacted by construction in these disturbed sites are common, wide ranging species. Due to the small area of disturbance and their high tolerance for human activity, these species would be expected to remain in place, or recolonize the area after construction is complete. Therefore, no impacts on biological resources are expected to occur from station modifications, and no mitigation measures are necessary.

C.3.2.5 Impacts and Mitigation Measures: Project Operation

This section focuses on the potential impacts of a pipeline leak or spill that could affect the sensitive plants and wildlife that utilize the ROW. Such a leak or spill is most likely to occur as a result of (1) third party actions (e.g., construction activities rupturing the pipeline), or (2) failure of a pipeline component (e.g., valves or flanges or pipe welds that can leak during pipeline operation). A pipeline rupture in city streets could result in refined products flowing into one of the three major waterways through storm drains. Depending on the location of such a leak or rupture, petroleum products could contaminate the soils and surface waters (including the marine environment) that sensitive plants or wildlife utilize.

Impacts of Project Operation

The analysis of impacts of pipeline operation (see Section B.4.1.5) on biological resources is based on the following assumptions:

- A computerized leak detection system will alarm operating personnel when operational parameters are exceeded (e.g. when a pipeline rupture results in reduced pressure within the pipe).
- The mainline block valves installed on each side of all water crossings would be remotely closed in the event a loss in pressure is detected.

Any alteration from these operational parameters could result in additional, unanticipated impacts.

An underground spill at the Los Angeles River crossing is possible if the pipeline were to rupture beneath the concrete liner (e.g., due to a major earthquake). However, because the spill would occur below the concrete river bottom, it would be very unlikely to contaminate the river itself.

The suspension of the pipeline on the bridge over the San Gabriel River on Artesia Boulevard could significantly impact the biological resources of the area only in the event that the pipeline rupture occurs and safety features fail to minimize the spill. In such an event, because of the pipeline's location above the water, the potential amount of product to enter the river could be significantly larger than if the pipeline was bored. The direct effects of a spill into these areas include the "smothering" of aquatic plants and organisms that comprise a large portion of many species' diets, and wildlife ingestion of the toxins causing sickness and possibly death. However, it is unlikely that a spill would travel into the Anaheim Bay National Wildlife Refuge (Refuge) at the mouth of the river for two reasons: first, two breakwater structures protect the entrance to the bay; second, modeling has shown the oil would be directed to shore more than 0.5 miles to the west of the entrance (Woodward-Clyde, 1997).

The PEA presents a spill scenario in which 1,050 barrels of diesel fuel enter the San Gabriel River from a suspended-pipeline rupture. This spill scenario predicts that 35 percent of the diesel spill would evaporate. SFPP estimated that 1.65 hours would elapse before the spill would reach the mouth of the river channel and 2.68 hours would elapse before impacts to the shoreline would occur. The significance of impacts could be Class I or Class II, depending on the volume of product spilled and the degree to which it was contained under the measures provided in the Emergency Response Plan. If populations of endangered animals which live at the mouth of the San Gabriel River or at the Refuge (such as California least terns, brown pelicans, and western snowy plover) were affected by a spill or by spill cleanup, a significant (**Class I**) impact would result. If the block valves were closed quickly enough to minimize flow into the suspended portion of the pipeline, and the Emergency Spill Response team effectively contained the spill to the cemented area of the San Gabriel River, cleaned the area of all residue, and prevented significant contamination of sensitive areas, a significant but mitigable (**Class II**) impact would result. Mitigation is suggested below to enhance emergency response to a spill that enters a waterway.

A product spill within Compton Creek as a result pipeline rupture or failure of a pipeline component (valve or flange) would negatively impact native vegetation in the local vicinity of the spill, but could be reduced with implementation of mitigation as stated below (**Class II**). The direct effects to vegetation include reduction in

the availability of soil, water, nutrients, and oxygen to plant root systems and toxic effects of oil on foliage and root systems. The above effects lead to, at minimum, reduced growth and possibly may result in death of the plant. Cleanup of these areas would most certainly cause additional habitat degradation and destruction because oil is likely to be widely dispersed by stream and tidal flows. The direct effects of a spill on wildlife include the “smothering” of aquatic plants and organisms that comprise a large portion of many species diet and wildlife ingestion of the toxins causing sickness and possibly death. The most sensitive species would be aquatic reptiles, amphibians, and birds.

Inspection, maintenance, repair, or pipeline modifications within Compton Creek during operations, as well as emergency response activities in the event of a spill, could have impacts similar to those of construction, requiring mitigation to protect vegetation (**Class II**).

Mitigation Measures to Reduce Operational Impacts

Impact: Pipeline maintenance activities (e.g., pipe segment replacement or pipeline modifications) in Compton Creek during operation, as well as emergency response activities in the event of a spill could damage natural vegetation (**Class II**).

