Resource Management Plan
for
San Luis Rey River Park
San Diego County



June 2012

PARKS AND RECREATION
COUNTY OF SAN DIEGO
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SAN LUIS REY RIVER PARK

RESOURCE MANAGEMENT PLAN

June 30, 2012

Approved by:

Brian Albright, Director
County of San Diego
Department of Parks and Recreation

6/30/12
Date

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Appendix D San Luis Rey River Park Vegetation Management Plan

LIST OF ACRONYMS

AMSL	above mean sea level
APN	Assessor's Parcel Number
ASMD	area-specific management directive
CA RWQCB	California Regional Water Quality Control Board
CAL FIRE	California Department of Forestry and Fire Protection
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CTMP	Community Trails Master Plan
CWA	Clean Water Act
DPR	County of San Diego Department of Parks and Recreation
DPW	County of San Diego Department of Public Works
FESA	Federal Endangered Species Act
FRAP	Fire and Resource Assessment Program
HCP	habitat conservation plan
I-15	Interstate 15
MOU	Memorandum of Understanding
MRCD	Mission Resource Conservation District
MSCP	Multiple Species Conservation Program
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
PAMA	Pre-Approved Mitigation Area
PEIR	Programmatic Environmental Impact Report
RMP	resource management plan
SANDAG	San Diego Association of Governments
SDG&E	San Diego Gas and Electric
SDMMP	San Diego Management and Monitoring Program
SLRRP	San Luis Rey River Park
SR-76	State Route 76
SRA	State Responsibility Area
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

In 2007, the County of San Diego Department of Parks and Recreation (DPR) prepared a Master Plan outlining the creation of the San Luis Rey River Park (SLRRP; Park) in northern San Diego County. The SLRRP Master Plan establishes the framework for the acquisition and development of the Park along an 8.5-mile stretch of the San Luis Rey River from just east of Interstate 15 (I-15) to the eastern boundary of the City of Oceanside. The Park proposes to incorporate riparian and floodplain restoration, preservation, recreational needs, and natural/cultural resource education and conservation. In summary, the Park is planned to be composed primarily of open space (95%) with trails and interpretive kiosks.

A Programmatic Environmental Impact Report (PEIR) was prepared for the SLRRP Master Plan and both documents were certified/approved by the County Board of Supervisors in 2008 (EDAW 2008; Hargreaves Associates 2007). As indicated in the PEIR, the County is developing the Park in coordination with the California Department of Transportation (Caltrans) State Route 76 (SR-76) Highway Improvement Project. Per the Park Implementation Process outlined in the SLRRP Master Plan, the County has begun acquiring parcels and now owns approximately 460.11 acres[1] of the 1,700 acres planned for the Park.

The SLRRP Master Plan has been incorporated into the Multiple Species Conservation Program (MSCP) Draft North County Plan and the Park is being assembled as part of the North County Plan preserve system. The Park consists of very high value habitats including designated critical habitat for arroyo toad (*Bufo californicus*), least Bell's vireo (*Vireo bellii pusillus*), coastal California gnatcatcher (*Polioptila californica californica*), and southwestern willow flycatcher (*Empidonax traillii extimus*). Currently, the Park is not open to the public.

1.1 Purpose of Resource Management Plan

This Resource Management Plan (RMP) has been prepared as a guidance document to manage and preserve the biological and cultural resources within the Park, and to provide Area-Specific Management Directives (ASMDs) pursuant to the requirements of the Draft North County Plan and the Draft North County Framework Resource Management Plan (Draft Framework RMP) (County 2009b).

Specifically, this RMP will:

a) guide the management of vegetation communities/habitats, plant and animal species, cultural resources, and programs described herein to protect and, where appropriate, enhance biological and cultural values;

[1] The assessor's parcel data list the Park to be 499.43 acres; however, calculations generated from geographic information system (GIS) data show the Park as 460.11 acres, excluding the Caltrans right-of-way along SR-76.

b) serve as a guide for appropriate public uses of the property;

c) provide a descriptive inventory of the vegetation communities/habitats, plant and animal species, and the archaeological and/or historical resources that occur on this property;

d) establish the baseline conditions from which adaptive management will be determined and success will be measured; and

e) provide an overview of the operation and maintenance requirements to implement management goals.

It is recognized that County-owned land is only a small portion of the Draft North County Plan preserve system. The County does ensure management of other lands that are dedicated as an open space easement for discretionary project mitigation through requiring land developers to prepare Resource Management Plans. The County will spearhead a larger coordinated effort to ensure that other conserved lands in the area that make up the preserve are also being monitored and managed consistent with this RMP, and the overall goals of the Draft North County Plan once it is finalized.

1.1.1 Draft North County Plan

The Draft North County Plan is a comprehensive habitat conservation planning program and one of three subregional habitat planning efforts in San Diego County which contribute to preservation of regional biodiversity through coordination with other habitat conservation planning efforts throughout southern California. The Draft North County Plan is being prepared as a Multiple Species Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA), the Natural Community Conservation Planning (NCCP) Program pursuant to the California NCCP Act of 1991, and the California Endangered Species Act (CESA).

The Draft North County Plan will expand the County's MSCP into the northwestern unincorporated areas of the County. The Draft North County Plan will help conserve habitat that benefits numerous species, including the 63 species planned for coverage, as well as provide passive recreational and educational opportunities to residents in the region. The Draft North County Plan area encompasses approximately 489 square miles in and around the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center.

1.1.2 Draft North County Framework RMP and ASMDs

As part of the Draft North County Plan, the County prepared the Draft Framework RMP, which is intended to provide general direction for all preserve management and biological monitoring within the Draft North County Plan preserve system. The Draft

Framework RMP also incorporates a requirement for the subsequent preparation and implementation of ASMDs to address management and monitoring issues at the site-specific level. Chapter 5 of this RMP includes ASMDs for the San Luis Rey River Park, which were developed in accordance with the Draft Framework RMP using the information gained during baseline biological and cultural resources surveys. The ASMDs will be revised once the Draft North County Plan, including the Draft Framework RMP, is finalized.

1.2 Implementation

1.2.1 Management Approach

A key concept of the MSCP is the use of "Adaptive Management Techniques" directed at the conservation and recovery of individual species. This term, as defined in the Draft North County Plan, is "a decision process that promotes flexible decision making, which can be adjusted in the face of uncertainties as outcomes from management actions and other events are better understood. Careful monitoring of these outcomes advances scientific understanding and allows for the adjustment of policies and/or operations as part of an interactive learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity." Adaptive management is particularly useful where there is uncertainty regarding the efficacy of certain management measures and/or the needs of target species. Adaptive management and an associated monitoring program are designed to inform land managers of the status and trends of covered species, natural communities, and landscapes in a manner that provides data to allow informed management actions and decisions.

It is anticipated that the recommended management actions provided in this RMP will be dynamic in nature. Applying adaptive management, the effectiveness and appropriateness of recommended management actions would be determined through review of management goal and objective achievement so that changes can be made to management directives and implementation measures as needed. Adaptive management techniques depend upon the specific issues impacting the resources. Therefore, the techniques herein may be subject to change or revisions when applied. Additionally, the monitoring protocols/requirements for species proposed for coverage under the Draft North County Plan are currently being developed and are subject to change based on the approval and certification of the Final North County Plan documents.

It is anticipated that this RMP will be reviewed and revised at least once every five years, as needed. The RMP may be revised on a shorter time scale if there is a change in circumstance, for example, acquisition of additional Park land, within two years of finalization and approval of the Draft North County Plan (including issuance of State and Federal permits), or prior to opening the Park to the public.

1.2.2 Responsible Parties/Designation of Land Manager

The County is responsible for management, biological monitoring, and meeting the conditions of MSCP coverage on County-owned lands conserved as part of the Draft North County Plan preserve system. The Park is fully owned and operated by DPR and the DPR District Park Manager assigned to the Park is the land manager. The District Park Manager and Resource Management Division staff will be responsible for the implementation of the RMP.

The Park is located in the management district of one Supervising Park Ranger, one Senior Park Ranger, two Park Rangers, one Park Maintenance Worker, and five seasonal employees. Staff patrols the Park a minimum of three times a week and at times daily on an as-needed and complaint basis. It is expected that many of the implementation measures, especially the maintenance tasks, will be carried out by the staff that are most familiar with the site and currently patrol the Park.

1.2.3 Regulatory Context

The County's Park Rangers manage the daily operations of County parks/preserves and enforce Park rules and regulations pursuant to San Diego County Code of Regulatory Ordinances Title 4, Division 1, Chapter 1 County Parks and Recreation. In addition, per County Code of Regulatory Ordinance Sections 41.111, 41.112, 41.113, all wildlife, plant, historical artifacts, and geologic features are protected and are not to be damaged or removed. Any person who violates any provision of Sections 41.111, 41.112, 41.113 is guilty of a misdemeanor as provided in Sections 11.116, 11.117, and 11.118 of this Code, punishable by fines up to $2,500 a day for each day the person violates these sections. Park Rangers will contact law enforcement who will cite the offending individual. In addition, if an individual does not comply with signs within a facility and ignores Park Ranger instructions, the individual could potentially be charged with a misdemeanor by law enforcement.

1.2.4 Funding Mechanism

The County allocates general funds for costs to implement the MSCP, including funding for land management, stewardship, and adaptive management and monitoring. The County Board of Supervisors approved approximately $4.7 million of General Fund allocations for implementation of the MSCP for fiscal years 2009-10 and 2010-11 (County 2010a). Base funding for land management costs will be maintained for baseline preserves owned by the County and will be increased as lands are acquired in the future.

The County estimates that current funding levels will provide for adaptive management and monitoring on all currently owned preserve lands. Future regional funding sources are also anticipated to fund adaptive management and monitoring activities throughout the preserve system.

2.0 PROPERTY DESCRIPTION

2.1 Property Location

The San Luis Rey River Park is generally located along an 8.5-mile stretch of the San Luis Rey River from just east of I-15 to the eastern boundary of the City of Oceanside in northern San Diego County (Figure 1). The Park is mapped within the Bonsall, California U.S. Geological Survey (USGS) 7.5-minute quadrangle and is located in: Township 10 South, Range 3 West, Sections 14, 20, and 29-31; and the Monserate Land Grant (Figure 2).

The Park is composed of three separate non-contiguous parcels (west, central and east), and encompasses all or a portion of the Assessor's Parcel Numbers (APNs) listed below.

West (86.0 acres)	Central (305.3 acres)	East (68.8 acres)
126-080-69*	123-381-07	124-150-33
126-100-18*	124-150-30	125-080-20
126-100-21*	124-150-31	125-080-22
126-320-14*	126-060-80	125-131-55
	126-060-81	

*Portion outside of Caltrans' right-of-way for SR-76

2.2 Geographical Setting

The Park is located in the coastal foothills of the Peninsular Ranges of southern California. The Park is composed of relatively flat terrain; the majority of the Park has a slope gradient of less than 10° ranging in elevation from approximately 120 feet (37 meters) to 240 feet (73 meters) above mean sea level (AMSL). The topography of the Park is determined primarily by the San Luis Rey River, which runs throughout the length of Park, as well as several unnamed streams and drainages that flow into the river. The Park is characterized by slopes of varying aspects, with primarily northwest, southeast, southwest, and west-facing gentle slopes where not flat.

2.2.1 Site Access

The Park is currently not open to the public. Access for ranger patrol purposes is limited primarily to the paved public roads adjacent to the Park parcels, with the exception of several dirt roads and unofficial trails. The west parcel is accessible from Old River Road, which runs along the southern boundary, and from a private road off of SR-76 that provides access to the northern portion of the parcel. There are also several unofficial dirt trails stemming off these roads that provide access to the interior portion of the west parcel.

