

C.8 BIOLOGICAL RESOURCES

C.8.1 ENVIRONMENTAL BASELINE AND REGULATORY SETTING

Baseline biological information was collected from a review of the *Bolsa Chica Report Local Coastal Program EIR* (Chambers, 1996) and was supplemented by literature research and a field reconnaissance of the project alignment by Aspen in 1999.

C.8.1.1 Environmental Baseline

The biological setting is addressed in two parts. The first part addresses the existing biological conditions along the proposed pipeline route from Los Patos Avenue to Orangewood Avenue. The second part addresses the botanical, wildlife, and sensitive species and resources occurring on the Bolsa Chica Mesa where the proposed pipeline will connect to a 4-million gallon underground water storage reservoir.

Proposed Pipeline Route

Vegetation. The Proposed Project places the pipeline largely within the streets of urbanized areas. The vegetation along the streets where the pipeline would be located (Segments 6 through 10, see Figure B-5) consists of ornamental trees, shrubs, perennials and turf grasses. No native plant communities occur along the proposed pipeline route. The northern portion of the proposed route (Segments 1 and 2) follows a golf course maintenance road on the Los Alamitos Armed Forces Reserve Center (LAAFRC) located between the course fairways and the backyards of homes. From the LAAFRC south to Old Bolsa Chica Road (Segments 3 through 6), the pipeline runs along the service road on the Bolsa Chica Channel. North of the I-405 freeway, the channel is unvegetated and the channel banks are protected with riprap. The only vegetation along this northern segment of the proposed pipeline route is that found in the adjacent yards and gardens of the homes on either side of the channel. A ruderal riparian community of shrubby willow (*Salix exigua*) and mulefat (*Baccharis salicifolia*) occupies the channel near Old Bolsa Chica Road (south of the I-405 freeway).

Wildlife. The proposed pipeline route occurs in a fully developed environment that is likely to support only urban wildlife. From Los Patos Avenue to Old Bolsa Chica Road, the pipeline is restricted to urban and suburban streets. North of Old Bolsa Chica Road, the pipeline is located along the Bolsa Chica Channel surrounded by residential yards and golf course fairways. Wildlife occurring here is likely limited to those species inhabiting residential yards and landscaped medians and urban golf courses. Small rodents such as house mouse (*Mus musculus*), Botta's pocket gopher (*Thomomys bottae*), gray squirrel (*Sciurus griseus*) and rat (*Rattus rattus*), larger mammals such as opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), domesticated dogs (*Canis familiaris*) and cats (*Felis catus*), and common urban birds such as house sparrow (*Passer domesticus*), European starling (*Icterus galbula*), house wren (*Troglodytes aedon*), crow (*Corvus brachyrhynchos*), mourning dove (*Zenaidura macroura*), northern mockingbird (*Mimus polyglottos*) have been observed or are expected to exist within this urban environment (Chambers, 1996, Aspen, 1999). The large grassy field that is part

of the Seal Beach Naval Weapons Center occurs opposite Segment 6 and has been used by migrating Canada geese (*Branta canadensis*) as a resting area. Other birds such as herons, mallards (*Anas platyrhynchos*), and American coots (*Fulica americana*) have been observed using the Bolsa Chica flood control channel as a loafing and foraging area (Aspen, 1999).

Sensitive Species Potentially Occurring Along the Pipeline Route. Because of the urban environment of the proposed pipeline route, it is unlikely that a federally- or state-listed, proposed for listing, candidate or otherwise sensitive species occur within the footprint of the proposed pipeline route.

Bolsa Chica Mesa

Vegetation. The vegetation on Bolsa Chica Mesa can be characterized as that of a disturbed ruderal field dominated by weedy annuals and perennials that thrive in disturbed soils. Foremost among the species present are black mustard (*Brassica nigra*), Russian thistle or tumbleweed (*Salsola tragus*), curly dock (*Rumex crispus*), and fascicled tarweed (*Hemizonia fasciculata*), amongst a dense non-native grass community of wild oats (*Avena fatua*), red brome (*Bromus madritensis* ssp. *rubens* [= *B. rubens*]), cheatgrass (*Bromus tectorum*), and fescue (*Festuca myuros*). California fan palms (*Washingtonia filifera*) are infrequent and sparingly dot the mesa. On the mesa occupying a slight depression near the proposed underground reservoir site occurs a monotypic inclusion of sweet fennel (*Foeniculum vulgare*). Beneath the vegetation, furrows are evidence that the area has been disked in the past.

