

4.4 BIOLOGICAL RESOURCES

INTRODUCTION

This section addresses the biological resources found on and in the vicinity of the Specific Plan Area and the potential for the RiverPark Project to directly or indirectly impact individuals, populations, and species of native wildlife and plants. The majority of the Specific Plan Area has historically been used for mining and farming. As a result, the Specific Plan Area is not in its natural condition and most vegetation other than the agricultural crops are species typically associated with heavily disturbed areas and habitats. Wildlife is mostly associated with the open water in the mine pits. The indirect impact analysis is primarily directed toward possible effects on the adjacent Santa Clara River, including the riparian vegetation and wildlife and fish species.

METHODS

Literature Review

In order to identify special-status plant and animal species (those species considered rare, threatened, endangered, or otherwise sensitive by various state and federal resource agencies) known to occur in the vicinity of the Specific Plan area, the May 2001 update of the California Natural Diversity Data Base (CNDDB) and the 2001 California Native Plant Society (CNPS) electronic data base (for the Oxnard, Camarillo, Santa Paula, and Saticoy, California USGS 7.5-minute quadrangle maps) were reviewed. Other data sources reviewed included: (1) the Federal Register listing package for each federally-listed endangered or threatened species potentially occurring on the Specific Plan area or in the project vicinity; (2) literature pertaining to habitat requirements of special-status species potentially occurring on the Specific Plan Area; (3) the *Natural Environmental Study Report* (1999), *Biological Assessment* (2000), and the Supplemental Draft EIR/EIS for the Highway 101 Santa Clara River Bridge Replacement project as prepared by the Office of Environmental Planning of the California Department of Transportation; and (4) plant and animal distribution data contained in Hall (1981); Garrett and Dunn (1981); Holland (1986); Munz (1974); Stebbins (1985); Skinner and Pavlik (1994); and Williams (1986).

Sources used to determine the sensitivity status of biological resources include: **Plants** – CNPS (2000), CDFG (2000), U.S. Fish and Wildlife Service (USFWS 1993 and 1996), CNDDB (2000), and CNPS (Skinner and Pavlik 1994-1999); **Wildlife** – USFWS (1994 and 1996), CDFG (2000), CNDDB (2000), Williams (1986), and Remsen (1978); and **Habitats** – CNDDB (2000).

Field Surveys

A general field survey of the Specific Plan Area was conducted by an Impact Sciences botanist and zoologist on January 24, 2001 for the purpose of characterizing on-site habitats and evaluating their potential to support special-status species. This initial visit was also used to assess the need to conduct focused surveys for potentially occurring threatened and endangered animal and plant species. A second survey was conducted on the site on February 6, 2001 for the purpose of mapping vegetation communities. Following these initial surveys, focused surveys for special status plant and wildlife were conducted by qualified biologists under contract to Impact Sciences.

During the initial site visit and subsequent follow-up survey by the botanist and zoologist, direct observations of reptiles, birds, and mammal species were recorded, as were wildlife signs such as scat and tracks. In addition to species observed, detected, or expected use of the site, other wildlife use potential was evaluated from habitat analysis, combined with known habitat preferences of locally occurring wildlife species. Plants and wildlife observed or expected to occur on the Specific Plan Area are discussed further below.

Names used to describe plant communities are based on the nomenclature of R.F. Holland (1986) where applicable. Common plant names are taken from the following sources: J.C. Hickman, (1993); P.A. Munz, (1974); and L. Abrams, (1923 and 1944). References used for the nomenclature of wildlife include the following: M.R. Jennings (1983); the American Ornithologists' Union (1983 and supplemental) for birds; and J.K. Jones *et al.* (1982) for mammals.

ENVIRONMENTAL SETTING

General Site Description

The Specific Plan Area, located on the Oxnard and Saticoy, California USGS 7.5-minute quadrangle maps, consists of, and is surrounded by, a mixture of urban, rural, and industrial development, as well as agricultural use (row crops) and open space, including the Santa Clara River. Greater detail on the characteristics of the Specific Plan Area and surrounding areas is provided in **Section 2.0, Environmental Setting**, of this Draft EIR.

Topography on the Specific Plan Area is essentially flat, typical of the alluvial deposits of the Oxnard Plain. Elevation within the site ranges from approximately 80 feet to about 105 feet above sea level. The

Specific Plan Area includes a total area of approximately 701 acres. Details of the proposed Specific Plan are provided in **Section 3.0, Project Description**, of this Draft EIR.

For planning and descriptive purposes for this section, the Specific Plan Area is divided into two planning areas. As illustrated in **Section 2.0**, the southern portion of the Specific Plan Area, located within the City of Oxnard, is referred to as “RiverPark Area ‘A’” and consists of approximately 269 acres of the proposed Specific Plan Area. The remaining 432 acres of the Specific Plan Area are currently located outside of the City and is referred to as “RiverPark Area ‘B’.” **Section 2.0** provides a detailed description of existing land uses. This section focuses on the biological characteristics of each planning area.

RiverPark Area ‘A’ supports no native plant communities within its boundaries. Vegetation within this area is limited to agricultural crops, landscaping associated with existing development, and non-native weedy species in disturbed (ruderal) areas. RiverPark Area ‘B’ includes a sand and gravel mine (which includes scattered patches of disturbed open space), a small amount of active agricultural land and the El Rio Retention Basins No. 1 and 2. The mine site includes mine pits containing exposed groundwater, currently providing resting and limited foraging area for a number of waterfowl and other water-associated bird species. Though not included within the Specific Plan Area, the predominant biological feature in the vicinity is the Santa Clara River, situated immediately north and west of the project area.

General Description of Adjacent River Habitat

In the vicinity of the Specific Plan Area, the Santa Clara River is characterized as relatively open, with scattered mature trees near the outer banks and scattered patches of riparian scrub regrowth along the river bottom that is scoured away during large storm events every few years. During most of the year, in this area, the river exists as one or more small meandering braided channels. After the winter rains, these channels typically narrow into shallow water flows and that are exposed to direct sunlight throughout the day, with subsequent warming of the water, which decreases dissolved oxygen concentrations. Several fish and wildlife species associated with the river are considered to be of special status including southern steelhead, arroyo chub, and tidewater gobi, which have adapted to the seasonal and daily changing conditions of the river.

Common Plant Communities

Due to the intensive agricultural and industrial uses of the site, very few naturally occurring plant communities exist on the RiverPark Specific Plan Area. Agricultural uses in RiverPark Areas ‘A’ and ‘B’

include intense management to maximize crops and control weeds. Vegetation on the mine site has been disturbed by the historical mining activity and by the ongoing reclamation activities.

During the field investigations conducted in January 2001, six primary plant communities were identified and characterized. Only one of these plant assemblages (mule fat scrub) conforms to descriptions for native communities developed by Holland (1986 Plant species nomenclature follows Hickman (1993). Plant communities present on site include: (1) agricultural fields, (2) ruderal, (3) mule fat scrub, (4) curly dock-forb, (5) tree windrows, and (6) southern willow scrub. Although not a plant community, the on-site mine pits also provide habitat values and are also addressed in this section.

The plant communities vary in structure and quality on the site due to disturbance history and edaphic factors (such as topography, soil type, soil moisture, and aspect). Each of the communities are described below. The remaining areas on the Specific Plan Area include existing development, two retention basins, and the three mine pits. The general relationships between these areas are illustrated on **Figure 4.4-1**.

The following descriptions also include discussion of the biological values for each area. The relative biological values of each of these areas has been evaluated by considering such factors as disturbance history, biological diversity, importance to particular plant and wildlife species, uniqueness or sensitivity, how the community functions in the surrounding ecosystem, and the presence of special-status resources (discussed later in this section).