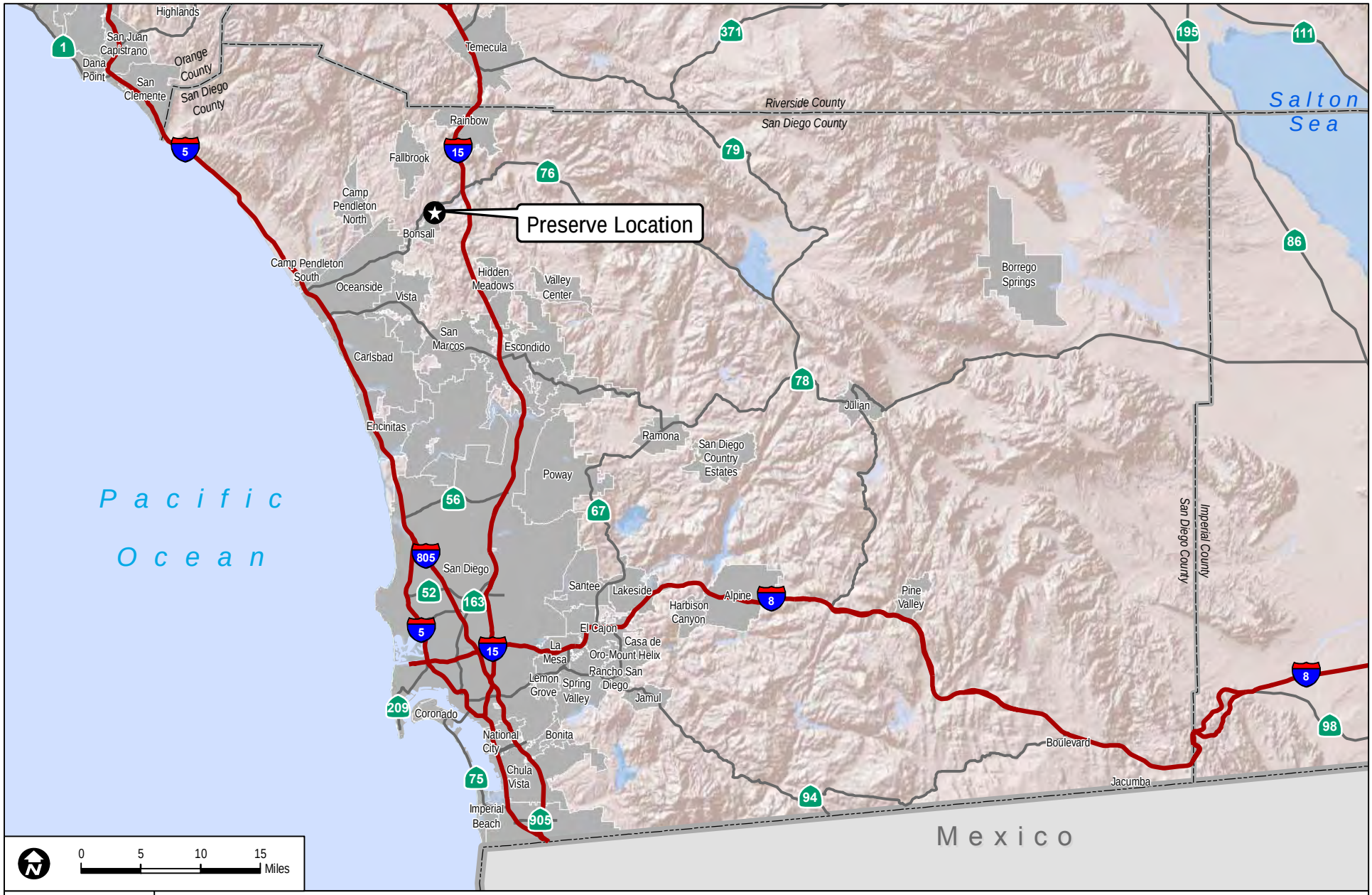

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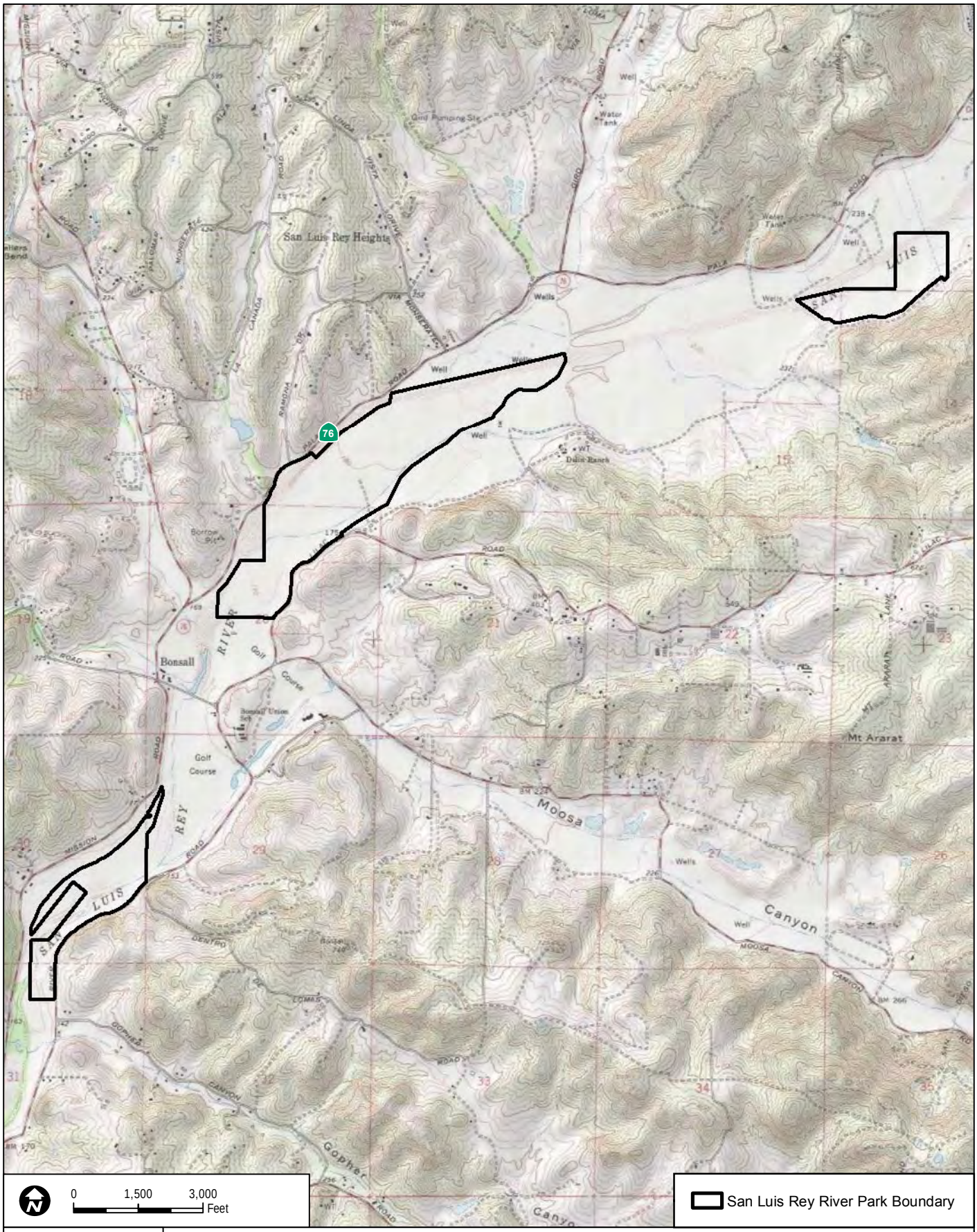
FIGURE 1

Regional Map

San Luis Rey River Park



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SOURCE: USGS 7.5-Minute Series Quadrangle.

FIGURE 2
Vicinity Map

San Luis Rey River Park

The central parcel is accessible from West Lilac Road to the south and parts of SR-76 in limited areas where the road runs adjacent to the parcel boundaries in the north.

The east parcel is accessible through a gated entrance at the end of Dulin Road in the southeast corner of the parcel. Dulin road continues along the southern boundary of the east parcel as a private dirt road, which connects to smaller dirt road that runs through the northern portion of the parcel.

2.2.2 Draft North County Plan Context

The Park is located in the Draft North County Plan area within the designated Lower San Luis Rey River Linkage planning segment. The Park parcels are designated as Pre-Approved Mitigation Area (PAMA), except for a small area adjacent to SR-76 in the central portion of the Park, which is designated as outside PAMA (Figure 3). The majority of the area surrounding the Park is also designated as PAMA and consists of vacant undeveloped land, dedicated open space lands, agricultural lands, spaced rural residences, and a golf course.

2.2.3 County of San Diego General Plan Context

The Park is located within the Bonsall and Fallbrook Community Plan areas of the County of San Diego's General Plan. These plans include goals to preserve unique natural and cultural resources, maintain open space corridors, preserve floodplains and watercourses, develop a network of pathways and trails, and create a park system which incorporates the outstanding natural features in the area. In addition, the Bonsall Community Plan designates the San Luis Rey River as a Resource Conservation Area that requires special attention in order that it may be preserved or conserved for long-term managed utilization by future generations.

2.3 Physical and Climatic Conditions

2.3.1 Geology and Soils

Geologically, the Park is located within the Coastal and Southern subbasins of the San Luis Rey River and is predominantly underlain by plutonic rock types (Kajtaniak and Downie 2010). The Park lies within the Southern California Batholith and the Peninsular Ranges. Mesozoic (245-65 million years ago [MYA]) granitic and gabbroic rock and Quaternary (1.6 MYA to present) sedimentary deposits are also present within the Park (Wagner and Maldonado 2000; Rogers 1965). The granitic and gabbroic rocks were formed in the Cretaceous Period during the later part of the Mesozoic Era. They are part of the western zone of the Peninsular Ranges Batholith.

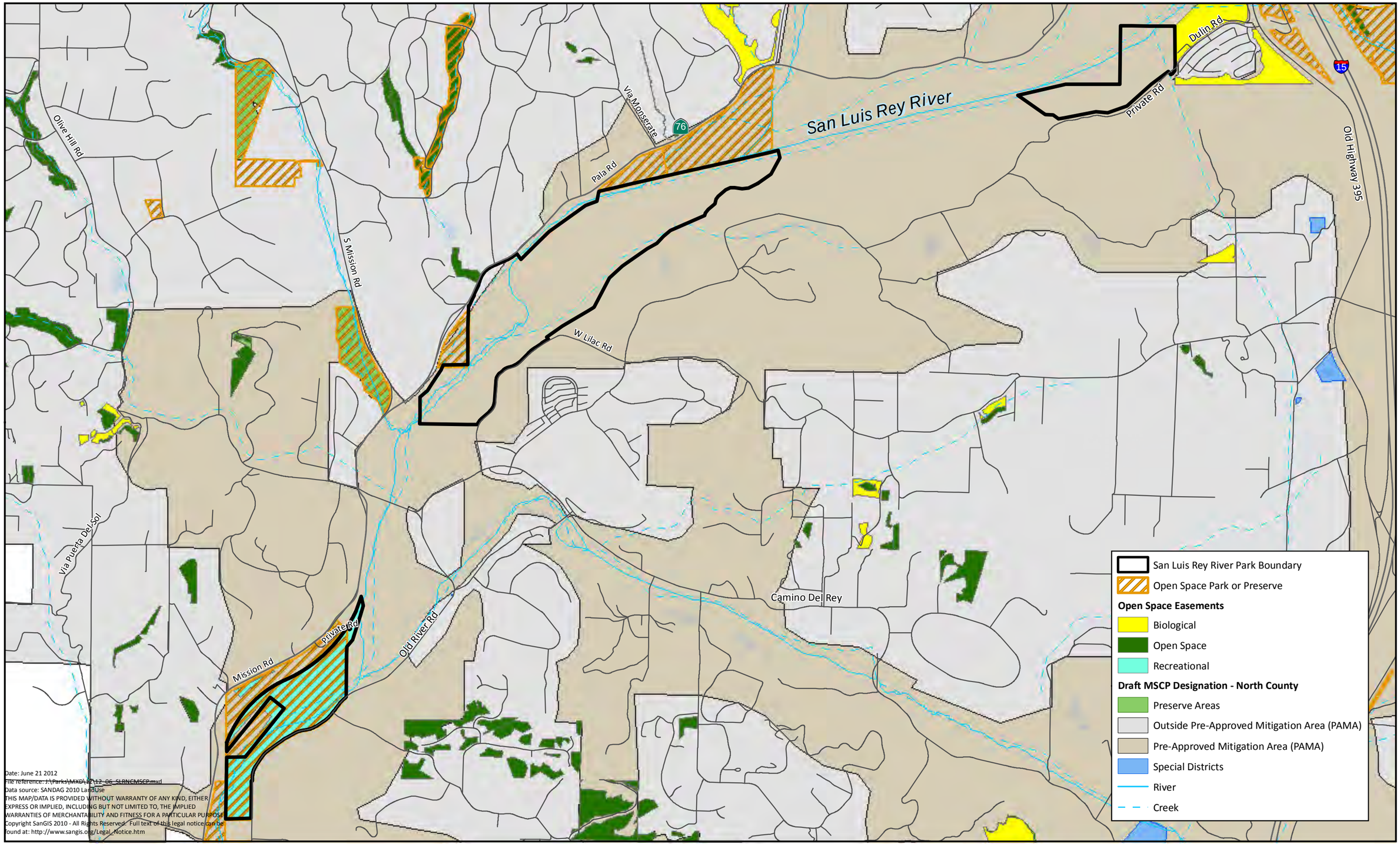


FIGURE 3
Draft North County Plan Designations & Conserved Lands

The Park contains 12 soil types (Figure 4) belonging to 11 soil series (USDA 1973). A brief description of each soil series and associated soil types that occur on the Park is provided below.

Cieneba Series

The Cieneba series consists of excessively drained, very shallow to shallow coarse sandy loams that form in material weathered in place from granitic rock. The topsoil layer is a coarse, sandy loam about 10 inches deep over weathered granodioriate. Cieneba soils exhibit rapid to very rapid runoff with a high to very high erosion hazard. Cieneba coarse sandy loam (30% to 65% slopes, eroded) occurs in a small area along the southern boundary of the west parcel underlying developed land. Cieneba very rocky coarse sandy loam (30% to 75% slopes) occurs within a very small area along the southern boundary of the east parcel. This soil type supports disturbed southern cottonwood–willow riparian forest and disturbed habitat.

