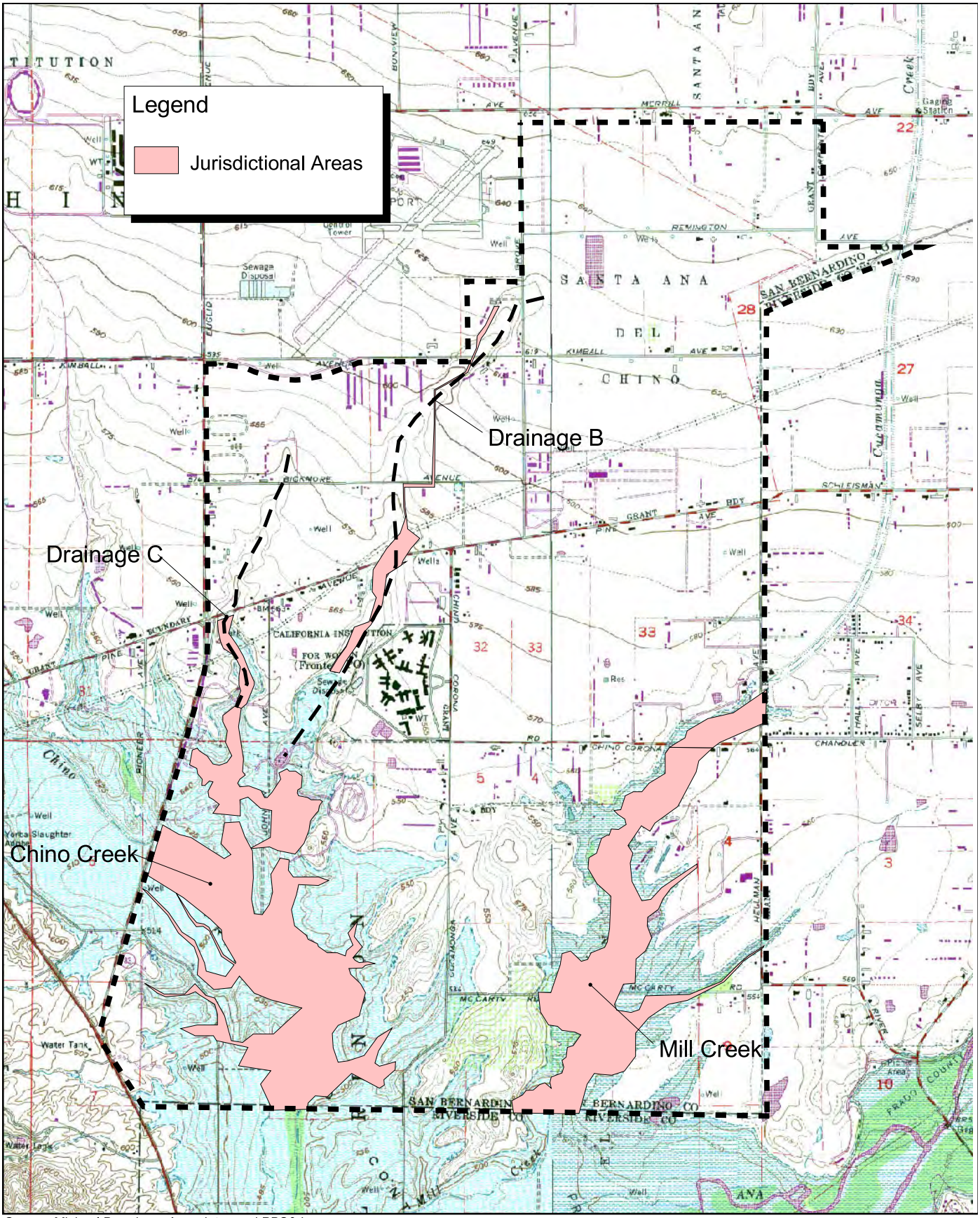


Source: Michael Brandman Associates and PBS&J

NORTH

Michael Brandman Associates

05760012 · 07/2002

Exhibit **5.4-3**

Jurisdictional Areas

THE PRESERVE · CHINO SUBAREA 2

Raptor Foraging

Pastures and other agricultural open spaces (excluding dairies) within the Preserve provide habitat for burrowing owls, foraging raptors and migratory birds/waterfowl. Associated with these agricultural fields and open spaces are windrows and agricultural wastewater detention basins. Windrows are remnants of past agricultural use and provide roosting and nesting habitat for raptors. The agricultural detention basins hold dairy wastewater but also may afford some marginal and highly degraded habitat for various bird species, including raptors.

Sensitive Plant Species

Data sources reviewed for the Project Area revealed that a total of four special status plant species are known to occur within the region and potentially occur on the project site. Field surveys confirmed that the potential for the four sensitive plant species to occur onsite ranged from low to very low. Sensitive plant species potentially occurring onsite are addressed below and summarized in Table 5.4-2.

**TABLE 5.4-2**
**SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING ON THE PRESERVE- SUBAREA 2**

| Species | Status | Habitat | Potential For Occurrence* |
|---|---|---|---|
| **Federal Threatened and Endangered Species** | | | |
| Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) | FE<br>SE<br>CNPS List 1B | Sandy soils of river floodplains and terraced alluvial deposits | Low |
| Braunton's milk-vetch (*Astragalus brauntonii*) | FE<br>CNPS List 1B | Carbonate soils in coniferous forest, chaparral, coastal sage scrub, and valley and foothill grassland | Very Low |
| **Federal and State Sensitive Species** | | | |
| Many-stemmed Dudleya (*Dudleya multicaulis*) | FSC<br>CNPS List 1B | Coastal sage scrub, chaparral and grasslands and rock outcrops | Very Low |
| Smooth tarplant (*Hemizonia pungens* ssp. l*aevis*) | SSC<br>CNPS List 1B | Grassland, ruderal and alkali meadows | Very Low |

Notes: *Potential for Occurrence:
Very Low = Suitable habitat no longer exists for the species in the project area or its immediate vicinity. No recent records exist of the species occurring in the project area or its vicinity.
Low = No recent records exist of the species occurring in the project area or its immediate vicinity (within approximately 5 miles) and/or the diagnostic habitat requirements strongly associated with the species no longer occur in the project area or its immediate vicinity.
Moderate = Either a historical record exists of the species in the project area or its immediate vicinity or the diagnostic habitat requirements associated with the species occur in the project area or its immediate vicinity.
High = Both a historical record exists of the species in the project area or its immediate vicinity and the diagnostic habitat requirements strongly associated with the species occur in the project area or its immediate vicinity.
Present = Species observed during 2000 baseline biological surveys.
Source: CNDDB 2001

**Santa Ana River woollystar (*Eriastrum densifolium ssp. sanctorum*) FE, SE, CNPS List 1B.** The Santa Ana River woollystar is an erect, many branched, bright blue flowered, perennial herb. It is found within the Santa Ana River drainage on sandy soils of river floodplains and terraced alluvial deposits. Subarea 2 provides marginally suitable habitat for the Santa Ana River woolly-star and, therefore, is expected to have a low potential for occurrence within Subarea 2 below the 566-foot elevation line.

**Braunton's milk vetch (*Astragalus brauntonii*) FE, CNPS List 1B.** This species is known to occur in carbonate soils in coniferous forest, chaparral, coastal sage scrub, and valley and foothill grasslands. It is known to occur in the northernmost Santa Ana Mountains (Coal and Gypsum Canyons) Orange County, just west of the Riverside County boundary. Due to the history of land alteration and consequent lack of habitat, this species has a very low potential to occur anywhere within Subarea 2.

**Many-stemmed dudleya (*Dudleya multicaulis*) FSC, CNPS List 1B.** This species is found within scrub, grassland, and rock outcrop habitats. Due to the history of land alteration and consequent lack of habitat, this species has a very low potential to occur anywhere within Subarea 2.

**Smooth tarplant (*Hemizonia pungens* ssp. *laevis*) SSC, CNPS List 1B.** This species is found within grasslands, and ruderal and alkaline meadows. Due to the history of land alteration and consequent lack of habitat, this species has a very low potential to occur anywhere within Subarea 2.

Sensitive Wildlife Species

Data sources reviewed for the Project Area revealed that a total of 36 special-status wildlife species are known to occur within the region and potentially occur on the project site. Field surveys confirmed that the potential for the 36 sensitive wildlife species to occur onsite ranged from low to present. Sensitive wildlife species potentially occurring onsite are addressed below and summarized in Table 5.4-3.

**TABLE 5.4-3**
**SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURRING AT THE PRESERVE—SUBAREA 2**

| Species | Status | Habitat | Potential For Occurrence* |
|---|---|---|---|
| **Federal Threatened and Endangered Species** | | | |
| Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) | FE | Colton dunes (Delhi soils series) open sand | Very Low |
| Least Bell's vireo (*Vireo bellii pusillus*) | FE<br>SE | Southern cottonwood willow riparian forest | Present |
| Southwestern willow flycatcher (*Empidonax traillii extimus*) | FE<br>SE | Riparian woodlands, water-filled creeks or channels and scattered overgrown clearings | Moderate |
| California red-legged frog (*Rana aurora draytonii*) | FE<br>SSC | Streams with slow moving water and deep pools; dense shrubby riparian vegetation at pool edges | Very Low |
| Santa Ana sucker (*Catostomus santaanae*) | FT<br>SSC | Small to medium-sized streams | Very Low |
| Southern bald eagle (*Haliaeetus leucocephalus*) | SE | Winters locally at deep lakes and reservoirs (mainly at Lake Mathews or Big Bear Lake) | Very Low |
| **State Threatened and Endangered Species** | | | |
| Western yellow-billed cuckoo (*Coccyzus Americanus occidentalis)* | SE | Riparian communities | Low |
| Swainson's hawk (*Buteo swainsoni)* | SE | Grasslands and other open terrain | Low |
| Peregrine falcon (*Falco peregrinus*) | SE<br>FSC | Estuaries, wetlands, and coastal bluffs | Low |
| **Federal and State Sensitive Species** | | | |
| Golden eagle (*Aquila chrysaetos*) | SFP<br>SSC | Grasslands and other open terrain | Present |
| White-tailed kite (*Elanus leucurus*) | SFP | Open woodlands and grasslands | Present |
| San Diego horned lizard (*Phrynosoma coronatum blainvilleri*) | FSC<br>SSC | Open areas of sandy soil with coastal sage scrub, chaparral, grassland, riparian, and washes and watercourses | Low |
| Tricolored blackbird (*Agelaius tricolor*) | FSC<br>SSC | Marshes and grassland communities | Moderate |
| Loggerhead shrike (*Lanius ludovicianus*) | FSC<br>SSC | Grassland and open scrub | Present |
| Ferruginous hawk (*Buteo regalis*) | FSC<br>SSC | Grasslands and other open terrain | High |