Agricultural Fields

Approximately 155 acres of agricultural fields occur within Area 'A'. During the time of the field surveys, a portion of El Rio Retention Basin No. 2 was also under agricultural production as was the property located between Basin No. 2 and Vineyard Avenue. A total of 209 acres of the Specific Plan Area is under cultivation. All of the agricultural fields on site are managed to eliminate deleterious weed and insect species in order to maximize crop production. The resulting produce in the agricultural fields provides forage for some wildlife species, especially small herbivorous mammals and granivorous birds. However, because of the regular exposure to disturbance activities, the near absence of native vegetation, the lack of structure for cover or nesting, and the utilization of chemical products in these areas, the agricultural fields on the Specific Plan Area are considered to be of low biological value.

Figure 4.4-1
Vegetation Community Map

Ruderal

Approximately 181 acres of ruderal vegetation is present within RiverPark Areas 'A' and 'B'. These areas have been exposed to regular disturbance including mowing and disking for weed abatement. Predominant plant species present are non-native and include brome grasses (*Bromus* spp.), wild oats (*Avena* sp.), filaree (*Erodium* sp.), and short-pod mustard (*Hirschfeldia incana*). Although open disturbed areas such as these do provide a seed base for small rodents and birds, and ultimately foraging for birds of prey (red-tailed hawk, American kestrel, and others identified in the Wildlife Section), this habitat is generally considered to be of low biological value as it provides little to no cover or nesting habitat.

Mule Fat Scrub

Approximately 69 acres of mule fat (*Baccharis salicifolia*) scrub occurs on the project site in RiverPark Area 'B'. The predominant concentrations of mule fat scrub occur on the banks of the mine pits. Additional scattered patches occur in RiverPark Area 'B' on the mine property in areas that have not recently been cleared. This community is typically a tall, semi-woody, and herbaceous riparian scrub with low species diversity. Two somewhat distinct mule fat scrub phases are found on-site; areas that are maintained with frequent mowing around active work sites and areas associated with the shoreline of the mine pits. Mule fat scrub in the more disturbed areas include non-native species such as tree tobacco (*Nicotiana glauca*), short-pod mustard, and scattered brome grasses. The upper shorelines support nearly monotypic stands of mule fat. A patch near the northern property boundary appears to be less frequently maintained and supports a higher native plant species diversity, including blue elderberry (*Sambucus mexicana*) and arroyo willow (*Salix lasiolepis*).

During periods when the vegetation gets relatively tall, some perching and structure for cover is available for small bird species. However, due to the level of disturbance adjacent to this community, as well as the regular removal of most of this vegetation, the mule fat scrub on the site provides limited resources (i.e., nesting, food, cover) for wildlife occurring in the vicinity of the Specific Plan Area. As such, the mule fat scrub on the site is considered to be of relatively low biological value.

Curly dock-Forb

This vegetation association is dominated by a nearly monotypic stand of curly dock (*Rumex crispus*) and occurs along the edges of the mine pits and within a small catchment area south of the Large Woolsey Mine Pit. This community is limited to areas with high moisture content and totals approximately 18 acres. Due to the limited diversity of plant species and structure, in addition to its exposure to regular

disturbance associated with mining and pond maintenance activities, this habitat is considered to be of relatively low biological value.

Tree Windrows

Tree windrows occur in three locations within the Specific Plan Area and total approximately 8 acres. A windrow on the boundary of RiverPark Areas 'A' and 'B' consists of non-native eucalyptus (*Eucalyptus* sp.). A small patch of eucalyptus has also been planted as landscaping adjacent to buildings associated with the mine site. In addition, Cottonwood trees (*Populus fremontii*) have been planted as a windrow between the access road to the mine site. Cottonwood trees are most commonly associated with riparian habitat. However, these cottonwoods were planted as a windrow and as such, do not provide quality habitat functions.

Windrows often provide nesting opportunities for a few locally occurring bird species, such as red-tailed hawks. However, because of the linear nature of these trees, the lack of a herbaceous understory and cover, and close juxtaposition with development and human activities, the biological value of the windrows present on site is relatively low.

Southern Willow Scrub

Southern willow scrub scattered on the Specific Plan Area total 3 acres. This vegetation community is characterized by cottonwood (*Populus fremontii*) and several species of willow (*Salix* spp.). Once extensive along the major rivers of coastal southern California, this community has been greatly reduced by urban expansion, flood control, and channel improvements. While this community has a potential for high biological value, it has been greatly impacted by adjacent land use. Because of the fragmented and disturbed nature of this community on the site, it is considered to be of low biological value.

Mine Pits

The existing mine pits, occupying approximately 213 acres of the Specific Plan Area were originally excavated to depths of approximately 90 to 100 feet. The slopes of the mine pits are regularly maintained. Maintenance activities include removal of both bank and submerged vegetation. After mining activities concluded and regional groundwater management plans became effective, the pits were partially filled with groundwater. As discussed in more detail in **Section 4.5, Water Resources**, the level of the water in the mine pits generally corresponds to the level of groundwater in the area, which is the Montalvo Forebay of the Oxnard Aquifer. Water levels fluctuate on a seasonal basis in response to rainfall, artificial

recharge, and to a large extent, groundwater pumping patterns. More than 88 percent of annual precipitation falls in November through March. The largest amount of artificial recharge in the Montalvo Forebay also occur within this time frame. As a result, water levels in the vicinity of the Specific Plan Area have risen more than 25 feet during winter and spring months of some wet years. Seasonal water level highs typically occur between February and May, with most highs recorded in April near the RiverPark Specific Plan Area. If local artificial recharge persists into the dry summer months, seasonal highs can occur as late as July. Seasonal water level lows are typically recorded between October and December.

Over the last 20 years, the water table beneath the RiverPark Specific Plan Area has fluctuated more than 120 feet, ranging from a low of approximately -47 feet msl to a high of approximately 76 feet msl. When using an average ground surface elevation of 85 feet msl, the depth to water has varied from less than 10 feet deep to more than 130 feet beneath the project site. Since the beginning of the current wet cycle in 1992-93, water levels within the Specific Plan Area have fluctuated between 40 feet msl and 75 feet msl. The water levels mine pits were between 40 and 50 feet msl in October/November 2000. Based on an average ground surface elevation of 85 feet msl, the water surface at this point in time was approximately 25 to 35 feet below the level of the surrounding ground.

Because the gravel pits have been excavated below the average groundwater elevation in the area, the water table is exposed most of the time in one or more of the three gravel pits. Over the last 20 years, the water table was exposed in some portion of the pits for approximately 86 percent of the time. Only during the dry period from late 1989 to early 1992 was the water table consistently below the lowest elevation of the pits. The uneven topography of the pit bottoms and, to some extent, the slope of the water table, results in a surface area exposure of the water table that varies with water level fluctuations.

Water-associated bird species, ducks (e.g., northern pintail, northern shoveller, lesser scaup), great blue heron, and double-crested cormorant, are attracted to the pits for foraging and resting; several were observed during site surveys. The pits also provide stopover opportunities for migrating waterfowl. Conversely, because the pits are not interconnected with any natural surface water source and because they support little submerged vegetation, only limited habitat is provided to locally occurring aquatic wildlife species. Further, during the site surveys, no animal sign (tracks, scat, etc.) was detected that would indicate the pits serve as a water source to terrestrial species. This is understandable in that the water surface in the pits is 25 to 35 feet below the surface of the surrounding ground. The lack of submerged and shoreline vegetation limits the breeding possibilities for native amphibian species. Based on the existing conditions of the pits, these areas are considered to be of relatively low biological value.