Fallbrook Series

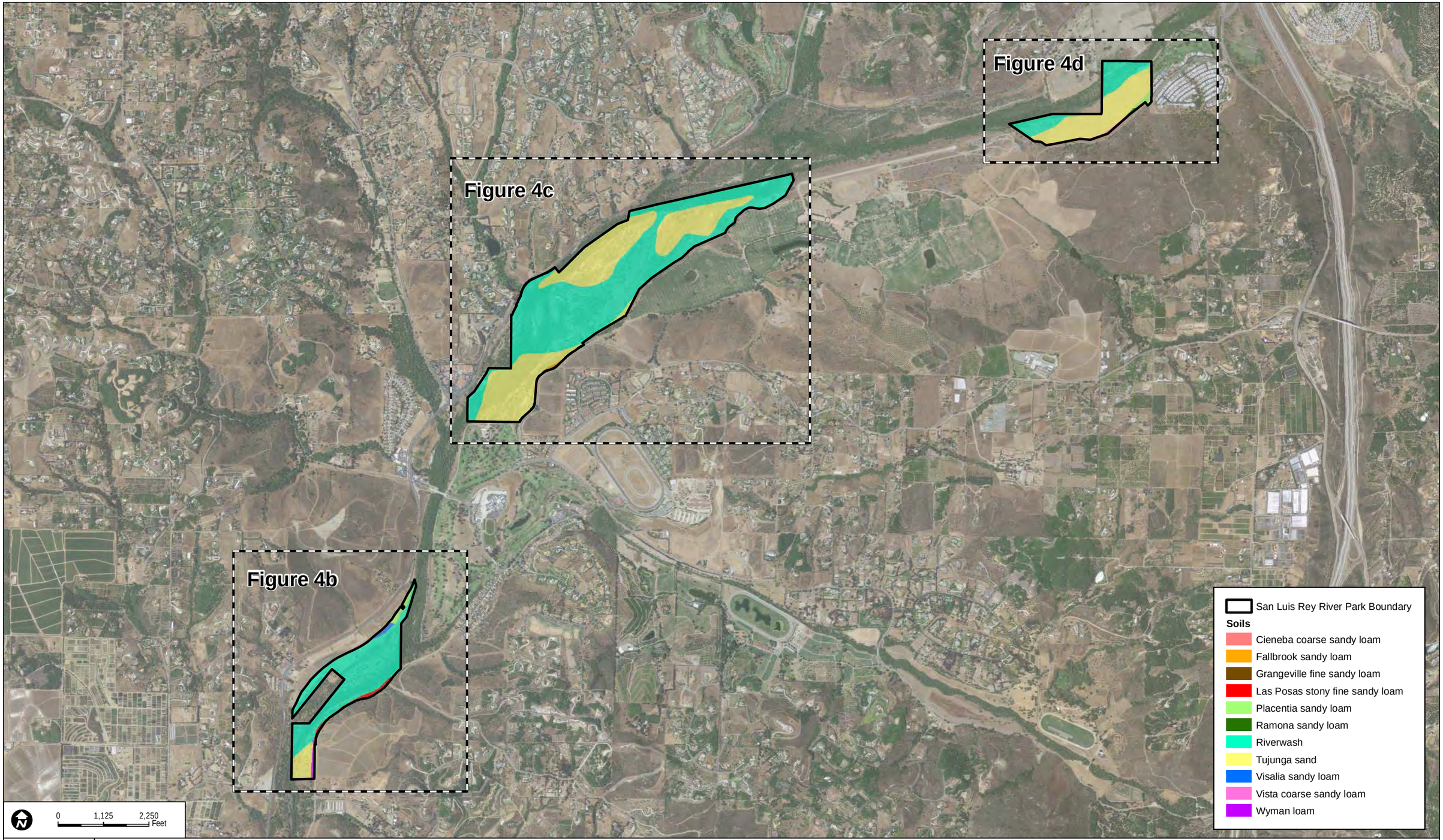
Fallbrook series soils are well-drained, moderately deep to deep sandy loams formed from material weathered in place from granodiorite. The topsoil layer is a slightly acid sandy loam about 6 inches deep over sandy clay loam and loam subsoil. Fallbrook sandy loam (15% to 30% slopes, eroded) occurs in a small area along the southern boundary of the central parcel. This soil type exhibits medium to rapid runoff with a moderate to high erosion hazard. It supports southern cottonwood-willow riparian forest and disturbed habitat within the parcel.

Grangeville Series

Grangeville series soils consist of somewhat poorly drained, very deep, fine sandy loams derived from granitic alluvium. The topsoil layer is a moderately alkaline, calcareous fine sandy loam 11 inches deep. Grangeville soils exhibit very slow runoff with a slight erosion hazard. Grangeville fine sandy loam (0% to 2% slopes) occurs in a small area along the southern boundary of the west parcel underlying orchard and southern cottonwood-willow riparian forest.

Las Posas Series

Las Posas series soils are well-drained, moderately deep, stony fine sandy loams formed in material weathered from basic igneous rocks. The topsoil layer is a stony fine sandy loam about 4 inches deep over clay loam and clay subsoil with a gabbro substratum. The soil profiles of Las Posas stony fine sandy loam include clays that are generally associated with special-status plant taxa including mafic chaparral endemic species such as Parry's tetracoccus (*Tetracoccus parryi*). Small inclusions of Las Posas soils may occur within the Cieneba and Fallbrook soil units on site. Las Posas stony fine sandy loam (30% to 65% slopes) occurs along the southern boundary of the west parcel. This soil type exhibits rapid to very rapid runoff with a



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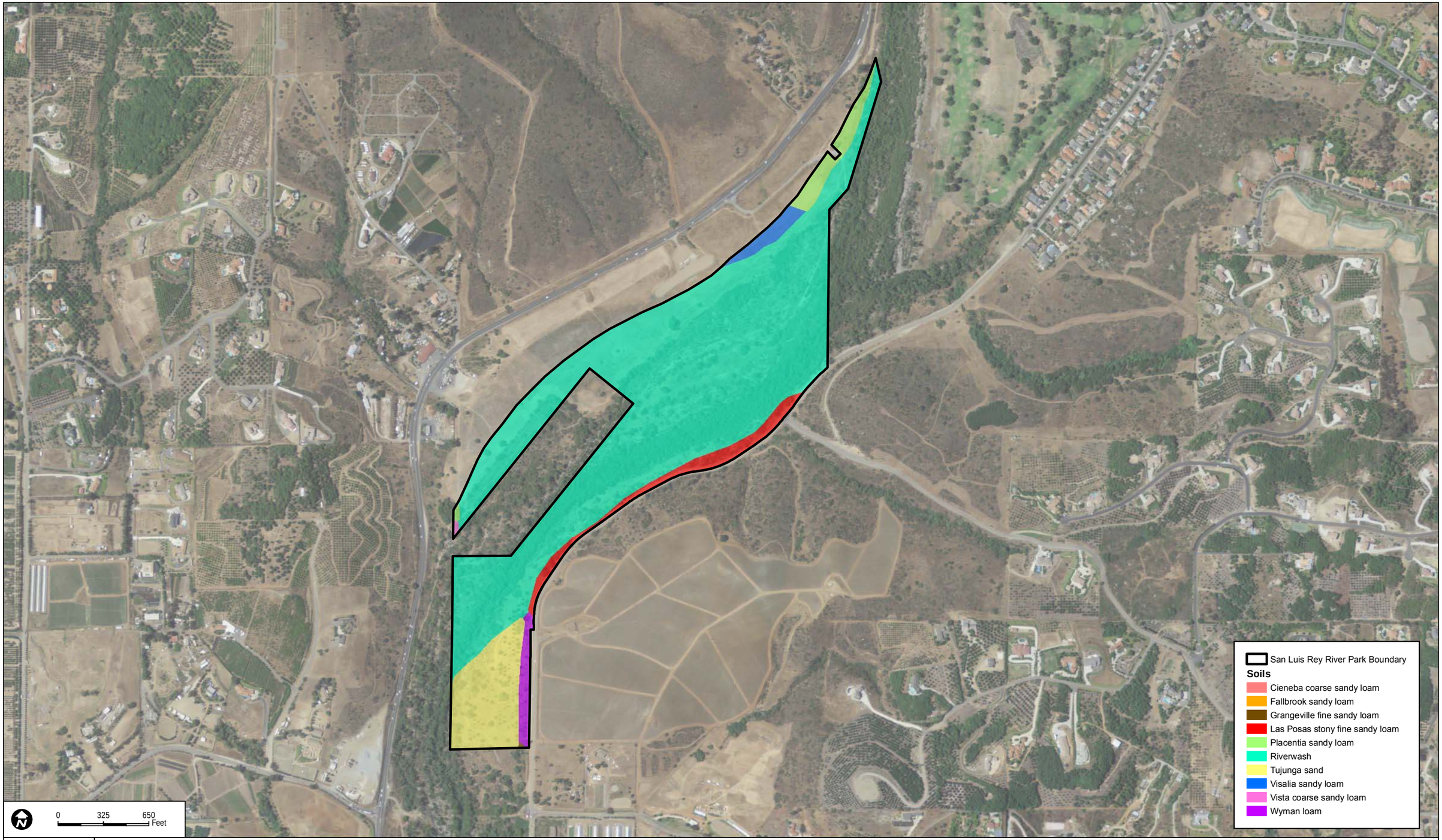
SOURCE: CDFG NAIP Imagery (2009)

FIGURE 4a

Soils - Index Map

San Luis Rey River Park



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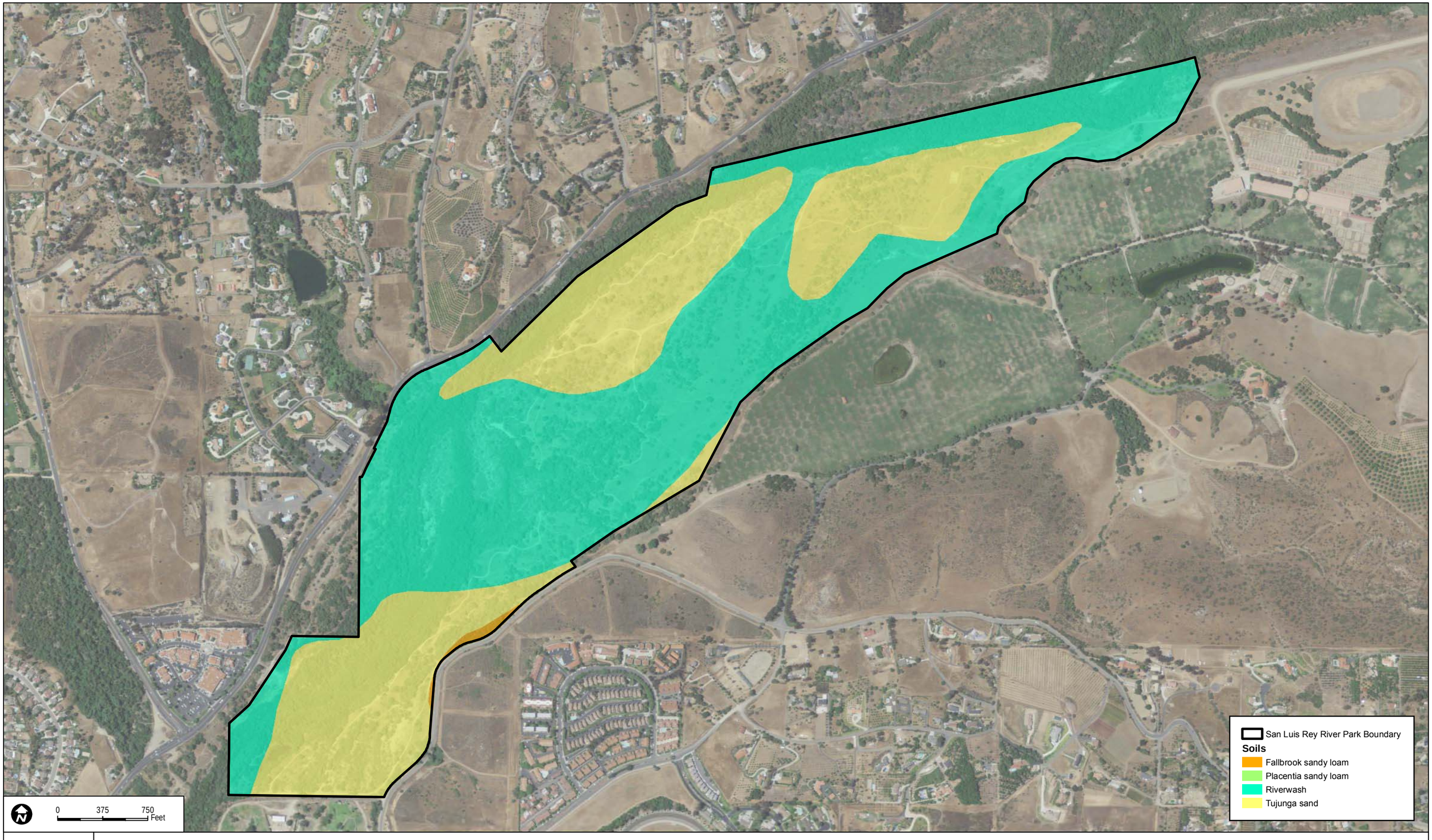
SOURCE: CDFG NAIP Imagery (2009)

