4.3 BIOLOGICAL RESOURCES

4.3.1 INTRODUCTION

This section discusses the common and special-status biological resources existing within the Fresno Canyon project site, the current status of these resources before project implementation, the potential significant adverse impacts on these resources from the proposed project implementation within the project site area, and measures to mitigate these impacts.

This analysis is based on the March 2013 Initial Study for the proposed project, the June 2009 Draft Biological Assessment prepared for The Federal Emergency Management Agency (FEMA) by URS Group, Inc., the subsequent July 2013 Biological Assessment supplement prepared for FEMA by Impact Sciences, the January 2010 Biological Opinion (BO) prepared by US Fish and Wildlife Service for the subject project, review of relevant literature and data, and recent field studies on and adjacent to the subject project site.

Background

The Ventura County Watershed Protection District (VCWPD) proposes to construct a flood control facility to transport floodwater, sediment, and debris from Fresno Canyon to the Ventura River. This project is intended to reduce the risk of flooding in the community of Casitas Springs in Ventura County, California, and on SR-33. FEMA proposes to provide Pre-disaster Mitigation (PDM) Program federal financial assistance (federal action) (PDM-PJ-09-CA-2007-013) to VCWPD (Subgrantee), through the California Emergency Management Agency (f/k/a Governor's Office of Emergency Services), in support of the Fresno Canyon Flood Mitigation Project.

The PDM Program assists states and communities by providing federal financial assistance to implement sustained, pre-disaster, natural-hazard mitigation programs to reduce the risk of injury and damage from natural disasters and also to reduce reliance on funding from disaster declarations.

In 2009, URS Group, Inc., assisted FEMA by preparing a Draft Biological Assessment to be submitted to National Marine Fisheries Service (NMFS) for evaluation of resources that are under their jurisdiction (**Appendix C**). The US Fish and Wildlife Service (FWS) was also consulted with respect to special-status resources under their jurisdiction. The FWS subsequently prepared a BO in January 2010 addressing potential effects of the proposed project on the federally Threatened California red-legged frog (*Rana draytonii*) and the federally Endangered least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (Act)(16 USC 1531 et seq.) (**Appendix C**).

In July 2013, Impact Sciences prepared a supplement to the Biological Assessment for NMFS that primarily focused on potential impacts to the Endangered Southern California steelhead trout (*Oncorhynchus mykiss*) Distinct Population Segment (DPS) and its associated Critical Habitat (**Appendix C**).

4.3.2 METHODOLOGY

Literature Review

Documentation pertinent to the biological resources on and near the site was reviewed and analyzed. Information reviewed included: (1) the Federal Register listing package for the federally listed species known to occur in the area[1]; (2) literature pertaining to habitat requirements of sensitive species potentially occurring on the project site; (3) the most recent updates of the California Natural Diversity Data Base (CNDDB)[2] and California Native Plant Society (CNPS)[3] information regarding sensitive species potentially occurring on and near the project site and (4) previous biological studies conducted on the subject property. The database query included the Ventura, California US Geological Survey (USGS) 7.5-minute quadrangle, in which the project site is located, as well as the following six surrounding quadrangles: Matilija, Ojai, Saticoy, Oxnard, Pitas Point, and White Ledge Peak. Additionally, all biological studies previously prepared for the project were reviewed.

Field Studies

Impact Sciences' biologist Dave Crawford conducted a field visit at the project site on September 21, 2012. The purpose of the site visit was to characterize and evaluate the existing conditions and the potential of the on-site habitats to support special-status animal species and to inventory wildlife species present at the time of the survey. On October 11, 2012, Dr. Edith Read of E. Read and Associates visited the site to map existing vegetation associations, evaluate the existing conditions and the potential of the on-site habitats to support special-status plant species, and inventory plant species present within the project area.

The potential for special-status species to occur on the project site is based on the proximity of the site to recorded occurrences from the CNDDB and CNPS databases, knowledge of the project region, on-site

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1 US Fish and Wildlife Service. *Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species; Proposed Rule* Federal Register 50, CFR Part 17. US Department of the Interior. Washington, DC. 1996.

2 California Department of Fish and Wildlife (CDFW). California Department of Fish and Game Natural Diversity Data Base. Commercial Version, Update July 2, 2012 and August 6, 2013.

3 California Native Plant Society. 2013. Inventory of Rare, Threatened, and Endangered Plants of California. Online database available at: http://www.rareplants.cnps.org/. Accessed July 2012 and August 2013.

vegetation, habitat characteristics, topography, elevation, soils, surrounding land uses, and habitat preferences and geographic ranges of special-status plant and animals species known to occur in the project region.

4.3.3 ENVIRONMENTAL SETTING

Project Location

The project area is approximately 5 miles inland from the Pacific Ocean in the community of Casitas Springs in Ventura County, California, immediately north (upstream) of Foster Park. It is located south of the Ojai Valley and surrounded by three mountain ranges. To the north the Nordhoff Ridge extends to approximately 5,000 feet above mean sea level (amsl). This ridge continues to the Topa Topa Bluff east of the Ojai Valley which stands 6,000 feet amsl. Sulphur Mountain bounds the Ojai Valley on the south at just under 3,000 feet amsl. Elevation at the site is approximately 280 feet amsl. Foster Park is adjacent and south of the site and Lake Casitas is approximately 1.3 miles to the northwest.

The project area encompasses a small section of the Ventura River bank and extends approximately 1,400 feet east of the Ventura River on to adjacent uplands. The uplands include some riparian areas, woodland, scrub, residential areas, and a crossing of SR-33.

The climate in the project area is Mediterranean and characterized by hot, dry summers and mild winters. As is typical for much of coastal Southern California, most precipitation falls in the form of rain between the months of October and April with intervening dry summers. The average temperatures in the summer months are in the upper 80 degrees Fahrenheit (°F) with lows in the mid-50s °F. Average temperatures in the winter months are in the high 60s °F with lows in the mid-30s °F. Rainfall averages 18.4 inches per year with between 2 and 5 inches per month falling between November and March.

Existing Conditions

The site includes a small portion of the eastern bank of the Ventura River and extends inland eastward for approximately 1,400 feet. The upland areas include oak woodlands, coastal scrub, residential development, and a crossing of SR-33.

Vegetation

Vegetation assemblages observed on the Fresno Canyon project site area is described below. Vegetation classifications generally follow Sawyer and Keeler-Wolf.[4]

Table 4.3-1, below, provides a list of all plant species recorded during the October 2012 survey.

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4 Sawyer and Keeler-Wolf. *A Manual of California Vegetation. 2nd ed. California Native Plant Society. Sacramento, California.* 2009.

Table 4.3-1
Vascular Plant Species Recorded on the Project Site

Latin Name	Common Name
Gymnosperms	**Conifers**
Pinaceae	**Pine Family**
Pinus muricata	Bishop pine
Dicots	**Flowering Plants**
Adoxaceae	**Muskroot Family**
Sambucus nigra L. ssp. *caerulea* (Raf.) Bolli	blue elderberry
Anacardiaceae	**Sumac Family**
Rhus integrifolia (Nutt.) Brewer & S. Watson	lemonadeberry
Schinus molle L.*	Peruvian pepper tree
Apiaceae	**Carrot Family**
Foeniculum vulgare Mill.*	fennel
Apocynaceae	**Dogbane Family**
Vinca major L. *	periwinkle
Araliaceae	**Ginseng Family**
*Hedera helix**	English ivy
Asteraceae	**Sunflower Family**
Ambrosia psilostachya DC.	western ragweed
Artemisia californica Less.	California sagebrush
Baccharis pilularis DC.	coyote brush
Baccharis salicifolia (Ruiz Lopez & Pavon) Pers.	mule fat
Helminthotheca echioides (L.) Holub*	bristly ox-tongue
Lessingia filaginifolia (Hook. & Arn.) M.A. Lane	California-aster
Silybum marianum (L.) Gaertn.*	milk thistle
Xanthium sp.*	cocklebur
Betulaceae	**Birch Family**
Alnus rhombifolia Nutt.	white alder
Brassicaceae	**Mustard Family**
Brassica nigra (L.) W.D.J. Koch*	black mustard
Cactaceae	**Cactus Family**
Opuntia ficus-indica (L.) Miller*	Indian fig cactus
Cucurbitaceae	**Cucumber Family**
Marah fabacea (Naudin) Greene	California man-root
Fabaceae	**Legume Family**
Genista sp.*	broom
Fagaceae	**Oak Family**
Quercus agrifolia Nee	coast live oak
Juglandaceae	**Walnut Family**
Juglans californica S. Watson	California black walnut

Latin Name	**Common Name**
Lamiaceae	**Mint Family**
Marrubium vulgare L.*	horehound *
Salvia leucophylla Greene	purple sage
Salvia mellifera E. Greene	black sage
Malva parviflora L.*	cheeseweed
Myrtaceae	**Myrtle Family**
Eucalyptus sp.*	eucalyptus
Phyrmaceae	**Lopseed Family**
Mimulus aurantiacus Curtis	bush monkeyflower
Platanaceae	**Sycamore Family**
Platanus racemosa Nutt.	western sycamore
Polygonaceae	**Buckwheat Family**
Eriogonum fasciculatum Benth. var. *foliolosum* (Nutt.) Abrams	leafy California buckwheat
Rumex crispus L.*	curly dock
Rhamnaceae	**Buckthorn Family**
Ceanothus crassifolius Torrey	hoary-leaf ceanothus
Ceanothus spinosus Nutt.	greenbark ceanothus
Rosaceae	**Rose Family**
Heteromeles arbutifolia (Lindley) Roemer	toyon
Rosa californica Cham. & Schltdl.	California rose
Rubus armeniacus Focke	Himalayan blackberry
Salicaceae	**Willow Family**
Populus fremontii S. Watson	Fremont cottonwood
Salix lasiolepis Benth.	arroyo willow
Sapindaceae	**Soapberry Family**
Acer macrophyllum Pursh.	big-leaf maple
Aesculus californica (Spach) Nutt.	California buckeye
Solanaceae	**Nightshade Family**
Nicotiana glauca Graham*	tree tobacco
Viscaceae	**Mistletoe Family**
Phoradendron sp.	mistletoe
Monocots	**Grasses and Allies**
Poaceae	**Grass Family**
Arundo donax L.*	giant reed
Avena fatua L.*	common wild oats
Bromus diandrus Roth*	ripgut brome
Bromus madritensis L. ssp. *rubens* (L.) Husnot*	red brome

Asterisk (*) indicates non-native species.

An illustration exhibiting the distribution of vegetation communities on the project site is provided in **Figure 4.3-1**.

Six plant communities were also identified during the site evaluation. The following discussion describes each vegetation association observed.

Riparian Scrub

Riparian scrub is dominated by arroyo willow (*Salix lasiolepis*), with mule fat (*Baccharis salicifolia*) common in the understory. This community occurs at the eastern end of the action area in lower Fresno Canyon, but is most common in the Ventura River, where Fremont cottonwood (*Populus fremontii*) is also present but not dominant. Much of this community in the river is infested with giant reed (*Arundo donax*), a non-native perennial weed.

Oak-Walnut Woodland

Coast live oak (*Quercus agrifolia*) and California black walnut (*Juglans californica*) co-occur in large stands in the survey area, occurring on hills as well as along roads and easements.

Annual Grassland

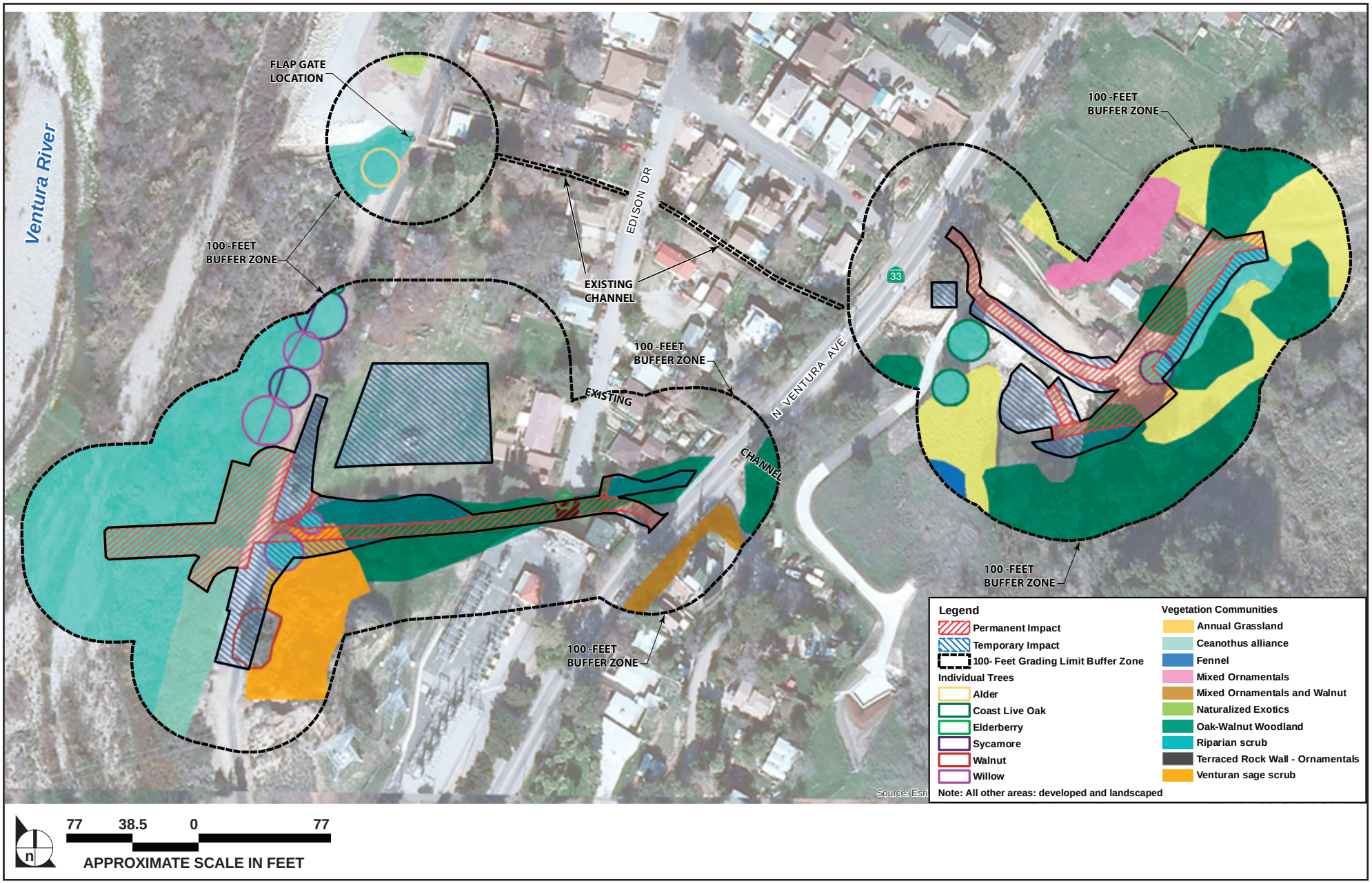
Annual grassland occurs in open fields and as understory in the oak-walnut woodland and ornamentals/naturalized exotics communities. Dominant species are not native to California. These species include wild oat (*Avena* sp.), brome (*Bromus* spp.), and a large stand of fennel (*Foeniculum vulgare*) at the eastern end of the project area.