Wildlife

Although the site's plant communities are limited in area and are subjected to chronic human disturbance, they provide some suitable habitat for several locally occurring wildlife species. While a few species of wildlife are entirely dependent on a single plant community, most species require a mosaic of plant communities to provide the necessary shelter, water, food, and other life cycle resources. Though this mosaic is not necessarily developed within the Specific Plan Area, proximity to the Santa Clara River makes it subject to periodic use by local wildlife species.

Common wildlife species observed, detected, or having a high potential to occur within the project boundary and its vicinity, including the Santa Clara River, are discussed in the following text. Special-status wildlife species known to occur, or having a potential for occurrence within or in the immediate vicinity of the project site, are discussed later in this section.

Fish

Due to the artificial nature of the mine pits, and their lack of connectivity to the nearby river, native fish species would not naturally occur in these bodies of water. Employees of Hanson Aggregates have mentioned the presence of fish in the gravel pits. A single small bullhead (*Ameiurus* spp.) or catfish (*Ictalurus* spp.) was observed being captured by a bird during the January 2001 site survey. It is possible that local residents have released sport and/or aquarium fish into these ponds. Fish species most commonly released into impoundments in the region include large mouth bass (*Micropterus salmoides*), sunfish (*Pomoxis* spp.), goldfish (*Carassius auratus*), common carp (*Cyprinus carpio*), bullhead/catfish, and mosquitofish (*Gambusia affinis*). All of these species are introduced into California and have a potential to occur in the pits.

Amphibians and Reptiles

Several common amphibian and reptile species are known to occur in the project vicinity and could potentially utilize on-site resources. Though the mine pits provide a perennial source of water on site, they do not provide high quality habitat for most amphibian species known to occur in the region. Because ongoing maintenance activities include the clearing of vegetation in and around the edges of the ponds, the resulting condition would leave amphibian eggs, larvae, and adults exposed to predation. As such, few are expected to regularly occur in association with the ponds. However, some species have adapted to urban and agricultural setting and could occur in low numbers within the fragmented plant association on the site. These include the black-bellied slender salamander (*Batrachoseps nigriventris*),

Pacific chorus frog (*Pseudacris regilla*), California chorus frog (*Pseudacris cadavarina*), and western toad (*Bufo boreas*).

Several commonly found reptile species also have the potential to occur on the Specific Plan Area. Western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), southern alligator lizard (*Elgaria multicarinatus*), gopher snake (*Pituophis melanoleucus*), common kingsnake (*Lampropeltis getulus*), chaparral whipsnake (*Masticophis lateralis lateralis*), and southern Pacific rattlesnake (*Crotalus viridis helleri*) are all common species known to occur in the area. However, overall populations of reptiles are expected to be relatively low throughout the Specific Plan Area due to the high level of existing human disturbance.

Birds

Despite the disturbed nature of the site, a variety of more urban-adapted bird species are expected to occur on the project site, especially because of the variety of habitat adjacent to the site in association with the Santa Clara River. As previously mentioned, several species were observed on the pits. Direct observations of upland avifauna during site surveys include American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), blue-gray gnatcatcher (*Poliophtila caerulea*), lesser nighthawk (*Chordeiles acutipennis*), white-crowned sparrow (*Zonotrichia leucophrys*), and savannah sparrow (*Passerculus sandwichensis*). Common water-associated species near the mine pits were more numerous and included American coot (*Fulica americana*), Forster's tern (*Sterna forsteri*), pied-billed grebe (*Podilymbus podiceps*), western grebe (*Aechmophorus occidentalis*), northern pintail (*Anas acuta*), northern shoveler (*Anas clypeata*), lesser scaup (*Aythya affinis*), and bufflehead (*Bucephala albeola*). Great blue heron (*Ardea herodias*) and double-crested cormorant (*Phalacrocorax auritus*) were also observed. These two species are considered to be of special-status by California Department of Fish and Game (CDFG). As such, they are discussed in more detail in the Special-Status Biological Resources portion of this section.

Raptors (birds of prey) are another group of bird species expected to periodically utilize the site. The agricultural fields and other open areas on the site provide a forage base for many raptor species occurring in the region. Turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), and three falcons, peregrine, merlin, and American kestrel (*Falco peregrinus*, *F. columbarius* and *F. sparverius*, respectively) were observed soaring and/or foraging over and near the site during the field surveys. Other raptor species including great horned owl (*Bubo virginianus*), barn owl (*Tyto alba*), red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), and Cooper's hawk (*Accipiter cooperii*) are

expected to occur in the area. White-tailed kite and Cooper's hawk are special-status species and are discussed in more detail in the Special-Status Biological Resources portion of this section.

Twenty-two species of birds have been observed nesting or with young on the site (see the RiverPark Bird survey in **Appendix 4.4**). The mine pits are important for post-breeding and rearing habitat for a number of waterfowl and shorebirds.

Mammals

A variety of mammal species occur in the vicinity of the Specific Plan Area. Several larger species including mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), and possibly common gray fox (*Urocyon cinereoargenteus*) are expected to regularly occur within the Santa Clara River corridor adjacent to the Specific Plan Area. This is also the case with several medium-sized to small mammal species, including Virginia opossum (*Didelphis virginiana*), common raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and long-tailed weasel (*Mustela frenata*). Though most of the site is fenced where it borders the river corridor, each of these species has a potential to periodically occur on the Specific Plan Area while in search of food. However, it is not expected that these animals permanently reside within the boundaries of the Specific Plan Area.

Common mammals either directly observed or for which diagnostic sign was detected during surveys of the Specific Plan Area include California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus auduboni*), and Botta's pocket gopher (*Thomomys bottae*). Additional small mammals that potentially occur on site include ornate shrew (*Sorex ornatus*), broad-footed mole (*Scapanus latimanus*), western harvest mouse (*Reithrodontomys megalotis*), deer mouse (*Peromyscus maniculatus*), California mouse (*Peromyscus californicus*), brush mouse (*Peromyscus boylii*), and California vole (*Microtus californicus*). Non-native mammal species including house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), and black rat (*R. rattus*) also commonly occur near agricultural and other areas subject to regular human disturbance and may occur on site.

Common bat species with a potential to forage and temporarily roost on site include western pipistrelle (*Pipistrellus hesperus*), Brazilian free-tailed bat (*Tadarida brasiliensis*), big brown bat (*Eptesicus fuscus*) and California myotis (*Myotis californicus*). Bat species considered to be of special-status potentially occur in the vicinity and are discussed in more detail below.

Special-Status Biological Resources

The following discussion describes plant and wildlife species present or potentially occurring within and immediately adjacent to the Specific Plan Area that have been afforded special recognition by federal, state, and/or local resource agencies or jurisdictions, or recognized resource conservation organizations. Wildlife movement corridors are also discussed.

Special-Status Plant Species

Plant species that are classified as state or federally endangered or threatened, proposed for listing as endangered or threatened, are candidate species for listing, or are considered federal species of concern are considered to be of special status. Plants included on Lists 1 and 2 of the California Native Plant Society (CNPS) inventory are also considered to be of special status. All special-status plant species potentially occurring in the Specific Plan vicinity are listed in **Table 4.4-1**, Special-Status Plant Species Potentially Occurs within the RiverPark Specific Plan Area. No species listed has a high potential of occurring on site; special-status plant species were identified on the site during the focused plant surveys. A focused study for special-status plant species was conducted by Anuja Parikh and Nathan Gale, for Impact Sciences, during the spring and summer, 2001. No sensitive-status plant species were found or are expected to be found on the site. This report is located in **Appendix 4.4**.