**TABLE 5.4-3 (Cont.)**
**SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURRING AT THE PRESERVE—SUBAREA 2**

| Species | Status | Habitat | Potential For Occurrence* |
|---|---|---|---|
| Townsend's big-eared bat (*Corynorhinus townsendii*) | FSC SSC | A wide variety of habitats including woodlands and arid grasslands. Roosts in mines and caves | Moderate |
| California mastiff bat (*Eumops perotis californicus*) | FSC SSC | Open areas with high cliffs | Moderate |
| Small-footed myotis (*Myotis ciliolabrum*) | FSC | Forages among trees or over brush; roosts in caves, mines, and in cliff or rock openings | Moderate |
| Yuma myotis (*Myotis yumanensis*) | FSC SSC | Water and wooded canyon bottoms; roosts in caves and abandoned buildings | Moderate |
| Southern California arroyo chub (*Gila orcutti*) | SSC | Warm streams with highly variable seasonal stream flows | Very Low |
| Silvery legless lizard (*Anniella pulchra pulchra*) | SSC | Sandy or loose organic soils or with abundant leaf litter | Low |
| Southwestern pond turtle (*Clemmys moromata pallida*) | SSC | Lakes and ponds, also pools in rivers and streams | Low |
| Burrowing owl (*Athene cunicularia hypugea*) | SSC | Grasslands, savannahs and sparse brushlands | Present |
| Cooper's hawk (*Acipiter cooperii*) | SSC | Oak and riparian woodlands | Present |
| Sharp-shinned hawk (*Accipiter striatus*) | SSC | Oak and riparian woodlands | High |
| Northern harrier *Circus cyaneus*) | SSC | Grasslands and other open terrain | Present |
| Prairie falcon (*Falco mexicanus*) | SSC | Grasslands, coastal sage scrub, and estuaries | Moderate |
| San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) | SSC | Open areas, typically occurring in alluvial sage scrub and open Riversidean sage scrub | Present |
| Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) | SSC | Sage scrub | Low |
| Southern grasshopper mouse (*Onychomys torridus ramona*) | SSC | Open coastal sage scrub, mixed chaparral, and riparian areas | Low |
| San Diego desert woodrat (*Neotoma lepida intermediai)* | SSC | Variety of habitats from sea level to 8,500 ft. elevation | High |
| Western least bittern (*Ixobrychus exilis hesperis*) | SSC | Densely vegetated brackish and freshwater marshes | Low |
| California horned lark (*Eremophila alpestris actia*) | SSC | Open fields and grasslands | Present |

**TABLE 5.4-3 (Cont.)**
**SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURRING AT THE PRESERVE—SUBAREA 2**

| Species | Status | Habitat | Potential For Occurrence* |
|---|---|---|---|
| Yellow warbler (*Dendroica petechia*) | SSC | Mature riparian woodland, especially where dominated by willows or alders | Present |
| Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) | SSC | Coastal sage scrub, slopes with sparse shrubs and open grassy areas intermixed. | Low |
| Orange-throated whiptail (*Cnemidophorus hyperythrus*) | SSC | Open sage scrub or chaparral with loose soils | Low |
| Coast patch-nosed snake (*Salvadora hexalepis virgultea*) | SSC | Variety of habitats, including chaparral and sage scrub | Low |
| Two-striped garter snake (*Thamnophis hammondii*) | SSC | Perennial and intermittent streams having rocky beds and bordered by willow thickets or other dense vegetation | Present |
| Northern red diamond rattlesnake (*Crotalus ruber ruber*) | SSC | Sage scrub and chaparral, often in rocky areas, also in grasslands, dry washes, and woodlands | Low |
| Western spadefoot (*Scaphiopus hammondii*) | SSC | Arid and semi-arid regions in lowlands and foothills in washes, river floodplains, alluvial fans, playas, and Alkali flats | Low |

Notes: *Potential for Occurrence:
Very Low = Suitable habitat no longer exists for the species in the project area or its immediate vicinity. No recent records exist of the species occurring in the project area or its vicinity.
Low = No recent records exist of the species occurring in the project area or its immediate vicinity (within approximately 5 miles) and/or the diagnostic habitat requirements strongly associated with the species no longer occur in the project area or its immediate vicinity.
Moderate = Either a historical record exists of the species in the project area or its immediate vicinity or the diagnostic habitat requirements associated with the species occur in the project area or its immediate vicinity.
High = Both a historical record exists of the species in the project area or its immediate vicinity and the diagnostic habitat requirements strongly associated with the species occur in the project area or its immediate vicinity.
Present = Species observed during 2000 baseline biological surveys.
Source: CNDDB 2000

**Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) FE.** The Delhi Sands flower-loving fly (DSF) is endemic to the Colton Dunes (Delhi series soils) in areas that contain suitable conditions for the subterranean early stages, adult nectar sources, and adult feeding, breeding, and perching areas. Soil and climatic conditions, and other ecological and physical factors contribute to the maintenance of open sand areas within the species' range. Urban development, agricultural conversion, sand mining, invasion by exotic species, dumping of cow manure and trash have caused loss and modification of most, if not all, of this species' potential habitat within The Preserve.

The former range of the species (coinciding with the Delhi sands soils formation) has been divided into three Recovery Units (RUs): Jurupa, Colton, and Ontario. Subarea 2 is entirely within the

Ontario RU for the Delhi sands flower-loving fly. The Final Recovery Plan for DSF (USFWS, 1997) makes the following statements about the Ontario RU:

> *"This area historically contained the largest block of the Colton Dunes (the Delhi sands formation); however, the majority of the area has been converted to agriculture, or developed for commercial and residential projects."*
>
> *"Based upon museum specimens, one of the populations containing the highest densities of Delhi sands flower-loving fly was located at Mira Loma in the Ontario RU."*
>
> *"The majority of Delhi sands flower-loving fly habitat in the Ontario RU has been eliminated by long-standing agricultural land uses. Recent actions that have eliminated the animal and its habitat include commercial and residential development, dumping of cow manure, and invasive exotic vegetation."*

**Least Bell's vireo (*Vireo bellii pusillus*) FE, SE.** This migratory songbird requires riparian woodlands with a dense understory. Least Bell's vireo was once common in California, ranging from southern California north throughout the Central Valley to Tehama County. This species has declined as a result of habitat loss and nest parasitism by brown-headed cowbirds (*Molothrus ater*). The second largest population in the U.S. occurs at the Prado Dam flood control basin and along Chino Creek (CNDDB, 2001). Portions of the Project Area below the 566-foot inundation line lies within the boundaries of critical habitat for the least Bell's vireo riparian habitat below the 543-foot elevation line. This species was observed there in 1999 surveys conducted for USACE within the Chino Creek and Mill Creek drainages within Subarea 2 (see Exhibit 5.4-1)[1]. USACE and Orange County Water District (OCWD), in compensation for the potential loss of 30 acres of least Bell's vireo habitat from the implementation of their Santa Ana River Mainstem Flood Control Project, is restoring 133 acres of degraded habitat above the 510-foot elevation line to willow woodland with understory. USACE is also making cash contributions to the Santa Ana River Conservation Trust Fund for cowbird trapping and arundo removal and willow riparian revegetation.

**Southwestern willow flycatcher (*Empidonax traillii extimus*) FE, SE.** The southwestern willow flycatcher breeds in dense riparian thickets and trees. This subspecies is known to breed in only eight locations in Southern California, including the Santa Margarita and San Luis Rey rivers in San Diego County and the Santa Inez River in Santa Barbara County. Willow flycatchers are fairly common migrants and most of the migrants are believed to be of the common subspecies, *e.t. brewsteri*, which breeds throughout southern Canada and the northern United States.

[1] Supplemental EIS and Project EIR for Prado Basin and Vicinity, Including Stabilization of the Bluff Toe at Norco Bluffs; U.S. Army Corps of Engineers (7/2000).

The Prado Basin is one of seven areas designated as southwestern willow flycatcher critical habitat in California. In southern California, this species is extremely rare and is restricted to large drainages with high quality riparian habitats, such as the Santa Inez and San Luis Rey Rivers. This species has a moderate potential to occur in Subarea 2 below the 566-foot elevation line.

**California red-legged frog (*Rana aurora draytonii*) FE, SSC.** California red-legged frogs require areas of deep, slow-moving water and dense vegetation such as ponds or deep pools in streams (Jennings and Hayes, 1994). It prefers dense, shrubby riparian vegetation, usually arroyo willow, cattails, and bulrushes. This species is known to occur in very few locations in southern California. Its relatively rapid decline is poorly understood, although loss of habitat and competition with non-native frogs and fish are thought to be important factors. This species has a very low potential to occur anywhere in Subarea 2 due to the history of land alteration and consequent lack of habitat.

**Santa Ana sucker (*Catostomus santaanae*) FT, SSC.** The Santa Ana sucker inhabits small to medium-sized streams, usually less than 7.6m (25 ft.) in width, with depths ranging from a few centimeters to over a meter. The original range included only the Los Angeles, Santa Ana and San Gabriel river systems and it is now confined to the Santa Ana River, Tujunga Wash in the Los Angeles River system (possibly extirpated), and in the upper San Gabriel River system. This species was not observed during 1999 surveys of the Chino Creek and Mill Creek drainages for the USACE.[2] This species has a very low potential to occur anywhere in Subarea 2 due to the history of land alteration and consequent lack of habitat.

**Southern bald eagle (*Haliaeetus leucocephalus*) SE.** This species occurs near large bodies of water, including reservoirs and lakes where it forages primarily on fish and carrion. It occurs in southern California as an uncommon winter visitor, primarily at Big Bear Lake and Lake Mathews. Bald eagles are expected to have a very low potential to occur anywhere in Subarea 2.

**Western yellow-billed cuckoo (*Coccyzus Americanus occidentalis)* SE.** The western yellow-billed cuckoo requires dense riparian woods or thickets with dense understory (Garrett and Dunn 1981). The cuckoo is known from fewer than five locations in California. The cuckoo was recorded in the Prado Dam basin and along the Santa Ana River (CNDDB 2001). From one to several territorial cuckoos have been present in the Basin in most years since 1983. Pairs are occasionally observed, but breeding has not been confirmed. This species has a moderate potential to occur in Subarea 2 below the 566-foot elevation line.