Venturan Sage Scrub (= Artemisia californica shrubland alliance)

Venturan sage scrub occurs on a hill in the southwest part of the survey area. Common species include California sagebrush (*Artemisia californica*), buckwheat (*Eriogonum fasciculatum*), coyote brush (*Baccharis pilularis*), purple sage (*Salvia leucophylla*), and toyon (*Heteromeles arbutifolia*).

Ceanothus Alliance

A small stand of California lilac (*Ceanothus* spp.) occurs along the recreational trail adjacent to the Ventura River. These species were not observed anywhere else in the project area and may have been planted.



SOURCE: Impact Sciences, Inc., April 2013

FIGURE **4.3-1**

Vegetation Communities

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Ornamentals and Naturalized Exotics

Perennial, woody non-native trees and groundcover occur in scattered stands along roads and trails, and on a terraced retaining wall at the southern end of Edison Road. Most of these species also occur in landscaping within developed areas, but appear to be surviving without irrigation or management, other than pruning. Species include Peruvian pepper (*Schinus* molle), periwinkle (*Vinca major*), Himalayan blackberry (*Rubus armeniacus*), and blue gum (*Eucalyptus* sp.).

Individual Trees

Individual trees, all native except for blue gum (*Eucalyptus* sp.), occur throughout the survey area, not forming a definite vegetation community. Native species include coast live oak, California black walnut, sycamore (*Platanus racemosa*), elderberry (*Sambucus nigra*), and arroyo willow.

Wildlife

Weather during the surveys was warm and sunny so wildlife activity was relatively high. The following lists the wildlife directly observed or otherwise detected on-site during the surveys. As this was a single point in time survey, several additional common wildlife species are also expected to occur both seasonally and as residents on-site.

The diversity of species recorded is indicative of the mosaic of habitat types present in combination with the level of human activity in portions of the property.

Amphibians and Reptiles

The only amphibian detected during the survey was Pacific chorus frog (*Pseudacris [Hyla] regilla*). It is expected that western toad (*Anaxyrus [Bufo] boreas*) and possibly California frog (*Pseudacris cadaverina*) also occur in the habitats associated with the Ventura River and the tributary drainages within the project area.

Reptiles observed include western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*) and gopher snake (*Pituophis catenifer*). Each of these species was observed within the upland scrub and/or annual grassland habitats. Several other common snake species are also expected to be present in the area.

Birds

A number of avian species characteristic of the riparian, scrub, and woodland habitats were observed or detected within the project area. These are believed to be reflective of the habitat value and functions provided by the mosaic of habitats and the adjacent development and human activities present within the project area. Bird species observed during the September 2012 survey include western scrub-jay (*Aphelocoma californica*), red-tailed hawk (*Buteo jamaicensis*), California quail (*Callipepla californica*), Anna's hummingbird (*Calypte anna*), American goldfinch (*Spinus tristis*), lesser goldfinch (*Carduelis psaltria*), house finch (*Carpodacus mexicanus*), Bewick's wren (*Thryomanes bewickii*), wrentit (*Chamaea fasciata*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), Nuttall's woodpecker (*Picoides nuttallii*), oak titmouse (*Baeolophus inornatus*), California towhee (*Melozone crissalis*), spotted towhee (*Pipilo maculatus*), bushtit (*Psaltriparus minimus*), belted kingfisher (*Megaceryle alcyon*), Wilson's warbler (*Cardellina pusilla*), house sparrow (*Passer domesticus*), and mourning dove (*Zenaida macroura*).

Mammals

Observations of individuals or evidence of the presence of a few mammal species were made during the site visits. Both the abundance and diversity of mammals on-site are expected to be moderate. Mammal species observed or otherwise detected on-site include coyote (*Canis latrans*), dusky-footed woodrat (*Neotoma fuscipes*), mule deer (*Odocoileus hemionus*), California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), and Botta's pocket gopher (*Thomomys bottae*).

Special-Status Resources

For purposes of this analysis, special-status species are defined as those that are listed as Endangered, Threatened, or Candidate for listing as Endangered or Threatened under the Federal Endangered Species Act, the California Endangered Species Act, or both. This term also includes all plant species listed by the state as "Rare'" and those species designated by the CNPS with a Rare Plant Rank of 1, 2, or 3. It also includes all wildlife species assigned by the state as Species of Special Concern, Watch List species, and other wildlife included in the most current "Special Animals" list published by the Biogeographic Branch of the California Department of Fish and Wildlife (CDFW).

Based upon the review of the species occurrence data for the Ventura, California, and six surrounding quadrangles, 23 special-status plant and 29 special-status animal species have been reported in the seven-

quad region.[5] Additional special-status species not listed in the CNDDB but observed or otherwise known from the region are also included within these tables.

A summary of these species' potential to utilize the site is provided in **Table 4.3-2, Special-Status Plant Species Reported from the Project Region**, and **Table 4.3-3, Special-Status Animal Species Reported from the Project Region**.

The potential for occurrence described in the tables are classified according to the following:

Not Expected: There is no suitable habitat present on the property (i.e., habitats on the property are clearly unsuitable for the species requirements [e.g., foraging, breeding, cover, substrate, elevation, hydrology, plant community, disturbance regime, etc.]). The species has an extremely low probability of being found on the property.

Low Potential: Either significantly limited quantity and/or quality of suitable habitat is present on the property (i.e., not enough area of the habitat is present to support the species, few of the habitat components meeting the species requirements are present and/or the majority of habitat on the property is unsuitable or of very low quality). And, there are no or few recent known records of occurrence in the near vicinity of the property. The species has a low probability of being found on the property.

Moderate Potential: Some suitable habitat is present on the property (i.e., some of the habitat components meeting the species requirements are present and/or the quantity the habitat on the property is marginal). Additionally, there are known records of occurrences in the region of the property, but not necessarily in the immediate vicinity. The species has a moderate probability of being found on the property.

High Potential: Suitable quantity and quality of habitat is present on the property (i.e., all habitat components meeting the species requirements are present and/or habitat(s) on the property is highly suitable or of high quality). Additionally, there are recent known records of occurrences in the vicinity of the property. This species has a high probability of being found on the property.

Present: Species was observed on the property during surveys associated with this report or by other persons.

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5 California Natural Diversity Database. 2013. Biogeographic Data Branch. Department of Fish and Wildlife. August 6, 2013. Commercial Version.

Table 4.3-2
Special-Status Plant Species Reported from the Project Region

Common Name *Scientific Name*	Status Federal	 State	 CNPS	Habitat Requirements	Elevation Range, Life Form, and Flowering Period	Potential Occurrence
Aphanisma *Aphanisma blitoides*	--	--	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. Bluffs and slopes near ocean in sandy or clay soils	1–305 m AH March–June	Low potential. Limited suitable habitat in project area.
Miles' milk-vetch *Astragalus didymocarpus* var. *milesianus*	--	--	1B.2	Coastal scrub; clay soils	20–90 m AH March–June	Low potential. Limited suitable habitat in project area.
Ventura Marsh milk-vetch *Astragalus pycnostachyus* var. *lanosissimus*	FE	SE	1B.1	Coastal dunes, coastal scrub, marshes and swamps (edges, coastal salt or brackish)	15–1200 m PH June–October	Not expected. No suitable habitat in project area.
Coulter's saltbush *Atriplex coulteri*	--	--	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grasslands; alkaline or clay soils	3–460 m PH March–October	Low potential. Limited suitable habitat in project area.
South coast saltscale *Atriplex pacifica*	--	--	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas; alkaline soils	0–140 m AH March–October	Low potential. Limited suitable habitat in project area.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	--	--	1B.2	Coastal bluff scrub, coastal scrub; alkaline soils	10–200 m AH April–October	Low potential. Limited suitable habitat in project area.
Late-flowered mariposa lily *Calochortus fimbriatus*	--	--	1B.2	Chaparral, coastal scrub, valley and foothill grassland	275–1905 m PH(b) June–August	Low potential. Limited habitat in project area is highly disturbed.
Plummer's mariposa lily *Calochortus plummerae*	--	--	1B.2	Coastal scrub, chaparral, valley and foothill grasslands, cismontaine woodland, lower montane coniferous forest; granitic, rocky soils	100–1700 m PH (b) May–July	Low potential. No typical habitat in the project area.
Southern tarplant *Centromadia parryi* ssp. *australis*	--	--	1B.1	Marshes and swamps, valley and foothill grasslands; marsh edges, vernal pool edges, alkaline soils	0–425 m AH May–November	Not expected. No suitable habitat in the project area.

Common Name *Scientific Name*	Status Federal	 State	CNPS	Habitat Requirements	Elevation Range, Life Form, and Flowering Period	Potential Occurrence
Orcutt's pincushion *Chaenactis glabriuscula* var. *orcuttiana*	--	--	1B.1	Coastal bluff scrub, coastal dunes; sandy soils	0–100 m AH January – August	Not expected. No suitable habitat in the project area.
Salt marsh birds'-beak *Chloropyron maritimum* ssp. *orcuttiana*	FE	SE	1B.2	Coastal bluff scrub, coastal dunes; sandy soils	0–100 m AH January – August	Not expected. No suitable habitat in the project area.
Umbrella larkspur *Delphinium umbraculorum*	--	--	1B.3	Cismontane woodland (mesic)	400–1600 m PH April–June	Low potential. Limited suitable habitat in project area and no known occurrences in project watershed.
Ojai fritillary *Fritillaria ojaiensis*	--	--	1B.2	Broadleafed upland forest (mesic), chaparral, lower montane coniferous forest; rocky sites.	300–998 m PH(b) February–May	Low potential within project footprint, although moderate potential in broader survey area (oak-walnut woodland east of Ventura Ave.). No known occurrences in lower Fresno Canyon.
Mesa horkelia *Horkelia cuneata* var. *puberula*	--	--	1B.1	Chaparral (maritime), cismontane woodland, coastal scrub; sandy or gravelly soils	70–810 m PH February–September	Low potential within project footprint, although moderate potential in broader survey area (oak-walnut woodland east of Ventura Ave.). No known occurrences in lower Fresno Canyon.
California satintail *Imperata brevifolia*	--	--	2.1	Chaparral, coastal scrub, Mojavean desert scrub; mesic sites (alkali seeps, riparian)	0–1215 m RH September–May	Low Potential. Limited suitable habitat in project area and no known occurrences in project watershed.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	--	--	1B.1	Coastal salt marshes, playas, valley and foothill grassland, vernal pools; usually found in alkaline soils in playas, sinks and grasslands	1–1220 m AH February–June	Low potential. Limited habitat in project area is highly disturbed.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	--	--	1B.1	Coastal salt marshes, playas, valley and foothill grassland, vernal pools; usually found in alkaline soils in playas, sinks and grasslands	1–1220 m AH February–June	Low potential. Limited habitat in project area is highly disturbed.
Robinson's pepper-grass *Lepidium virginicum* var. *robinsonii*	--	--	1B.2	Chaparral, coastal scrub; dry soils	1–885 m AH January–July	Low potential. Limited suitable habitat in the project area.
Mexican malacothrix *Malcothrix similis*	--	--	1A	Coastal dunes	0–40 m AH April–May	Not expected. No suitable habitat in the project area.
Ojai navarretia *Navarretia ojaiensis*	--	--	1B.1	Chaparral, coastal scrub, valley and foothill grassland; openings in scrub and grassland	275–620 m AH May–July	Moderate potential east of Ventura Ave., low potential elsewhere. No known occurrences in lower Fresno Canyon.

Common Name *Scientific Name*	Status Federal	 State	 CNPS	Habitat Requirements	Elevation Range, Life Form, and Flowering Period	Potential Occurrence
Chaparral nolina *Nolina cismontana*	--	--	1B.2	Chaparral, coastal scrub; sandstone or gabbro soils	140–1275 m S(e) May–July	Low potential. Limited suitable habitat in the project area.
Sanford's arrowhead *Sagittaria sanfordii*	--	--	1B.2	Marshes and swamps (freshwater)	0–650 m RH May–October	Not expected. No suitable habitat in the project area.
Salt Spring checkerbloom *Sidalcea neomexicana*	--	--	2.2	Alkali springs and marshes within chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas.	15–1530 m PH March–June	Not expected. No suitable habitat in the project area.
Southern jewel-flower *Streptanthus campestris*	--	--	1B.3	Chaparral, lower montane coniferous forest, pinyon-juniper woodland in open rocky areas	900–2300 m PH April–July	Not expected. No suitable habitat in the project area.