Special-Status Wildlife Species

Special-status wildlife includes those species that are state or federally listed as Threatened or Endangered, have been proposed or are Candidates Species for listing as Threatened or Endangered, or are considered state Species of Special Concern, CDFG Special Animals, and/or California Fully Protected Species. Species once considered sensitive under a classification system since discarded by USFWS have become known as federal species of concern. Though this is not a legal status and is not meant to imply protection under the Endangered Species Act, potential impacts to these species are still evaluated under CEQA for the purposes of this report.

The potential for special-status wildlife species to occur within the Specific Plan Area is based on documented geographic distribution, suitability of on-site habitats, and occurrence records of species in the project vicinity. All species occurring or potentially occurring, or for which focused survey efforts were conducted on the site, are listed below in **Table 4.4-2**. Those species observed or with a high potential of occurring are discussed in more detail below.

Table 4.4-1
Special-Status Plant Species Potentially Occurring in the RiverPark Specific Plan Vicinity

Scientific and Common Names	Status			Habitat	Growth Form (Blooming)	Occurrence Potential
	Federal	State	CNPS			
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura marsh milk-vetch	FPE	CE	1B	Coastal salt marsh, near seeps, on sandy bluffs.	PH (July-October)	Not expected; Suitable habitat not present on site.
<i>Calochortus plummerae</i> Plummer's mariposa lily	SOC	None	1B	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland/granitic rocky soil	PH (May – July)	Not expected; Suitable habitat not present on site
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> Orcutt's pincushion	--	--	1B	Coastal bluff scrub (sandy), coastal dunes	AH (January-August)	Not expected; Suitable soils not present on site.
<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i> Salt marsh bird's-beak	FE	CE	1B	Coastal dunes, marshes and swamps (coastal salt)	AH (h) (May-October)	Not expected; Suitable habitat not present on site.
<i>Delphinium parryi</i> ssp. <i>Blochmaniae</i> Dune larkspur	SOC	None	1B	Chaparral (maritime), coastal dunes	PH (April – May)	Not expected; Suitable habitat not present on site
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blachman's dudleya	SOC	None	1B	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland/rocky, often clay or serpentinite	PH (April – June)	Not expected; Suitable habitat not present on site
<i>Dudleya verityi</i> Verity's dudleya	SOC	None	1B	Chaparral, cismontane woodland, coastal scrub/volcanic	PH (May-June)	Not expected; Suitable habitat not present on site
<i>Eriogonum crocatum</i> Conejo buckwheat	SOC	CR	1B	Chaparral, coastal scrub, valley and foothill grassland/Conejo volcanic outcrops, rocky	PH (April – July)	Not expected; Suitable habitat not present on site
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	SOC	None	1B	Coastal salt marshes and swamps; playas; vernal pools	AH (February-June)	Low to Moderate Potential: Ideal habitat not present, but species known from atypical habitats.
<i>Senecio aphanactis</i> Rayless ragwort	None	None	2	Chaparral, cismontane woodland, coastal scrub/alkaline	AH (January – April)	Not expected; Suitable habitat not present on site

Key:

Status:

Federal: FE = Federal Endangered Species; SOC = Species of Concern

State: CE = State Endangered Species; CR = California Rare

CNPS: 1B = Plants rare and endangered in California and elsewhere

Growth Form:

AH = Annual Herb

h = hemi-parasitic

PH = Perennial Herb

FPE = Federally Proposed Endangered

**Table 4.4-2
Special-Status Wildlife Species Observed or Potentially Occurring on the Project Site ¹**

Scientific Name ²	Common Name ²	Status State/Fed	Occurrence Potential
INVERTEBRATES			
<i>Cicindela hirticollis gravida</i>	Sandy beach tiger beetle	-/-	Not expected; suitable habitat not present on site.
<i>Euphydryas editha quino</i>	Monarch butterfly winter roosts	Sensitive Habitat (S3)/--	Not expected; suitable habitat not present on site.
FISH			
<i>Catostomus santaanae</i>	Santa Ana sucker	CSC/---	Not expected; known to occur adjacent to site in Santa Clara River, but no connectivity with on-site mine pits.
<i>Eucyglobius newberryi</i>	Tidewater gobi	---/FE	Not expected; known to occur adjacent to site in Santa Clara River, but no connectivity with on-site mine pits.
<i>Gila orcutti</i>	Arroyo chub	CSC/[FSC]	Not expected; known to occur adjacent to site in Santa Clara River, but no connectivity with on-site mine pits.
<i>Oncorhynchus mykiss irideus</i>	Southern Steelhead	---/FE	Not expected; known to occur adjacent to site in Santa Clara River, but no connectivity with on-site mine pits.
AMPHIBIANS			
<i>Taricha torosa torosa</i>	Coast range newt	CSC/---	Not expected; no suitable habitat present on site.
<i>Bufo microscaphus californicus</i>	Arroyo toad	CSC/FE	Not expected; suitable habitat not present on site.
<i>Rana aurora draytonii</i>	California red-legged frog	CSC/FE	Not expected; Survey was not conducted but very marginal <i>Rana</i> habitat is present in the mine pits, because of highly fluctuating water levels and little to no vegetation in shallow water due to these fluctuations. Also very little organic matter on the bottom of the shallows. No recent documented occurrences in area.
<i>Scaphiopus hammondi</i>	Western spadefoot	CSC/[FSC]	Not expected; no suitable habitat present on site.
REPTILES			
<i>Clemmys marmorata pallida</i>	Southwestern pond turtle	CSC/[FSC]	Low potential; marginally suitable habitat associated with mine pits, but maintenance practices may preclude presence.
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned lizard	CSC/[FSC]	Low potential; known to occur in area, but habitat on site is highly disturbed.
<i>Cnemidophorus tigris multiscutatus</i>	Coastal western whiptail	---/[FSC]	Not expected; no suitable habitat present on site.
<i>Salvadora hexalepis virgulata</i>	Coast patch-nosed snake	CSC/[FSC]	Not expected; no suitable habitat present on site.
<i>Thamnophis hammondi</i>	Two-striped garter snake	CSC/[FSC]	Low potential; specimens may occur, however, there is very limited habitat for prey species associated with mine pits.

Scientific Name ²	Common Name ²	Status State/Fed	Occurrence Potential
BIRDS			
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	CSC /FT	Not expected; no suitable nesting or foraging habitat present on site.
<i>Sterna antillarum browni</i>	California least tern	CE/FE	Not expected; transient birds may use the site on a limited basis, but no suitable nesting or foraging habitat present on site.
<i>Elanus leucurus</i>	White-tailed kite	CFP /---	Moderate potential as transients for foraging; marginal nesting and suitable foraging habitat present
<i>Circus cyaneus</i>	Northern harrier	CSC/---	Moderate potential; may forage as transients on site
<i>Accipiter striatus</i>	Sharp-shinned hawk	CSC/---	Low potential; may occasionally forage as seasonal migrant
<i>Accipiter cooperii</i>	Cooper's hawk	CSC/---	Moderate potential as transients for foraging; no suitable nesting on site, but suitable foraging habitat present
<i>Buteo regalis</i>	Ferruginous hawk (wintering)	CSC/[FSC]	Low potential; may occasionally forage as rare seasonal migrant
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	CE/--	Not expected; no suitable nesting or foraging habitat present on site.
<i>Speotyto cunicularia</i>	Burrowing owl	CSC/[FSC]	Low potential; limited habitat present; no recent records in area.
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	CE/FE	Not expected: No individuals were observed during the Greaves survey for least Bells vireo and little suitable habitat is present on site
<i>Eremophila alpestris actia</i>	California horned lark	CSC/---	Not expected: no suitable habitat on site
<i>Riparia riparia</i>	Bank swallow	CT/--	Not expected: no suitable habitat on site
<i>Lanius ludovicianus</i>	Loggerhead shrike	CSC/[FSC]	Low potential; very limited nesting habitat on site, possibly occurs as infrequent forager.
<i>Vireo bellii pusillus</i>	Least Bell's vireo	CE/FE	Not expected: known to occur within Santa Clara River.
<i>Dendroica petechia</i>	Yellow warbler	CSC/---	Not expected: no suitable nesting habitat on site
<i>Icteria virens</i>	Yellow-breasted chat	CSC/---	Not expected: no suitable nesting habitat on site
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	CE/--	Not expected; no suitable nesting or foraging habitat present on site.
<i>Poliophtila californica californica</i>	Coastal California gnatcatcher	---/FT	Not expected ; no suitable nesting or foraging habitat present on site.