**Swainson's hawk (*Buteo swainsoni)* SE.** Although this species formerly nested in the region, it has now been extirpated as a breeding species from the coast of southern California. It now occurs in the region as a rare spring and fall migrant. Open habitats, such as grasslands, provide suitable foraging

[2] Ibid. USACE (7/2000).

habitat for the Swainson's hawk. This raptor primarily eats small rodents, reptiles, and some insects. This species has a low potential to occur anywhere in Subarea 2 due to the history of land alteration and consequent lack of habitat.

**Peregrine falcon (*Falco peregrinus*) SE, FSC.** The peregrine falcon was recently removed from the federal list of threatened and endangered Species, but is still state listed as endangered. The peregrine falcon breeds mostly in woodland, forest, and coastal habitats. Riparian areas, and coastal and inland wetlands are important as habitats throughout the year, especially in non-breeding seasons. Its decline is associated mostly with dichlordiphenyltrichloroethane (DDT) contamination and poor reproduction. This species is known to occur as a rare transient and irregular winter visitor to the Prado Basin. This species has a low potential to occur anywhere in Subarea 2 due to the history of land alteration and consequent lack of habitat.

**Golden eagle (*Aquila chrysaetos*) SFP, SSC.** The golden eagle is a year-round resident of southern California and prefers open habitats of the deserts, mountains, foothills, and plains. Golden eagle nests are most often located in isolated areas either on cliff ledges or in large solitary trees. It may occur as a rare winter migrant, but would not be expected to breed within the vicinity of Subarea 2. This species is also protected by amendment to the Federal Bald Eagle Act. Subarea 2 provides suitable and abundant habitat for this species, and this species has been reported as observed in Subarea 2 both above and below the 566' elevation.

**White-tailed kite (*Elanus leucurus*) SFP.** White-tailed kites, while readily observable in undeveloped portions of San Bernardino County, have begun to decline sharply in the region within the last decade. Reasons for this decline have been identified as loss of foraging habitat, roost sites and nesting habitat. This species requires open habitats such as grasslands, croplands and marshes. Kites nest primarily in riparian areas with oaks, willows, cottonwoods and sycamores and forage in adjacent open spaces. The Prado Basin is known to support a relatively large breeding population of white-tailed kites. This species was observed in Subarea 2 below the 566-foot elevation line.

**San Diego horned lizard (*Phrynosoma coronatum blainvilleri*) FSC, SSC.** This species generally occurs in grassland, sage scrub, and chaparral, but can also be found in coniferous forest and broadleaf woodland. It is usually found in open sandy areas such as ridge tops and washes, especially where harvester ants (*Pogonomyrmex* spp.) are found. This species was formerly common throughout southern California west of the deserts, but has declined substantially as suitable habitat has been destroyed for other land uses, and as a result of over-collecting for the pet trade. Recent evidence also indicates that its preferred food, the harvester ant, has declined dramatically in areas near human habitation with the introduction and spread of the non-native Argentine ant (*Iridiomyrmex humilis*), which out competes the native species. This species has a low potential to occur anywhere in Subarea 2 due to the history of land alteration and consequent lack of habitat.

**Tricolored blackbird (*Agelaius tricolor*) FSC, SSC.** This species prefers to breed in marsh vegetation of bulrushes and cattails and also known to nest in willows, blackberries, and mustard. During winter months, they are often found foraging in wet pasture, agricultural fields, and seasonal wetland. Tricolored blackbirds are nomadic, wandering during the nonbreeding season and occupying colony sites intermittently. This species has a moderate potential to occur in Subarea 2 below the 566-foot elevation line.

**Loggerhead shrike (*Lanius ludovicianus*) FSC, SSC.** This species is a fairly common resident of lowlands and foothills in Southern California. Shrikes inhabit grasslands and other dry, open habitats. They can often be found perched on fences and posts from which prey, such as large insects, small mammals, lizards, can be seen. The loggerhead shrike has been observed in the vicinity of Subarea 2, but not in Subarea 2.

**Ferruginous hawk (*Buteo regalis*) FSC, SSC.** Ferruginous hawks are known to occur in the vicinity of Subarea 2 from mid-fall through early spring and forage over grasslands and the ecotone between coastal sage scrub and grasslands. The distribution of the ferruginous hawk has become reduced as a result of the loss of wintering habitat. This species has a high potential to occur in Subarea 2 below the 566-foot elevation line.

**Townsend's big-eared bat (*Corynorhinus townsendii*) FSC, SSC.** The Townsend's big-eared bat occurs throughout California. In the southern portion of the state, the subspecies *C.t. pallescens* occupies a variety of communities, including oak woodlands, arid deserts, grasslands, and high-elevation forests and meadows. Known roosting sites in California include mines, caves, and buildings. Subarea 2 supports suitable foraging and potential roosting habitat for this species. Townsend's big-eared bat has a moderate potential to occur on the project site below the 566-foot elevation line.

**California mastiff bat (*Eumops perotis californicus*) FSC, SSC.** This species is the largest bat in the United States. It is a very wide-ranging and high-flying insectivore that typically forages in open areas with high cliffs. It roosts in crevices in small colonies. This species has a moderate potential to occur in Subarea 2 below the 566-foot elevation line.

**Small-footed myotis (*Myotis ciliolabrum*) FSC.** The small-footed myotis occurs throughout much of the western United States occupying a variety of habitats. This species feeds among trees or over brush, and roosts in cavities of cliffs, trees, or rocks and within caves or mineshafts. The project site provides potentially suitable foraging opportunities for the small-footed myotis, it is considered to have a moderate potential to occur in Subarea 2 below the 566-foot elevation line.

**Yuma myotis (*Myotis yumanensis*) FSC, SSC.** This species is a relatively small bat that occurs statewide. This species is closely associated with water and wooded canyon bottoms throughout its

range. Caves and old buildings are preferred roosting habitats, with roosts numbering up to 2,000 individuals. The project site provides a limited amount of potentially suitable habitat for this species where it may occur; it has a moderate potential to occur in Subarea 2 below the 566-foot elevation line.

**Southern California arroyo chub (*Gila orcutti*) SSC.** This small fish occurs in the Santa Ana River and its tributaries in Orange, Riverside and San Bernardino counties. It favors small to moderate sized streams with some flow. This species has become scarce due to competition and predation by introduced species, controlled flow by Prado Dam and impacts caused by urbanization and pollution. This species has a very low potential to occur in Subarea 2 due to lack of suitable habitat.

**Silvery legless lizard (*Anniella pulchra pulchra*) SSC.** The silvery legless lizard is a small, secretive snake-like lizard that lives and forages beneath leaf litter, under debris or within sandy soil. It occurs in a variety of habitats including washes and woodlands, and has been previously recorded in upper alluvial fans in alluvial scrub habitat. This species has a low potential to occur anywhere in Subarea 2 due to lack of suitable habitat.

**Southwestern pond turtle (*Clemmys moromata pallida*) SSC.** This species is confined to quiet waters such as lakes and ponds, although also found in quiet pools in rivers and streams. Basking sites such as partially submerged logs, vegetation mats or open mud banks are required. Southwestern pond turtles hibernate under water in mud. It has declined in numbers as a result of habitat destruction, indiscriminate collecting for the pet trade, and introduction of bullfrogs and predatory exotic fishes such as bass, sunfish and catfish. This species has a low potential to occur anywhere in Subarea 2.

**Burrowing owl (*Athene cunicularia hypugea*) SSC.** Formerly common throughout California, this species' decline was noticeable as early as the 1940s. The burrowing owl is a gregarious owl that occupies open habitats such as grasslands, savannahs, and sparse brushlands. The burrowing owl lives in the abandoned burrows of ground squirrels and other burrowing animals, modifying the burrows to suit their needs by digging. It is one of the few owl species often seen during the day and early evening hours, perched on fence posts or at the entrance to burrows. Their diet is predominantly large insects and small rodents, but they will also take small birds, reptiles, amphibians, fish, scorpions, and other available prey.

Breeding occurs between early March and late August. Pairs may stay together during an entire year. Clutches average about five young. After the breeding season, secondary burrows may be used for cover and roost sites. During winter, attachment to a particular burrow is reduced even more. Typically, burrowing owls form small colonies, fly low to the ground, and seldom reach heights above 25 feet. They typically live 8 years or more. Subarea 2 provides suitable habitat for this species. The burrowing owl is known to occur in Subarea 2 and the vicinity.

**Cooper's hawk (*Acipiter cooperii*) SSC.** Both resident and migratory populations of this species exist in the vicinity of Subarea 2, but not within it. Wintering Cooper's hawks are often seen in wooded urban areas and native woodland communities. Preferred nesting habitats are oak and riparian woodlands dominated by sycamores and willows. Cooper's hawks prey on small birds and rodents that live in woodland and occasionally scrub and chaparral communities.

**Sharp-shinned hawk (*Accipiter striatus*) SSC.** The sharp-shinned hawk prefers woodland communities. Some individuals of this species potentially winter in the vicinity of Subarea 2, while others continue their migration to northern South America. This species is known only as a winter migrant and does not breed in the area. The sharp-shinned hawk has a high potential to occur in Subarea 2 as a winter migrant below the 566-foot elevation line.

**Northern harrier (*Circus cyaneus*) SSC.** The northern harrier is a regular winter migrant and occasionally breeds in San Bernardino County. It can be expected to forage in grassland, scrub, and riparian communities. Once a relatively common species during winter, fall and spring in undeveloped areas of San Bernardino County, the northern harrier population is now greatly reduced and localized in distribution. The northern harrier is known to occur in Subarea 2 as a winter migrant below the 566-foot elevation line.

**Merlin (*Falco columbarius*) SSC.** In California, merlins prefer vast open space areas near water such as estuaries and grasslands where they hunt small flocking birds such as sandpipers, larks, sparrows, and pipits. In San Bernardino County, merlins are uncommon winter migrants but are known to occur within the project vicinity in winter. As merlin breeding populations in the northern latitudes rebound from previous contaminant-related reproductive problems, the species will likely be observed more frequently during winter below the 566-foot elevation line where appropriate habitat remains.

**Prairie falcon (*Falco mexicanus*) SSC.** This falcon prefers open habitats from the deserts to the mountains and interior valleys of southern California, where it hunts small birds and mammals. The prairie falcon is an uncommon year-round resident in southern California, but now is a rare visitor to the coastal slope of the peninsular and transverse mountain ranges in winter. The project site provides suitable foraging habitat, but no breeding habitat. This species has a moderate potential to forage onsite below the 566-foot elevation line as a rare winter migrant, but has no potential to breed onsite.