FIGURE 4b

Soils Map

San Luis Rey River Park



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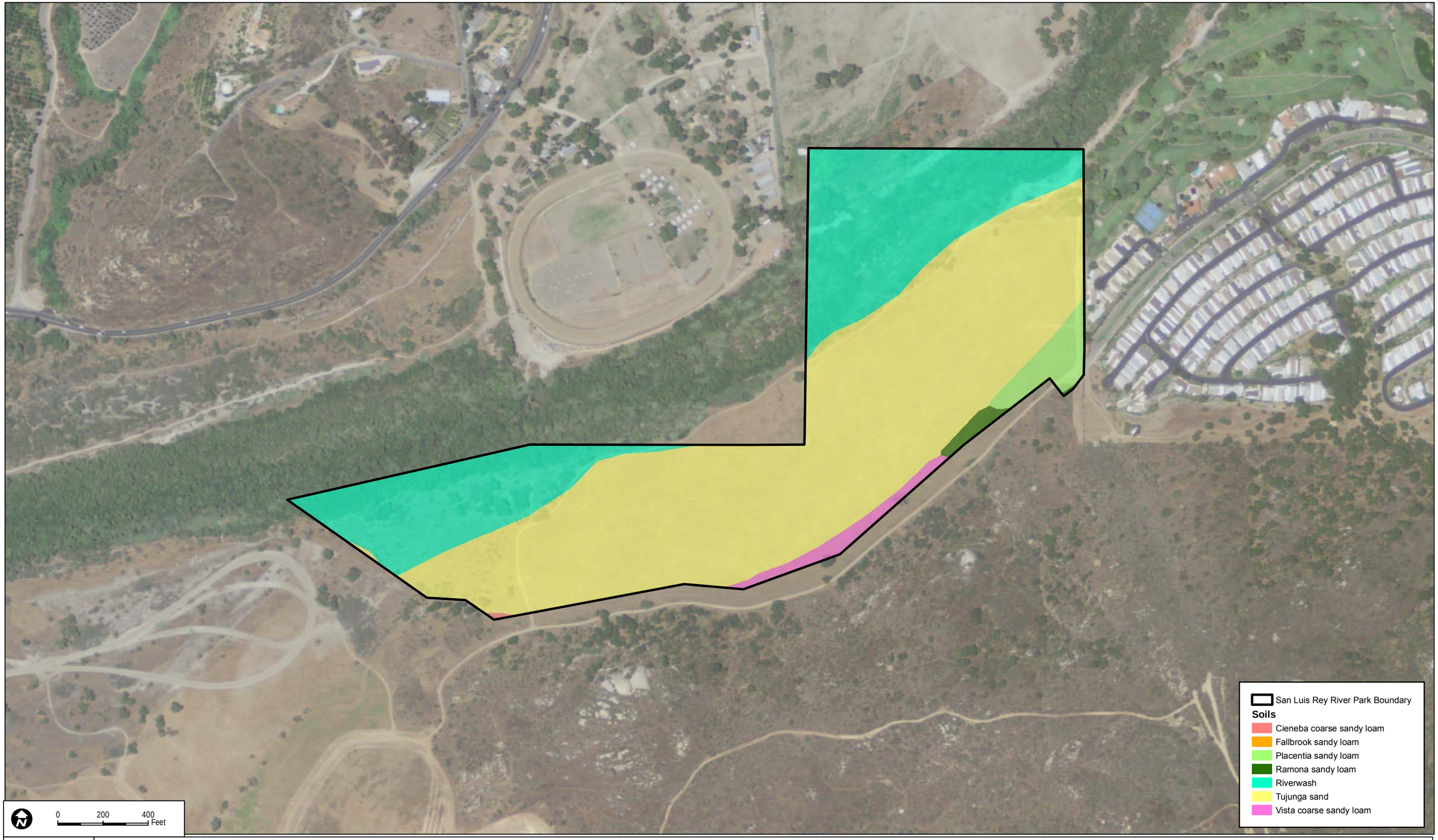
SOURCE: CDFG NAIP Imagery (2009)

FIGURE 4c

Soils Map

San Luis Rey River Park



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SOURCE: CDFG NAIP Imagery (2009)

FIGURE 4d

Soils Map

San Luis Rey River Park

high to very high erosion hazard. This soil type supports southern cottonwood-willow riparian forest, developed land, and orchard within the Park parcel.

Placentia Series

Placentia series soils are moderately well-drained sandy loams formed in granitic alluvium. The surface layer is a sandy loam about 13 inches deep with a sandy clay and sandy clay loam subsoil. Placentia sandy loam (2% to 9% slopes) occurs along the northern boundary of the west parcel. This soil exhibits slow to medium runoff with a slight to moderate erosion hazard. Placentia sandy loam (9% to 15% slopes, eroded) occurs along the southern boundary of the central parcel, and in the southeast corner of the east parcel. This soil type exhibits medium runoff with a moderate erosion hazard. This soil type supports southern cottonwood-willow riparian forest, Diegan coastal sage scrub, and disturbed habitat within the Park.

Ramona Series

Ramona series soils consist of well-drained, very deep sandy loams with a sandy clay loam subsoil. The topsoil layer is a slightly to medium acid sandy loam about 17 inches deep over a subsoil of slightly acid and neutral sandy clay loam. Ramona soils can be gravelly throughout the soil profile. Ramona sandy loam (5% to 9% slopes) occurs in a small area along the southern boundary of the east parcel. This soil type exhibits slow to medium runoff with a slight to moderate erosion hazard, and supports Diegan coastal sage scrub and disturbed habitat within the Park.

Riverwash

Riverwash is a term used to refer to unconsolidated sands, gravels, and cobbles that occur in intermittent stream courses. It is excessively drained and rapidly permeable. This soil is often barren due to scour from storm events. Riverwash occupies much of the Park and occurs on all three parcels. Although associated with intermittent stream courses this soil type may also occur in adjacent vegetated areas. This soil type supports agriculture, disturbed habitat, Diegan coastal sage scrub, southern cottonwood-willow riparian forest, non-native grassland, orchard, and tamarisk scrub within the Park. This is likely due to the dynamic nature of the historical San Luis Rey riverbed. Riverwash once occurred within the river itself, but over time the river changed course and the soils became isolated and eventually vegetated.

Tujunga Series

Tujunga series soils consist of excessively drained, very deep sands derived from granitic alluvium. The topsoil layer is a neutral sand about 14 inches deep over neutral sand and coarse sand. Tujunga sand (0% to 5% slopes) occupies much of the Park and occurs on all three parcels. It exhibits very slow to slow runoff with a slight erosion hazard and supports a number of vegetation types within the Park including agriculture, disturbed habitat, Diegan coastal sage scrub, southern

cottonwood-willow riparian forest, non-native grassland, orchard, and tamarisk scrub.

Visalia Series

Visalia series soils consist of moderately well drained, very deep sandy loams on alluvial fans and flood plains that are derived from granitic alluvium. The surface layer is a slightly acid sandy loam about 12 inches thick. Visalia sandy loam (2% to 5% slopes) soils are mapped in a small area along the northern boundary of the west parcel. This soil exhibits slow runoff with a slight erosion hazard, and supports southern cottonwood-willow riparian scrub and disturbed habitat within the Park.

Vista Series

Vista series soils are well-drained, moderately deep and deep, coarse sandy loams formed from granodiorite or quartz diorite. The surface layer is a neutral and slightly acid coarse sandy loam about 16 inches thick formed over weathered granitic rock. Vista coarse sandy loam (15% to 30% slopes, eroded) occurs along the southern boundary of the east parcel. It exhibits medium to rapid runoff with a moderate to high erosion hazard, and supports disturbed habitat within the Park.

Wyman Series

Wyman series soils consist of well-drained, very deep loams that formed in alluvium derived from basic igneous rock. The topsoil layer is a slightly acid and neutral loam about 13 inches deep over neutral clay loam subsoil. Wyman loam (9% to 15% slopes) occurs in the southeastern portion of the west parcel. This soil type exhibits medium runoff with a moderate erosion hazard, and supports southern cottonwood-willow riparian forest and orchard within the Park.

2.3.2 Climate

As with most of southern California, the regional climate in the vicinity of the Park is influenced by the Pacific Ocean and is frequently under the influence of a seasonal, migratory subtropical high-pressure cell known as the Pacific High. Wet winters and dry summers, with mild seasonal changes, generally characterize the southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds.

However, there is some local variance in the typical southern California climate. The inland location of the Park affects the degree of influence of the Pacific Ocean, resulting in less-regulated temperatures. The average high temperature calculated from August 1957 to December 2005 for the surrounding Vista area is approximately 74.0 degrees Fahrenheit (°F), with higher temperatures in summer and early fall (July through September) reaching up to 83.1°F (Western Regional Climate Center 2009). The mean precipitation for the area is 13.22 inches per year, with the most

rainfall concentrated in the months of January (2.80 inches), February (2.55 inches), and March (2.43 inches) (Western Regional Climate Center 2009).

2.3.3 Hydrology

The Park is within the San Luis Rey Watershed (Figure 5). The area generally drains to the southwest via the San Luis Rey River, which runs through all three Park parcels. The San Luis Rey River flows approximately 12 miles from the Park to the Pacific Ocean in Oceanside, California.

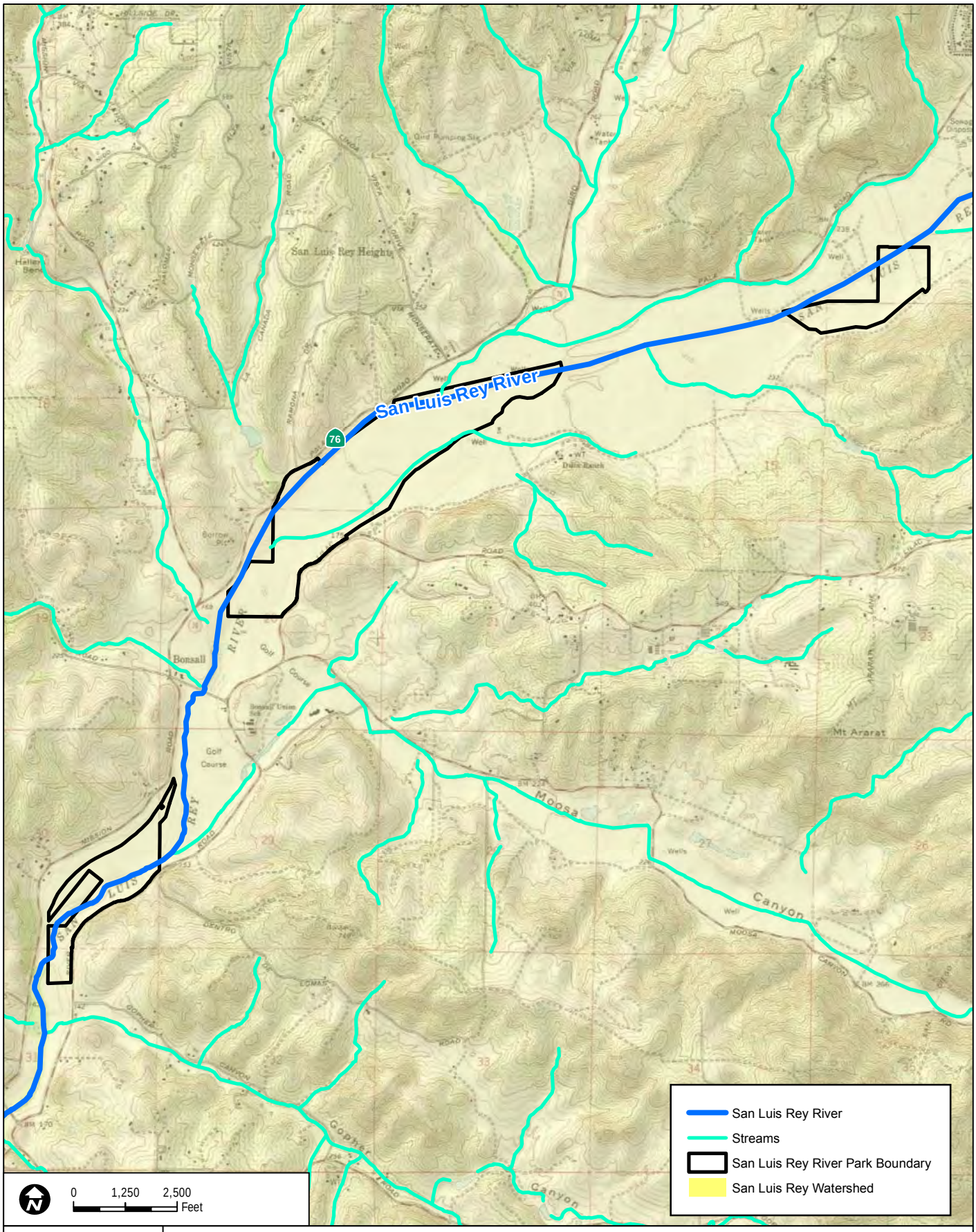
Designated beneficial uses for the San Luis Rey River in this area include agricultural supply, industrial service supply, contact and non-contact water recreation, preservation of biological habitats of special significance, warm freshwater habitat, wildlife habitat and rare, threatened or endangered species (CA RWQCB 1994). According to the 2008 CWA Section 303(d) list, the lower San Luis Rey River is impaired by chlorine, enterococcus, fecal cloriform, phosphorus, total dissolved solids, nitrogen and toxicity.