Scientific Name ²	Common Name ²	Status State/Fed	Occurrence Potential
MAMMALS³			
<i>Myotis evotis</i>	Long-eared myotis	---/[FSC]	Low potential; may forage over the site, however roost habitat and hibernacula is scarce on the site
<i>Myotis leibii</i>	Small-footed myotis	---/[FSC]	Low potential; may forage over the site, however roost habitat and hibernacula is scarce on the site
<i>Myotis thysanodes</i>	Fringed myotis	---/[FSC]	Low potential; may forage over the site, however roost habitat and hibernacula is scarce on the site
<i>Myotis yumanensis</i>	Yuma myotis	CSC/[FSC]	Low potential; may forage over the site, however roost habitat and hibernacula is scarce on the site
<i>Antrozous pallidus</i>	Pallid bat	CSC/---	Low potential; may forage over the site, however roost habitat and hibernacula is scarce on the site
<i>Eumops perotis</i>	Greater western mastiff-bat	CSC/[FSC]	Low potential; may forage over the site, however roost habitat and hibernacula is scarce on the site
<i>Lepus californicus</i>	San Diego black-tailed jackrabbit	CSC/[FSC]	Not expected: no suitable habitat on site
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	CSC/[FSC]	Not expected: no suitable habitat on site

KEY:

¹ Field surveys conducted by Impact Sciences in January and February 2001 at the RiverPark Specific Plan Area.

² Scientific and common names are American Fisheries Society (Jennings (1983) for amphibians and reptiles, American Ornithologist's Union (1983, plus supplements in 1985, 1987, 1989, and 1993) for birds, and Jones et al. (1992) for mammals.

³ Focused bat surveys were not conducted as suitable roosting habitat and hibernacula were not present on the site. The potential for each species to forage on site is discussed in the table.

Federal

FE: Federally-listed endangered species.
 FT: Federally-listed threatened species
 [FSC]: Federal Species of Concern

State

CE: State-listed endangered species
 CT: State-listed threatened species
 CSC: CDFG Species of Special Concern
 CFP: CDFG "Fully-protected" species
 CSA: CDFG Species List
 S3: Restricted Range, Rare in state of California

Special-Status Species Where Surveys Were Conducted

Least Bell's vireo (*Vireo bellii pusillus*); **Federally-Listed Endangered Species, State-Listed Endangered Species.** Least Bell's vireos are most frequently located in riparian vegetation with significant tree cover in conjunction with a well-developed shrub understory. Common understory shrubs and young trees include narrow-leaved willow (*Salix exigua*), mule fat, and young arroyo willow. No least Bell's vireo

nests were found on the site. Adults and young were sighted in the river corridor adjacent to the site, approximately 80 to 100 meters west of the existing levee.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*); **Federally-Listed Endangered Species, State-Listed Endangered Species.** The Southwestern willow flycatcher occupies similar habitat to the least Bell's vireo. No southwestern willow flycatchers were detected or observed during the focused surveys conducted for the least Bell's vireo.

Jurisdictional Resources

Regulatory Framework

Direct and indirect impacts on wetland and riparian areas may be subject to the jurisdiction of several state and federal agencies, including the U.S. Army Corps of Engineers (ACOE), the California Department of Fish and Game (CDFG), and the Los Angeles Regional Water Quality Control Board (RWQCB). Areas within the Specific Plan Area potentially under the jurisdiction of these agencies are briefly discussed below.

Summary of Jurisdiction

Waters within the RiverPark Specific Plan Area are confined to existing mine pits that have filled with groundwater and agricultural drainage channels. As discussed above, the water level within the pits reflects the groundwater levels in the forebay. The site is located next to the Santa Clara River, although there is no surface connection to the river. Considerations frequently used for determining ACOE jurisdiction on water bodies in man-made excavations are whether such waters replaced naturally occurring waters or wetlands prior to the mining activity, as determined by historical evidence such as mapped hydric soil, or whether the waters have a connection to, or could be considered "adjacent" to navigable water, including such water's tributaries. The first scenario appears to have been unlikely and the second is a matter for interpretation. The March 9, 2000, issuance of new Corps of Engineers Nationwide Permits (NWP), contains an intent statement issued with NWP #44 Mining Activities states:

"District engineers will determine, on a case-by-case basis, whether a specific mined area has been abandoned. In most cases, a mining site where no construction, mining, excavation, processing, and/or reclamation activities have occurred during the last 10 years would be considered abandoned, at the district engineer's discretion. Wetlands and waterbodies within an abandoned mined area would be considered "waters of the United States," if those areas meet the criteria at 33 CFR 328." (Federal Register Vol. 65, No. 47, pages 12860-12861).

As processing and reclamation activities are presently taking place on site, the above statement implies that if the site is not considered abandoned, then it should not be considered “waters of the United States” from the standpoint of the Clean Water Act and implementing regulations. If not considered “waters of the United States,” then the issue of adjacency to navigable waters is not relevant, as the water-filled pits must meet the regulatory definition of waters.

Within agricultural drainage channels that are maintained for normal agricultural practices, the channel may not be regulated as they pertain to “normal agricultural practices.” Once removed from agriculture, the ACOE may assume jurisdiction under Section 404.

The California Department of Fish and Game has regulatory authority over a variety of water bodies, pursuant to Section 1600 – 1603 of the Fish and Game Code of California. Jurisdictional waterbodies include rivers, streams, or lakes, designated by the Department “in which there is at any time an existing fish or wildlife resource, or from which these resources derive benefit.” CDFG does not take jurisdiction over all water bodies, but has some discretion on the extent of their jurisdiction. The existing mine site has been subject of previous environmental review and has an adopted reclamation plan. CDFG has not indicated that the mine pits are water bodies subject to jurisdiction under Section 1600 – 1603 of the Fish and Game Code.

Wildlife Movement Corridors

Wildlife movement corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, by human disturbance, or by the encroachment of urban development. Movement corridors are important as the combination of topography and other natural factors, in addition to urbanization, have fragmented or separated large open space areas. The fragmentation of natural habitat creates isolated ‘islands’ of vegetation that may not provide sufficient area to accommodate sustainable populations and can adversely impact genetic and species diversity. Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished by promoting genetic exchange with separate populations; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire, flood, or disease) will result in population or species extinction; and (3) serving as travel paths for individual animals as they wander about or disperse from their home ranges in search of food, water, mates, and other needs.

The project site is situated immediately adjacent to the Santa Clara River. The river serves as an important regional wildlife corridor, providing all of the opportunities for movement described above.