**San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) SSC.** This species prefers open areas, typically occurring in alluvial sage scrub and open Riversidean sage scrub. It is known to occur in coastal southern California from approximately Santa Barbara County south into Baja California. It is a common resident in the Prado Basin including Subarea 2 below the 566-foot elevation line.

**Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) SSC.** The northwestern San Diego pocket mouse prefers sage scrub habitat. It is known to occur in Southern California and Baja California. There are no recorded occurrences on the project site and has a low potential to occur anywhere in Subarea 2.

**Southern grasshopper mouse (*Onychomys torridus ramona*) SSC.** The southern grasshopper mouse prefers open coastal sage scrub, mixed chaparral, and riparian areas. It is known to occur throughout southern California except coastal areas north of Orange County. There are no recorded occurrences in Subarea 2 and it has a low potential to occur anywhere in Subarea 2.

**San Diego desert woodrat (*Neotoma lepida intermediai)* SSC.** The San Diego desert woodrat is found in a variety of habitats from sea level to 8,500 feet in elevation. It occurs along the coast from northwest Baja California to San Luis Obispo County. The San Diego desert woodrat has a high potential to occur in Subarea 2 below the 566-foot elevation line.

**Western least bittern (*Ixobrychus exilis hesperis*) SSC.** This secretive species prefers densely vegetated brackish and freshwater marshes. It is generally considered a rare transient and summer visitor in southern California, with the exception of the Salton Sea where it is fairly common. A few local breeding records have been documented in recent years, and the species is known to have bred at San Jacinto Lake (Garrett and Dunn, 1981). Within Subarea 2, the least bittern has a low potential to occur, it would only occur as a rare and irregular visitor.

**California horned lark (*Eremophila alpestris actia*) SSC.** This species requires open fields and grasslands. It is a year-round resident that generally occurs in the coastal region of California, from Sonoma County south to Baja California (Grinnell and Miller, 1944). On the project site, it is a common resident in winter in agricultural fields. It may breed in or adjacent to the Prado Basin.

**Yellow warbler (*Dendroica petechia*) SSC.** This species generally inhabits mature riparian woodland for breeding, especially where dominated by willows or alders. It is an uncommon summer resident along the coastal slope of southern California; however, in some localities it can be fairly common (Garrett and Dunn, 1981). It is a common breeder throughout most of Subarea 2.

**Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) SSC.** This species typically inhabits rocky slopes with relatively open shrub cover that is intermixed with grassy areas. It occurs west of the deserts from Ventura County south into Baja California. It is a local and uncommon resident in the vicinity of Subarea 2, where scrub habitats, especially coastal sage scrub, remain. It has a low potential to occur anywhere in Subarea 2.

**Orange-throated whiptail (*Cnemidophorus hyperythrus*) SSC.** The orange-throated whiptail occurs in open sage scrub or chaparral where loose soils and occasional rocky areas are found. The principal

threat to this species is the continued loss of habitat throughout its limited range. It is known to occur in Orange, western Riverside, and extreme southwestern San Bernardino counties. It has a low potential to occur anywhere on the project site due to lack of suitable habitat.

**Coast patch-nosed snake (*Salvadora hexalepis virgultea*) SSC.** The coast patch-nosed snake inhabits a variety of habitats, including chaparral and sage scrub. It is known to occur in coastal southern California from approximately Santa Barbara County south into Baja California. It was observed along Temescal Wash in 1983 and 1984 (Zembal *et al.*, 1985). It has a low potential to occur anywhere in Subarea 2 due to lack of suitable habitat.

**Two-striped garter snake (*Thamnophis hammondii*) SSC.** The two-striped garter snake prefers perennial and intermittent streams having rocky beds and bordered by willow thickets or other dense vegetation. It may also inhabit shallow rivers and stock ponds bordered by thick riparian vegetation. Its known range is coastal slope from County to northern Baja California and up to 4,500 feet elevation. Subarea 2 provides habitat for this species below the 566-foot elevation line. It is known to occur in the project site and vicinity.

**Northern red diamond rattlesnake (*Crotalus ruber ruber*) SSC.** The northern red diamond rattlesnake inhabits a variety of open scrub habitats grasslands, dry washes, and woodlands. Its known distribution is primarily along the coastal slope of the transverse and peninsular ranges from southern San Bernardino County south to Baja California, and from sea level to around 1,500 meters (5,000 feet) (Stebbins, 1966). It has a low potential to occur anywhere on the project site due to lack of suitable habitat.

**Western spadefoot toad (*Scaphiopus hammondii*) SSC.** The western spadefoot toad inhabits arid and semi-arid regions in the lowlands and foothills (below 4,500 feet) in washes, river floodplains, alluvial fans, playas, and alkali flats. It is known to occur primarily in the Central Valley and adjacent foothills, and in the Coast Ranges from Redding to northwestern Baja California. It is now believed to be extirpated from the Santa Ana River watershed (Jennings and Hayes, 1994). It has a low potential to occur anywhere on the project site due to lack of suitable habitat.

**Wildlife Corridors**

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information. Corridors effectively act as links between different populations of a species. The smaller the

population, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. An increase in a population's genetic variability is generally associated with an increase in a population's health.

The Chino Expressway (SR-71) and Euclid Avenue (SR-83), along with other arterial roadways (e.g., Pine and Kimball Avenue), present significant existing barriers to wildlife dispersion. Physical barriers along with noise, motion, light and startle impacts are associated with traffic on these roadways. In general terms, wildlife movement into the more developed or disturbed portions located in the northern half of Subarea 2 is difficult and unlikely. However, the southern half below the 566-foot inundation line may host a network of wildlife movement, connecting the Chino Hills with the Santa Ana River Watershed and interior regions of Riverside and San Bernardino counties. Many wildlife species travel to Prado Basin and surrounding areas supporting year-round water sources to breed and forage.

**Below the 566-foot Inundation Line.** The Santa Ana River is a major drainage that connects coastal regions of Orange County with interior regions of Riverside and San Bernardino counties. Mill Creek and the Santa Ana River are regional corridors that link riparian ecosystems from the immediate coastal plain with the interior plains and valleys of the region. The Prado Basin, with its extensive riparian woodland, provides significant bio-diversity and serves as a major link within this regional corridor. Within the Prado Regional Park, wildlife species can move relatively unimpeded, but dispersion becomes further restricted to the north due to urban development.

**Above the 566-foot Inundation Line.** Within the developed and agricultural areas above the 566-foot inundation line, there are no wildlife movement corridors. Wildlife movement is predominantly limited to opportunistic species. Opportunistic wildlife species include coyote (*Canis latrans*), raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), opossum (*Didelphis virginiana*) and bobcat (*Lynx rufus*). Wildlife movement within these areas is currently fairly low due to the presence of domestic dogs, which tend to be more aggressive, and habitat fragmentation of the open areas due to fencing and roads.

**Wetlands And Drainage Areas**

This section describes the regulatory environment for wetlands and drainage areas in the Project Area. Any proposed urban development extending across and within existing jurisdictional drainages will require an assessment and delineation for jurisdictional waters of the United States. This assessment includes an evaluation of USACE jurisdiction, pursuant to Section 404 of the Clean Water Act; the Regional Water Quality Control Board, pursuant to Section 401 of the Clean Water Act; and a determination of CDFG jurisdiction, pursuant to Section 1600 of the Fish and Game Code for any activities proposed in the bed, bank, or channel of any creek or stream. Formal delineation of

jurisdictional boundaries will be conducted prior to any individual development projects with the potential to impact any of these jurisdictional areas.

Although formal jurisdictional determinations were not conducted during the survey for this EIR, preliminary notations were made of areas potentially regulated by the USACE and CDFG. Seven water bodies or natural features were recognized as possibly falling under the jurisdiction of the USACE and/or CDFG.

Chino Creek and Mill Creek are two major regional waterways. These two creeks are a part of the larger Santa Ana Watershed and may have many small tributaries of their own. Three small ponds are used by the Prado Recreation Dog Training Facility, and are likely jurisdictional. Prado Lake also is a jurisdictional water and is heavily utilized by waterfowl and foraging raptors. Continuing northeast of Prado Lake along the western boundary of the Preserve is a small feeder drainage. This drainage is extremely disturbed upstream, especially within the dairy lands. The drainage has been forced into dirt ditches, re-routed, and contaminated by dairy waste. This drainage is also the spillway outlet for Prado Lake and converges with Chino Creek.

The predominant surface water features above the 566-foot inundation line are agricultural detention basins associated with agricultural activities and primarily contain contaminated dairy wastewater. These manmade detention basins are excluded under USACE and CDFG jurisdictions.

**USACE Jurisdiction**

The discharge of dredged or fill material (temporarily or permanently) into areas delineated, as "waters of the United States" requires prior authorization from the USACE, pursuant to Section 404 of the Clean Water Act. Within Subarea 2, potential USACE jurisdiction encompasses waters of the United States, including adjacent wetlands.

Waters of the United States

Waters of the United States, as defined in the Code of Federal Regulations (CFR) 328.3 include all waters or tributaries to waters such as lakes, rivers, intermittent and perennial streams, mudflats, sandflats, natural ponds, wetlands, wet meadows, and other aquatic habitats. Frequently, a water of the United States (with at least intermittently flowing water or tidal influences) is demarcated by the ordinary high water mark (OHWM), defined in CFR 328.3(e) as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Typically, in this area, the OHWM is indicated by the presence of an incised streambed with defined bank shelving.

Wetlands

According to the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987), three criteria must be satisfied to classify an area as a jurisdictional wetland. These are: 1) a predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation); 2) soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils); and 3) permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology).

Regulated Activities

Activities that usually involve a regulated discharge of dredged or fill material include, but are not limited to, grading, placing of rip-rap for erosion control, pouring concrete, laying sod, and stockpiling excavated material. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, drainage ditch maintenance, temporary mining and farm/forest roads, and excavating without stockpiling.

**CDFG Jurisdiction**

The Fish and Game Code of California mandates that "it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity." CDFG jurisdiction includes ephemeral, intermittent and perennial watercourses (including dry washes) characterized by (1) the presence of hydrophytic vegetation; (2) the location of definable bed and banks; and (3) the presence of existing fish or wildlife resources. Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system.