B-4 A qualified biologist approved by CPUC, shall monitor all trenching or excavation activities in Compton Creek.

B-5 Plans shall be created and submitted to the CPUC prior to construction addressing topsoil stockpiling and storage prior to trenching; and replacement of topsoil shall take place after construction within Compton Creek.

B-6 If live trees over three inches in diameter (dbh: diameter at breast height) are present at the Compton Creek crossing and would be removed during maintenance, a site-specific Vegetation Plan shall be prepared. The Plan shall include either a replanting schedule at a 3 to 1 ratio or a weed eradication plan for any area with soil disturbance and all stream areas upstream for 1 mile.

Impact: A pipeline spill could impact sensitive species at river mouths or in the harbor (**Class I** or **Class II**).

Mitigation Measure B-7 from the Draft EIR has been incorporated into Mitigation Measure SS-16 (in Section C.11) to consolidate all requirements addressing spill response.

C.3.2.6 Secondary Impacts of Project Operation

As described in Section B.3.3, the proposed project will increase the throughput in the CalNev and Phoenix-west pipelines, and it will result in increased truck transport of petroleum products. Therefore, there will be a corresponding increase in the risk of spills and associated impacts along pipeline and truck transportation corridors. The magnitude of this negative impact is uncertain. The most severe impacts would occur as a

result of a pipeline spill or a truck accident from which products could spill into sensitive aquatic habitats. Pipeline spills would be larger as a result of the increased throughput resulting in potential significant impacts on the desert habitats through which the CalNev and Phoenix-west pipelines pass.

C.3.2.7 Cumulative Impacts

Cumulative impacts to biological resources could arise if foreseeable future projects, in combination with the Proposed Project, produce related or combined impacts to the native flora and fauna in the project region. Impacts caused by the Proposed Project would, for the most part, be localized within an already disturbed ROW.

Cumulative Pipeline Construction Impacts

Construction of residential, commercial and industrial projects continue to be proposed for areas through which the proposed pipeline will pass (see Table B.10-1). The Proposed Project would cause minimal new disturbance to native habitats. The cumulative effects of habitat disturbance and removal would result in adverse (**Class III**) but not significant impacts.

Cumulative Station Modifications Impacts

The construction of the stations has already depleted these areas of all native vegetation and wildlife. The cumulative effects of habitat disturbances and removal would be negligible and have no significant impacts.

Cumulative Project Operation Impacts

Operation of the Proposed Project would increase the number of pipelines crossing the Los Angeles and San Gabriel Rivers and Compton Creek. In the event of a major earthquake resulting in multiple pipeline ruptures and spilled petroleum products flowing into waterways, significant impacts (**Class I**) could occur to downstream species and habitats.

C.3.2.8 Significant Unavoidable Impacts

Unavoidable significant impacts associated with the operation of the proposed pipeline could be caused by accidental spills and subsequent cleanup efforts that reach into the mouth of the Los Angeles River (8 miles downstream of the proposed pipeline crossing) or San Gabriel River (11 miles downstream). Mitigation Measure SS-16 (previously B-7) has been suggested to enhance SFPP's ability to respond to a spill into a waterway. However, the potential impact remains significant. If populations of endangered animals (such as California least terns, brown pelicans, and western snowy plover) were affected by an oil spill or oil spill cleanup, a significant (**Class I**) impact would result.

C.3.3 SANTA FE ALTERNATIVE SEGMENT

The Santa Fe Alternative has the pipeline crossing Compton Creek approximately 1,000 feet downstream from the Proposed Project's crossing. All vegetation has been removed from the creek in this location, as it has upstream. The same construction technique (trenching) is still proposed by SFPP. Potential sedimentation impacts would be reduced through implementation of Mitigation Measure B-1 (**Class II**). Potential spill impacts would be reduced through implementation of Mitigation Measure SS-16 (previously B-7), but remain significant as with the Proposed Project.

C.3.4 CHERRY ALTERNATIVE SEGMENT

This alternative does not involve any river crossings, and is not expected to have any impacts to native vegetation and wildlife.

C.3.5 PARAMOUNT ALTERNATIVE SEGMENT

This alternative does not involve any river crossings, and is not expected to have any impacts to native vegetation and wildlife.

C.3.6 ALONDRA ALTERNATIVE SEGMENT

Impacts of pipeline construction to the surrounding area would be negligible because this alternative involves construction only in urban streets. Although boring is possible for crossing of the San Gabriel River, SFPP states that the use of a bridge crossing is planned. The bridge crossing assumes the following:

- Construction equipment works from the existing bridge
- The pipeline will be placed on the downstream side of the bridge.

Any alterations from these operation parameters could result in additional, unanticipated impacts.