2.3.4 Fire History and Fuel Management Activities

Based on historical fire perimeter data (FRAP 2011), most of the Park has not burned during the recorded data period (1897 to 2010). Two individual fires have been recorded on Park property: the 1957 Clancy Fire, and the 2007 Vuelta Fire. The burn area of these two fires did not overlap so no portions of the Park have burned more than once over the recorded fire period (Figure 6). The Park is classified as a High or Very High Fire Hazard Severity Zone by the California Department of Forestry and Fire Protection (CAL FIRE) (FRAP 2011) and is located within a fuel management priority area (San Luis Rey West Area) as identified by the Forest Area Safety Task Force (County 2009c). The Park and the surrounding area is designated a state responsibility area (SRA), which means the financial responsibility of preventing and suppressing fires is primarily the responsibility of the State. The Park is located within the service area of the North County Fire Protection District.

Currently, fire management or fuel reduction practices being conducted on Park property include the following (Figure 7):

- Maintenance of a fuel modification zone along the eastern boundary of the east parcel directly adjacent to the Rancho Monserate mobile home park. This fuel modification zone provides the adjacent residences a 100-foot buffer as measured from residential structures.
- Regular mowing of the former agricultural field in the east parcel to reduce flashy fuels.
- Maintenance of a fuel modification zone at the access point to the property at the end of Dulin Road.
- Maintenance of a 30-foot fuel modification zone adjacent to the maintenance road of the San Luis Rey Downs Golf Course.



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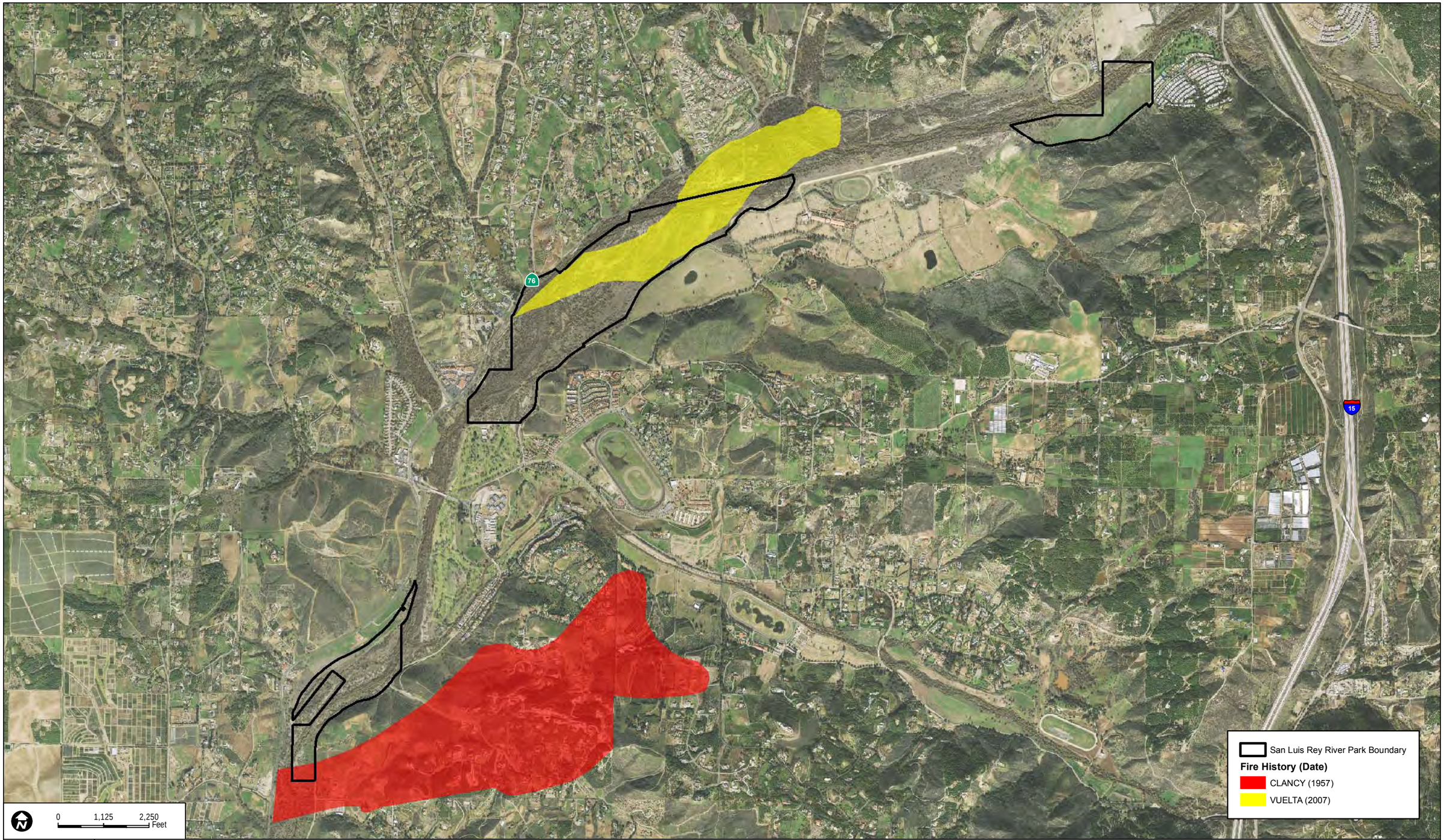
SOURCE: USGS 7.5-Minute Series Quadrangle
SANGIS 2008
USGS NHD 2010

FIGURE 5
Hydrology Map

San Luis Rey River Park



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SOURCE: Digital Globe 2008
FRAP 2009

FIGURE 6
Fire History

San Luis Rey River Park

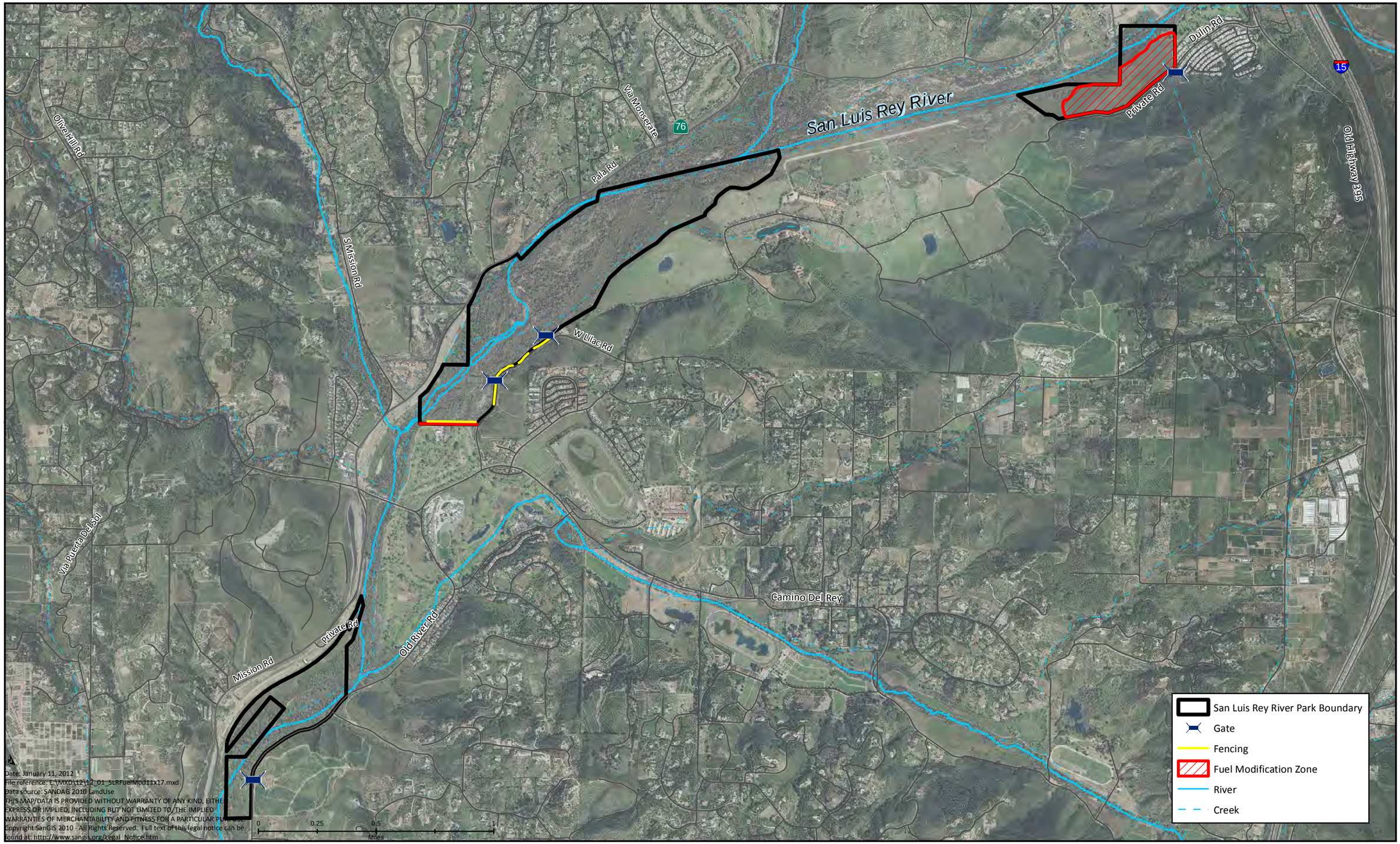


FIGURE 7
Land Use Map

2.4 Land Use

2.4.1 On-Site Land Use

The SLRRP is currently in the acquisition and design stages and is not yet open to the public. To date, it consists of open space totaling approximately 460 acres (of the 1,700 acres planned for the Park) within 3 undeveloped, non-contiguous parcels. The majority of the parcels consist of high-quality natural vegetation communities; however, there is evidence of past agricultural uses on site including a remnant walnut grove in the southeast portion of the west parcel, and former agricultural (barley) field in the east parcel. Although the Park is not open to the public, the parcels contain an unofficial network of trails and dirt roads formed over the years from hiking, equestrian, and other uses. Existing fencing, consisting of bollard and cable barriers, is located along the southern boundary of the central parcel and serves to restrict access and prevent unauthorized off-road activity within the Park. There are also several existing gates located at various access points that control unauthorized access to the Park parcels (Figure 7).

2.4.2 Adjacent Properties

The west parcel of the Park is bounded by SR-76 in the north and Old River Road in the south, and is adjacent to vacant undeveloped land and the San Luis Rey Downs Golf Course to the east, and open space preserve lands to the west. The adjacent open space parcels include lands owned by the California Department of Fish and Game (CDFG) and the City of Oceanside.

The central parcel is bordered by SR-76 along the northwestern boundary and West Lilac Road along the southern boundary. The central parcel is immediately adjacent to City of Oceanside open space parcels to the northeast, Caltrans mitigation and agriculture (intensive and orchard/vineyard) lands to the east, the San Luis Rey Downs Golf Course to the southwest, and a County of San Diego Department of Public Works (DPW) mitigation site (1.21 acres within APN 126-230-57) to the west.

The east parcel of the Park is immediately adjacent to vacant undeveloped land and intensive agriculture to the south, Caltrans mitigation land to the west, spaced rural residential and intensive agriculture to the north, and the Rancho Monserate Country Club and mobile home park to the east.

2.4.3 Easements, Rights or Restrictive Covenants

Multiple easements and/or right-of-ways are present within the Park properties. The easements and right-of-ways for each of the Park parcels are described below.

West Parcel

San Diego Gas & Electric (SDG&E) holds easements for pole lines, anchors and underground facilities within the west parcel. SDG&E conducts operation and maintenance activities for their facilities consistent with the SDG&E Subregional Natural Community Conservation Plan (NCCP) (SDG&E 1995). The SDG&E Subregional NCCP was approved by the Wildlife Agencies and is compatible with this RMP.

Several public and private easements for road purposes are held within this parcel including those held by the County for provision of road improvements, and the State of California for public road and highway slope purposes.
In addition, this parcel also contains several easements for water purposes. Easements have been granted to Charles Culver for pipeline and aqueducts, Rainbow Municipal Water District for pipeline(s), and the San Diego County Flood Control District holds a flowage easement through this parcel.

Central Parcel

Bonsall Land Group holds a temporary construction easement within the central parcel terminating on December 31, 2013 or upon completion of construction of the portion of SR-76 lying adjacent to the parcel, whichever comes first.

East Parcel

SDG&E holds an easement for poles, wires and incidental purposes within the east parcel. In addition, there is a previously recorded right-of-way for electric transmission lines. Present ownership of this right-of-way is not known and the exact extent of the easement is not disclosed of record.

In addition, there is an existing right-of-way for pipelines and aqueducts of the San Diego Flume Company within this parcel. The San Diego County Drainage Maintenance District No. 1 holds an easement for flowage of water and incidental purposes. The San Diego County Water Authority also holds easements for the construction, operation and maintenance of pipeline(s) and appurtenances incidental to the transfer and distribution of water, and maintains a right-of-way for road purposes on site.