As previously described in this report, the Specific Plan Area itself is highly disturbed as a result of development and existing land use practices. Similar development and land use practices occur on all sides of the site except where the river occurs. Though many wildlife species utilizing the river corridor for movement have the potential to periodically forage on the Specific Plan Area, the site itself is not considered a part of this movement corridor. Conversely, the corridor realistically serves as a path of avoidance from the disturbances present within the Specific Plan Area.

PROJECT IMPACTS

Thresholds of Significance

Based on Appendix G of the CEQA *Guidelines*, the City of Oxnard considers the impact of a project on biological resources to be significant if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Section 15065(a) of the CEQA *Guidelines* also states that a project may have a significant effect on the environment when the project has the potential to:

- substantially degrade the quality of the environment;
- substantially reduce the habitat of a fish or wildlife species;
- cause a fish or wildlife population to drop below self-sustaining levels;
- threaten to eliminate a plant or animal community; or
- reduce the number or restrict the range of an endangered, rare, or threatened species.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Impacts are sometimes locally important but not significant according to CEQA, because although they would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide, or region-wide, basis.

For the purposes of this impact analysis, the terms “sensitive” and “special-status species” refer to the following: any plant or animal species listed by CDFG or USFWS as a threatened or endangered species, proposed for listing as threatened or endangered, or considered as a candidate for listing as threatened or endangered; those species listed by the USFWS as a federal Species of Concern; those species considered by CDFG as a State Species of Special Concern or as a Fully Protected species; and any plants listed by the CNPS as a List 1 and List 2 species, or to any species otherwise considered rare, threatened, or endangered as defined by Section 15380 of the CEQA *Guidelines*. CNPS List 1 and List 2 species are included in this impact analysis because the CNPS is a recognized authority by CDFG on the status of rare plant populations in California and because the criteria for plant species to be placed on List 1 and List 2 are similar to criteria that CDFG and USFWS use for species considered as candidates for listing or that are already listed as Threatened or Endangered.

Impact Methodology

Direct impacts of a proposed project on biological resources can take several forms (such as the direct loss or mortality of individual plants and animals as a result of grading and construction activities), but typically involve the loss or modification of natural habitat, (i.e., vegetation communities or other naturally occurring areas) which in turn, directly affect plant and wildlife species dependent upon that habitat. The level of significance of potential direct and indirect impacts on biological resources is determined by an evaluation of the overall biological value of a habitat area and/or a specific resource (described below) with respect to significance threshold criteria (described above under Significance Threshold Criteria). The relative value of on-site habitats is measured by such factors as overall parcel size; disturbance history; the surrounding environment; biological diversity and abundance; importance to particular plant and wildlife species; the presence of special-status species; and sensitivity status with local, state, and/or federal agencies.

Direct Impacts

Common Plant Communities

The following text discusses project impacts to common vegetation communities on the site.

Agricultural Fields

All of the agricultural fields (209 acres) occurring on site will be directly impacted by implementation of the RiverPark Project. Although this plant community does provide limited foraging opportunities for wildlife species, it is of relatively low biological value and does not support special-status species. Because the agricultural fields on the project site do not currently support special-status plant or wildlife species, because they are relatively low in overall biological value, and because they are fairly common in the region, the loss of agricultural fields within the Specific Plan Area would not be considered a significant impact.

Ruderal

All of the ruderal habitat present on the Specific Plan Area would be impacted by implementation of the Specific Plan. Although this habitat does provide limited foraging opportunities for common small mammal and bird species, and potentially a few raptors, the loss of 181 acres of this disturbed, non-native vegetation would not substantially reduce the populations of native wildlife or their habitats; therefore, this loss would not be considered a significant impact.

Mule Fat Scrub

Much of the mule fat occurs in association with the mine pits and would be directly impacted during implementation of the slope reconfiguration and stabilization included in the proposed Mine Reclamation Plan. Loss of this native plant assemblage would be considered a significant impact. However, the proposed Mine Reclamation Plan includes a complete restoration plan. A Mule fat community will be restored adjacent to the margins of the pits by seeding the area with species characteristic of this community. As the proposed project includes the restoration of the Mule fat community in the same locations and amounts as what exists, this impact is not significant.

Curly Dock-Forb

This plant community is associated with the water line of the mine pits and is considered to be of relatively low biological value. Because the curly dock-forb community does not support special-status

species, is not under resource agency jurisdiction, would not reduce regional wildlife populations, and is of low biological value, the loss of 18 acres of this community would not be considered a significant impact.

Tree Windrows

Although the existing tree windrows provide some nesting opportunities for locally occurring birds, the amount and quality of habitat are limited. Higher quality nesting habitat is present adjacent to the project site in association with the Santa Clara River corridor. The RiverPark Specific Plan includes the preservation of the eucalyptus windrow on the boundary of RiverPark Areas 'A' and 'B' in a new park space. In addition, the Landscape Master Plan in the proposed Specific Plan includes a proposal to create a linear landscaped riparian edge, composed of native vegetation communities, along the western edge of the Specific Plan Area in RiverPark Area 'B'. The goal of this native landscape edge is to create a multi-layered habitat that utilizes native vegetation communities to attract and support a wide range of wildlife species, especially birds. Selected tree species, including Fremont cottonwoods (*Populus fremontii*), black cottonwoods (*Populus balsamifera* ssp. *trichocarpa*), red willow (*Salix laevigata*) and native sycamores (*Platanus racemosa*), are proposed to provide foraging habitat for the many species associated with cottonwood-willow woodlands. These woodlands will add a type of native habitat not presently found along this part of the Santa Clara River. While the project will result in the elimination of the two small existing windrows located near the existing buildings on the mine site and along the south side of the access road to the mine, the overall amount and quality of the tree habitat within the Specific Plan Area will be improved by the establishment of a new native woodland community adjacent to the river. Therefore, the loss of the two tree windrows on the project site is less than significant.

Southern Willow Scrub

This plant community provides some habitat for locally occurring birds. However, as previously described, the amount and quality of this habitat is considered low. The scattered and fragmented nature of the vegetation throughout the site offers limited habitat values. The loss of the 3 acres of southern willow scrub on the Specific Plan Area would not be considered a substantial loss of this habitat in the area or reduce any local or regional populations of wildlife. Thus, the loss of this community would not be considered a significant impact.

Mine Pits

As discussed in the project description in **Section 3.0** of this DEIR, the existing peninsula in the mine pits and the land bridge between the Brigham and Small Woolsey Pits will be dredged and modified to form

one larger pit. As project implementation would not result in any net loss of pond habitat, no significant impacts would occur to this resource.

Common Wildlife Resources

The loss of habitat, and construction and grading activities associated with the proposed project would directly disturb wildlife on the project site. Most species are expected to be displaced to adjacent areas, provided that suitable habitat is available at the onset of construction activity. However, wildlife that emigrates from the site is vulnerable to mortality by predation and unsuccessful competition for food and territory. Species of low mobility (particularly burrowing mammals, amphibians, and reptiles) could be eliminated during site preparation and construction.

Because of the disturbed nature of the habitat within the Specific Plan Area, wildlife species diversity is expected to be relatively low. Total numbers of animals are also expected to be low, as on-site habitats do not provide sufficient resources to support large populations. In addition, any animals that may be inadvertently lost as a result of grading activities are quite common species within the region. As such, project implementation would not reduce local or regional populations to below self-sustaining levels or otherwise substantially affect common fish or wildlife species populations on or adjacent to the project site. Consequently, no significant impacts to common wildlife species are expected to occur.