STATUS KEY:

Federal

FE: Federally Listed Endangered Species

State

SE: State Endangered

CNPS

Rare Plant Rank 1A: Plants presumed extinct in California

Rare Plant Rank 1B: Plants Rare, Threatened or Endangered in California and elsewhere

Plant Rank 2: Plants Rare, Threatened and Endangered in California but more common elsewhere

2.1 : Seriously Threatened in California

2.2 : Fairly Threatened in California

LIFE FORM KEY:

AH: Annual Herb

PH: Perennial Herb

RH: Rhizomatous Herb

S: shrub

(b): bulb

(d): deciduous

(e): evergreen

Table 4.3-3
Special-Status Wildlife Species Reported from the Project Region

Common Name *Scientific Name*	Status Federal	 State	Habitat Requirements	Potential Occurrence on the Project Site
INVERTEBRATES				
Sandy beach tiger beetle *Cicindela hirticollis gravida*	--	sa	Dry, light-colored, moist sands adjacent to non-brackish water and away from wave action.	Not Expected. No suitable habitat on-site.
Globose dune beetle *Coelus globosus*	--	sa	Coastal sand dune habitat; foredunes and hummocks, usually beneath surface	Not Expected. No suitable dune habitat on- site.
Monarch butterfly (wintering sites) *Danaus plexippus*	--	sa	Winter roost sites located in wind-protected tree groves (gum trees, Monterey pine, and cypress trees), with water sources nearby.	Not Expected. Individual monarchs may occur, but no suitable wintering roost sites are present in the project vicinity.
FISHES				
Santa Ana sucker *Catostomus santaanae*	FT	SSC	Coastal rivers and streams and prefer sand- rubble-boulder bottoms in cool, clear water with algae for foraging.	Not Expected. This species is not known from and not native to the Ventura River.
Unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	FE	SE	Weedy pools, backwaters and among emergent vegetation at stream edges.	Not Expected. This species is not known from the Ventura River.
Tidewater goby *Eucyclobobius newberryi*	FE	SSC	Brackish water habitats along California coastline	Not Expected. Suitable brackish water does not occur this far inland from ocean.
Southern Steelhead (So. CA DPS) *Oncorhynchus mykiss*	FE	SSC	Seasonal to perennial coastal streams with suitable gravel substrate for spawning.	High Potential. Steelhead are known from this river and in the project vicinity.

AMPHIBIANS & REPTILES				
Coast Range newt *Taricha torosa*	--	SSC	Moist habitats under woody debris, in crevices and animal burrows. Aquatic breeders in ponds and slow moving pools in streams.	Low Potential. This species not known from the project vicinity and suitable upland and breeding habitats are very limited on and adjacent to project site.
California red-legged frog *Rana draytonii*	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	Moderate to High Potential. Suitable habitat occurs in the area of the project and this species has been documented in the Ventura River, but suitable perennial or near perennial pools not present within the work or buffer zones identified for this project.
Western pond turtle *Emys marmorata*	--	SSC	Streams, rivers, ponds, freshwater marshes, and lakes with growth of aquatic vegetation.	Low to Moderate Potential. Suitable habitat occurs in the area of the project, but suitable perennial or near perennial pools not present within the work or buffer zones identified for this project.
Silvery legless lizard *Anniella pulchra pulchra*	--	SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential.	Low Potential. Very limited suitable habitat present in the project area where moist soils occur outside of the banks of the river.
Coast horned lizard *Phrynosoma blainvillii*	--	SSC	Relatively open grasslands, scrublands, and woodlands with fine, loose soil.	Low Potential. Species known from the area, but habitats within the work and buffer zones not typical for this species.
Coastal whiptail *Aspidoscelis tigris stejnegeri*	--	sa	Open areas in semiarid grasslands, scrublands, and woodlands.	Low Potential. Species known from the area, but habitats within the work and buffer zones not typical for this species.
Two-striped garter snake *Thamnophis hammondii*	--	SSC	Perennial and seasonal streams and man-made lakes and stock ponds; requires dense riparian vegetation.	Moderate Potential. Species known from the watershed and some habitat present on-site. However, species more commonly occurs in ponded areas; none occurs on the project site.
BIRDS				
Tri-colored blackbird *Agelaius tricolor*	--	SSC	Colonial nesters near open water	Moderate Potential. Small amount of suitable habitat occurs within the project buffer zone.
Burrowing owl *Athene cunicularia*	--	SSC	Open, dry grasslands, deserts and scrublands with low-growing vegetation	Low Potential. Within the project work and buffer zones very little suitable habitat is present.
Western snowy plover *Charadrius alexandrines nivosus*	FT	SSC	Sandy beaches, salt pond levees and shores of large alkali lakes	Not Expected. No suitable habitat on or adjacent to site.

Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FC	SE	Riparian forests with dense understories along larger rivers.	Moderate Potential. Riparian habitat on and adjacent to site is suitable for nesting. However, no recent records of occurrence in project vicinity.
Belding's savannah sparrow *Passerculus sandwichensis beldingi*	--	SE	Coastal salt marshes with Salicornia on and near tidal flats	Not Expected. No suitable habitat on or adjacent to site.
Bank swallow *Riparia riparia*	--	ST	Colonial nester; primarily in riparian and lowland habitats west of desert.	Not Expected. Very few documented occurrences in area and no suitable habitat present on-site.
California least tern *Sternula antillarum browni*	FE	SE	Colonial breeding on bare or sparsely vegetated, flat areas including beaches, alkali flats, landfills and some paved areas.	Not Expected. No suitable habitat present on- site.
Least Bell's vireo *Vireo bellii pusillus*	FE	SE	Low riparian scrub in vicinity of water or in dry riverbeds.	High Potential. Known from this watershed and project area, and suitable habitat is present within work area and buffer.
MAMMALS				
Mexican long-tongued bat *Choeronycteris mexicana*	--	SSC	Roosts in caves and in and around buildings. Feeds on nectar and pollen of night-blooming succulents.	Not Expected. No suitable roosting or foraging habitat on or adjacent to site and site outside of typical range for this species.
Hoary bat *Lasiurus cinereus*	--	sa	Dense trees for cover and open areas or habitat edges for feeding; requires water	High Potential. Suitable roosting and foraging habitat present within the work buffer zone.
Pallid bat *Antrozous pallidus*	--	SSC	Deserts, grasslands, woodlands and forests; open dry habitats with rocky areas for roosting	Moderate Potential. May occur in area and may periodically forage on-site, but species usually prefers more arid habitats than occur within the work and buffer areas.
Western mastiff bat *Eumops perotis californicus*	--	SSC	Arid-semi arid habitats including conifer and deciduous woodlands, coastal scrub, chaparral, grasslands; roosts in crevices in cliff faces, high buildings, trees, and tunnels	Low to Moderate potential. May occur as infrequent forager, but species uncommon in area and limited roosting habitat present in work or buffer areas
Dulzura pocket mouse *Chaetodipus californicus femoralis*	--	SSC	Chaparral, coastal scrub, and grasslands.	Not Expected. This species does not typically occur beyond San Diego County in California. Old historic LA Co Museum record.
San Diego desert woodrat *Neotoma lepida intermedia*	--	SSC	Chaparral and coastal sage scrub; rock outcrops, rocky cliffs and slopes	Moderate Potential. Known from area, but only limited suitable habitat in upland buffer zone.

American badger *Taxidea taxus*	--	SSC	Drier open stages of shrub, forest, and herbaceous habitats with friable soils.	Not Expected. No suitable habitat in work or buffer areas.

(nesting) = For most taxa the CNDDB is interested in sightings for the presence of resident populations. For some species (primarily birds), the CNDDB only tracks certain parts of the species range or life history (e.g., nesting locations). The area or life stage is indicated in parenthesis after the common name.

STATUS KEY:

Federal -- US Fish and Wildlife Service
FE: Federally Listed Endangered Species
FT: Federally Threatened

CNPS
Rare Plant Rank 1A: Plants presumed extinct in California
Rare Plant Rank 1B: Plants Rare, Threatened or Endangered in California and elsewhere
Plant Rank 2: Plants Rare, Threatened and Endangered in California but more common elsewhere
2.1: Seriously Threatened in California
2.2: Fairly Threatened in California

State -- California Department of Fish and Wildlife
SE: State Endangered
ST: State-listed Threatened Species
CFP: California Fully Protected Species
SSC: California Species of Special Concern
WL: CDFG Watch List
sa : California Special Animal (species with no official federal or state status

No federal or state-listed plant species have been recorded on-site and none are considered to have a particularly high potential for occurrence.

No federal or state-listed wildlife species were directly observed during either survey. However, several of the special-status wildlife species identified during the literature search were observed or have a high potential for occurrence on-site.

More detailed information regarding special-status resources that have been observed or have at least a relatively high potential to occur on-site is summarized in the following text.

Special-Status Wildlife Species

The following text provides descriptions of those wildlife species that have a moderate to high potential for occurrence on-site based on habitat types present and recorded occurrences in the area.

Listed Species Included in the Biological Opinion

Southern California steelhead DPS (*Oncorhynchus mykiss*), Federally Listed Endangered Species, California Species of Special Concern. Steelhead trout have been divided into Distinct Population Segments (DPSs). The Southern California steelhead DPS was listed as Endangered under the ESA on August 18, 1997, and reaffirmed on January 5, 2006.[6] In general, adult steelhead return to rivers and creeks in the region from January to April. Spawning takes place in the rivers from January to May with most spawning activity occurring between January and March. Although juvenile steelhead can spend up to seven years in freshwater before moving downstream as smolts,[7] most steelhead remain in freshwater for one to four years before they out-migrate into the open ocean during spring and early summer.[8] Steelhead can spend up to three years in saltwater before returning to freshwater to spawn.[9]

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6 NMFS (National Marine Fisheries Service). *Endangered and Threatened Species: Final Listing Determinations for 10 Distinct Population Segments of West Coast Steelhead; Final Rule.* January 5, 2006.

7 Busby, P.J., T.C. Wainwright, G.J. Bryant, L.J. Lierheimer, R.S. Waples, F.W. Waknitz, and I.V. Lagomarsino. *Status Review of West Coast Steelhead from Washington, Oregon, and California*. National Oceanic and Atmospheric Administration Technical Memorandum. NMFS-NWFSC-27. 1996.

8 Goals Project. *Baylands Ecosystem Species and Community Profiles: Life Histories and Environmental Requirements of Key Plants, Fish, and Wildlife.* Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. P.R. Olofson, editor. San Francisco Bay Regional Water Quality Control Board, Oakland, CA. 2000.

9 Barnhardt, R.A. Species Profiles: *Life Histories and Environmental Requirements of Coastal Fishes and Invertebrates (Pacific Southwest) Steelhead.* US Fish and Wildlife Service Biological Report 82. (11.60), 21 pp. 1986.

The Normandeau study[10] revealed the presence of rainbow trout both up and downstream of the Fresno Canyon outfall. The study also identified numerous spawning beds (redds) in these areas. Though there is no accurate way to determine visually if a rainbow trout is a resident or an anadromous steelhead, the sizes of fish observed indicate the majority of fish observed were likely resident freshwater trout. However, there were also indications that some of them may have been the anadromous steelhead. As such, Southern California steelhead DPS are assumed to be present in the river within the project area and the portion of the Ventura River occurring within the project area is included within the defined Critical Habitat for this species.

Southern steelhead DPS are addressed in detail within the assessments provided to NMFS through FEMA. In response, NMFS will provide direction regarding procedures for working within Critical Habitat and any mitigation measures required.

California red-legged frog (*Rana draytonii*), Federally Listed Threatened Species, California Species of Special Concern. This is the largest native frog in the western United States. California red-legged frogs can be found in a range of habitats within a watershed (e.g., stock ponds, creeks).[11] Until recently, the red-legged frog was split into two subspecies. Scientists have now determined they are two distinct species, the northern red-legged frog (*Rana aurora*) and the California red-legged frog (*Rana draytonii*), the latter being the species expected to occur in the project region. The project area does not occur within the final approved Critical Habitat for this species. Nonetheless, the BO prepared by the US Fish and Wildlife Service for this project includes California red-legged frog in its evaluation. The BO authorized the project to proceed with several conditions.

Southwestern willow flycatcher (*Empidonax traillii*), Federally Listed Endangered Species, State-Listed Endangered Species. This small flycatcher is closely associated with riparian woodlands. There are some suitable riparian woodlands along the Ventura River in and near the project area. However, no willow flycatchers have been recorded in this area in the CNDDB. Therefore, they are considered to have a moderate potential for occurrence. The BO prepared by the US Fish and Wildlife Service for this project includes southwestern willow flycatcher in its evaluation. The BO authorized the project to proceed with several conditions.

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10 Normandeau Associates, Inc. Assessment of Pre-Project Aquatic Habitat in the Ventura River at the Fresno Canyon Confluence. October 25, 2012.

11 US Fish and Wildlife Service. 2002. Recovery Plan for the California Red-legged Frog (Rana aurora draytonii). Region 1 US Fish and Wildlife Service, Portland, Oregon.

Least Bell's vireo (*Vireo bellii pusillus*), Federally Listed Endangered Species, State-Listed Endangered Species. This small vociferous bird is most commonly associated with riparian scrub habitat where it builds well-camouflaged nests. Where it does occur, it is often relatively abundant, but suitable habitat for this species in Southern California has declined significantly in the past several decades. Suitable habitat for this species is present on-site and the species has been documented as occurring in the region. As such, there is a high potential for least Bell's vireo to occur within the project area. The BO prepared by the US Fish and Wildlife Service for this project includes least Bell's vireo in its evaluation. The BO authorized the project to proceed with several conditions.

Special-Status Wildlife Observed On-Site

Nuttall's woodpecker (*Picoides nuttallii*), CDFW Special Animal. This smaller, though vociferous woodpecker is most commonly associated with oak woodlands in California. Although associated with oaks, they do not eat acorns, but rather insects and sometimes fruit. They nest in tree cavities and two Nuttall's woodpeckers were observed during the surveys on-site. This species is expected to nest and reside within the project area.

Special-Status Wildlife with a Moderate to High Potential to Occur On-Site

Cooper's hawk (*Accipiter cooperi*), CDFW Watch List. Cooper's hawks most commonly hunt other bird species while in flight. They typically nest in or near riparian areas in trees with dense canopy. Suitable nesting and foraging habitat is present on-site for this species to persist and is, therefore, is considered to have a high potential for occurrence in most portions of the project area.

Hoary bat (*Lasiurus cinereus*), CDFW Special Animal. Though one of the most widespread bat species in the world, and common in California, this species has been added to the CDFW Special Animal list as they wish to collect data on the species to determine their current population status. Like the red bat described above, they are a solitary species and are closely associated with trees; usually broadleaf deciduous species. They usually feed on their preferred insects along open edges of woodlands. There is suitable habitat on-site within the wooded areas. Therefore, they are considered to have a high potential for occurrence.

Pallid Bat (*Antrozous pallidus*), California Species of Special Concern. This species of bat is relatively common in the region. It is known to forage in and around arid to semi-arid grasslands, woodlands, and forests with open areas. It typically roosts in rocky areas with suitable crevices. Both foraging and roosting habitats occur on and adjacent to the subject site. Though typical roosting habitat does not occur within the project boundaries, it does occur within the area. Further, suitable foraging habitat is present on-site. As such, pallid bad is considered to have a moderate potential for occurrence.