Wildlife. Wildlife occupying the non-native grassland of the mesa would be limited to small reptiles, rodents, small mammals and foraging birds. Reptile species commonly occupying drier, weedier habitat that are likely to occur on the mesa may include side-blotched lizard (*Uta stansburiana*), the western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*), common king snake (*Lampropeltis gentulus*), and the Pacific rattlesnake (*Crotalus viridis helleri*) (Chambers Group, 1996). Common rodents such as the western harvest mouse (*Reithrodontomys megalotis*), house mouse (*Mus musculus*), California ground squirrel (*Spermophilus beecheyi*), pocket gopher (*Thomomys bottae*), and cottontail (*Sylvilagus auduboni*) occur on the mesa and form a prey base for snakes, larger mammals, and raptors (Chambers, 1996). Larger mammals such as coyote (*Canis latrans*), red fox (*Vulpes vulpes*), domestic cat (*Felis catus*), and domestic dog (*Canis familiaris*) may be visitors or hunters on the mesa. Birds that have been reported on the mesa include white-crowned sparrow (*Zonotrichia leucophrys*), California quail (*Callipepla californica*), yellow-rumped warbler (*Dendroica coronata*), western meadowlark (*Sturnella neglecta*), California towhee (*Pipilo crissalis*), and song sparrow (*Melospiza melodia*) (Chambers, 1996). Great egrets (*Casmerodius albus*) have also been observed loafing in the sweet fennel patch on the mesa (Aspen, 1999).

Although there is no suitable nesting habitat on the mesa for most raptors, red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), and black-shouldered kite (*Elanus caeruleus*) do nest and perch in the tall eucalyptus trees that fringe the lower shelf along the southern edge of the mesa. These raptors may use the mesa itself as hunting grounds for the lizards and small mammals occupying the ruderal field. The scattered fan palms may also provide nesting and roosting habitat for species such as kestrels and common barn owls (*Tyto alba*).

Sensitive Species Potentially On The Mesa. One sensitive plant species, southern tarplant (*Hemizonia parryi* ssp. *australis* [= *H. australis*]), has been observed on the mesa and several sensitive bird and mammal species have either been observed or have potential to occur on the mesa.

- **Southern Tarplant.** The ruderal mesa is excellent habitat for the southern tarplant (*Hemizonia parryi* ssp. *australis* [= *H. australis*]). Southern tarplant is an annual herb in the sunflower family (Asteraceae) that grows in disturbed seasonally moist (saline) grassland, sometimes growing intertwined with the common fascicled tarweed (*Hemizonia fasciculata*). Although neither federally or state protected, the southern tarplant is on the California Native Plant Society's (CNPS) 1B list, indicating that it is a species that CNPS considers rare, threatened, or endangered in California and elsewhere. In 1993, populations of southern tarplant were observed throughout the mesa (Chambers, 1996), however, during the 1999 reconnaissance survey, no southern tarplant was observed. This is most likely due to the very poor flowering season resulting from low rainfall in 1999 reported throughout southern California.
- **Swainson's Hawk.** The Swainson's hawk (*Buteo swainsoni*) is a California state listed threatened species and is a rare spring and fall migrant to Bolsa Chica, using the grassland of the mesa as a prey base (Chambers, 1996).
- **California Horned Lark.** The California horned lark (*Eremophila alpestris*), a Federal Species of Special Concern (FSOC), has in the past been seen in the Bolsa Chica area and prefers to nest in short grass field. Although highly degraded, the disturbed non-native grassland on the mesa may serve as nesting habitat for this species (Chambers, 1996).
- **Other Raptors.** The eucalyptus grove that occurs just offsite and the open space of the mesa may possibly provide nesting and foraging habitat for a variety of birds of prey that are considered by the California Department of Fish and Game (CDFG) as California Species of Concern (CSC). The black-shouldered kite (*Elanus caeruleus*), short-eared owl (*Asio flammeus*), burrowing owl (*Athene cunicularia*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), and the osprey (*Pandion haliaetus*) may either be frequent or infrequent visitors to the area and forage on the mesa (Chambers, 1996).
- **Black-tailed Jackrabbit.** The weedy grassland of the mesa may provide suitable habitat for the black-tailed jackrabbit (*Lepus californicus*), an FSOC. This species has been found in lowlands and uplands (including the mesa) in recent past surveys and is believed to be widespread when open spaces are present (Chambers, 1996).

C.8.1.2 Regulatory Setting

Federal, state, and regional agencies have established regulations that affect proposed projects. The following Federal and state regulatory considerations apply to the project and to all alternatives.

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.

Section 7. Section 7 outlines the instances when the USFWS can authorize incidental take resulting from federal actions. 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 the “taking” of listed species herein. Under the FESA, “taking” means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or to attempt to engage in such conduct.” The Proposed Plan does not 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, Canada, Mexico, and Japan. 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.8.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This section represents the potential impacts that the Proposed Project may have on vegetation, wildlife, sensitive species, and biologically sensitive habitat and resources. The Proposed Project could have significant, yet mitigable, impacts on biological resources through the loss of specific populations of sensitive species, through the disturbance of nesting or migrating birds, or loss of potential habitat for sensitive species. Loss could result from construction disturbance to areas frequented by migrating birds or foraging raptors, from dust and contaminants related to pipeline construction, or from direct loss of plant or wildlife populations.