However, some bird species, particularly raptors, could be adversely affected as a result of the loss of nesting habitat (trees and shrubs) or as a result of construction or other site-preparation activities. Such activities could result in the direct loss of active nests or the abandonment of active nests by adult birds. Bird nests with eggs or young are protected under the Migratory Bird Treaty Act and the California Fish and Game Code. Several species of birds were found to be nesting and with young on the site. Any disturbance to active nests would be considered a significant impact.

Sensitive Biological Resources

Special-Status Plants

No special-status plants were detected on site during focused survey efforts, which were conducted during appropriate blooming periods. Therefore, no loss of special-status plant species is expected to occur.

Special Status Wildlife

Aquatic Wildlife

While not found on the project site, the federally-listed endangered Southern California Evolutionary Significant Unit (ESU) steelhead (*Oncorhynchus mykiss*) utilize the portion of the River adjacent to the site during seasonal high flows to access tributaries where they spawn. Other special-status wildlife species including the arroyo chub (*Gila orcutti*) and southwestern pond turtle (*Clemmys marmorata pallida*) are also known to occur in this portion of the river. No significant impacts are expected to occur to aquatic wildlife as a result of this project.

Least Bell's vireo

Focused surveys have found no habitat for the Least Bell's vireo. There is a potential for the least Bell's vireo to be sighted on the site. However, it is likely that any individuals present on site would be transients between habitats along riparian areas. No significant impact will occur to least Bell's vireo on site.

Southwestern Willow Flycatcher

No willow flycatchers were observed on the site or in the immediate vicinity of the site during the survey's conducted for the least Bell's vireo. Therefore, no impacts are expected to southwestern willow flycatchers as a result of this project.

Wildlife Movement Corridors

Because the project site is not part of a regional habitat linkage that connects large open space areas in the region, the Specific Plan Area itself is not considered a wildlife movement corridor. Due to the site's proximity to the Santa Clara River, which is an important regional movement corridor, there is a potential for indirect impacts including increased lighting and noise, and increased human and domestic animal presence. These potential indirect impacts are addressed below

A linear landscaped riparian edge, composed of native vegetation communities, would be created along the western edge of the Specific Plan Area in RiverPark Area 'B'. The goal of this native landscape edge is to create a multi-layered habitat that utilizes native vegetation communities to attract and support a wide range of wildlife species, especially birds. The addition of this native habitat along the river will

likely enhance the quality of this portion of the river as a wildlife corridor. In addition, this riparian corridor will serve as a buffer between the residential uses proposed in RiverPark Area 'B' and the river.

Indirect Impacts

Indirect impacts on biological resources could potentially occur to those habitat areas surrounding the development area, as well as to remaining habitat areas within the proposed development area, both during and after the completion of the proposed project. Potential indirect impacts on biological resources could include the following: (1) increased lighting and glare effects on wildlife species in remaining and adjacent open space areas, particularly the Santa Clara River; (2) potential increase in pesticides, herbicides, and pollutants into the Santa Clara River and into groundwater as a result of stormwater runoff; (3) increased runoff of pollutants; (4) an increase in non-native plant species that are adapted to more urban environments that can out compete native species for available resources, thus reducing the distribution and population of native species; (5) increases in domestic animal presence that can disturb natural habitat areas and displace wildlife populations; and (6) construction and grading activities that can temporarily displace and disturb wildlife species associated with the Santa Clara River and degrade nearby plant communities. Each of these potential indirect impacts are addressed below:

Increased Lighting and Glare

Night time illumination is known to impact some species of animals in natural areas. Night time light can disturb resting and foraging behavior and can potentially alter breeding cycles and nesting behavior. Project implementation would increase the number of elevated night time light sources within the Specific Plan Area. Residential uses would be established in RiverPark Area 'B'. The existing levee, the proposed native woodland along the western edge of the residential area and a street planned between the new native woodland and the residential uses would provide a substantial buffer between the river and these uses. Immediately south of the residential uses, park and school uses are proposed. These areas will not be lit for use at nighttime. In the southwest corner of the Specific Plan Area, new office buildings would be allowed immediately south of the existing State Compensation Fund Insurance Building. Parking areas, with typical parking lot security lighting, would be located around new buildings in this portion of the Specific Plan Area. Lights in these parking areas would be oriented away from the river and towards the parking areas. Given the arrangement and orientation of the proposed land uses, the increased elevation of the existing levee and the proposed landscaping along the edge of the residential area, the potential for impacts is minimal, but potentially significant.

Runoff Quality and Quantity

Changing upland areas, even ruderal fields, from porous substrates to urban “hardscape” may alter water table recharge values, cause greater amounts of direct runoff that can convey chemical pollutants directly into the aquatic habitat, and lower natural nutrient inflows. **Section 4.5, Water Resources**, addresses water quantity and quality issues associated with the RiverPark Project in detail. The analysis of groundwater shows a net increase in groundwater due to diversions of surface water and elimination of onsite groundwater pumping.

Untreated runoff can exacerbate the effects of pesticides, herbicides and other pollutants on the biota of the Santa Clara River, and adversely affect plants that may absorb contaminated groundwater. The RiverPark Specific Plan includes a water quality treatment system designed to treat runoff from the new land uses proposed within the Specific Plan Area and off-site areas that presently drain to the Specific Plan Area. Stormwater flows will be treated by passing through a system of water quality detention basins and/or dry grassy swales, before being discharged to the Santa Clara River through existing drain outlets, or the mine pits, depending upon the magnitude of the rainfall event and location of the individual drainage area. This system includes dry swales, water quality detention basins, and “Best Management Practices” mechanical treatment features designed into the storm drain system. The dry swales will be grass lined channels overlying a permeable soil layer. The detention basins will be lined with a low permeability or impermeable material. This system has been designed to provide greater treatment of runoff from smaller storm events that will contain the greatest concentration of pollutants. This system has been designed to detain and treat runoff from up to a 10-year storm event. Runoff from all storms larger than a 10 year event from off-site areas and a majority of RiverPark Area ‘B’ will be routed into the mine pits.

The water quality treatment system proposed will be sufficient to trap and remove pollutants and urban sediments to the degree necessary to ensure high water quality levels. Therefore, impacts to biological resources in the Santa Clara River as a result of stormwater runoff into the River are not significant. Please refer to **Section 4.5, Water Resources**, of this Draft EIR for a detailed analysis of surface water quality.

Aquatic species in the Santa Clara River would be most sensitive to changes in runoff quality. Toxicity levels for fish and projected concentrations of metals in runoff from the Specific Plan Area are presented below in **Table 4.4-3**. The toxicity levels for fish were determined and presented in Water Quality Criteria (McKee & Wolf, 1963). The projected metal concentrations are from **Section 4.5, Water Resources**.

As indicated by the concentrations in Table 4.4-3, the concentrations of the minerals and metals from runoff entering the River would be below levels known to be toxic to fish. In all cases, the project water quality treatment system reduces the concentrations of these constituents compared to existing runoff. Therefore, no significant impact to aquatic species will result from changes in runoff quality.

Table 4.4-3
Projected Discharge of Selected Chemical Constituents and Toxicity Levels for Fish

Chemical Constituent	Toxicity Level for Fish (mg/l)	Projected Maximum Concentration (mg/l) that may be discharged to the River
Beryllium	0.15	0.0005
Boron	2000.0	.06
Chromium	5.0	.009
Copper	0.1	.016
Lead	0.1	.007
Manganese	1.0	.03
Nickel	0.8	.01
Zinc	0.3	.083

As described in Section 4.11.1, **Stormwater Drainage**, the proposed storm drain and water quality treatment system will reroute and detain storm flows to allow for treatment. Overall, the project will result in an increase in total volume discharged to the river of 23.9 ac-ft (Q100) and an increase in peak flow of 149 cfs (Q100). This increase of 0.075% is negligible when compared to the total flows in Santa Clara River of 200,000 cfs (Q100). No change to the existing storm drain outlets to the river are proposed. The change in runoff quantities are small in magnitude and will not impact the amount or quality of habitat in the Santa Clara River.