**Wetlands and Drainage Areas in Subarea 2.** Although formal jurisdictional determinations have not been conducted, general notations were made of areas potentially regulated by the USACE and CDFG. Seven water bodies were recognized as most likely falling under the jurisdiction of the USACE and CDFG, in addition to hosting a variety of waterfowl. Chino Creek and Mill Creek are two major regional waterways. These two creeks are a part of the larger Santa Ana Watershed and may have many small tributaries of their own. The three small ponds utilized by the Prado Recreation Dog Training Facility are likely jurisdictional and host waterfowl species. Prado Lake also is within the jurisdiction of the regulating agencies and is heavily utilized by waterfowl and foraging raptors. Continuing northeast of Prado Lake is a small feeder drainage. This drainage is extremely disturbed upstream, especially within the dairy lands. The drainage has been forced into dirt ditches, re-routed, and soiled by dairy waste. This drainage is also the spillway outlet for Prado

Lake and converges with Chino Creek. Detention basins associated with dairy activities are excluded under USACE and CDFG jurisdictions.

### 5.4.3 THRESHOLDS OF SIGNIFICANCE

The following criteria for establishing the significance of potential impacts on biological resources were derived from the CEQA Guidelines (Section 15064). The level of significance is based upon published information on the responses of plant and wildlife communities to development, and to knowledge regarding the distribution and habitat requirements of plants and wildlife of the region. A significant impact would, therefore, occur if the proposed project 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, 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 401 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.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

An evaluation of whether an impact on biological resources would be substantial must consider the resource and how that resource fits into a regional or ecological context.

The definition of "substantial" depends on the resource in question. Substantial impacts would be those that would diminish or result in the loss of an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant 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 (including the Prado Basin and the Chino Hills) basis.

### 5.4.4 PROJECT IMPACTS

The proposed project includes the development of a portion of approximately 5,435 acres currently within Subarea 2 and allows up to 9,779 dwelling units on 1,236 acres; 627 acres of business uses; 584 acres of Public Facilities and Rights-of-ways; and approximately 2,988 acres of Open Space (Recreation, Agriculture and Natural Open Space). Proposed development would be concentrated in the northern portion of Subarea 2, comprising approximately 2,609 acres, primarily above the Prado Basin high water inundation line (elevation 566 feet). Lands generally south of the 566-foot elevation containing 2,835 acres are planned for various agricultural and open space uses, which are generally protective of biological resources. Exhibit 3.2-1 depicts the proposed land uses.

**Summary of Impacts to Biological Resources Above the 566 ft. Elevation**

Biological resources and other agricultural open space with habitat value located above the 566-foot inundation line will be impacted by project implementation. Table 5.4-4 provides the acreage of each land cover type affected by the proposed Specific Plan development. The table does not include an acreage breakout for developed land or land cover types below the 566-foot elevation.

**TABLE 5.4-4**
**LAND COVER TYPE AFFECTED BY PROPOSED DEVELOPMENT**
**ABOVE THE 566-FOOT ELEVATION LINE AND WITHIN SUBAREA 2**

| Land Cover Type | Acres Lost Above 566 ft Line | Acres within Subarea 2 | Percent (%) Lost |
|---|---|---|---|
| Detention Basins | 38 | 74 | 51% |
| Marsh | 0 | 9 | 0% |
| Open Water | 0 | 77 | 0% |
| Dairy | 1,084 | 1,436 | 76% |
| Pasture | 496 | 640 | 77% |
| Fallow Fields | 1 | 545 | <1% |
| Windrows | 17 | 24 | 71% |
| Riparian | 1 | 531 | <1% |
| Cropland | 702 | 1,539 | 46% |
| **Totals** | **2,349** | **4,877** | **48%** |

**Summary of Impacts to Biological Resources Below the 566-foot Elevation**

The Specific Plan's land use designations below the 566-foot elevation consist almost entirely of Open Space-Recreation (OS-R), Open Space-Water (OS-W), Agriculture/Open Space-Natural (AG/OS-N) and Open Space-Natural (OS-N) uses. Table 5.1-5, Open Space Uses, identifies allowable uses under each of these designations.

The USACE *Prado Flood Control Basin Project Master Plan* (3/93) identifies a Land Classification Plan for the Prado Basin that includes portions of the proposed project area below the 566-foot elevation in several land categories—Extreme Resource Area, Mitigation Sites, and Proposed Recreation Development (see Exhibit 5.1-3 provided in Appendix A).

Areas of high biological sensitivity within the Chino Creek and Mill Creek floodways below the 566-foot elevation line are included within an *extreme resource area.* These areas include critical habitat areas identified as suitable only for extremely low intensity use. The majority of the lands below the 566-foot elevation consist of existing recreation development (i.e., Prado Regional Park and concessions) or fall into the USACE's *proposed recreation development* classification. USACE's proposed recreation development classification includes areas designated for future recreation development consistent with multiple resource management objectives. These federal land use designations include uses that are potentially allowed by the Prado Flood Control Basin Master Plan.

The proposed Specific Plan includes a 566-Foot Dam Inundation Elevation Overlay (DIO) applied to all lands below 566-foot elevation inundation area. This overlay requires that all specific development proposals be submitted for USACE review, and that allowable land uses comply with provisions of any existing cooperative management plans developed for the Lower Chino Basin/Prado area. Finally, USACE has indicated that its master plan is being updated and will soon be released for land uses at Prado FCB. Under this plan, active recreation and intense agricultural uses, such as dairies, that have the potential to result in significant conflicts with sensitive biological resources will be carefully managed to avoid or minimize risks.

**Impacts to Subarea 2 Vegetation**

Proposed development will result in the loss of most of the remaining ruderal plant species within the northern portion of Subarea 2 above the 566-foot elevation line. Due to years of intense agricultural activities, the habitat and plant communities have deteriorated through the introduction of non-native species and fragmentation by roads and cultivated land. Development is not proposed below the 566-foot inundation line and, therefore, existing habitat and plant communities will not be impacted.

No significant impacts to naturally occurring vegetation and plant communities are expected to occur.

Four sensitive plant species were identified as having a low or very low potential to occur within the boundaries of Subarea 2 below the 566-foot elevation line (see Table 5.4-2 above). Additionally, one sensitive natural community, the Southern Cottonwood Riparian Forest, occurs below the 566-foot inundation line and along the southern boundary of Subarea 2 along Mill Creek. This community is included within the Open Space Natural (OS-N) designation and no urban development is allowed in this area by the Specific Plan.

No significant impacts to sensitive plant species and/or sensitive plant communities, including Southern Cottonwood Riparian Forest, are expected to occur.

**Impacts to Subarea 2 Wildlife**

Potential impacts to wildlife is presented by habitat type occurring within Subarea 2.

**Surface Water and Riparian Habitat**

Surface water and riparian areas within Subarea 2 provide important foraging habitat for bird and other wildlife species. These areas are, therefore, considered an important resource for wildlife in the area. Loss of surface water and riparian habitat may create interference with the movement of migratory species and elimination of foraging, roosting and nesting habitat. However, surface water above the 566-foot elevation line is limited to agricultural detention basins. The loss of the agricultural detention basins above the 566-foot elevation line which are contaminated with dairy wastewater is not considered a significant impact.

No urban development below the 566-foot elevation line is allowed in the Specific Plan, so there should be no loss of surface water and riparian areas. No impacts are expected.

**Least Bell's Vireo Critical Habitat**

Currently, all riparian habitat below the elevation of 543 feet, is federally designated as least Bell's vireo critical habitat by the USFWS. These areas are all located in the southern portion of Subarea 2 below the 566-foot elevation line and are designated Open Space Natural (OS-N) by the Specific Plan. No urban development is allowed by the Specific Plan in these areas.

There will be no loss of least Bell's vireo habitat and, therefore, no direct impact to this species. However, uncontrolled public access, discharge of untreated stormwater, or flood control projects, unless mitigated, could impact habitat below the 566-foot elevation line.

**Southwestern Willow Flycatcher Habitat**

Currently, all areas within the 100-year floodplain below the 566-foot elevation line where thickets of riparian trees and shrubs occur or may become established as a result of natural floodplain processes are designated as southwestern willow flycatcher critical habitat by the USFWS. These areas are designated Open Space Natural (OS-N) by the Specific Plan which restricts uses that will compromise habitat values. No urban development is allowed by the Specific Plan in this area.

There will be no loss of southwestern willow flycatcher habitat and no direct impacts to this species. However, uncontrolled public access, discharge of untreated stormwater, or flood control projects, unless mitigated, could adversely impact habitat below the 566-foot elevation line.

**Western Yellow-Billed Cuckoo Habitat**

Currently, all areas within the 100-year floodplain below the 566-foot elevation line where thickets of riparian trees and shrubs occur or may become established as a result of natural floodplain processes could provide habitat for the western yellow-billed cuckoo. This species has a moderate potential to occur in the riparian habitat associated with Mill Creek. These areas are designated Open Space Natural (OS-N) by the Specific Plan which restricts uses that will compromise habitat values. No urban development is allowed by the Specific Plan in this area.

There will be no loss of western yellow-billed cuckoo habitat and no direct impacts on this species. However, unless mitigated, uncontrolled public access, discharge of untreated stormwater, or flood control projects could adversely impact habitat below the 566-foot elevation line.

**Loss of Agricultural Open Space**

Much of the agricultural lands and other open space within Subarea 2 provides roosting and foraging habitat for populations of several raptor species, including burrowing owl, and is part of the larger Prado Basin/Chino Valley/Chino Hills region which functions as a discrete ecological unit or system. Land cover types within Subarea 2 considered suitable roosting and foraging habitat include most agricultural land types with the exclusion of dairy lands. Dairy lands are principally stockyards devoid of all vegetation, heavily disturbed and covered with cow manure. Agricultural lands considered suitable roosting and foraging habitat include croplands (both active and fallow fields), pasture lands, and associated windrows. In total, there is 1,256 acres of land that may provide roosting and foraging habitat for burrowing owl and other raptor species, generally north of the 566-foot inundation line (see Table 5.4-4), that will be lost at project build-out.

This represents a loss of 2.2 percent of all suitable raptor foraging habitat within the existing region (see *The Preserve Raptor Foraging Habitat Assessment* by PCR, Appendix B). This loss was

determined not to have a significant adverse effect on regional raptor populations (excluding burrowing owls) and eagles. However, this loss of agricultural Open Space would have a significant impact on the local burrowing owl population. Cumulative impacts are discussed in Section 5.4.5.