2.5 Trails

Currently, the Park is not open to the public and there is no designated, formal trail system within the Park. However, approximately 0.6 mile of disturbed, unofficial trail occurs in the eastern portion of the west parcel and connects to Old River Road. The large central parcel includes over 4 miles of intertwining trails south of the San Luis Rey River. Another unofficial trail occurs south of the San Luis Rey River in the east parcel.

DPR is in the process of developing a Trails Master Plan for the Park in accordance with the San Luis Rey River Park Master Plan and certified Programmatic EIR. The Trails Master Plan for the Park will implement, to the extent possible, the County's Community Trails Master Plan (CTMP) (County 2009a), which identifies the need for two trails along the San Luis Rey River corridor, one north and one south of the river. It is intended that any of the existing unofficial trails not integrated into the Park trail system will be restored or preserved as habitat.

3.0 BIOLOGICAL RESOURCES

Baseline biological surveys of the Park were conducted by DPR between September 2010 and May 2011. The results of these surveys can be found in the biological resources report entitled *Baseline Biodiversity Survey for the San Luis Rey River Park*, dated October 2011, and attached as Appendix B. In addition, Caltrans previously conducted numerous biological surveys along the San Luis Rey River, which included portions of the Park, as part of the environmental review process for the SR-76 Highway Improvement Project. The results of DPR's baseline surveys as well as results from the Caltrans' surveys were used in the preparation of this RMP.

3.1 Vegetation Communities/Land Cover Types

Eight (8) vegetation communities and land cover types (including disturbed forms) were mapped within the Park including: agriculture, developed land, disturbed habitat, orchard, non-native grassland, Diegan coastal sage scrub, southern cottonwood-willow riparian forest, and tamarisk scrub (Figure 8, Table 1). Sensitive vegetation communities on site include those listed as Tier I through Tier III in the Draft North County Plan.

Table 1. Vegetation Communities/Land Cover Types within the Park

Vegetation Community/Land Cover Type (Holland Code)	Draft North County Plan Habitat Tier[1]	Acres On Site[2]
Southern Cottonwood-Willow Riparian Forest[3] (61330)	Tier I	322.58
Disturbed Habitat (11300)	Tier IV	83.66
Non-Native Grassland (42200)	Tier III	39.88
Orchard (18100)	Tier IV	9.39
Developed Land (12000)	Tier IV	2.47
Tamarisk Scrub (63810)	Tier I	1.66
Agriculture (18000)	Tier IV	0.41
Diegan Coastal Sage Scrub (32500)	Tier II	0.06
	Total	460.11

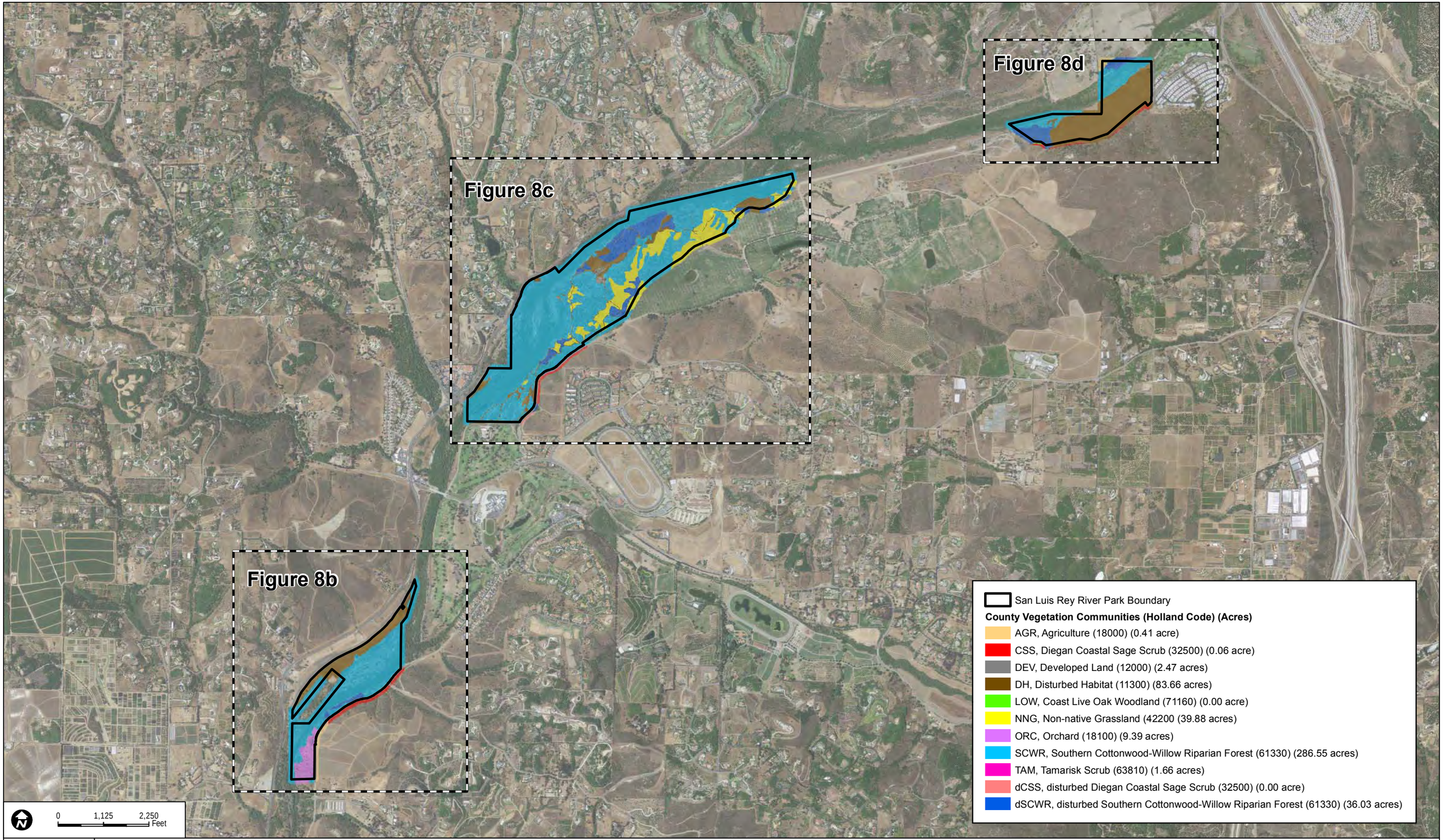
[1] Habitat tier levels rank habitat sensitivity, with Tier I being most sensitive and Tier IV being least sensitive

[2] Does not include 100-foot buffer acreage that was documented outside of County ownership. Specific acreages within each of the Park parcels are shown on Figures 8a-d.

[3] Includes 36.03 acres of disturbed southern cottonwood-willow riparian forest

Southern Cottonwood-Willow Riparian Forest (Holland Code 61330)

Southern cottonwood-willow riparian forest is a tall, open, broad-leafed, winter-deciduous riparian forest dominated by cottonwood (*Populus* spp.) and several tree willow species (*Salix* spp.). The understory is generally composed of shrubby willows. This community occurs on sub-irrigated and frequently overflowed lands along rivers and streams of the Transverse and Peninsular ranges from Santa



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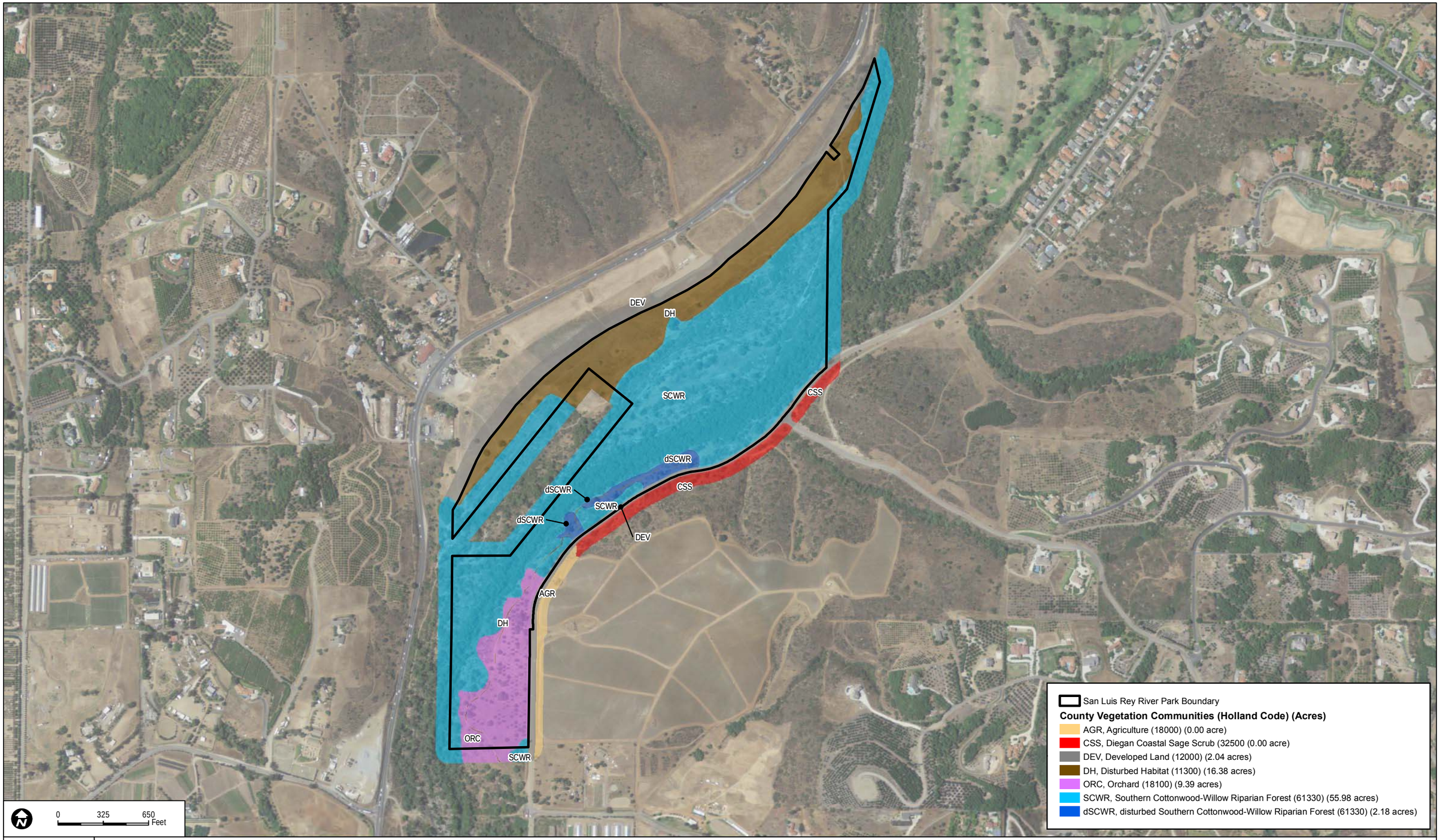
6680-03

SOURCE: CDFG NAIP Imagery (2009)

FIGURE 8a

Vegetation Communities - Index Map

San Luis Rey River Park



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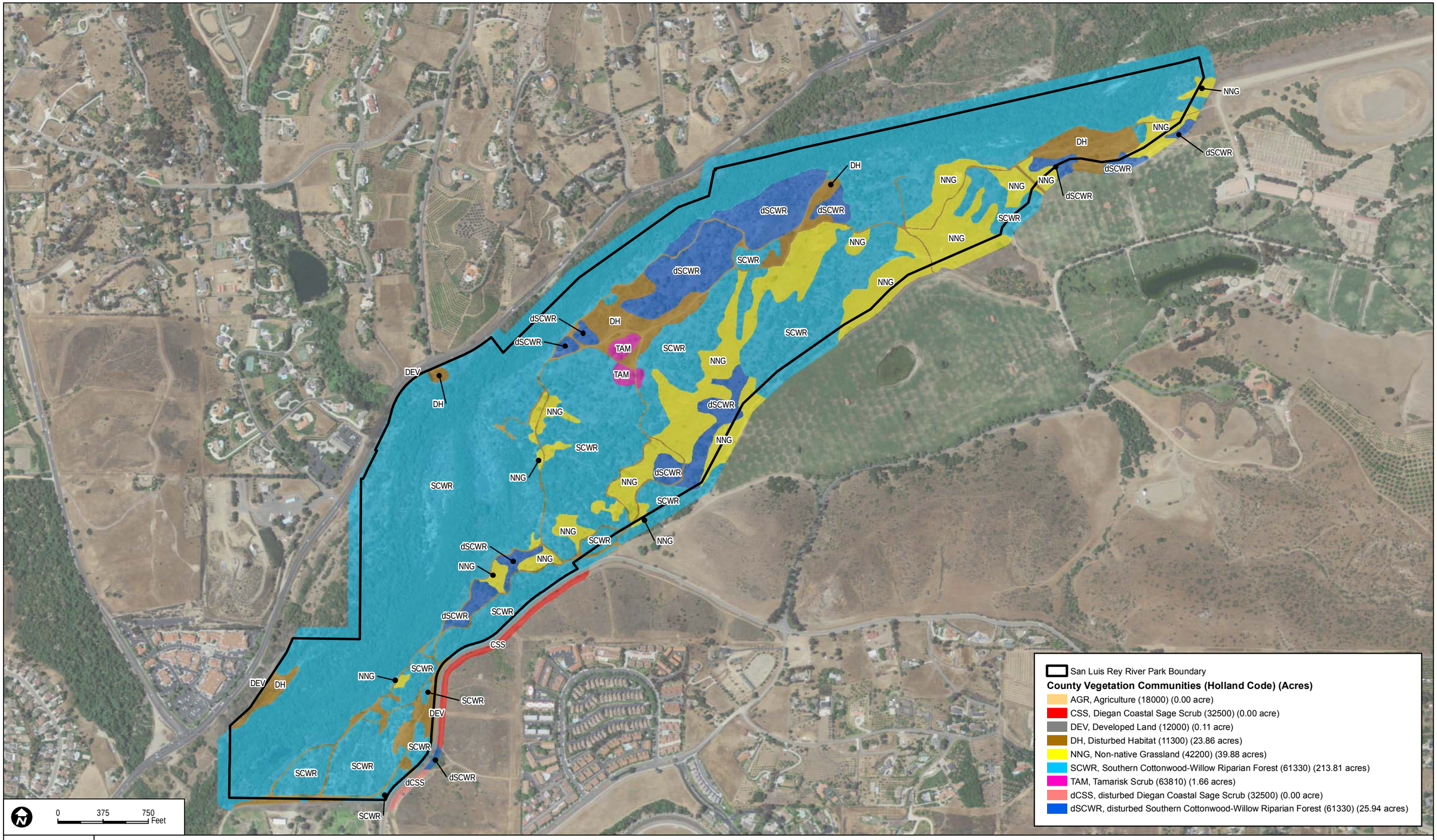
SOURCE: CDFG NAIP Imagery (2009)