Increase in Non-native Plants

After project completion, a number of non-native plant species that are more adapted to urban environments will be introduced into the Specific Plan Area. Plants typical of an urban environment already occur to some degree in the region, due to the presence of development in the immediate vicinity. The RiverPark Specific Plan also includes the use of native plant species in key locations, including the slopes of the mine pits and along the western edge of RiverPark Area 'B', where a riparian woodland of native species will be established.

However, because non-native and exotic plants are commonly included in landscaping plans of both common areas and on private lots of new development projects, it can be reasonably concluded that the project could result in identifiable increases in non-native and/or exotic plant populations. In particular, these plant species are often more adapted to a wider variety of growing conditions and can out-compete native plant populations for available nutrients, prime growing locations, and other resources. Because these plants reproduce so quickly and in such large amounts, these species can quickly replace many native plant populations, resulting in lower species diversity, loss of suitable breeding and/or nesting habitat for common and special-status wildlife species, changes to the adjacent riparian ecosystem, and overall reductions in habitat values. Therefore, the impact on native biological resources of the adjacent riparian corridors a result of increased non-native plant species is considered a significant impact.

Increase in Domestic Animals

Increased use of the site by domestic animals can disturb nesting or roosting sites and disrupt the normal foraging activities of wildlife in adjacent habitat areas. Should this activity occur frequently, and over a long time period, these disturbances may have a long-term effect on the behavior of both common and special-status animals and can result in their extirpation from the area. Feral cats, as well as house cats, can cause substantial damage to the species composition of natural areas through predation on wildlife species, including populations of special-status species. The levee, its associated fences, and the proposed landscaping will form an effective barrier between the residential areas proposed in RiverPark Area 'B' and the river corridor that will minimize the potential for domestic animals to access the river. The increase in the number of domestic animals on the site will, therefore, not result in a significant impact on biological resources in the area.

Construction and Grading Activities

The primary phase of construction will occur over a 12-month period as the site is graded, the primary streets and associated utilities in RiverPark Area 'A' are built, the remedial earthwork identified in the proposed Mine Reclamation Plan is completed and the water quality treatment system is constructed. The levee forms an effective noise barrier between construction that will occur during this period along the western edge of the Specific Plan Area and the Santa Clara River. Standard required dust control measures will minimize fugitive dust that could accumulate in adjacent habitat in the River. For these reasons, construction activities will not result in significant impacts.

MITIGATION MEASURES

The following discussion describes measures proposed to avoid, minimize, or reduce significant and potentially significant impacts on biological resources. These measures, if successfully implemented, would reduce the degree of these impacts to a level that is less than significant. These measures are intended to address state and federal laws and regulations protecting certain plant and animal species.

Direct Impacts

Common and Special-Status Bird Nests

- 4.4-1 Prior to issuance of a grading permit for the project site, and within 15 days prior to construction or site preparation activities that would occur during the nesting/breeding season of native bird species potentially nesting on the site (February through July), the applicant shall retain the services of a qualified biologist. The biologist must, at a minimum, have a degree in biology or related field, and five years field experience in identification of flora and fauna in the southern California region, and be recognized as qualified by appropriate regulatory agencies. The biologist shall conduct on-site surveys to determine if active nests of special-status and common bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code, are present within 100 feet of the construction zone. If active nests are found on or immediately adjacent to the site, a minimum 100-foot buffer area (300 feet for raptors) shall be temporarily fenced around the nest site. No construction activities shall be permitted within this nest zone until the young birds have fledged, as determined by the biologist.

Indirect Impacts

Light and Glare

- 4.4-2 All lighting adjacent to the Santa Clara River and berm, particularly street lamps, shall be downcast luminaries and shall be shielded and oriented in a manner that will prevent spillage or glare (greater than one-half foot candle illumination at ground level) into the remaining natural and open space areas. Final lighting orientation and design shall be approved by the City of Oxnard Community Development Department.

Non-Native Plant Species

- 4.4-3 Certain ornamental plants are known to escape from planted areas and invade into native plant communities. In order to protect native plant communities established within the Specific Plan Area and located in the adjacent Santa Clara River Corridor, the plants listed below in **Table 4.4-4** shall not be planted within the common landscaped areas of the proposed site plan. This list shall also be distributed to new homeowners and included within the CC&Rs. The landscaping plans within common areas of the project shall be reviewed by a qualified botanist who shall recommend appropriate provisions to prevent other invasive plant species from colonizing remaining natural areas. These provisions may include the following: (a) review and screening of proposed plant palette and planting plans to identify and avoid the use of invasive species; (b) weed removal during the initial planting of landscaped areas; and (c) the monitoring for and removal of weeds and other invasive plant species as part of ongoing landscape maintenance activities. The frequency and method of monitoring for invasive species shall be determined by a qualified botanist.

Table 4.4-4
Ornamentals to be Prohibited from the Project Site

Scientific Name	Common Name
<i>Acacia</i> spp.	Acacia
<i>Ailanthus altissima</i>	Tree of Heaven
<i>Arundo donax</i>	Giant cane, giant reeds
<i>Bromus tectorum</i>	Cheat grass
<i>Carpobrotus</i> sp.	Ice plant
<i>Chrysanthemum coronarium</i>	Annual chrysanthemum
<i>Cortaderia</i> sp.	Pampas grass
<i>Cytisus</i> sp.	Scotch, Spanish, and Portuguese Broom
<i>Eucalyptus</i> sp.	Eucalyptus, Gum trees
<i>Foeniculum vulgare</i>	Fennel
<i>Genista monspessulana</i>	French broom
<i>Hedera helix</i>	English ivy
<i>Lepidium latifolium</i>	Perennial pepperweed
<i>Lobularia maritima</i>	Sweet alyssum
<i>Myoporum laetum</i>	Myoporum
<i>Tropaeolum majus</i>	Nasturtium
<i>Pennisetum clandestinum</i>	Kikuyu grass
<i>Pennisetum setaceum</i>	Fountain grass
<i>Phalaris aquatica</i>	Harding grass
<i>Rhus lancea</i>	African sumac
<i>Ricinus communis</i>	Castor bean
<i>Rubus discolor</i>	Himalayan blackberry
<i>Schinus</i> sp.	Pepper tree
<i>Senecio mikanioides</i>	German-ivy
<i>Taeniatherum caput-medusae</i>	Medusa-head
<i>Tamarix</i> sp.	Tamarisk
<i>Vinca minor</i>	Periwinkle

CUMULATIVE IMPACTS

Because of the current intensive resource extraction and agricultural uses of the site, many of the biological impacts often associated with development in this region will not occur on this site. No substantial losses of native, healthy wildlife habitat will occur, and no loss of special-status species habitat will occur. No significant impacts from on site runoff into the adjacent Santa Clara River have been identified. Related projects proposed or under construction in the area include new commercial development in established commercial areas located south of the Ventura Freeway, a small residential project on a vacant site in the El Rio West residential neighborhood located immediately east of the Specific Plan Area and the Ventura County Juvenile Justice Center on an agricultural parcel located to the east of the Large Woolsey Mine Pit. As none of the sites for these related projects contain native habitat, no cumulative impacts to biological resources in the area will result.

UNAVOIDABLE SIGNIFICANT IMPACTS

No unavoidable significant impacts to biological resources will result from the RiverPark Project.