**Delhi Sands Flower-loving Fly Habitat**

A remnant of the Delhi series soils are located within the extreme northeasterly sector of Subarea 2, east of Chino Airport. The Draft Recovery Plan for the Delhi sands flower-loving fly (DSF), prepared by the USFWS, indicates that some utility rights-of-way and a few other locations that fall within Subarea 2 (designated as the Ontario Recovery Unit) may be suitable as habitat restoration sites for reestablishing the DSF in the area. Under the USFWS' Draft Recovery Plan, it is unlikely that any restoration effort would achieve the desired goal of contributing to the recovery of the DSF.

Under the thresholds of significance, impacts to the DSF would be significant if they would "substantially affect a rare, endangered, or otherwise sensitive species of plant or animal or the habitat of such species". The Specific Plan designates lands in the northeast sector of the Plan Area as Agricultural (AG), consistent with existing uses. All of this area is owned by the Southern California Agricultural Land Foundation (SCALF) and/or the County of San Bernardino. This area has been under active agricultural use for over 50 years and no longer supports native DSF habitat. Although protocol surveys have not been conducted within that area, it is very unlikely that the area is occupied by DSF and it is likely the area will remain uninhabitable without costly and long-term restoration measures. Numerous protocol inventories for DSF over the last 5 years in the adjacent cities and communities of Mira Loma, Rancho Cucamonga, Ontario, and Fontana have all been negative.

Because it is unlikely that DSF exists in Subarea 2 and the Specific Plan's land uses for areas containing Delhi soils are consistent with existing agricultural uses, the Project would not result in any direct or indirect significant impacts to this species.

**Wildlife Movement**

Movement by wildlife within or into the northern portions of Subarea 2, above the 566-foot elevation line, has been greatly reduced due to the intense existing agricultural activities, lack of viable water sources and lack of native habitat. However, the southern portion of Subarea 2, below the 566-foot elevation line, accommodates wildlife movement, linking the Chino Hills with the Santa Ana River Watershed. Additionally, the southern portion of the site provides year-round water supplies and foraging areas. Many wildlife species travel to Prado Basin and the surrounding area to breed and forage. Proposed development will be limited to the northern portion of Subarea 2, primarily above the 566-foot elevation line.

The northern portion of Subarea 2 does not contribute significantly to wildlife movement or migration; therefore, the proposed development within this portion of Subarea 2 will not significantly impact wildlife movement. Lands below the 566-foot elevation are planned for Open Space, passive Recreation and Agricultural uses that are consistent with the existing pattern and low intensity of open space uses in this area. This open space and low-intensity land use will remain compatible with wildlife movement in the Prado Basin and will not be a significant impact on wildlife movement.

**Impacts to Subarea 2 Drainage Areas, Riparian Habitats, and Potential Wetlands**

Two small drainages extend south from the Chino Airport north of the 566-foot elevation line in Subarea 2 before joining Prado Lake within Prado Regional Park. Those two drainage courses are quite dry in most locations, and are essentially narrow roadside drainage ditches that are sparsely vegetated with weeds in many areas. These two watercourses provide little biological value in their present condition and less than 1 acre of riparian habitat exists above the 566-foot elevation line.

Two major creeks transverse Subarea 2 below the 566-foot elevation line: Chino Creek which drains southerly along the base of the Chino Hills and Mill Creek which drains into the eastern portion of the Prado Basin and eventually into the Santa Ana River. These drainage courses support significant riparian vegetation and provide areas of high biological sensitivity.

Most development will occur above the 566-foot elevation line where wetlands and jurisdictional waters are extremely limited, and will not have an impact on these sensitive biological resources. However, all developments within wetlands and jurisdictional drainages require coordinated review and permitting with the USACE, CDFG, and/or the Regional Water Quality Control Board. The loss of wetlands and jurisdictional drainages will be mitigated, if needed, as part of these permitting procedures.

### 5.4.5 CUMULATIVE IMPACTS

Ongoing development in Subarea 2 and the surrounding Prado Basin region will contribute to the incremental loss of open space and, with it, habitat for plants and wildlife. Past agricultural activities in Subarea 2 and the rate of present development in the surrounding region has already resulted in the decline of several species. The economic value of the remaining areas is expected to continue to increase, resulting in increased pressure for further development.

Future development within Subarea 2 above the 566-foot elevation line will result in the continued conversion of agricultural lands and open space areas to a built environment. This reflects a regional land use decision by the counties of Riverside and San Bernardino and the cities of Ontario and Chino. As stated in Section 5.4.4, the loss of open space and agricultural lands will not have a direct impact on any federal or state listed species occurring within the project site or within the region as a

whole. All listed species occur below the 566-foot elevation line and, therefore, occur in an area that will not be subject to urban development. With the exception of burrowing owl nesting and foraging habitat, impacts to biological resources were determined to be insignificant at the project level, but were cumulatively significant for the loss of raptor foraging habitat. A separate and independent regional analysis of raptor foraging habitat by PCR Services Corporation found that the loss of foraging habitat in Subarea 2 was a insignificant impact to the raptor populations within the Prado Basin and Chino Hills at the project level (a loss of 2.1%), but significant when considered cumulatively. The loss at the regional level of burrowing owl nesting and foraging habitat above 566-foot elevation line within Subarea 2 was determined to be significant at the project level and cumulatively at the regional level. Thirteen separate planned and/or approved projects are within the region and will result in the loss of 9,246 acres of an estimated 124,500 available acres for raptor foraging. This total represents approximately 16.5 percent of the existing available habitat in the region. This cumulative loss is a significant adverse impact to regional populations of raptors.

Mitigation measures identified in this EIR (Section 5.4.6), including preparation and implementation of a Resources Management Plan and adherence to the various wildlife and habitat permitting procedures, would address the loss of riparian habitat and loss of upland wildlife habitat on a local and regional level.

### 5.4.6 MITIGATION MEASURES

The significant biological resource impacts of implementation of the proposed plan include direct loss of raptor foraging habitat, loss of burrowing owl habitat, loss of migratory and waterfowl habitat, and cumulative loss of agricultural and open space lands with habitat value. These impacts are largely restricted to areas planned for development above the 566-foot elevation inundation line, away from the most sensitive areas below the 566-foot elevation line. Land Use Designations in these more sensitive areas have been designated for open space and agricultural uses, thereby avoiding impacts to biological resources. Additional impacts to the sensitive biological resources below the 566-foot elevation line could occur from increased public access and use of the open space system if not mitigated. The Specific Plan zoning designations for all land below the 566-foot inundation line restricts development likely to cause significant adverse impacts to biological resources.

The following mitigation measures shall be implemented to eliminate or reduce potentially significant impacts to biological resources.

**B-1 <u>Zoning and Land Use Regulation</u>**

1. All areas below the 566-foot dam inundation line, except such areas located north of Pine Avenue, will be retained within an open space or agricultural land use designation in order to provide protection for existing wildlife habitat values found in such areas and

those to be created by the habitat enhancement activities described under mitigation B-3, below, as well as to avoid any new impacts.

2. Any new development or expansions of existing land uses within the open space designations of The Preserve Specific Plan (i.e., Agriculture, Agriculture/Open Space-Natural, Open Space-Recreation, Open space-Natural and Open Space-Water) shall comply with the requirements and provisions of the Resource Management Plan (see Mitigation No. B-3, below) in order to mitigate potential adverse project-specific impacts on biological resources.

**B-2 Required Biological Studies**

1. Conduct a biological assessment of each specific project site to characterize the habitat types and the potential for the site to support any sensitive species or habitat.

2. Where a sensitive species has the potential to occur, determine the level of potential for occurrence as low, moderate, or high. Provide scientific justification for this determination.

3. If the potential for occurrence is moderate or high (e.g., the required habitat elements for this species are present and/or there has been a sighting of this species in the vicinity of the project site), conduct focused surveys within suitable habitat to determine the presence or absence of the species on the project site.

4 Any surveys deemed necessary must be conducted by a biologist qualified to perform the needed survey(s). The City of Chino, or its consultant, will review and approve the personnel and methodology for any such proposed surveys.

5. If a sensitive species or habitat is found to occur on a proposed project site, or occupies habitat that may be impacted directly or indirectly by the proposed project, this must be called to the City's immediate attention and documented in the biological assessment for the project.

6. Mitigation measures to offset any potential impact to sensitive species and habitats must comply with the RMP and shall be included in the biological assessment. All lands set aside for conservation and/or other mitigation measures must be clearly documented in the final biological assessment.

**B-3 Resources Management Plan**

A Resources Management Plan (RMP) shall be prepared by the City of Chino to provide for the implementation of the mitigation measures described below, in order to avoid, lessen and reduce impacts on the biological resources within the Preserve Specific Plan Area. The Resources Management Plan will be approved by the Chino City Council at the time of certification of the Final EIR. The RMP will formalize the City's balanced approach to land use and resource management, and provides the framework for coordinating the City's actions with other agencies, such as County

of San Bernardino, CDFG, USFWS, USACE, OCFWD, and OCWD with regard to specific conservation measures and resource management initiatives within The Preserve. The RMP will focus on the development and implementation of wildlife habitat enhancement and restoration activities, primarily funded by a mitigation fee imposed on all urban development within the Project Area. The RMP will specifically address the following mitigation measures:

1. 300-acre Conservation Area

Provision will be made for the creation, enhancement, expansion and perpetuation of high quality wildlife habitat in a 300-acre Conservation Area to be located generally below the 566-foot inundation line and within the boundaries of the project area. The more specific location of the conservation area will be determined through the preparation of the RMP and will depend on availability of such lands for mitigation purposes, and the suitability of land for the enhancements envisioned. Such habitat will be designed to address the impacts that will occur as the result of development of The Preserve (i.e., raptor, waterfowl and burrowing owl habitat). Key enhancements that will be provided comprise the following:

a.) A weed removal program and replanting of native vegetation within the 300-acre Conservation Area shall be implemented to create high quality raptor and burrowing owl foraging habitat.

b.) Installation and maintenance of twenty (20) artificial burrowing owl nesting sites to mitigate for the loss of burrowing owl habitat. An illustrative example of an artificial burrow is provided in Exhibit 5.4.4). Nesting sites will be located and designed to facilitate use by burrowing owls.

c.) Stands of trees shall be planted at a minimum of five (5) locations within the 300-acre Conservation Area to mitigate for the loss of raptor nesting/foraging habitat. Specifics regarding enhancements (i.e., location of tree stands, placement of artificial owl burrows, plant and tree species, long-term maintenance and management, etc.) will be detailed in the RMP.

d.) The City shall obtain agreements with the landowners in the 300-acre Conservation Area in the form of an irrevocable license, conservation easement, right of entry, or other legally enforceable instrument to install and maintain the above habitat enhancements and to provide the City with a perpetual right to control uses which would conflict with the land's use as wildlife habitat.