FIGURE 8b

Vegetation Communities

San Luis Rey River Park



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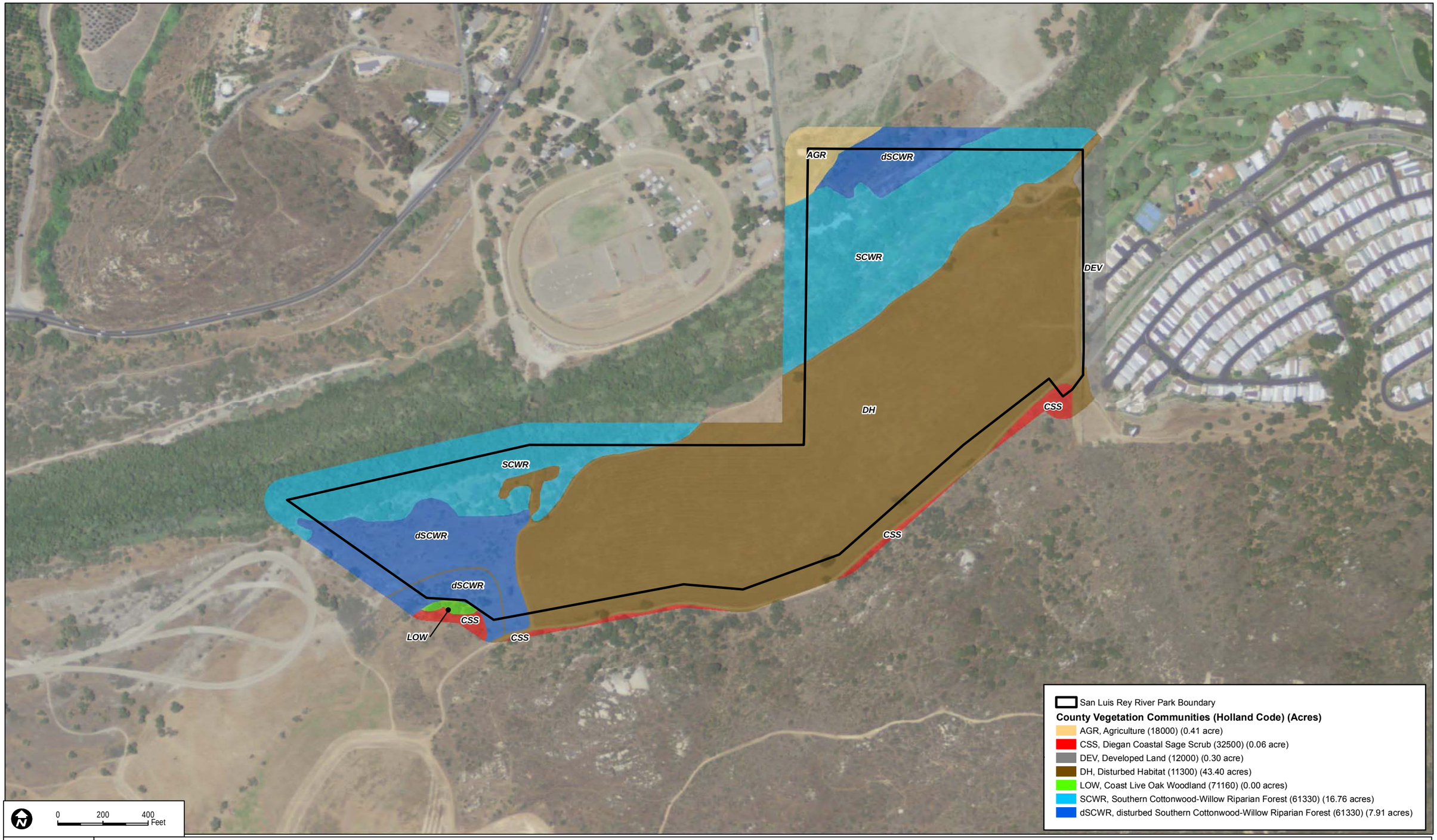
SOURCE: CDFG NAIP Imagery (2009)

FIGURE 8c

Vegetation Communities

San Luis Rey River Park



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6680-03

SOURCE: CDFG NAIP Imagery (2009)

FIGURE 8d

Vegetation Communities

San Luis Rey River Park

Barbara County south into Baja California Norte, Mexico, and east to the edge of the deserts (Holland 1986).

The majority of the Preserve is mapped as southern-cottonwood-willow riparian forest with a total of 322.58 acres of this community on site. Of this, there are approximately 36.03 acres located along the southern boundary of the west parcel, portions throughout the central parcel, and in the northern and eastern portions of the east parcel, which are considered disturbed due to invasion by non-native plant species, such as giant reed and tamarisk. The following species are associated with the southern cottonwood-willow riparian forest in the Park: Fremont cottonwood (*Populus fremontii*), mulefat (*Baccharis salicifolia*), western sycamore (*Platanus racemosa*), willows, and poison oak (*Toxicodendron diversilobum*). Southern cottonwood-willow riparian forest is a MSCP Tier I vegetation community.

Diegan Coastal Sage Scrub (Holland Code 32500)

Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species, such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). This vegetation community typically develops on xeric slopes. Diegan coastal sage scrub is widespread in coastal southern California from Los Angeles into Baja California, Mexico (Holland 1986).

Diegan coastal sage scrub occurs in a very small area in the southeast corner of the east parcel totaling 0.06 acre. Species such as California sagebrush, California buckwheat, and laurel sumac are relatively common within the coastal sage scrub areas on site. Coastal sage scrub is a MSCP Tier II vegetation community.

Non-Native Grassland (Holland Code 42200)

Non-native grassland is characterized by a dense to sparse cover of annual grasses and wildflowers. Non-native grassland typically occurs in areas where disturbance (e.g., repetitive fire, agriculture) has altered soils and removed native seed sources from areas formerly supporting native vegetation. Non-native grassland may support special-status plant and animal species and provide valuable foraging habitat for raptors (birds of prey).

Non-native grassland occupies 39.88 acres in the Park and is located throughout the central parcel. Species dominant in this community on site include wild oat (*Avena fatua*), bromes (*Bromus* spp.), mustard (*Brassica* spp.), and filaree (*Erodium* spp.). While non-native grassland consists primarily of non-native plant species, it is considered a Tier III vegetation community under the County's MSCP because it is a naturalized community that provides habitat for native and sensitive plants and animal species.

Agriculture (Holland Code 18000)

Agriculture refers to areas that have been under cultivation or are pastures actively grazed by livestock and contain fewer than 20% native plant cover. These areas contain very few native shrubs and pastures are dominated by non-native grasses and forbs. There is 0.41 acre of agriculture in the northwest corner of the east parcel. Agricultural land is an MSCP Tier IV vegetation community, indicating that it has limited habitat value.

Tamarisk Scrub (Holland Code 63810)

Tamarisk scrub is a weedy monoculture of any of several tamarisk species (*Tamarix* spp.), usually supplanting native vegetation following a major disturbance. This habitat is usually found in sandy or gravelly braided washes or intermittent streams. Tamarisk often occupies jurisdictional wetlands. Tamarisk scrub occupies 1.66 acres in the middle of the central parcel. This area is a nearly monotypic stand of tamarisk with few associated species. As a riparian scrub, tamarisk scrub is a MSCP Tier I vegetation community.

Orchard (Holland Code 18100)

Orchard refers to land that is set aside for cultivating nuts, fruits, or olives. There are 9.39 acres of orchard, consisting of a remnant walnut grove, in the southern portion of the west parcel. As agricultural land, orchards are a MSCP Tier IV vegetation community, indicating they have limited habitat value.

Disturbed Habitat (Holland Code 11300)

Disturbed habitat refers to areas that are not developed yet lack native vegetation, and generally are the result of severe or repeated mechanical perturbation. Vegetation, if present, is nearly exclusively composed of non-native plant species, such as ornamentals or ruderal exotic forbs. Although some grass species may be present in disturbed habitat, most annual grass species are more typical of non-native grassland and do not dominate vegetative cover in disturbed habitat (Oberbauer et al. 2008). There are 83.66 acres of disturbed habitat within all three Park parcels, which consists primarily of ruderal areas and dirt roads. Disturbed habitat is a MSCP Tier IV community, indicating that it has limited habitat value.

Developed (Holland Code 12000)

Developed land is generally subject to significant human disturbance associated with development. There are 2.47 acres of developed land in the Park, which is primarily composed of paved roads located along the eastern boundary of the east parcel, along the northern boundary of the central parcel, and along both the northern and southern boundaries of the west parcel. Developed land is a MSCP Tier IV vegetation community, indicating that it has limited habitat value.

3.2 Plant Species

3.2.1 Plant Species Present

A total of 168 plant species were documented within the Park during the 2010-11 baseline surveys. Appendix B provides a complete list of all plant species observed during the surveys.

3.2.2 Rare, Threatened or Endangered Plants Present

A special-status plant species is one (a) listed, or proposed for listing, as threatened or endangered, or otherwise designated as "listed", "candidate", "sensitive" or "species of concern" by federal and/or state agencies; (b) assigned a California Rare Plant Rank (CRPR) by the California Native Plant Society (CNPS); (c) included on the County's Sensitive Plant List (County 2010b); or (d) proposed for coverage under the Draft North County Plan.

No special-status plant species were observed within the Park during the baseline surveys.

3.2.3 Rare, Threatened or Endangered Plants with High Potential to Occur

Three (3) special-status plant species have a high potential to occur within the Park as described below. Additional information on these species can be found in Appendix B.

San Diego Ambrosia (*Ambrosia pumila*)

Federally Endangered, CRPR 1B.1, County List A, Draft North County Plan (Narrow Endemic)

Suitable habitat for San Diego ambrosia is present on site. In addition, several populations of San Diego ambrosia have been previously recorded in the surrounding area (Caltrans 2007 and 2010), which is also USFWS-designated critical habitat for this species.

San Diego (Palmer's) Sagewort (*Artemisia palmeri*)

CRPR 4.2, County List D

A single population of this species was previously recorded within the Park in the northern portion of the central parcel in 2007 (Caltrans 2010). Although not observed during the 2011 surveys, this species has a high potential to occur on site.

Smooth Tarplant (*Centromedia pungens* ssp. *laevis*)

CRPR 1B.1, County List A

Smooth tarplant was observed adjacent to the Park near the central parcel. However, this may have been a component of a seed mix rather than a natural occurrence given the disturbed nature and species composition of the area.

3.2.4 Non-Native and/or Invasive Plant Species

Nineteen (19) invasive, non-native plant species of concern were identified in the Park during the baseline surveys (Figure 9, Table 2).