Protected Trees

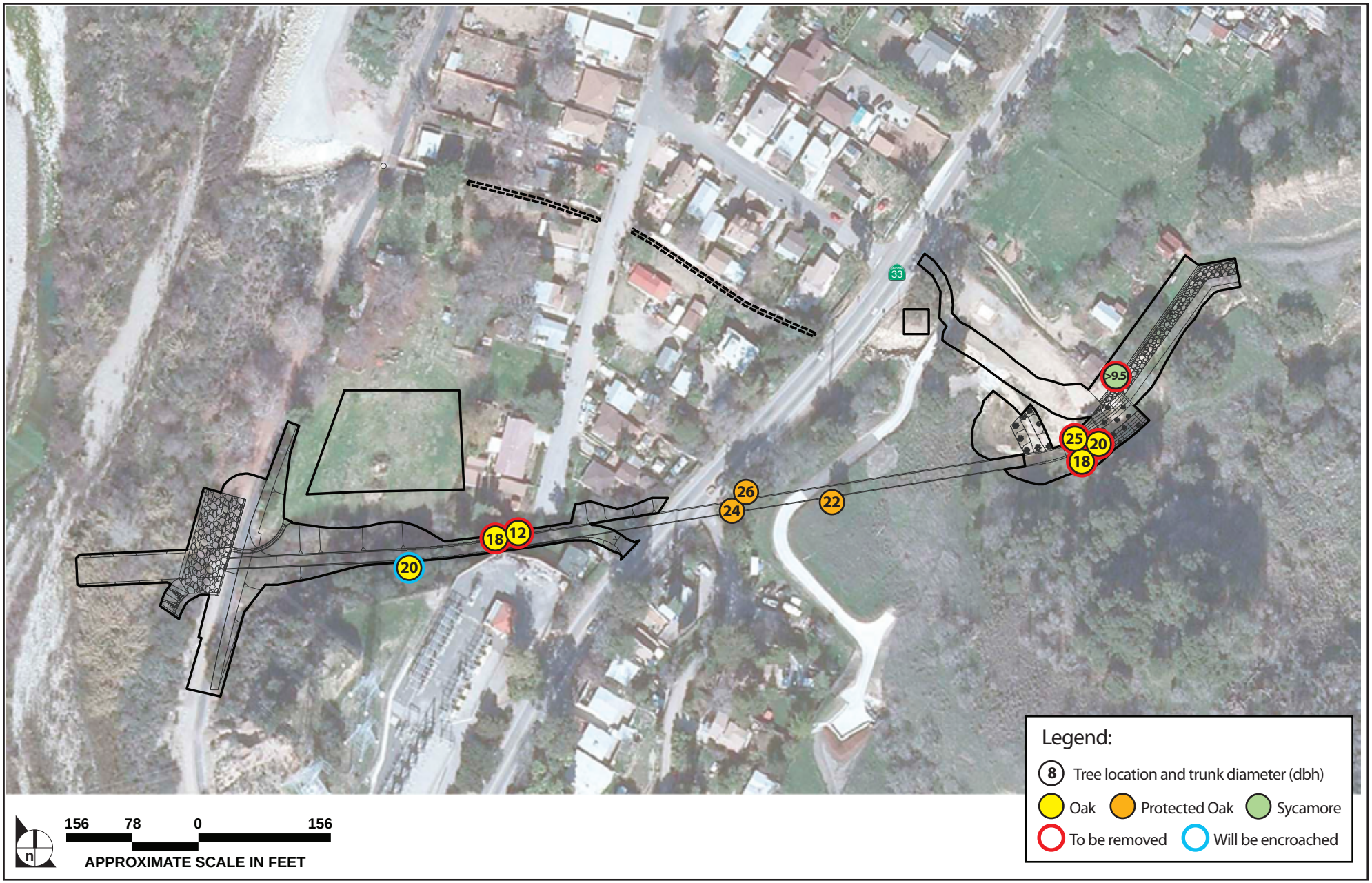
A total of nine coast live oak and one western sycamore tree were identified within the project impact area that have a diameter at breast height (dbh) of 9.5 inches or greater, thus meeting the definition of a protected tree, (see **Figure 4.3-2, Trees Impacted by the Project**).

Jurisdictional Resources

Wetlands, creeks, streams, and permanent and intermittent drainages are subject to the jurisdiction of the US Army Corps of Engineers (USACE) under Section 404 of the Federal Clean Water Act. CDFW also has jurisdiction over these resources, together with other aquatic features that provide an existing fish and wildlife resource pursuant to Sections 1602 and 1603 of the California Fish and Game Code. CDFW asserts jurisdiction to the outer edge of vegetation associated with a riparian corridor. A formal delineation of jurisdictional resources was performed by E. Read and Associates in January 2013 and a report was prepared February 2013 (**Appendix C**). **Figure 4.3-3** illustrates the jurisdictional limits throughout the project area identified during the delineation.

Jurisdiction of Lower Fresno Canyon and Existing Concrete Channel

It was apparent at the time of the jurisdictional evaluation that at some time in the past the streambed in lower Fresno Canyon was modified into an open, rectangular concrete channel. No surface water or evidence of saturated soils was observed on the day of the survey. Hydrophytes were limited to an unimproved portion of Fresno Canyon upstream of the debris basin, and consist of mule fat (*Baccharis salicifolia*). Limits of federal jurisdiction were based on ordinary high water mark (OHWM) indicators in the natural channel section, and on the width of the concrete channel. Limits of state jurisdiction were based on the outer canopy of mule fat vegetation in the natural channel section, and on the widths of the debris basin and concrete channel. It should be understood that the Ventura River is a very dynamic system. As such, the boundaries identified herein are based on the conditions present the day the delineation was completed. Those boundaries have some potential to shift with large storm events.



SOURCE: Impact Sciences, Inc., November 2013

FIGURE **4.3-2**

Trees Impacted by the Project

SOURCE: Impact Sciences, Inc., August 2013

FIGURE **4.3-3**

Jurisdictional Limits

1137.001•11/13

Jurisdiction along Proposed Conveyance Pipe Alignment Outside of Ventura River

Inland from the Ventura River, there is no historical or current evidence of a streambed or wetland within the potential disturbance footprint of the proposed new 12-foot-diameter RC conveyance pipe. Topography is such that the historical confluence of Fresno Canyon with the Ventura River, prior to development of Casitas Springs, could have occasionally meandered south to this location. However, currently the proposed alignment of the new conveyance pipe follows an overgrown shallow swale in uplands, between a near-vertical slope and an unpaved road. This swale, located on private property, originates below Edison Avenue and enters two metal pipes under an old railroad berm on the east side of the Ventura River. This berm now functions as a recreational trail (i.e., the Ojai Valley Trail) and part of a levee system that artificially confines the Ventura River along its entire length adjacent to Casitas Springs.

Vegetation in the swale consists of a mix of exotic and native vegetation, with hydrophytes limited to a small stand of arroyo willow (*Salix lasiolepis*) and mule fat about 15 feet from the inlets of the metal culverts. The area immediately adjacent to the culverts is devoid of vegetation and appears to be routinely cleared. Based on abundance of Himalayan blackberry (*Rubus armeniacus*) and other exotics on the slope above the swale, the native hydrophytes near the culvert inlets are most likely supported by runoff from irrigation on the adjacent property rather than natural rainfall, and therefore are not indicators of wetland conditions. No OHWM indicators were observed in the swale, and it appears that the culverts were installed in uplands for drainage under the recreational trail. For these reasons it was determined that the swale does not fall under federal jurisdiction. However, state jurisdiction (non-wetland Waters) extends to the limit of the willows because of their adjacency to the outer banks of the Ventura River.

Jurisdiction at the Ventura River

Within the portion of the Ventura River surveyed, it was evident that most of the area has been highly disturbed by a series of historical efforts at flood control (e.g., creation of artificial berms) and it is heavily infested with the invasive giant reed (*Arundo donax*). These factors complicated the effort to find clear indicators of OHWM and define limits of federal jurisdiction. For this reason the limit was determined based on a combination of historic flood data and aerial photographs. These data indicate that the proposed new conveyance pipe daylights at a portion of the floodplain that is inundated only during extreme flow events, and therefore, is outside of federal jurisdiction. State jurisdiction (non-wetland Waters) extend to the outer banks of the river and adjacent willows. The basis for conclusion of non-wetland waters is because in Dr. Read's experience, willows in general are intolerant of anaerobic

(stagnant) conditions; their presence indicates well-drained, non-hydric soils that support a riparian community, but not a wetland under the current state definition.

Wildlife Movement Corridors

Wildlife movement corridors are generally described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural factors in combination with urbanization. Given large tracts of land or open space in a natural condition, animals move throughout these areas in search of food, water, shelter, and breeding sites. Within these large open space areas, animals often take advantage of natural topographic features such as ridgelines, canyon bottoms, riparian strips, and even dirt roads to move about. However, the fragmentation of natural habitat creates isolated "islands" of natural vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species, thus adversely impacting both genetic and species diversity. Corridors mitigate the adverse effects of fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or species extinction; and (3) serving as dispersal routes for juvenile animals in search of their own or new home range areas and territories. These habitat linkages or corridors are most effective when there is adequate separation from urban or developed areas and when they contain adequate food, water, and cover resources to support animals while they move through the corridor. Habitat linkages that contain riparian features are particularly valuable as wildlife movement corridors because these areas typically provide many or all of the resources just described.

As described, much of the project area occurs within existing developed areas not particularly suited for wildlife movement. However, the main channel of the Ventura River serves as an important corridor between the coast and inland open space habitats. As such, the portion of the river within the proposed project area is considered an important wildlife movement corridor. However, the existing concrete flood channel would not be considered part of this corridor as it does not support vegetation, or provide suitable cover or other natural conditions required for local and regional wildlife movement.

4.3.4 REGULATORY FRAMEWORK

Federal Regulations

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act makes it unlawful to "take" any migratory bird, including their nests, eggs, or products. The term "take," as defined by the US Fish and Wildlife Service (USFWS) means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many other species that may utilize natural and artificial habitats throughout the project area.

Federal Endangered Species Act of 1973

Section 3 of the federal Endangered Species Act (ESA) defines an Endangered species as any species or subspecies "in danger of extinction throughout all or a significant portion of its range." A Threatened species is defined as any species or subspecies of fish, wildlife, or plants "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Threatened or Endangered species and their critical habitat are designated through publication of a final rule in the Federal Register. Designated Endangered and Threatened animal species are fully protected from "take" unless an applicant has an incidental take permit issued by the USFWS for land and freshwater species of NMFS for marine and anadromous species under Section 10 or incidental take statement issued under Section 7 of the ESA. Proposed Endangered or Threatened species or their critical habitat are those for which a proposed regulation, but no final rule, has been published in the Federal Register.

Federal Rivers and Harbors Act

Federal regulations of "Waters of the United States" stem from Section 10 of the Federal Rivers and Harbors Act of 1899, enacted to regulate activities within navigable waters. The Federal Clean Water Act (CWA) was passed in 1972 and regulates discharges into waters of the United States. Section 404 of this Act regulates activities including fills placed into waters of the United States.

"Waters of the United States" are as follows:

1. *All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;*

2. *All interstate waters, including interstate wetlands;*

3. *All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters;*

    a. *Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*

    b. *From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*

    c. *Which are used or could be used for industrial purpose by industries in interstate commerce;*

4. *All impoundments of waters otherwise defined as waters of the United States under the definition;*

5. *Tributaries of waters identified in paragraphs (a)(1) through (4) of this section;*

6. *The territorial seas;*

7. *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.*

US Army Corps of Engineers (USACE) jurisdiction in non-tidal waters typically extends to the ordinary high water mark (OHWM). The OHWM for intermittent streams, for example, can be determined by the fluctuations of water as indicated by physical characteristics such as clear, natural lines 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 (33 CFR 328.3(e)).

In 2006, the US Supreme Court revisited the issue of jurisdictional scope of Section 404 of the CWA. In Rapanos v. US and Carabell v US, the court ruled that waters of the US are subject to CWA jurisdiction if (1) the water body is relatively permanent (seasonal, typically three months); (2) is a wetland that directly abuts a relatively permanent water body or; (3) if the water body and its adjacent wetland has a significant physical, biological, or chemical nexus with a traditionally navigable waterway.

Most impacts to areas delineated as waters of the United States, if determined to be jurisdictional by the USACE, require approval under the authority of the Clean Water Act and its implementing regulations.

Clean Water Act – Section 404

The federal Clean Water Act (CWA) was passed in 1972 and regulates discharges into waters of the United States. Section 404 of the CWA regulates activities including fills placed into waters of the United States.

The deposition of fill to an area delineated as waters of the United States, including wetlands, and determined to be under the USACE jurisdiction, requires a permit or other approval by USACE Regulatory Branch. Fill is broadly defined to include most materials (e.g., rock, soil, pilings, concrete, wood, some incidental fallback of soil from earth-moving equipment, and in some cases additional water) that can be discharged into a water or wetland.

Most Section 404 permits require mitigation for reducing overall impacts to overall wetlands, including waters of the United States and their functions.

Section 401

Section 401 of the federal CWA authorizes the State of California to certify that federal permits and licenses do not violate the state's water quality standards. The state's implementing regulations to conduct certifications are codified under the California Code of Regulations Title 23, "Waters," Sections 3830 through 3869. Projects qualifying for a USACE Section 404 permit must submit materials for review to the appropriate Regional Water Quality Control Board (RWQCB) and request a Section 401 certification. The Section 401 certification requires that certain federal permits, including USACE Section 404 permits, must be certified as meeting the state's water quality standards. An application must be submitted to the RWQCB for approval. Much of the same information (project description, potential impacts, and mitigation measures) necessary to apply for USACE Section 404 and California Department of Fish and Wildlife (CDFW) Section 1602 permits is required for the Section 401 certification.

In response to certain federal court decisions that limited USACE jurisdiction, the state issued several directives to the regional boards regarding the regulation of isolated waters no longer regulated by the USACE. At present, the State Water Quality Control Board and the RWQCBs are to:

1. continue issuing Section 401 certifications for federal permits; and

2. issue Waste Discharge Requirements (WDRs) for dredge or fill discharges to waters deemed by the USACE as not subject to federal jurisdiction referencing the same regulatory considerations that are used to issue general WDRs.