2. Alternate Location for the 300-acre Conservation Area

If the City is unable, or it is infeasible, to obtain the onsite mitigation agreements from property owners for all or a portion of the 300-acre conservation area, the City may acquire and enhance, or make other arrangements securing the right to permanently protect/preserve and enhance, land off-site within the Prado Basin (including Chino Hills). Such land must have similar biological value to land on-site within the areas planned for urban development (generally above the 566-foot elevation line). In addition,

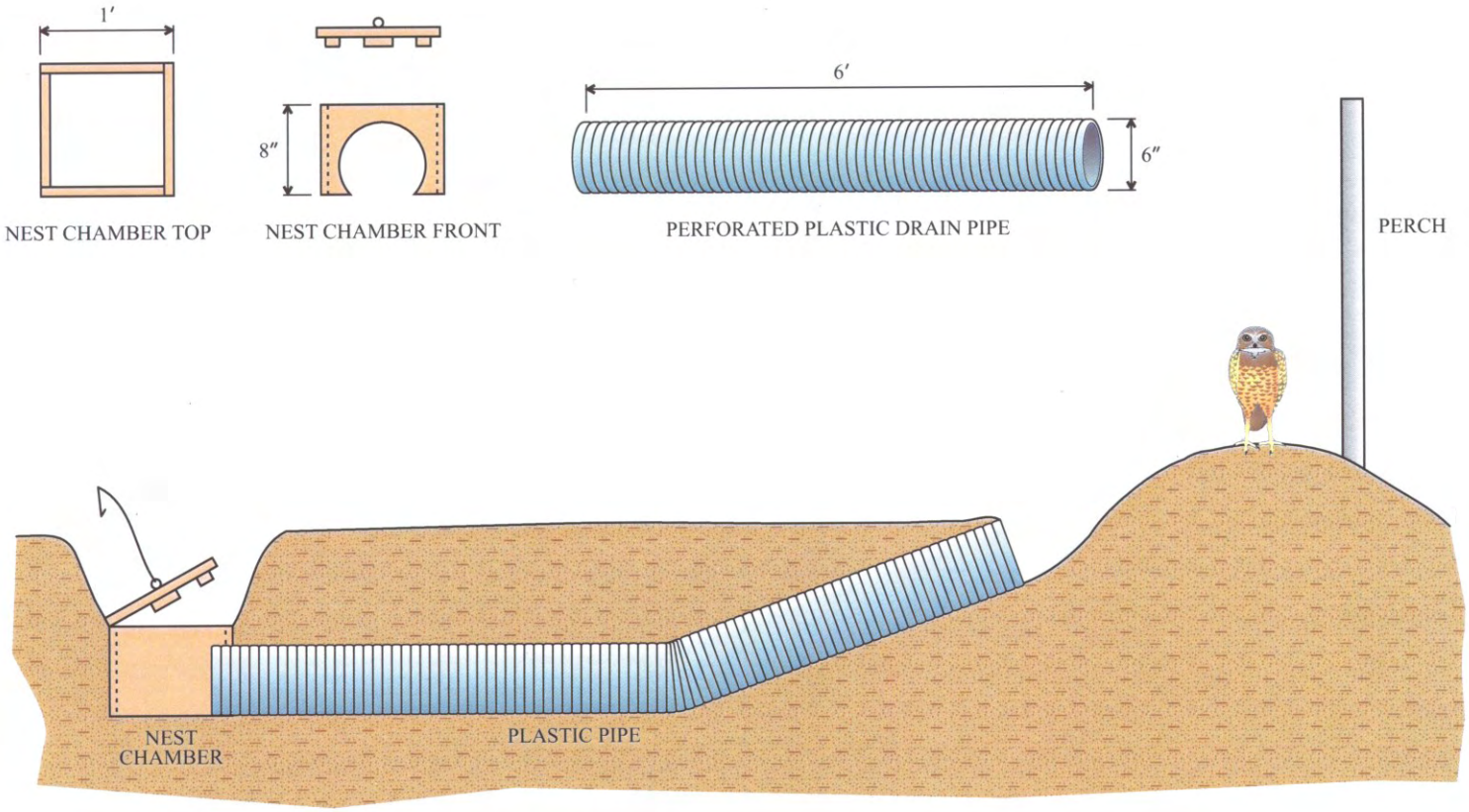


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Exhibit **5.4-4**

# Artificial Nest Design for Burrowing Owls

THE PRESERVE • CHINO SUBAREA 2

provisions shall be made to provide enhancements/restoration similar to the measure described in Section B-3(1), above.

3. Burrowing Owls

   a.) If burrowing owls are found on an individual development site, development, including the expansion of existing land uses or other land use activities that could disrupt the owls, will be required to follow the CDFG burrowing owl relocation protocols, including the creation of artificial burrows (Exhibit 5.4.4). Key components of this protocol presently include:

      i. Occupied burrows should not be disturbed during the nesting season, from February 1 through August 31.

      ii. If owls must be moved away from the disturbance area, passive relocation is preferable to trapping.

      iii. A time period of at least one week is recommended to allow owls to move and acclimate to the alternate burrows.

      iv. Passive relocation involves encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are at least 50 meters from the impact zone with a minimum of 6.5 acres of suitable foraging habitat for each pair of relocated owls (see Exhibit 5.4.4).

      v. Owls should be excluded from burrows in the immediate impact zone and within a 50-meter buffer zone by installing one-way doors in burrow entrances.

      vi. One-way door should be left in place for at least 48 hours to insure that owls have left the burrow before excavating the burrow.

      vii. One alternate burrow (natural or artificial) should be provided for each burrow that will be excavating in the project impact zone.

      viii. The project areas should be monitored daily for at least one week to confirm no owl use before excavating burrows in the immediate impact zone.

      ix. When excavating burrows, hand tools should be used and the burrows should be refilled to prevent reoccupation.

      x. Sections of flexible plastic pipe or burlap bags should be inserted into the tunnels during excavation to maintain an escape route for any animals that may still be located inside the burrow.

b.) In order to provide supplemental mitigation beyond the standard CDFG protocol requirements for relocation of owls, the 300-acre Conservation Area will be made available for the relocation of burrowing owls that would be displaced by development, including the creation of 20 artificial burrows. The feasibility of relocating owls from development sites to the conservation area will be reviewed on a case-by-case basis for individual development projects, subject to the evaluation and recommendations of the biological study prepared for a given site.

4. Urban Buffer/Transition Area

In order to limit urban intrusion into areas with habitat value that are below the 566-foot dam inundation line, a buffer area will be provided along the southern edge of urban development within the Preserve Specific Plan project area. The buffer will be designed to provide for limited access to habitat areas and will include provisions for the logical transition between urban structures/uses and habitat areas. Such provisions may address without limit measures regarding: location and type of land uses, lighting, vegetation and tree plantings. Specific features regarding the design, conceptual location, buffer width and/or setback requirements, timing and other features of the buffer shall be included as part of the Resources Management Plan.

While every reasonable effort will be made to seek such a buffer, this mitigation measure does not require land acquisition or obtaining any agreements with landowners in the form of an irrevocable license, conservation easement, right of entry, or other legally enforceable instrument for the purposes of providing the buffer, or for purposes of providing any of enhancements or features described under Mitigation Measure B-3(1).

5. Surface Water and Riparian Habitat

a.) All development will be required to satisfy any applicable requirements of USACE, Regional Water Quality Control Board and CDFG for Section 404 Clean Water Act permits and streambed alteration agreements.

b.) Drainage Area B (see, Exhibit 5.4.5) will be designed as a naturalized drainage course and enhanced to provide riparian habitat values, including plantings of appropriate native species of plants and trees. It is anticipated that these enhancements will be provided in conjunction with drainage facilities and constructed "Natural Treatment Systems" (NTS) designed to improve water quality. Exhibit 5.4.6 provides an illustrative example of how the drainage area may be designed. Specific features related to habitat values will be addressed as part of the RMP.

c.) A minimum of 10 acres of marsh and or riparian habitats shall be constructed in conjunction with drainage facilities and/or Natural Treatment Systems for water quality purposes, in order to provide mitigation for loss of the low-quality habitat values of the agricultural detention basins, as well as other surface water areas that support waterfowl.