C.8.2.1 Significance Criteria

Impacts on plants and wildlife are considered significant if one or more of the following criteria are met:

- Loss of individuals or populations of a Federally- or State-listed endangered or threatened species or habitat for sensitive species
- Substantial loss of populations or habitat of Federal Species of Concern (FSOC) and California Species of Special Concern (CSC) that would jeopardize the continued existence of the species within the region
- Loss or long term disruption of a major wildlife movement corridor
- Substantial loss of natural vegetation that is slow to recover
- Substantial loss of species or community diversity in natural vegetation and wildlife habitat
- Loss of critical habitat or sensitive plant communities.

C.8.2.2 Construction Impacts

Vegetation. The portion of Bolsa Chica Mesa that would be traversed by the proposed pipeline is vegetated with weedy ruderal grasses and perennials. Because this vegetation community is a highly disturbed non-native-dominated community, loss of this vegetation type is not considered a significant impact. Non-native grasslands are common in the coastal California region and the species contained within these communities, because of their non-native status, are considered to be of lesser value than native species.

Because the remainder of the pipeline would be constructed in either urban street rights-of-way, in the access road along a mostly unvegetated channel, and in a maintenance road adjacent to an urban golf

course, only landscaped species are likely to be disturbed and no impacts to native vegetation are expected.

Wildlife. The general wildlife inhabiting Bolsa Chica Mesa consists mainly of small rodents and mammals, with foraging raptors. Because of the lack of plant species diversity and the disturbed quality of the land, this area serves as low quality habitat for wildlife in general. The urban setting bordering the northern and eastern boundaries of the mesa preclude the mesa from serving as any viable type of wildlife movement corridor. Construction of the proposed pipeline across the northern edge of the mesa is likely to displace some wildlife residents. However, mammals, rodents, and reptiles would most likely relocate into the surrounding urban open space of parks and yards or into the open space surrounding the neighboring wetlands.

The *Bolsa Chica Report Local Coastal Program EIR* indicates that construction on the mesa could result in a lowering of the coyote population in the area, thus limiting the predator of the red fox. Red fox may then increase their predation on sensitive species in the nearby wetlands. Mitigation proposed in the *Bolsa Chica Report Local Coastal Program EIR* calls for a coyote-red fox predation study and if necessary a coyote recovery and maintenance program to be instituted to reduce this potential impact (see Section E.8). No new impacts related to coyote-fox predation would result from the construction of the proposed pipeline.

Only urban wildlife would be likely to occur within the footprint of the proposed pipeline route. Any urban species within the impacted area would most likely re-locate to other sites during construction.

Wildlife species (particularly birds) using the Bolsa Chica Channel and the open fields adjacent to the channel would not be disturbed by the construction activity. The construction would take place opposite the channel within a busy six-lane street in between the channel and the construction area. Because Bolsa Chica Street is an active, noisy thoroughfare, it is doubtful that the increase in noise and activity from construction would have any significant impact on the birds or other wildlife in the area.

A small ruderal riparian community does occupy the Bolsa Chica Channel where the proposed pipeline route is adjacent to Old Bolsa Chica Road. This riparian community, though small, may be utilized by some migrating birds as nesting sites during the spring season. Because construction is anticipated to have a bore pit at this location as well as trenching for the water line, the length of time and volume of disturbance to this area from human activity, noise, and vehicle dust is especially high. Disturbance of nesting migratory birds that causes the abandonment of a nest would violate the Migratory Bird Act (**Class II**). The potential impact from construction disturbance of migratory birds in the area may be mitigated to non-significance by the implementation of the Mitigation Measure B-1 below:

Impact: Construction adjacent to Old Bolsa Chica Road may disturb nesting migratory birds using the riparian community in Bolsa Chica Channel (**Class II**).

Mitigation Measure:

B-1 If construction is to take place between May 15th and August 15th along Old Bolsa Chica Road, a biological survey of the area shall be completed within the two weeks prior to initiation of construction. The survey must be completed by a qualified biologist who shall survey the area for three consecutive mornings for territorial pairs and, if possible, locate any nests. If territorial pairs or nests of a bird listed under the Migratory Bird Act (Title 50 of the Code of Federal Regulations, Section 10.13) are found during the survey period, then construction shall avoid the area completely until August 15 or until two weeks after all nests have fledged, whichever occurs first.

Sensitive Species. Construction of the proposed pipeline across the northern edge of the mesa may disturb or destroy some portion of the large population of southern tarplant recorded on the mesa. Although it is not a federal or state protected species, it is believed by the CNPS to be a species that is becoming rare in California. The Bolsa Chica group of southern tarplant represents probably the largest population of this species in the county (Chambers, 1996). Any impact to this population, however, would be reduced by measures already incorporated as a Project Design Feature of the LCP (see Section E.8).

C.8.2.3 Impact and Mitigation Summary

A summary of impacts to biological resources from the construction of the proposed reservoir and the proposed pipeline and the applicable mitigation measures is presented below in Table C.8-1.

Table C.8-1 Impact and Mitigation Summary – Biological Resources

Impact	Class	Mitigation Measure
Construction adjacent to Old Bolsa Chica Road may disturb nesting migratory birds using the riparian community in Bolsa Chica Channel.	II	B-1

C.8.3 REFERENCES

Aspen Site Reconnaissance, 1999. Aspen scientists conducted a site reconnaissance.

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