A Section 401 certification and a WDR application may be made on the same form, but the State Water Quality Control Board has issued a model letter to be submitted with the WDR application to clarify that

the WDRs are intended to cover "waters of the state" not covered by the Section 401 certification, and not subject to the USACE regulations.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA establishes that it is state policy to conserve, protect, restore, and enhance Endangered species and their habitats. Under state law, plant and animal species may be formally designated as Rare, Threatened, or Endangered through official listing by the California Fish and Game Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

On private property, Endangered plants may also be protected by the Native Plant Protection Act (NPPA) of 1977. State-listed Threatened plants are protected by CESA, and state-listed Rare plants are protected by the NPPA. However, CESA authorizes that "Private entities may take plant species listed as Endangered or Threatened under the ESA and CESA through a federal incidental take permit issued pursuant to Section 10 of the ESA, if the CDFW certifies that the incidental take statement or incidental take permit is consistent with CESA." In addition, the California Environmental Quality Act (CEQA) requires disclosure of any potential impacts on listed species and alternatives or mitigation that would reduce those impacts.

California Environmental Quality Act – Treatment of Listed Plant and Animal Species

ESA and CESA protect only those species formally listed as Threatened or Endangered (or Rare in the case of the state list) by federal or California governments. Section 15380 of the *State CEQA Guidelines* independently defines "Endangered" species of plants or animals as those whose survival and reproduction in the wild are in immediate jeopardy and "Rare" species as those who are in such low numbers that they could become Endangered if their environment worsens. Therefore, a project will normally have a significant effect on the environment if it will substantially affect a Rare or Endangered species of animal or plant or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

Some guidance on the analysis of rarity for plant species is provided by the California Native Plant Society (CNPS), which has created "Rare Plant Ranks" in an effort to categorize degrees of concern to be considered during the analysis of potential project impacts on special-status plant species[12].

> ***California Rare plant Rank 1A: Plants Presumed Extinct in California****—The plants of List 1A are presumed extinct because they have not been seen or collected in the wild in California for many years. This list includes plants that are both presumed extinct in California, as well as those plants that are presumed extirpated in California. A plant is extinct in California if it no longer occurs in or outside of California. A plant that is extirpated from California has been eliminated from California, but may still occur elsewhere in its range.*
>
> *Plants are placed on List 1A in an effort to highlight their plight and encourage field work to relocate extant populations. Since 1994, eight plants thought to be extinct in California have been rediscovered.*
>
> *All of the plants constituting List 1A meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.*
>
> ***California Rare Plant Rank 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere****—The plants of List 1B are rare throughout their range with the majority of them endemic to California. Most of the plants of List 1B have declined significantly over the last century. All of the plants constituting List 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.*
>
> ***Rare Plant Rank 2A: Plants Presumed Extirpated in California, But More Common Elsewhere*** *— The plant taxa of California Rare Plant Rank 2A are presumed extirpated because they have not been observed or documented in California for many years. This list includes only those plant taxa that are presumed extirpated in California, but more common elsewhere in their range.*
>
> *All of the plants on List 2A meet the definitions of Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to the California Environmental Quality Act (CEQA*
>
> ***California Rare Plant Rank 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere****—Except for being common beyond the boundaries of California, plants with a California Rare Plant Rank of 2B would have been ranked 1B. From the federal*

12 California Native Plant Society. The California Rare Plant Ranking System. Explanation of Rare Plant Ranking. http://www.cnps.org/cnps/rareplants/ranking.php. Accessed August 2013.

perspective, plants common in other states or countries are not eligible for consideration under the provisions of the Endangered Species Act.

With California Rare Plant Rank 2B, the CNPS recognizes the importance of protecting the geographic range of widespread species. In this way we protect the diversity of our own state's flora and help maintain evolutionary processes and genetic diversity within species. All of the plants constituting California Rare Plant Rank B2 meet the definitions of Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

***California Rare Plant Rank 3: Plants About Which CNPS Needs More Information** - A Review List—The plants that comprise California Rare Plant Rank 3 are united by one common theme – the CNPS lacks the necessary information to assign them to one of the other ranks or to reject them. Nearly all of the plants constituting California Rare Plant Rank 3 are taxonomically problematic. For each California Rare Plant Rank 3 plant the CNPS has provided the known information and indicated in the "Notes" section of the CNPS Inventory record where assistance is needed. Data regarding distribution, endangerment, ecology, and taxonomic validity are welcomed and can be submitted by emailing the Rare Plant Botanist at asims cnps.org or (916) 324-3816.*

Some of the plants constituting California Rare Plant Rank 3 meet the definitions of Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. We strongly recommend that California Rare Plant Rank 3 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

California Fish and Game Code – Section 1602

The State of California regulates water resources under Sections 1600–1605 of the Fish and Game Code of California.

It is unlawful for any person to 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 that activity.

CDFW considers most natural drainages to be streambeds unless it can be demonstrated otherwise. Streams are defined in the California Code of Regulations Title 14, Chapter 1, Section 1.72 as follows:

A stream is a body of water that follows at least periodically or intermittently through a bed or channel having banks and that support fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses, and is often extended to the limit of riparian habitats that are located contiguous to the water resource and that function as part of the watercourse system. Section 2785(e) of the Fish and Game Code of California states:

> *Riparian habitat means lands which contain habitat which grows close to and which depends on soil moisture from a nearby freshwater source.*

Any project that impacts CDFW jurisdictional areas, including fills, vegetation removal, or bridging, requires a Section 1602 Streambed Alteration Agreement from CDFW. Much of the same information (i.e., project description, potential impacts, mitigation measures, etc.) necessary to apply for USACE Section 404 permits is required for the Streambed Alteration Agreement application.

California Fish and Game Code – Sections 3503, 3503.5, and 3800

These sections of the Fish and Game Code prohibit the destruction of bird nests and eggs (Section 3503), and the take of birds of prey (Section 3503.5) and nongame birds (Section 3800). Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Such a take would also violate federal law protecting migratory birds.

Incidental Take Permits (i.e., Management Agreements) are required from the CDFW for projects that may result in the incidental take of species listed by the State of California as Endangered, Threatened, or candidate species. The permits require that impacts to protected species be minimized to the extent possible and mitigated to a level of insignificance.

Regional and Local Regulations

Ventura County Tree Protection Ordinance

The 1992 Ventura County Tree Protection Ordinance includes all oaks and sycamores 9.5 inches in circumference or larger (measured 4.5 feet above ground), trees of any species with a historical designation, trees of any species 90 inches in circumference or larger, and most 9.5-inch native trees in the Scenic Resources Protection Zone.

Ventura County General Plan Policies

The Ventura County General Plan (General Plan) identifies goals and policies to ensure adequate project review and protection of biological resources. Within the plan are also smaller Area Plans designed more specifically for particular areas within the County. The Fresno Canyon project occurs within the Ojai

Valley Area Plan[13], which includes goals and policies specific to the area for protection of biological resources. Section 1.4.1 of the Ojai Valley Area Plan includes the following Goals:

1. Protect significant biological resources within the Ojai Valley in order to maintain natural ecosystems and also preserve the natural beauty of the area.

2. Balance the preservation of wetlands habitats with the need to adequately protect public safety and property from flooding hazards.

3. Recognize the role of fire in local ecosystems by supporting controlled burns and other fire prevention measures.

Section 1.4.2 of the Ojai Valley Area Plan includes the following Policies:

1. A biological field reconnaissance report detailing the composition of species at the site, the presence of rare, threatened, endangered or candidate plant or animal species, significant wetlands, locally important plant communities, and suitable mitigation measures shall be prepared by the County's biological consultant as part of the environmental assessment of all discretionary development permits involving earth movement or construction on previously undeveloped land where the natural vegetation still exists.

2. The California Department of Fish and Game, the U.S. Fish and Wildlife Service, the National Audubon Society, the California Native Plant Society and the Los Padres National Forest shall be contacted during the initial 30-day project review period for discretionary development proposals when proposals are submitted which may adversely affect the biological resources under their purview. This policy does not apply to emergency permits.

3. Discretionary development shall be located to avoid loss or damage to protected trees as defined in the County's Tree Protection Ordinance. Removal of protected trees shall only occur after review of the necessity of such removal, and in accordance with the provisions of the County's Tree Protection Ordinance.

4. Required revegetation or landscaping plans shall incorporate indigenous plant species where feasible in order to restore habitat in already disturbed areas.

5. Proposed discretionary development shall be coordinated with affected agencies that regulate water courses and wetland habitats early in the planning stages so as to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed, including protection of anadromous fish habitat.

6. Discretionary development within high fire hazard areas shall be reviewed with attention to the environmental impact of required brush clearance to biological resources, particularly on moderate to steep slopes. Brush clearance that reduces fuel volumes while allowing the selective retention of native shrubs a minimum of 20 feet apart should be encouraged, as permitted by the Ventura County Fire Protection District.

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13 County of Ventura. Ventura County General Plan; *Ojai Valley Area Plan.* Ventura County Planning Division. Last amended 02-05-2008

7. Discretionary development which would result in a significant adverse impact to a Locally Important Plant Community shall be required to replace such Locally Important Plant Community proposed for removal on at least a 1:1 basis and will be required to monitor the success of such planting for a minimum of seven years. In lieu of replacement, developers may dedicate without compensation, acreage containing such Locally Important Plant Community to a government agency or non-profit organization (e.g., a homeowners/association, a land conservancy) provided such entity will provide assurances that the dedicated Locally Important Plant Community acreage will be retained in a permanent undeveloped state. Such dedicated lands shall be at least two times the area of the Locally Important Plant Community which is proposed for removal. The form of such dedication may be fee title, conservation easement or other instrument approved by the County.

8. Discretionary development within 300 feet of the Ventura River, Coyote Creek, San Antonio Creek/Reeves Creek and Lion Canyon Creek, or located within the Sensitive Biological Resources Area (as illustrated on Figure 2) shall be reviewed to determine the potential for interference with wildlife migration opportunities and potential for impact on "Endangered", "Threatened", "Rare" or "Locally Important" species and communities. Projects which would result in significant adverse impacts to such resources shall be denied unless they can be mitigated to a less than significant level or a statement of overriding considerations is adopted by the decision-making body per CEQA requirements.

4.3.5 IMPACT ANALYSIS

Thresholds of Significance

Applicable thresholds of significance are listed below followed by analysis of the significance of any potential impacts. Mitigation measures are also identified which would reduce the impact to a level of less than significant or avoid potentially significant adverse impacts.[14] The County of Ventura has identified biological thresholds of significance within their Initial Study Assessment Guidelines.[15]

Given the complexity and variety of biological systems in Ventura County, it may not always be feasible to provide numerical thresholds of significance for biological resources. These guidelines are, however, presented to identify the general parameters of potentially significant impacts to biological resources and a list of significance thresholds is provided as guidance for the identification of project-specific impacts for each of the biological resource categories.

In the absence of biologically based, substantial evidence to the contrary, if an impact from a project has the potential to meet or exceed the following thresholds of significance, such impact will be considered a significant impact. If biologically based, site specific, substantial evidence is presented during the

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14 The reader should note that the proposed project was revised after the biological assessment and jurisdictional delineation was completed. As such, there are some variations in the impact area calculations for some of the vegetation communities and jurisdictional resources. The area calculations provided in this section are the most recent.

15 County of Ventura. 2011. "*County of Ventura Initial Study Assessment Guidelines*."

biological resources assessment that indicates that there is no potential for significant environmental impacts on a biological resource, that evidence may be considered in finding that the project's impacts on this biological resource are less than significant.

Species

Project Impact Thresholds

A project will have a direct or indirect physical impact to a plant or animal species if a project, directly or indirectly:

- reduces a species' population,
- reduces a species' habitat,
- increases habitat fragmentation, or
- restricts reproductive capacity.

The determination of whether a project's impact is significant or not shall be based on both the current conservation status of the species affected and the severity or intensity of impact caused by the project. Endangered, rare and threatened species, as well as other special-status species, are more susceptible to project impacts than a more common species. If a project's impact is severe or intense, it may cause a population of a more common species to decline substantially or drop below self-sustaining levels, which would be considered a significant impact.

The following types of impacts to plant and animal species or their habitats are considered potentially significant:

- Loss of one or more individuals, occupied habitat or Critical Habitat designated by the US Fish and Wildlife Service of a species officially listed as Endangered, Threatened or Rare under the federal Endangered Species Act (Title 50, Code of Federal Regulations Sections 17.11 or 17.12) or California Endangered Species Act (Sections 670.2 or 670.5, Title 14, California Code of Regulations), a Candidate Species, or a California Fully Protected Species.
- Impacts that would eliminate or threaten to eliminate one or more element occurrences of a special-status species not otherwise listed under the federal Endangered Species Act or California Endangered Species Act, or as a Candidate Species or California Fully Protected Species.
- Impacts that would threaten the viability of a habitat that sustains a population of a special-status wildlife species.
- Impacts that would restrict the reproductive capacity of a special-status species.

- "Take" of birds protected under the California Fish and Game Code (Sections 3503.5, 3511, and 3513) and the federal Migratory Bird Treaty Act (MBTA), as ―take‖ is defined in the Fish and Game Code and MBTA.

- Increases in noise and/or nighttime lighting to a level above ambient levels that would adversely affect a special-status species.

- Increases in human access, predation or competition from domestic animals, pests, or exotic species, or other indirect impacts, to levels that would adversely affect special-status species.

- Impacts severe enough to substantially reduce the habitat of a wildlife species or cause a wildlife population to decline substantially or drop below self-sustaining levels, pursuant to Section 15065 of the *State CEQA Guidelines*, Mandatory Findings of Significance.

Cumulative Impact Thresholds

The threshold criteria listed above under Project Impact Thresholds are used to determine whether cumulative impacts are significant. The evaluation of cumulative impacts must consider the project AND other projects causing related impacts. The other projects considered in the cumulative analysis for plant and animal species are recently approved, present, and reasonable foreseeable probable future projects that may directly or indirectly impact the element occurrence of a plant or animal species that was evaluated for project impacts.

For example, a project that would remove a few individuals of a population of a special status plant species (element occurrence) may not have a significant impact on its own, but when combined with other impacts caused by projects located near the element occurrence, the cumulative impact may threaten the viability of that element occurrence, in which case the project's cumulative impact would be considered potentially significant.

Ecological Communities

Sensitive Plant Communities

Project Impact Thresholds

The following types of impacts to sensitive plant communities are considered potentially significant:

- Construction, grading, clearing, or other activities that would temporarily or permanently remove sensitive plant communities. Temporary impacts to sensitive plant communities would be considered significant unless the sensitive plant community is restored once the temporary impact is complete.

- Indirect impacts resulting from project operation at levels that would degrade the health of a sensitive plant community.