Since this alternative also suggests crossing the San Gabriel River on a bridge, impacts to vegetation and wildlife from project operation would be the same as Proposed Project (**Class I or Class II**). The primary accident of concern during the operation and maintenance of this alternative is the possibility of a spill from the pipeline that crosses the San Gabriel River on Alondra Boulevard Bridge. The location of a spill into the river would be 1 mile farther from the ocean with this alternative, thereby improving the chance that spill response could prevent marine impacts. However, the overall impact remains the same as the proposed project. The expected direct effects from a spill are described in Section C.3.2.5, and Mitigation Measure SS-16 (previously B-7) would also apply to this alternative.

C.3.7 BELLFLOWER RAIL ALTERNATIVE SEGMENT

This alternative would require construction in 1.8 miles of Lakewood Boulevard, and 2.4 miles in an unpaved railroad ROW. The rail ROW is cleared and has no vegetation or resident wildlife. Therefore, no impacts are expected to occur to biological resources during pipeline construction.

The Bellflower Rail Alternative would require a bored crossing of the San Gabriel River. Because the pipe would be below the concrete river bottom, the risk of pipeline rupture (and subsequent contamination of the River or Harbor) is very low. However, Mitigation Measure SS-16 (addressing spill response) could improve protection of biological resources.

C.3.8 ARTESIA ALTERNATIVE SEGMENT

This alternative does not involve any river crossings, and is not expected to have any impacts to native vegetation and wildlife.

C.3.9 SHOEMAKER ALTERNATIVE SEGMENT

This alternative does not involve any river crossings, and is not expected to have any impacts to native vegetation and wildlife.

C.3.10 NO PROJECT ALTERNATIVE

The No Project scenario, as presented in Section B.9, includes increased throughput in the Phoenix-West Pipeline and significantly increased trucking of petroleum products in southern California and Nevada. Increased throughput on the Phoenix-West Pipeline would occur under the No Project Scenario, and is also evaluated under Section C.3.2.6, Secondary Impacts. This increased throughput has the potential for increasing the size and frequency of pipeline spills, which is a significant impact (**Class I**).

A major component of No Project activities would be trucking of products in southern California and Nevada. Truck accidents are considered to be more likely to occur than accidents on pipelines (see Section C.11.9). These accidents have the potential for contaminations of surface waters, resulting in a significant impact (**Class I**) that is not mitigable in the scope of this EIR.

C.3.11 MITIGATION MONITORING PROGRAM

Table C.3-2 presents the Mitigation Monitoring Plan for biological resources.

Table C.3-2 Mitigation Monitoring Program for Biological Resources

Impact	Mitigation Measure(s)	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Increased sedimentation and erosion in Compton Creek (Class II)	B-1 Construction within Compton Creek shall be guided by restrictions to minimize erosion and sedimentation.	Compton Creek Crossing	CPUC and CDFG to approve construction plan for Compton Creek and monitor construction	Plan contains sufficient detail to ensure that impacts to the streambed will be avoided	CPUC, CDFG, L.A. County Dept. of Public Works	Before and during construction
Damage or removal of eucalyptus trees (Class III)	B-2 Monitoring of construction in DeForest Park. B-3 Survey for raptors prior to bore pit excavation.	DeForest Park (Los Angeles River Crossing)	CPUC and USFWS to approve construction plan for bore pit in DeForest Park	Plan contains sufficient detail to ensure no impact to sensitive wildlife	CPUC, USFWS	Prior to construction
Pipeline maintenance or spill response activities post-installation could disturb riparian vegetation in Compton Creek (Class II)	B-4 Biologist shall monitor trenching in Compton Creek. B-5 Soil shall be stockpiled and replaced. B-6 If live trees are impacted, a revegetation or weed eradication plan shall be prepared.	Compton Creek	CPUC and CDFG to approve maintenance plan for Compton Creek prior to start of construction	Plan contains sufficient detail to ensure that impacts to vegetation within the streambed and the streambed itself will be avoided	CPUC, USACE, CDFG, L.A. County Dept. of Public Works	Prior to construction
Pipeline rupture would cause contamination of Los Angeles River, San Gabriel River and Compton Creek, downstream areas, and harbors (Class I)	SS-16 (Section C.11) incorporates the text of B-7 (from Draft EIR) regarding spill response.	Compton Creek and San Gabriel River crossings; downstream harbors	CPUC to approve revised Urban Spill Response Plan	Plan describes habitats and response strategies to minimize impacts on sensitive species	CPUC, CDFG, CSFM, USFWS	Prior to operation

C.3.12 REFERENCES

- Aspen Environmental Group. 1995. EWI Wilmington Facility; Hazardous Waste Facility Application, Final Environmental Impact Report. Prepared for State of California Environmental Protection Agency, Department of Toxic Substances Control. January (certified June).
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