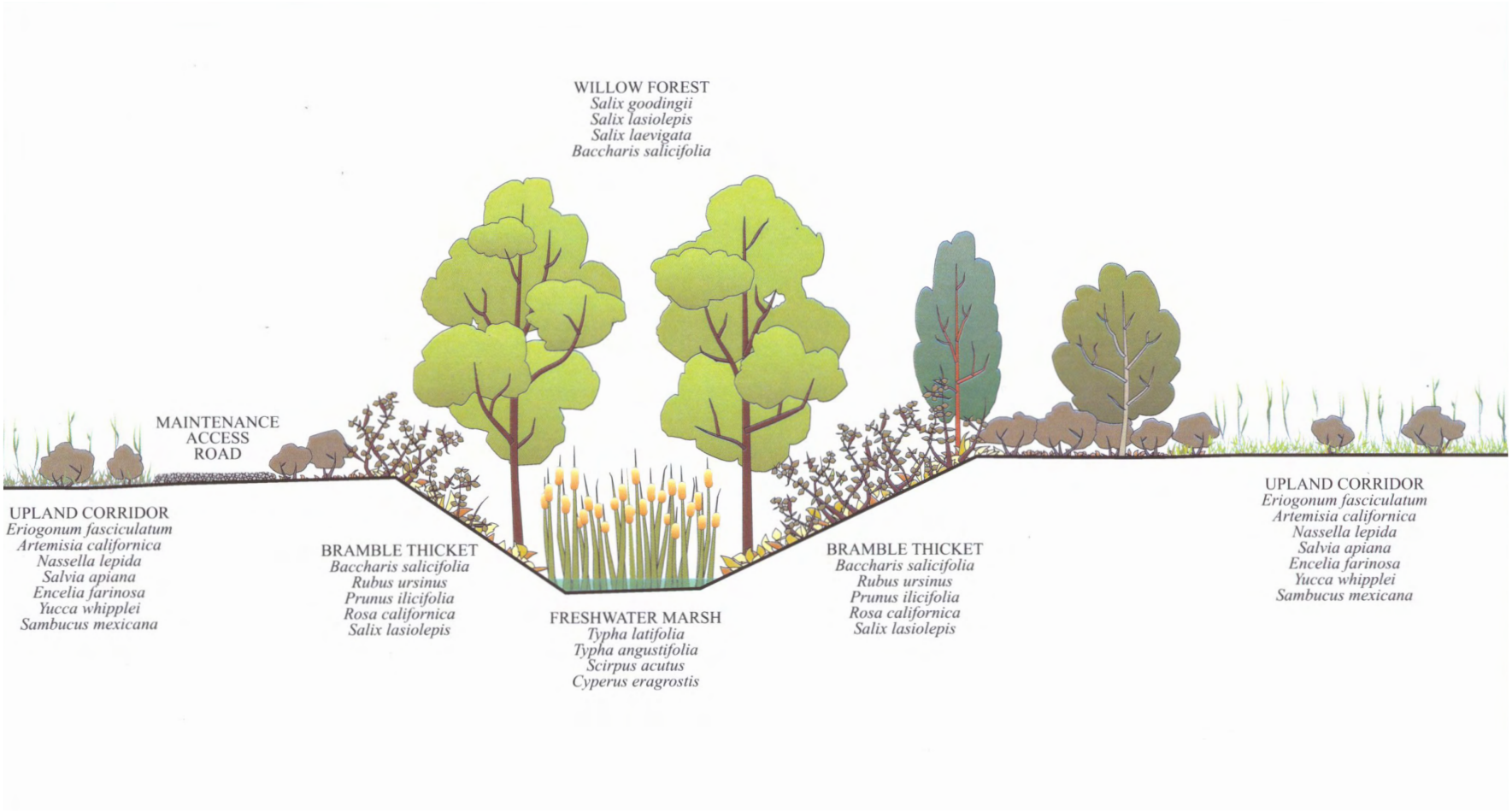


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Exhibit **5.4-5**

# Conceptual Cross Section For Drainage B

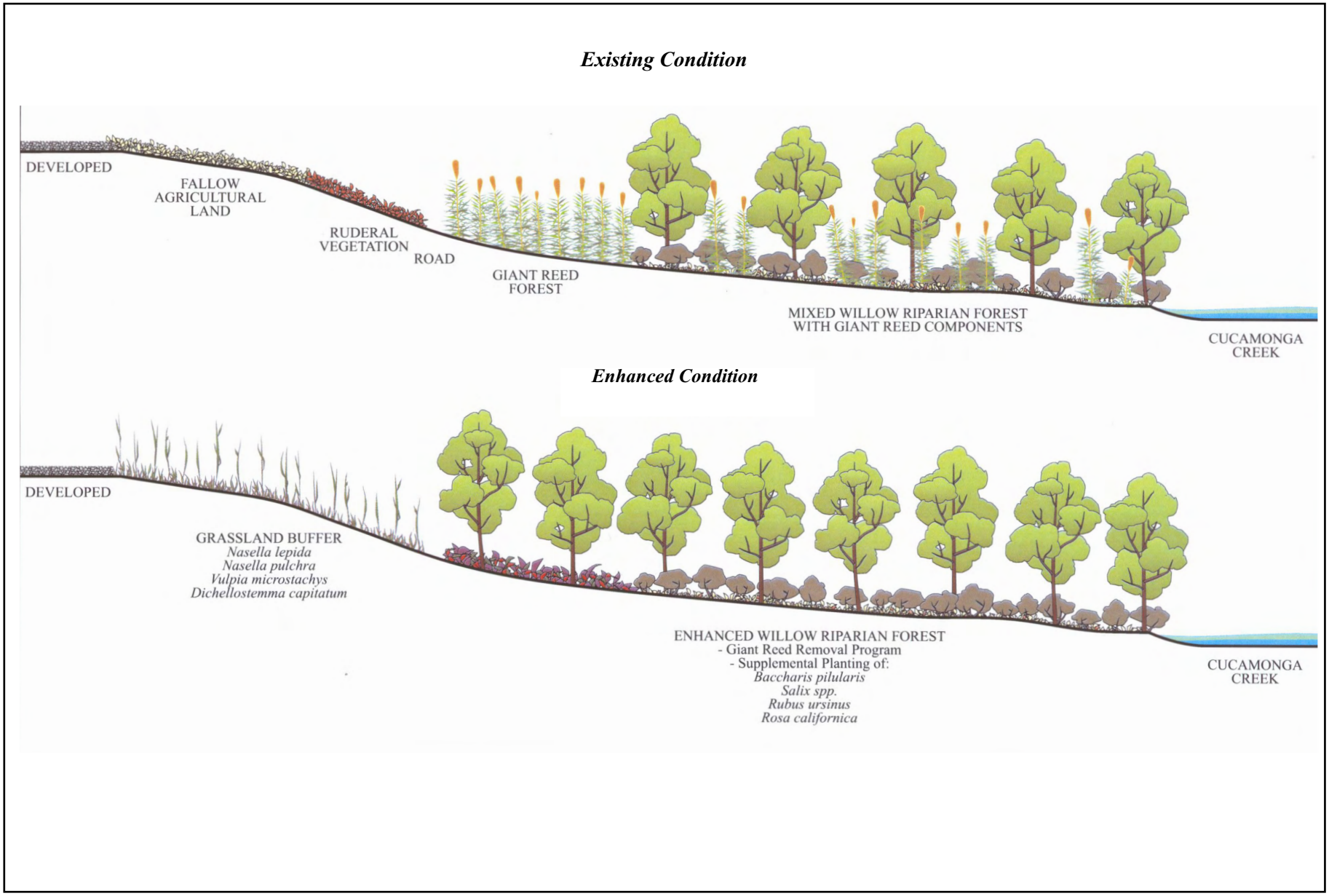


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Exhibit **5.4-6**

# Conceptual Cross Section For 300 Acre Conservation Area

6. Existing Windrows

   Existing windrows that provide viable raptor habitat shall be retained and incorporated into the design of individual development projects where practical. If retention is not practical, the developer shall provide for the replacement of the windrow trees in a manner supportive of raptor habitat. The biological study prepared for the development project shall include an analysis by an ornithologist specializing in raptor biology. Such analysis shall include recommendations on the number of trees, tree specifications and location of replacement areas for windrows or stands of trees. The recommendations shall be based on biological values, as determined by the ornithologist, and in consultation with the City and the wildlife agencies. Replacement trees may be located within the 300-acre conservation area or other suitable areas located outside of the project site if consistent with the recommendations of the ornithologist.

7. Agricultural Easements

   Under Mitigation Measure AG-1 (See Section 5.2 in the Draft EIR), which addresses mitigation for the loss of prime agricultural land, the City has committed to their involvement in the Williamson Act Easement Exchange Program (WAEEP) and any plan that may be adopted pursuant to SB 831 for acquisition of agricultural easements or other conservation easements for the purpose of permanent agricultural land preservation. These easements will also provide mitigation for identified impacts on biological resources in that they will preserve areas in agriculture and prevent the future development of recreational or other non-agricultural uses that could be detrimental to biological resources.

8. Mitigation Fee

   A mitigation fee shall be imposed on new development for the purpose of implementing the Biological Resource mitigation measures as described in the Resources Management Plan. The fee shall be adopted by the City Council prior to the issuance of grading permits for new residential, commercial, office, industrial development, or public facilities; provided grading permits may be issued prior to final adoption of the fee upon developer's deposit with the City of adequate cash or other form of security in excess of the proposed fee, as approved by the City Council for the City. The fee shall be structured to cover the estimated cost of the identified mitigation measures, including:

   a.) Costs associated with obtaining agreements for the 300-acre conservation area with landowners in the form of conservation easements or other legally enforceable instruments as described under mitigation measures B-3-1 and B-3-2, above;

   b.) Costs associated with the design, installation, and maintenance of the various enhancements and improvements described above, including such appropriate refinements/adjustments as may be identified by the RMP.

c.) Administration, management and monitoring of the 300-acre conservation area and other mitigation measures as appropriate, including adaptive management.

Costs that form the basis for the mitigation fee may, at the discretion of the City, be defrayed through the use of grants or other government or private funding sources as such sources become available in the future.

Costs for wetlands/riparian enhancements shall be structured in conjunction with costs for such improvements that also serve water quality and drainage purposes, which may be funded by project drainage and/or water quality fees.

9. Participation in Regional Efforts

The City has had ongoing involvement with various regional conservation-related efforts. The City will continue to be involved in and coordinate with such efforts within The Preserve. These efforts include, without limitation:

a.) USACE and Orange County Water District's Prado Basin Master Plan;

b.) IEUA's Chino Creek Habitat Restoration Program;

c.) Orange County Water District's Santa Ana River Watershed program;

d.) USACE's Santa Ana River Mainstem Project;

e.) Lower Chino Basin Working Group (Santa Ana River Working Group MOU) Resources Management Planning;

f.) Chino Basin Center for Organic Materials (Santa Ana River Working Group MOU); Wildlife, Wetlands and Recreation Resource Conservation Program (Santa Ana River Working Group MOU);

g.) Urban Transition Planning Smart Growth Program (Santa Ana River Working Group MOU);

h.) Conjunctive Groundwater Management, Replenishment and Conservation Program (Santa Ana River Working Group MOU).

i.) Chino Hills State Park General Plan (February 1999).

10. Administration and Monitoring

The City shall use a conservancy or land trust, or other similar, qualified entity to oversee and implement the Resources Management Plan and principally manage the 300-acre conservation area. Such an entity shall have expertise in the management of land and biological resources. The chosen entity may also jointly provide a similar function to

adjacent jurisdictions, provided that effective implementation of the mitigation measures described herein can be achieved. The City Council shall use its best efforts to select and enter in to necessary agreements with the chosen entity prior to acquisition of any property through an irrevocable license, conservation easement, right of entry, or other legally enforceable instrument.

### 5.4.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the above mitigation measures would reduce, avoid, lessen or compensate for some, but not all, of the adverse impacts to biological resources above the 566-foot inundation line. Impacts to burrowing owls from the loss of nesting and foraging habitat will remain significant. Impacts to Delhi Sands flower-loving fly and/or its habitat are considered non-significant. Impacts to regional raptor populations are also considered non-significant at the project level but cumulatively will have a significant impact. There will not be any significant adverse impacts to wildlife movement in the region.

Impacts to biological resources below the 566-foot inundation line will not be significant. Although least Bell's vireo are known to occur and have federally designated critical habitat within Subarea 2 below the 566-foot inundation line, and southwestern willow flycatchers and yellow-billed cuckoos were determined to have a high probability of occurrence below the 566-foot line, no direct or indirect impacts will occur to these species as a result of the project.