Cumulative Impact Thresholds

The threshold criteria listed above under Project Impact Thresholds are used to determine whether cumulative impacts are significant. The evaluation of cumulative impacts must consider the project AND other projects causing related impacts. The other projects considered in the *Ventura County Initial Study Assessment Guidelines* are recently approved, present, and reasonable foreseeable probably future projects that may directly or indirectly impact the sensitive plant community that was evaluated for project impacts.

For example, a project that would cause indirect impacts to a sensitive plant community may not have a significant impact on its own, but when combined with other indirect impacts caused by projects located near the sensitive plant community, the cumulative impact may substantially degrade the sensitive plant community, in which case the project's cumulative impact would be considered potentially significant.

Waters and Wetlands

All waters and wetlands are considered important resources to Ventura County, because of the documented loss of waters and wetlands throughout California and the Nation and the valuable ecological functions wetlands provide to plant and animal species. In urban areas, remaining wetlands can still support important plant and animal species. Though many of these wetlands are disturbed by human activities, they can still be considered significant resources.

Project Impact Thresholds

An analysis of potential project impacts to waters and wetlands must examine the direct and indirect impacts to the entire aquatic or wetland ecosystem potentially impacted by the project, including impacts within the watershed that would adversely affect the aquatic or wetland ecosystem. Waters and wetlands depend on a source of water, and therefore impacts to the quality, quantity, flow rate, or timing of that water source can adversely impact a water or wetland just as much as direct development impacts to aquatic or wetland habitat.

Wetlands perform numerous beneficial functions, including groundwater recharge, stream recharge, pollution filtration, flood control, and wildlife habitat. Impacts that reduce or eliminate the functions provided by a wetland would be considered significant.

The following project impacts to waters and wetlands are considered potentially significant:

- Any of the following activities that would adversely affect waters and wetlands:
  - removal of vegetation;
  - grading;
  - obstruction or diversion of water flow;
  - change in velocity, siltation, volume of flow, or runoff rate;
  - placement of fill;
  - placement of structures;
  - construction of a road crossing;
  - placement of culverts or other underground piping; and/or
  - any disturbance of the substratum.
- Disruptions to wetland or riparian plant communities that would isolate or substantially interrupt contiguous habitats, block seed dispersal routes, or increase vulnerability of wetland species to exotic weed invasion or local extirpation. An example would be disruption of adjacent upland vegetation to a level that would adversely affect the ecological function of the wetland, such as where such vegetation plays a critical role in supporting riparian-dependent wildlife species (e.g., amphibians), or where such vegetation aids in stabilizing steep slopes adjacent to the riparian habitat, which reduces erosion and sedimentation potential.
- Interference with ongoing maintenance of hydrological conditions in a water or wetland. The hydrology of wetlands systems must be maintained if their function and values are to be preserved. Adverse hydrological changes might include altered freshwater input; changes in the watershed area or run-off quantity, quality, or velocity; drawing down of the groundwater table to the detriment of groundwater-dependent habitat; substantial increases in sedimentation; introduction of toxic elements or alteration of ambient water temperature.
- The project does not provide an adequate buffer for protecting the functions and values of existing waters or wetlands. The buffer is measured from the top-of-bank or edge of wetland or riparian habitat, whichever is greater. Ventura County General Plan Policy 1.5.2-4 requires a minimum buffer of 100 feet from significant wetland habitat. In accordance with this policy, buffer areas may be increased or decreased upon evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining adjustment of the 100-foot buffer include soil type, slope stability, drainage patterns, presence or absence of Endangered, Threatened or Rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area.

Note: USACE or CDFW permits may not be required for waters or wetlands that do have biological significance (such as isolated wetlands). In addition, a permit from a federal or state agency may not address Ventura County's General Plan protections of wetlands.

Cumulative Impact Thresholds

The threshold criteria listed above under Project Impact Thresholds are used to determine whether cumulative impacts are significant. The evaluation of cumulative impacts must consider the project *and* other projects causing related impacts. The other projects considered in the cumulative analysis for waters and wetlands are recently approved, present, and reasonable foreseeable probable future projects that may directly or indirectly impact the waters and/or wetlands that were evaluated for project impacts.

Due to the cumulative loss of waters and wetlands in the County and state, a significant direct project impact to waters and wetlands is considered to be a cumulatively considerable impact, unless mitigated to a less than significant project level impact.

Project-level indirect impacts to waters and wetlands may not have a significant impact alone, but when combined with other indirect impacts caused by other projects to the waters and wetlands under evaluation, the cumulative impact may significantly degrade the waters and wetlands, in which case the project's cumulative impact would be considered potentially significant.

According to General Plan Policy 1.5.2-3, unless a project is located within lands designated "Urban" or "Existing Community," significant impacts to significant wetland habitats are prohibited with no provision for adopting a statement of overriding considerations. Therefore, significant project impacts to significant wetland habitat must be avoided or mitigated to less than significant, which would reduce impacts to less than cumulatively considerable.

Habitat Connectivity

Project Impact Thresholds

A project would impact habitat connectivity if it would: (1) remove habitat within a wildlife movement corridor; (2) isolate habitat; (3) construct or create barriers that impede fish and/or wildlife movement, migration or long-term connectivity; or (4) intimidate fish or wildlife via the introduction of noise, light, development or increased human presence.

The following types of impacts to habitat connectivity are considered potentially significant:

- A habitat connectivity feature (e.g., a linkage, corridor, chokepoint, or stepping-stone) would be severed, substantially interfered with, or potentially blocked.

- Wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction would be prevented or substantially interfered with.

- Wildlife would be forced to use routes that endanger their survival. For example, constraining a corridor for mule deer or mountain lion to an area that is not well vegetated or that runs along a road instead of through a stream corridor or along a ridgeline.

- Lighting, noise, domestic animals, or other indirect impacts that could hinder or discourage fish and/or wildlife movement within habitat connectivity feature (e.g., a linkage, corridor, chokepoint, or stepping-stone) would be introduced.

- The width of linkage, corridor, or chokepoint would be reduced to less than the sufficient width for movement of the target species (the species relying upon the connectivity feature). The adequacy of the width shall be based on the biological information for the target species; the quality of the habitat within and adjacent to the linkage, corridor, or chokepoint; topography; and adjacent land uses.

- For wildlife relying on visual cues for movement, visual continuity (i.e., lines-of-sight) across highly constrained wildlife corridors, such as highway crossing structures or stepping stones, would not be maintained.

Cumulative Impact Thresholds

The threshold criteria listed above under Project Impact Thresholds are used to determine whether cumulative impacts are significant. The evaluation of cumulative impacts must consider the project and other projects causing related impacts. The other projects considered in the cumulative analysis for habitat connectivity are recently approved, present, and reasonable foreseeable probable future projects that may directly or indirectly impact the habitat connectivity feature that was evaluated for project impacts.

For example, a project that would only partially constrict a habitat connectivity feature may not have a significant impact on its own, but when combined with other impacts caused by projects located within or near the habitat connectivity feature, the cumulative impact may substantially interfere with or potentially block the feature, in which case the project's cumulative impact would be considered significant.

Species

Threshold 4.3-1 **Will the project have a direct or indirect physical impact to a plant or animal species by the project, directly or indirectly:**

(a) reducing a species' population,

(b) reducing a species' habitat,

(c) increasing habitat fragmentation, or

(d) restricting reproductive capacity?

Analysis

For the purposes of this impact analysis, a special-status plant species is any taxon that satisfies one or more of the criteria listed by CDFW as categories for inclusion on the Special Vascular Plants, Bryophytes, and Lichens List:

- Officially listed by California or the federal government as Endangered, Threatened, or Rare
- A candidate for state or federal listing as Endangered, Threatened, or Rare
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the *State CEQA Guidelines*; these taxa may indicate "none" under listing status, but note that all California Rare Plant Rank 1 and 2 and some Rank 3 plants may fall under Section 15380 of CEQA
- A Bureau of Land Management, US Fish and Wildlife Service, or US Forest Service Sensitive Species;
- Taxa listed in the California Native Plant Society's Inventory of Rare and Endangered Plants of California
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation
- Population(s) in California that may be peripheral to the major portion of a taxon's range but are threatened with extirpation in California
- Taxa closely associated with a habitat that is declining in California at a significant rate (e.g., wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, etc.)

For the purposes of this impact analysis, a special-status animal species is any taxon that satisfies one or more of the criteria listed by CDFW as categories for inclusion on the Special Animals list:

- Officially listed or proposed for listing under the state and/or federal Endangered Species Acts
- State or federal candidate for possible listing
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the California Environmental Quality Act Guidelines
- Taxa considered by the CDFW to be a Species of Special Concern (SSC)
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring
- Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.)
- Taxa designated as special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO)[16]

Those special-status species that are known to be present or that may potentially be present on the project site are listed below, as well as a discussion of potential impacts (construction and operational) that may arise as a result of project implementation.

Plants

No special-status plant species were observed during site surveys and none are considered to have a high potential for occurrence within the proposed disturbance area of the project. Therefore, impacts to special-status plant species are considered less than significant.

16 State, federal and NGO lists compiled in the CDFW Special Animals list include the American Bird Conservancy Green List, the American Fisheries Society categories of risk for marine, estuarine & diadromous fish stocks; the Audubon Watch List; the list of Bureau of Land Management Sensitive Species; the list of California Department of Forestry and Fire Protection Sensitive species; the CDFW list of Fully Protected species; the list of USDA Forest Service Sensitive species; the list of Fish and Wildlife Service Birds of Conservation Concern; the Marine Mammal Commission list of Marine Mammal Species of Special Concern; the United States Bird Conservation Watch List; the Western Bat Working Group High, Medium and Low Priority species categories; and the Xerces Society Red list of pollinators.

Animals

Southern California steelhead DPS (Federally Listed Endangered Species, California Species of Special Concern). Steelhead trout have been divided into Distinct Population Segments (DPSs). In general, adult steelhead return to rivers and creeks in the region from January to April. Spawning takes place in the rivers from January to May with most spawning activity occurring between January and March.

The Normandeau study[17] revealed the presence of rainbow trout both up and downstream of the Fresno Canyon outfall. The study also identified numerous spawning beds (redds) in these areas. Though there is no accurate way to determine visually if a rainbow trout is a resident or an anadromous steelhead, the sizes of fish observed indicate the majority of fish observed were likely resident freshwater trout. However, there were also indications that some of them may have been the anadromous steelhead. As such, Southern California steelhead DPS are assumed to be present in the river within the project area and the portion of the Ventura River occurring within the project area is included within the defined Critical Habitat for this species.

Because of the proximity of the project to the Ventura River and its associated riparian zone, the proposed project would have the potential to adversely affect individuals of the Southern California steelhead DPS during project construction. The main stem of the Ventura River between the San Antonio Creek confluence and Foster Park is historically known for being productive rearing habitat for juvenile *O. mykiss*, which has been recently confirmed by ongoing steelhead distribution and abundance studies.[18]

Without appropriate avoidance and planning, the proposed project could potentially result in the take of steelhead individuals through direct injury or mortality of juvenile fish or indirectly affect individuals by temporarily degrading habitat quality during project construction. Fish may be killed or trapped by materials that accidentally fall into the water. Accidental spills of hazardous materials during project construction could injure or kill members of these species. Additionally, a potential threat may be the recruitment of fine sediments into the main stem of the Ventura River.

Other potential impacts include "capture" of the Ventura River low flow channel along the rip-rap bank protection and alteration of the large pool adjacent to the proposed outlet.

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17 Normandeau Associates, Inc. Assessment of Pre-Project Aquatic Habitat in the Ventura River at the Fresno Canyon Confluence. October 25, 2012.

18 Normandeau Associates, Inc. Assessment of Pre-Project Aquatic Habitat in the Ventura River at the Fresno Canyon Confluence. October 25, 2012.

The proposed project includes the installation of a flapgate at the western end of the existing flood-control channel to protect against backflow from the Ventura River. The flapgate would prevent fish from gaining access to the existing concrete channel and the replaced local drainage outlet connecting the Ventura River to Fresno Canyon east of SR-33. Therefore, take at this location would not be expected to result from project operation during high floods.

Upon completion of review of the FEMA Biological Assessment, NMFS is expected to require specific mitigation measures to reduce potentially significant impacts to this species. Though these specific measures have not yet been outlined, **Mitigation Measure 4.3-1** discusses the avoidance measures required to prevent and/or reduce the potential of incidental take of this species. Specific conditions and or measures identified within the NMFS final determination shall also be followed. In the event of conflicting requirements, the NMFS conditions shall take precedence. Implementation of all of these measures are expected to reduce impacts to Southern California steelhead DPS and its Critical Habitat to a less than significant level.

California red-legged frog (federally listed Threatened Species, California Species of Special Concern). This is the largest native frog in the western United States. California red-legged frogs can be found in a range of habitats within a watershed (e.g., stock ponds, creeks).[19] The project area does not occur within the final approved Critical Habitat for this species, but there are patches of habitat within and immediately adjacent to the Ventura River and within the project zone that are suitable for this species. As such, the BO prepared by the US Fish and Wildlife Service for this project includes California red-legged frog in its evaluation.

Southwestern willow flycatcher (federally listed Endangered Species, state-listed Endangered Species). This small flycatcher is closely associated with riparian woodlands. There are some suitable riparian woodlands along the Ventura River in and near the project area. However, no willow flycatchers have been recorded in this area in the CNDDB. Therefore, they are considered to have a moderate potential for occurrence. The BO prepared by the US Fish and Wildlife Service for this project includes southwestern willow flycatcher in its evaluation. The BO authorized the project to proceed with several conditions.

Least Bell's vireo (federally listed Endangered Species, state-listed Endangered Species). This small vociferous bird is most commonly associated with riparian scrub habitat where it builds well-camouflaged nests. Where it does occur, it is often relatively abundant, but suitable habitat for this species in Southern California has declined significantly in the past several decades. Suitable habitat for

19 US Fish and Wildlife Service. 2002. Recovery Plan for the California Red-legged Frog (Rana aurora draytonii). Region 1 US Fish and Wildlife Service, Portland, Oregon.

this species is present on-site and the species has been documented as occurring in the region. As such, there is a high potential for least Bell's vireo to occur within the project area. The BO prepared by the US Fish and Wildlife Service for this project includes least Bell's vireo in its evaluation. The BO authorized the project to proceed with several conditions.

Because suitable habitat for California red-legged frog, southwestern willow flycatcher, and least Bell's vireo is present within the project area, and because focused presence/absence surveys for these species have not been conducted on-site, project impacts to each of these three listed species would be considered potentially significant without mitigation. The BO prepared by the USFWS for this project evaluated the potential impacts to California red-legged frog, southwestern willow flycatcher, and least Bell's vireo. Within the BO, USFWS has authorized the project to proceed with conditions. **Mitigation Measure 4.3-2** outlines the conditions included in the BO. Implementation of these measures would reduce potential significant impacts to California red-legged frog, southwestern willow flycatcher, and least Bell's vireo to a less than significant level.

Nuttall's woodpecker (CDFW Special Animal). This smaller, though vociferous woodpecker is most commonly associated with oak woodlands in California. Although associated with oaks, they do not eat acorns, but rather insects and sometimes fruit. They nest in tree cavities and two Nuttall's woodpeckers were observed during the surveys on-site. This species is expected to nest and reside within the project area.

Cooper's hawk (CDFW Watch List). Cooper's hawks most commonly hunt other bird species while in flight. They typically nest in or near riparian areas in trees with dense canopy. Suitable nesting and foraging habitat is present on-site for this species to persist and is, therefore, is considered to have a high potential for occurrence in most portions of the project area.

Nuttall's woodpecker and Cooper's hawk may utilize either or both of the riparian woodland or oak woodland habitats occurring within the project zone. CDFW is primarily concerned with tracking and protecting nesting locations of these species. Both of these species are also protected while actively nesting by the Migratory Bird Treaty Act and Fish and Game Code.[20] As such, if the project were to be initiated during the nesting season, impacts to Nuttall's woodpecker and Cooper's hawk, as well as any other actively nesting migratory bird, would be considered potentially significant without mitigation. **Mitigation Measure 4.3-3** would ensure compliance with federal and state laws protecting active bird nests and would eliminate this potential impact.

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20 (See 16 USC §§703-712; see also California Fish and Game Code §§3503, 3513.)

Hoary bat (CDFW Special Animal). Though one of the most widespread bat species in the world, and common in California, this species has been added to the CDFW Special Animal list as they wish to collect data on the species to determine their current population status. Like the red bat described above, they are a solitary species and are closely associated with trees; usually broadleaf deciduous species. They usually feed on their preferred insects along open edges of woodlands. There is suitable habitat on-site within the wooded areas. Therefore, they are considered to have a high potential for occurrence.

Pallid Bat (California Species of Special Concern). This species of bat is relatively common in the region. It is known to forage in and around arid to semi-arid grasslands, woodlands, and forests with open areas. It typically roosts in rocky areas with suitable crevices. Both foraging and roosting habitats occur on and adjacent to the subject site. Though typical roosting habitat does not occur within the project boundaries, it does occur within the area. Further, suitable foraging habitat is present on-site. As such, pallid bad is considered to have a moderate potential for occurrence.

Both hoary bat and pallid bat may roost within trees on-site and may be impacted by the proposed project. If present, the loss of individuals or occupied roosts of species from the subject property could contribute to the reduction in numbers of a local population and would be considered a potentially significant impact. Implementation of **Mitigation Measure 4.3-4** would reduce impacts to special-status bats and their roosts to below a level of significance.

Mitigation Measures

4.3-1: To reduce the adverse effects to the Southern California steelhead DPS during their migration and spawning season, VCWPD shall perform all outlet construction activities outside the migration period. Typically, construction activities would take place between June 15 and October 15. However, because the river may also provide habitat to support federally listed species under USFWS jurisdiction, the work window has been modified to between August 31 and October 31. Work upstream of the proposed outlet would occur throughout the year, depending on nesting bird survey results.

VCWPD shall implement the following measures to avoid and/or minimize the potential for take of steelhead:

- Exclusion fences composed of silt fence material shall be installed at the margins of the work area to prevent workers or construction materials from encroaching into adjacent habitat and to prevent materials from entering the waters of Ventura River. The fence shall be monitored periodically for integrity and effectiveness. The fencing shall be maintained for the duration of construction and removed upon project completion.

- A NMFS-approved biologist shall monitor construction activities that involve work within the Ventura River, dewatering activities, and installation of the outlet structure for the purpose of identifying and reconciling any condition that could adversely affect listed salmonids or their habitat.

- Preconstruction surveys shall include the collection and relocation of fish, if necessary, by an NMFS-approved fisheries biologist from the construction site prior to and during dewatering. The NMFS-approved fisheries biologist shall be familiar with the life history and identification of steelhead.

- All captured fish shall be held in well-oxygenated water with temperatures equivalent to ambient in stream temperatures. Once recovered, they shall be placed in suitable habitat (in stream cover and pools deeper than 1 foot) downstream of the action area.

- If any steelhead individuals are found dead or injured, the biologist shall immediately contact the NMFS Long Beach Field Office to review the activities that resulted in the take and determine whether additional protective measures are required.

VCWPD shall implement the following measures to protect steelhead critical habitat including prevention of erosion, sedimentation, potential spills, and pollution, and salvage of native vegetation:

- Disturbance to existing grades and vegetation shall be limited to the actual site of the project and necessary access routes. Placement of all roads, staging areas, and other facilities shall be carried out so as to avoid and limit disturbance to stream bank or stream channel habitat to the extent possible.

- Erosion-control and sediment-detention devices (e.g., well-anchored sandbag cofferdams, straw bales, silt fences) shall be incorporated into the project design and implemented at the time of construction. These devices shall be in place during construction activities, and after if necessary, to minimize fine sediment and sediment/water slurry input to flowing water and to detain sediment-laden water on-site. These devices shall be placed at all locations where the likelihood of sediment input exists. Supply of erosion control materials shall be available to cover small sites that may become bare and to respond to sediment emergencies.

- VCWPD shall inspect the performance of sediment-control devices at least once each day during construction to ensure that the devices are functioning properly. If a control measure is not functioning properly, the control measure shall be repaired immediately or replaced. Additional controls shall be installed as necessary.

- Sediment shall be removed from sediment controls once the sediment has reached one-third of the exposed height of the control. Sediment collected in these devices shall be disposed of at approved disposal sites away from the collection site.

- All disturbed soils at each site shall undergo erosion-control treatment during construction and after construction is terminated. Treatment may include temporary seeding and sterile straw mulch or other effective measures. Any disturbed soils on a gradient of over 30 percent shall have erosion-control blankets or similar effective measures put in place.

- Any stockpiles of soil used for fill material during construction shall be covered with a tarp or erosion-control blanket, and silt fences shall be installed appropriately to contain soils from moving into area waterways. If the local weather forecast indicates a greater than a 50-percent chance of rain, the project site shall be "rain-proofed" with erosion-control measures so that no sediment or turbidity enters the stream.

- All debris, sediment, rubbish, vegetation, or other material removed from the channel banks, channel bottom, or sediment basins shall be disposed of at an approved disposal site. All petroleum product chemicals, silt, fine soils, and any substance or material deleterious to listed species shall not be allowed to pass into, or be placed where it can pass into, the stream channel. There shall be no sidecasting of material into any waterway.

- VCWPD shall exercise every reasonable precaution to protect the Ventura River from pollution with fuels, oils, bitumens, calcium chloride, and other harmful materials.

- Construction byproducts and pollutants such as petroleum products, chemicals, fresh cement, or deleterious materials shall not be allowed to discharge into the Ventura River and shall be collected and transported to an authorized disposal area.

- A plan for the emergency cleanup of any spills of fuel or other material shall be prepared and kept available on-site during construction activities.

- Equipment shall be refueled and serviced at designated construction staging areas. All construction material and fill shall be stored and contained in a designated area that is located away from channel areas to prevent transport of materials into adjacent streams. A silt fence shall be installed to collect any discharge, and adequate materials for spill cleanup shall be maintained on-site.

- Construction vehicles and equipment shall be maintained to prevent contamination of soil or water (from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease).

- Good housekeeping practices, use of safer alternative products, such as biodegradable hydraulic fluids, shall be used when feasible.

- An employee-training program shall be implemented. Employees shall be trained to prevent or reduce the discharge of pollutants from construction activities to waters and of the appropriate measures to take if a spill occurs.

- In the event of a spill, work shall be stopped immediately, spill control shall be implemented, and NMFS shall be notified. Work will resume once cleanup is

complete, the source of the spill has been resolved, and NMFS has provided authorization to proceed.

- Disturbance to existing grades and vegetation shall be limited to the actual site of the project and necessary access routes. When possible, existing and proposed ingress or egress points shall be used and the contours of the action area shall be returned to pre-construction condition or better.

- VCWPD shall, to the maximum extent practicable, reduce the amount of disturbance on-site to the absolute minimum necessary to accomplish the proposed action.

- Whenever practicable, existing vegetation shall be salvaged from the footprint of the action area and stored for replanting after earthmoving activities have been completed.

- Because a relatively small amount of riparian scrub vegetation (i.e., 0.30 acre) shall be permanently lost at the outlet location during project construction, VCWPD shall restore the temporary impact area at a 1:1 ratio through planting willows and other riparian species. For permanent impacts, mitigation shall be implemented at a 3:1 ratio followed by a five-year monitoring period to reach an 80 percent success criterion. Mitigation for permanent impacts may include exotic plant removal and riparian species revegetation, depending on the selected location.

VCWPD shall take measures to prevent the introduction of invasive weeds at the construction site. The measure shall include cleaning all equipment before bringing it on-site and using only certified weed-free erosion-control and revegetation materials.

4.3-2: All measures in the BO to minimize and mitigate impacts to California red-legged frog, southwestern willow flycatcher, and least Bell's vireo shall be implemented. The following measures were taken from the 2009 Biological Assessment, accepted by USFWS, and implemented as conditions within the BO:

California Red-legged Frog

1. Work in the Ventura River will be limited to the period outside of the California red-legged frog breeding and bird nesting seasons. The construction window would be August 31 through October 31.

2. A qualified biologist will conduct pre-construction surveys at least two days prior to start of construction activities in areas where ground disturbance would occur to determine whether California red-legged frogs are present. If California red-legged frogs are found during any preconstruction surveys, the biologist will contact the Service to determine whether moving them is appropriate. If the Service gives approval for relocation, the Service-approved biologist will be allowed sufficient time to move the California red-legged frogs from the work site before activities begin.

3. A Service-approved biologist will monitor construction activities that involve retaining wall construction and installation of rock slope protection along the Ventura River channel bank. If California red-legged frogs are found that are likely to be killed or injured by work activities, the Service-approved biologist will be allowed sufficient time to move them from the site before work activities resume. The Service-approved biologist will relocate the California red-legged frogs the shortest distance possible to suitable habitat that will not be affected by activities associated with the proposed project. Only California red-legged frogs that are at risk of injury or death by project activities will be moved.

4. Only Service-approved biologists will participate in activities associated with capture, handling, and monitoring of California red-legged frogs. VCWPD will request and receive Service approval of any other biologist whom the agency wishes to conduct activities with California red-legged frogs.

5. If more than two California red-legged frogs are found dead or injured as a result of project activities within a 12-month period, VCWPD will contact the Service immediately so the Service can review the project activities to determine whether additional protective measures are needed.

6. Exclusion fences composed of silt fence material will be installed at the margins of the work area to prevent workers from encroaching into adjacent habitat and to prevent California red-legged frogs from entering the construction area. A fine mesh (less than 0.40 inch) will be used to avoid entrapment of amphibians in the silt fence. The silt fence will be monitored periodically during construction to evaluate its effectiveness. All fencing in this area will be maintained for the duration of construction and removed on project completion.

7. To avoid attracting predators, food-related trash will be kept in closed containers and removed regularly from the project area.

8. To avoid transferring disease or pathogens, the Service-approved biologist will follow the Declining Amphibian Populations Task Force Fieldwork Code of Practice.

9 Prior to construction, a qualified biologist will conduct training sessions to familiarize all construction personnel with the following: identification of California red-legged frogs, their habitat, general provisions and protections afforded by the Act, measures implemented to protect the species for this project, and a review of the project boundaries. This training will also be provided within 30 days of the arrival of any new worker.

10. If an injured California red-legged frog is found, the Service-approved biologist will determine the extent of the injury. If the injury is minor and the frog is likely to survive without treatment, the biologist will document the injury and release the frog in an appropriate location previously designated by the Service; however, if the injured frog requires professional treatment to survive, the biologist will transport the frog to the location where a qualified professional can provide the needed treatment. The location of a qualified professional to assist the frog will have been

documented prior to the start of construction. The treated frog will be released at an appropriate location as soon as its recovery allows. Within three working days, the injured frog incident will be reported to the Service and reported information will include date of injury, extent of injury, and action(s) taken. If a frog dies while being treated or a dead frog is located in the project area, the Service will be contacted within three working days. At that time, the Service will provide instructions regarding the deposition of the frog.

11. VCWPD will provide the Service with a report on the results of biological surveys and sighting records and also document the following: the number of California red-legged frogs relocated from the project area or killed or injured during the proposed project; the dates and times of capture, mortality, or injury; specific locations of capture, mortality, or injury; approximate size and age of individuals; and a description of relocation sites.

12. All areas subject to temporary disturbance will be restored on-site with native riparian species to pre-project conditions upon completion of construction.

13. VCWPD will take measures to prevent the introduction of invasive weeds at the construction site. This will include cleaning all equipment before bringing it on-site and using only certified, weed-free erosion control and revegetation materials.

14. Standard Best Management Practices and erosion control measures will be implemented during construction to minimize possible discharge of sediment into aquatic habitats. These measures will include, but will not be not limited to, installing and maintaining silt fences immediately down gradient of disturbed areas.

Least Bell's Vireo and Southwestern Willow Flycatcher

15. To reduce adverse effects to the least Bell's vireo and southwestern willow flycatcher, VCWPD will perform all construction activities in the Ventura River bed and bank outside of their nesting season (all construction activities east of State Route SR-33 may occur year round as SR-33 presents a noise barrier from the river). Typically, construction activities would take place outside of the least Bell's vireo's nesting season, which extends from mid-March through late September, and the southwestern willow flycatcher's nesting season, which extends from mid-May through late August; however, because the Ventura River may also provide habitat to support federally listed anadromous fish species under the National Marine Fisheries Service's jurisdiction (in-water work window is June 15 through November 1), as well as the federally listed California red-legged frog under Service jurisdiction, the work window for construction activities near the Ventura River bed and bank has been modified to August 31 to October 31 as long as the following two measures are also implemented.

    a. A qualified biologist will conduct preconstruction surveys of all ground disturbance areas within riparian habitats to determine if least Bell's vireos and/or southwestern willow flycatchers are present prior to the start of construction. These surveys will be completed within two weeks prior to start of

construction activities in the riparian zone. If least Bell's vireos and/or southwestern willow flycatchers are found nesting in the riparian zone during any preconstruction surveys, the qualified biologist will have stop work authority and stop construction activities in that area. Work activities would resume when the chicks have fledged and left the nest.

b. A 250-foot buffer would be maintained around the riparian zone during the month of September if any least Bell's vireos are present. After September, no buffer would be applied because least Bell's vireo would have migrated out of the area by then. Any southwestern willow flycatchers would have left the area in late August.

Measures to Avoid and Minimize Effects to Habitat for each Species

16. Disturbance to existing grades and vegetation will be limited to the actual site of the project and necessary access routes. Placement of all roads, staging areas, and other facilities will avoid and limit disturbance to stream bank or stream channel habitat as much as possible. When possible, existing ingress or egress points will be used and the contours of the project area will be returned to pre-construction condition or better.

17. VCWPD will, to the maximum extent practicable, reduce the amount of disturbance at a site to the absolute minimum necessary to accomplish the project. Whenever practicable, existing vegetation would be salvaged from the footprint of the project area and stored for replanting after earthmoving activities are completed.

18. VCWPD will restore the riparian habitat permanently lost at the outlet location during project construction project area through planting willows and other riparian species within the Ventura River's riparian zone in areas adjacent to the project area. Native willow species would be used for revegetation efforts. These revegetation efforts will be implemented at up to 3:1 ratio followed by a five-year monitoring period to reach an 80 percent native species cover success criterion.

4.3-3: To avoid impacts to nesting birds during construction, a qualified biologist (approved by the Ventura County Planning Department) shall be retained to conduct nesting bird surveys within suitable nesting habitat prior to initiation of construction activities. Specifically, if activities associated with construction or grading are planned during the bird nesting/breeding season, generally January through March for early nesting birds (e.g., Coopers hawks or hummingbirds) and from mid-March through September for most bird species, the applicant shall have a qualified biologist conduct surveys for active nests. Pre-construction nesting bird surveys shall be conducted weekly, within 30 days prior to initiation of ground-disturbing activities to determine the presence/absence of active nests. The surveys shall continue on a weekly basis with the last survey being conducted no more than three days before the start of clearance/construction work.

Surveys shall include examination of trees, shrubs, and the ground, within grasslands, for nesting birds, as several bird species known to the area are shrub or ground nesters. If ground-disturbing activities are delayed, additional pre-construction surveys shall be conducted so that no more than three days will have elapsed between the survey and ground-disturbing activities.

If active nests are located during pre-construction surveys, clearing and construction activities within 300 feet of the nest (500 feet for raptors) shall be postponed or halted until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. Limits to avoid an active nest shall be established in the field with high visibility flagging, fencing, or other appropriate barriers, and construction personnel shall be instructed on the sensitivity of nest areas. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests will occur. The results of the survey, and any avoidance measures taken, shall be submitted to the California Department of Fish and Wildlife within 30 days of completion of the pre-construction surveys and/or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

4.3-4: No earlier than 30 days prior to the commencement of construction activities, a preconstruction survey shall be conducted by a qualified biologist to determine if active roosts of special-status bats are present on or within 300 feet of the Project disturbance boundaries. Should an active maternity roost be identified (the breeding season of native bat species in California generally extends from April 1 through August 31), the roost shall not be disturbed and construction within 300 feet shall be postponed or halted, at the discretion of the biological monitor, until the roost is vacated and juveniles have dispersed, as determined by the biologist.

Residual Impact

Implementation of the preceding measures would reduce project impacts to a less than significant level.

Ecological Communities

Threshold 4.3-2 **Could the proposed project have a substantial effect on any Sensitive Plant Communities by:**

a. Construction, grading, clearing, or other activities that would temporarily or permanently remove sensitive plant communities. Temporary impacts to sensitive plant communities would be considered significant unless the sensitive plant community is restored once the temporary impact is complete.

b. Indirect impacts resulting from project operation at levels that would degrade the health of a sensitive plant community.

Analysis

For the purposes of this impact analysis, a sensitive natural community is one identified as such by CDFW and which meets one or more of the following criteria:

- Habitat of Rare, Threatened or Endangered species
- Riparian areas and wetlands subject to state and federal regulations
- Riparian woodlands, sycamore-alder riparian woodlands, southern and valley oak woodlands, and California walnut woodlands
- A vegetation alliance or association that has been assigned a G1, G2, or G3 rarity code on the Department of Fish and Game Biogeographic Data Branch Natural Communities Hierarchy, September 2010.[21]

Impacts to on-site vegetation types for the proposed project are shown in **Figure 4.3-1**.

Riparian Scrub

Riparian scrub is dominated by arroyo willow (*Salix lasiolepis*), with mule fat (*Baccharis salicifolia*) common in the understory. This community occurs at the eastern end of the action area in lower Fresno Canyon, but is most common in the Ventura River, where Fremont cottonwood (*Populus fremontii*) is also present but not dominant. Much of this community in the river is infested with giant reed (*Arundo donax*), a non-native perennial weed. Despite the influx of invasive species, because this habitat occurs within CDFW jurisdiction it is treated herein as a sensitive habitat.

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21 Department of Fish and Wildlife. 2010. Biogeographic Data Branch. "Full Natural Community Hierarchy, Sept. 2010, Exel Version. http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_list.asp. Accessed August 2013.

Temporary impacts = 0.07 acre *Permanent impacts = 0.30 acre*

Oak-Walnut Woodland

Coast live oak (*Quercus agrifolia*) and California black walnut (*Juglans californica*) co-occur in large stands in the survey area, occurring on hills as well as along roads and easements. Native woodlands are considered sensitive by CDFW.

Temporary impacts = 0.16 acre *Permanent impacts = 0.20 acre*

Venturan Sage Scrub (= *Artemisia californica* shrubland alliance) (G3/S3.1)

Venturan sage scrub occurs on a hill in the southwest part of the survey area. Common species include California sagebrush (*Artemisia californica*), buckwheat (*Eriogonum fasciculatum*), coyote brush (*Baccharis pilularis*), purple sage (*Salvia leucophylla*), and toyon (*Heteromeles arbutifolia*). Sage scrub habitats are considered sensitive by CDFW as they have a rarity code of G3.

Temporary impacts = 0.05 acre *Permanent impacts = 0.03*

Though the project impacts to some of these habitats would not necessarily be considered substantial with respect to CEQA thresholds, the Ventura County thresholds of significance state temporary or permanent loss of sensitive vegetation communities would be considered significant without mitigation. Implementation of **Mitigation Measure 4.3-5** would include restoration of the disturbed areas, which would reduce the impacts to sensitive plant communities to a less than significant level.

Mitigation Measures

4.3-5: Areas of Oak-Walnut Woodland, and Venturan Sage Scrub that are temporarily impacted by project development shall be replaced in kind and in-situ at a 1:1 ratio.

The replacement vegetation communities shall have similar dominant trees and understory shrubs and herbs (excluding exotic species) as the affected vegetation communities.

A habitat replacement plan shall be developed to replace, at a 3:1 ratio, areas of Riparian Scrub, and at 2:1 for Oak-Walnut Woodland, and Venturan Sage Scrub permanently impacted by project development. The plan shall specify, at a minimum, the following:

- the location of mitigation sites

- the quantity and species of plants to be planted
- procedures for creating additional vegetation communities
- methods for the removal of non-native plants
- a schedule and action plan to maintain and monitor the enhancement/restoration area
- a list of criteria by which to measure success of the mitigation sites (e.g., percent cover of native species, survivorship/establishment of plantings, wildlife use)
- measures to exclude unauthorized entry into the creation/enhancement areas; and
- contingency measures in the event that mitigation efforts are not successful.

The goal will be to create and enhance these habitat types on-site in currently disturbed areas. Through consultation with CDFW, it may also be appropriate to remove invasive species as part of the mitigation, which may alter the final mitigation ratio if approved by CDFW.

Table 4.3-4
Summary of Sensitive Community Impacts and Mitigation Ratios

Habitat Type	Temporary Impacts (acres)	Mitigation Ratio 1:1(acres)	Permanent Impacts (acres)	Mitigation Ratio 2:1 (acres)	Mitigation Ratio 3:1 (acres)	Total Mitigation (acres)
Riparian scrub	0.07	0.07	0.30	0.00	0.90	0.97
Oak-Walnut woodland	0.16	0.16	0.20	0.40	000	0.56
Venturan sage scrub	0.05	0.05	0.03	0.06	0.00	0.11
Totals	0.28	0.28	0.53	0.46	0.90	1.64

Residual Impact

Implementation of the preceding measures to mitigate for temporary impacts to 0.28 acre and permanent impacts to 0.53 acre of sensitive plant communities would reduce project impacts to a less than significant level.

Waters and Wetlands

Threshold 4.3-3 **Could the proposed project have a substantial effect on any waters and wetlands by:**

a. removal of vegetation;

b. grading;

c. obstruction or diversion of water flow;

d. change in velocity, siltation, volume of flow, or runoff rate;

e. placement of fill;

f. placement of structures;

g. construction of a road crossing;

h. placement of culverts or other underground piping; and/or

i. any disturbance of the substratum.

Analysis

The proposed project would temporarily impact 0.02 acre and 159 linear feet and permanently impact 0.02 acre and 121 linear feet of non-wetland, non-tidal Waters, confined to the inlet area of the proposed new facility. About 30 linear feet and 0.004 acre of this area is occupied by mule fat, the rest is unvegetated.

The new flood conveyance facility will alter natural drainage patterns, in the sense that base flows in lower Fresno Canyon, and most flood flows, will be directed away from their historical course. There will also be permanent loss of riparian vegetation, assuming that the inlet and outlet areas of the new facility will need to be maintained clear of vegetation. The project also includes placement of un-grouted rip-rap within the Ventura River. Because the project impacts would not occur to federally protected wetlands, but rather to non-wetland, non-tidal Waters, impacts based on CEQA thresholds would be considered less than significant. However, the Ventura County Thresholds include impacts to "any" Waters and Wetlands. As such, the described impacts to Waters are considered potentially significant.

These impacts will require a water quality certification from the Los Angeles Regional Water Quality Control Board and qualifies for a #43 Nationwide Permit for "Stormwater Management Facilities" from the US Army Corp of Engineers. Additionally, the project would incorporate most of the items listed in

the Ventura County Thresholds of Significance. As such, they are considered potentially significant without mitigation. Implementation of **Mitigation Measure 4.3-6** would reduce these impacts to a less than significant level. Because these features are not considered 'significant wetlands' and because this project is for the purpose of flood control, the Ventura County requirement of a 100-foot buffer is not applicable.

Mitigation Measures

4.3-6: Prior to project implementation VCWPD shall obtain a Section 401 Water Quality Certification, a Nationwide Permit from USACE and a Streambed Alteration Agreement (SAA) from CDFW. Some or all of those permits are anticipated to require specific mitigations for both temporary and permanent impacts. Implementation of **Mitigation Measure 4.3-5** is anticipated to be consistent with the 401, Nationwide, and SAA mitigation requirements with respect to vegetation. However, should any agencies require conflicting mitigations in their conditions of approval, the more stringent measure shall apply.

Residual Impact

Implementation of the federal and state regulatory agency conditions of approval, in combination with **Mitigation Measure 4.3-6**, would reduce impacts to federal "Waters" to a less than significant level.

Habitat Connectivity

Threshold 4.3-4 **Would the proposed project (a) remove habitat within a wildlife movement corridor; (b) isolate habitat; (c) construct or create barriers that impede fish and/or wildlife movement, migration or long term connectivity; or (d) intimidate fish or wildlife via the introduction of noise, light, development or increased human presence.**

The following types of impacts to habitat connectivity are considered potentially significant:

a. **A habitat connectivity feature (e.g., a linkage, corridor, chokepoint or stepping stone) would be severed, substantially interfered with, or potentially blocked.**

b. **Wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction would be prevented or substantially interfered with.**

c. **Wildlife would be forced to use routes that endanger their survival. For example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along a road instead of through a stream corridor or along a ridgeline.**

d. **Lighting, noise, domestic animals, or other indirect impacts that could hinder or discourage fish and/or wildlife movement within habitat connectivity feature (e.g., a linkage, corridor, chokepoint or stepping stone) would be introduced.**

e. **The width of linkage, corridor or chokepoint would be reduced to less than the sufficient width for movement of the target species (the species relying upon the connectivity feature). The adequacy of the width shall be based on the biological information for the target species; the quality of the habitat within and adjacent to the linkage, corridor, or chokepoint; topography; and adjacent land uses.**

f. **For wildlife relying on visual cues for movement, visual continuity (i.e., lines-of-sight) across highly constrained wildlife corridors, such as highway crossing structures or stepping stones, would not be maintained.**

Analysis

Since most of the project occurs within a developed area, local and regional movement of terrestrial and avian wildlife would not be expected to be substantially impeded. As such, impacts to wildlife movement would be considered less than significant.

Mitigation Measures

No mitigation would be required as impacts would be less than significant.

Residual Impact

No significant residual impacts

Protected Trees

Threshold 4.3-5 **Would the project require removal or encroachment within the protected zone of any oaks or sycamores 9.5 inches in circumference or larger (measured 4.5 feet above ground), trees of any species with a historical designation, trees of any species 90 inches in circumference or larger, and most 9.5-inch native trees in the Scenic Resources Protection Zone?**

Analysis

Local plans, policies, and ordinances germane to the proposed project include the Ventura County Protected Tree Ordinance.

The project would require removal of five coast live oak trees and one sycamore tree and encroach within the protected zone of one additional oak tree that meet the 9.5-inch dbh requirement of a protected tree.

Mitigation Measures

4.3-7: All removals and encroachments to native protected trees shall be mitigated for in conformance with the County of Ventura Protected Tree Ordinance.

Residual Impact

Implementation of **Mitigation Measure 4.3-7** would include all the measures necessary to minimize and reduce potential impacts to protected trees.

4.3.6 CUMULATIVE IMPACTS

Analysis

Future projects along the Ventura River would also be expected to result in potentially significant direct and indirect impacts to special-status species, removal, or encroachment into sensitive habitats, wetlands

and Waters, and alteration of migratory pathways. Without mitigation, these impacts combined with the proposed project would be cumulatively considerable.

Mitigation Measures

Implementation of **Mitigation Measure 4.3-1** through **Mitigation Measure 4.3-7** would reduce all of the proposed project impacts to a less than significant level, thus ensuring the project's contribution to cumulative biological impacts is less than cumulatively considerable.