Table 2. Non-native Invasive Plants within the Park

Common Name	Scientific Name	Cal-IPC Rating*
Castor Bean**	*Ricinus communis*	Limited
English Ivy	*Hedera helix*	High
Giant Reed**	*Arundo donax*	High
Pampas Grass**	*Cortaderia selloana*	High
Sweet Fennel **	*Foeniculum vulgare*	High
Tamarisk (Salt Cedar)**	*Tamarix ramosissima*	High
Perennial Pepperweed	*Lepidium latifolia*	High
Black Mustard	*Brassica nigra*	Moderate
Bull Thistle	*Cirsium vulgare*	Moderate
Crown Daisy	*Glebionis [Chrysanthemum] coronarium*	Moderate
Eucalyptus**	*Eucalyptus* spp.	Moderate
Italian Plumeless Thistle	*Carduus pycnocephalus*	Moderate
Mexican Fan Palm**	*Washingtonia robusta*	Moderate
Poison Hemlock	*Conium maculatum*	Moderate
Shortpod Mustard	*Hirschfeldia incana*	Moderate
Tocalote	*Centaurea melitensis*	Moderate
Tree Tobacco**	*Nicotiana glauca*	Moderate
Athel Tamarisk**	*Tamarix aphylla*	Limited
Peruvian Peppertree**	*Schinus molle*	Limited

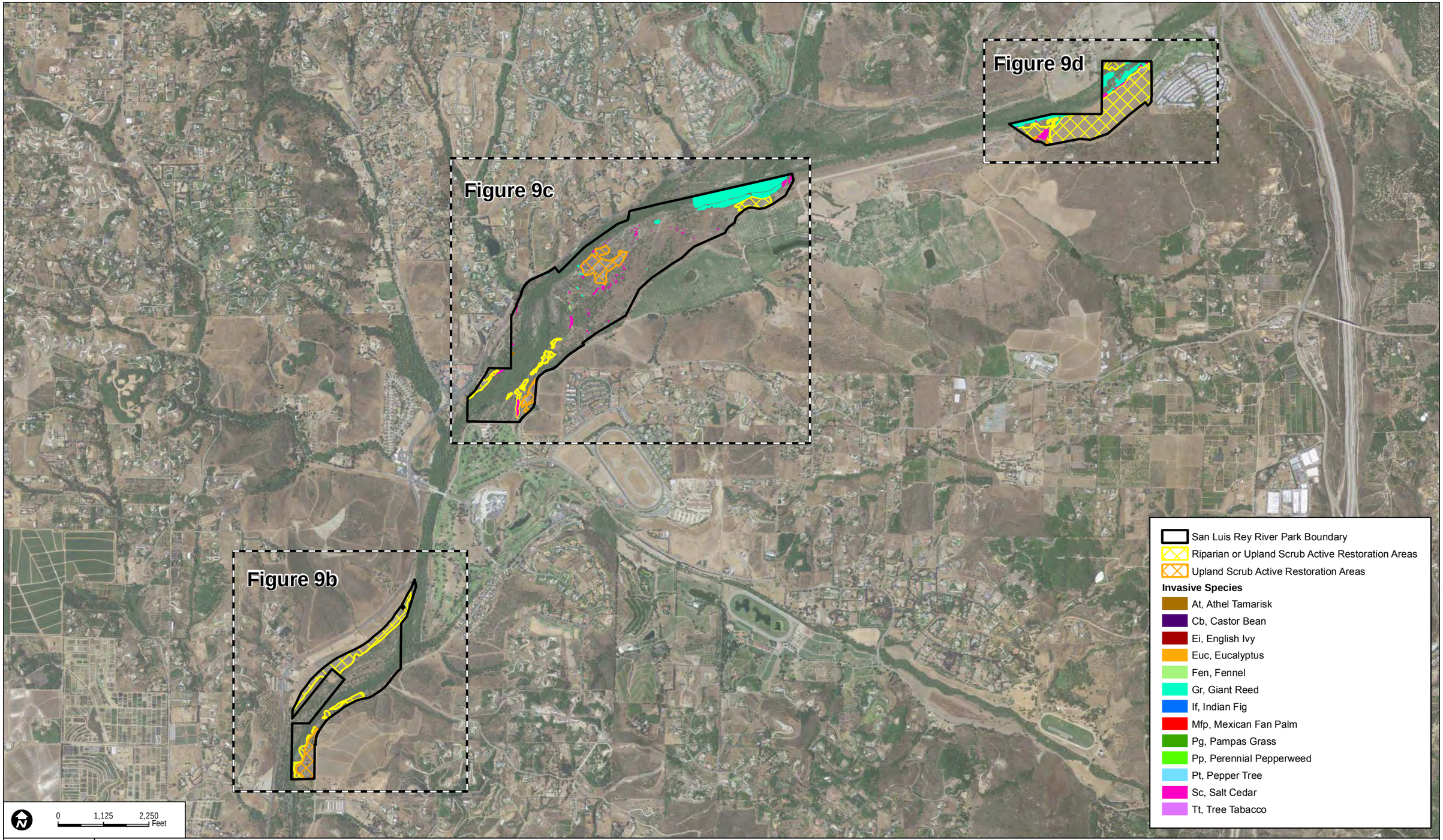
* Cal-IPC Rating Categories (Cal-IPC 2010)

High: Species have severe ecological impacts, are conducive to moderate to high rates of dispersal/establishment, and most are widely spread.

Moderate: Species have substantial and apparent, but generally not severe, ecological impacts, are conducive to moderate to high rates of dispersal, although establishment is generally dependent on ecological disturbance, and distribution may range from limited to widespread.

Limited: Species are invasive, but their ecological impacts are minor on a statewide level (or there was not enough information to justify a higher score), they have low to moderate rates of invasiveness, and are generally limited but may be locally persistent and problematic.

** Observed locations of invasive trees/shrubs were mapped (see Figures 9a–9d).



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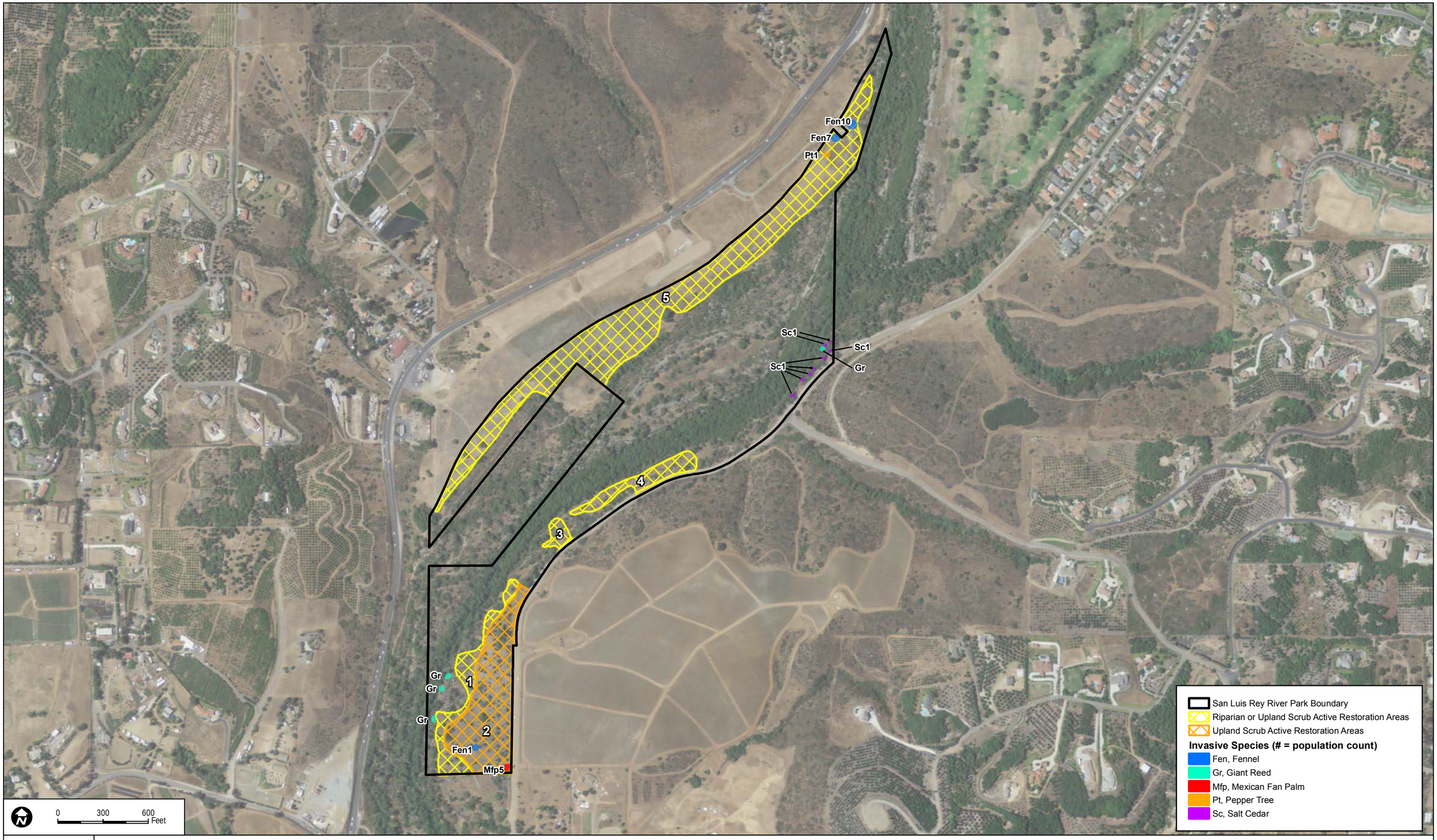
SOURCE: CDFG NAIP Imagery (2009)

FIGURE 9a

Invasive Plant Species and Potential Restoration Areas - Index Map

San Luis Rey River Park



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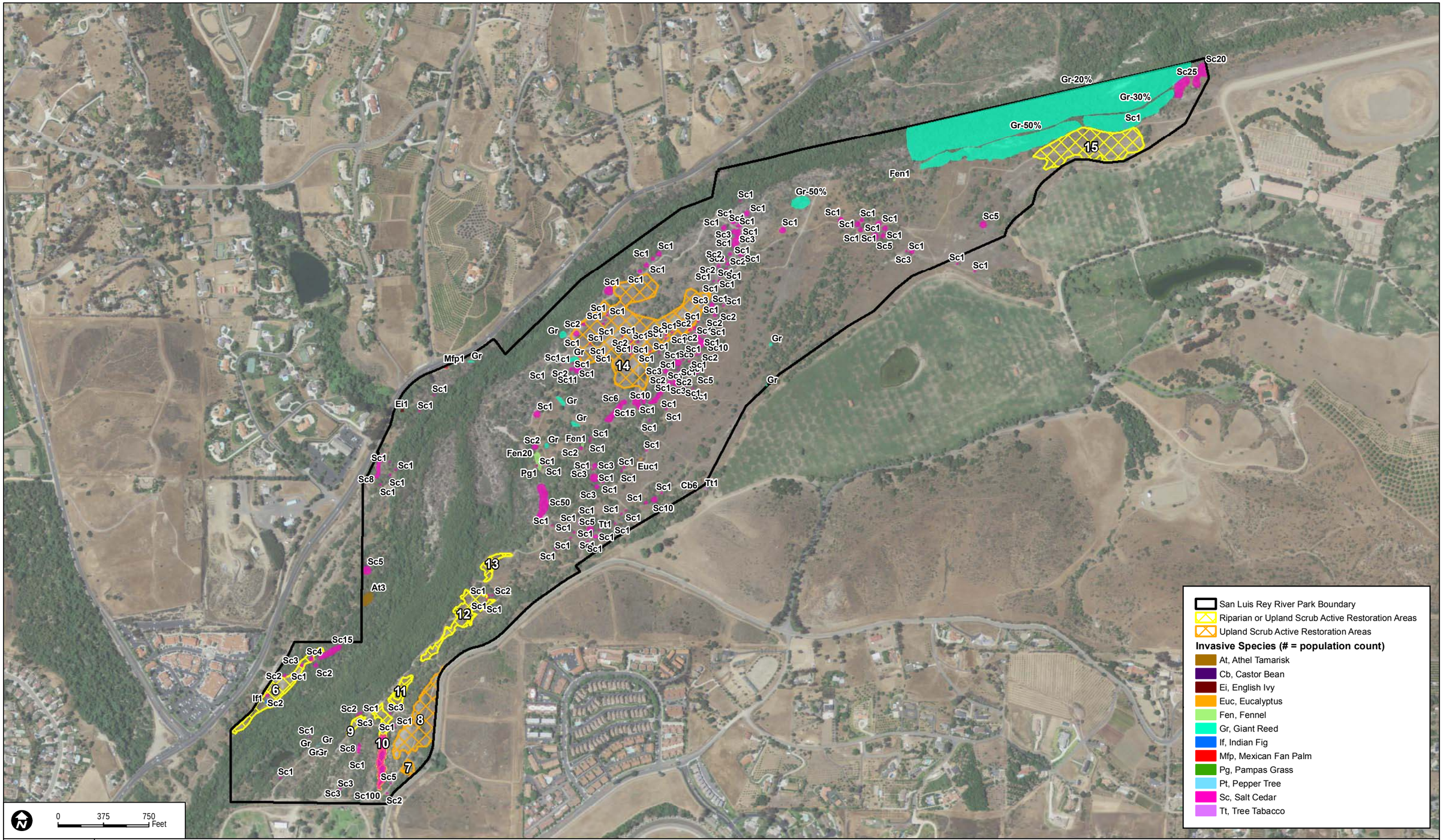
SOURCE: CDFG NAIP Imagery (2009)

FIGURE 9b

Invasive Plant Species and Potential Restoration Areas

San Luis Rey River Park



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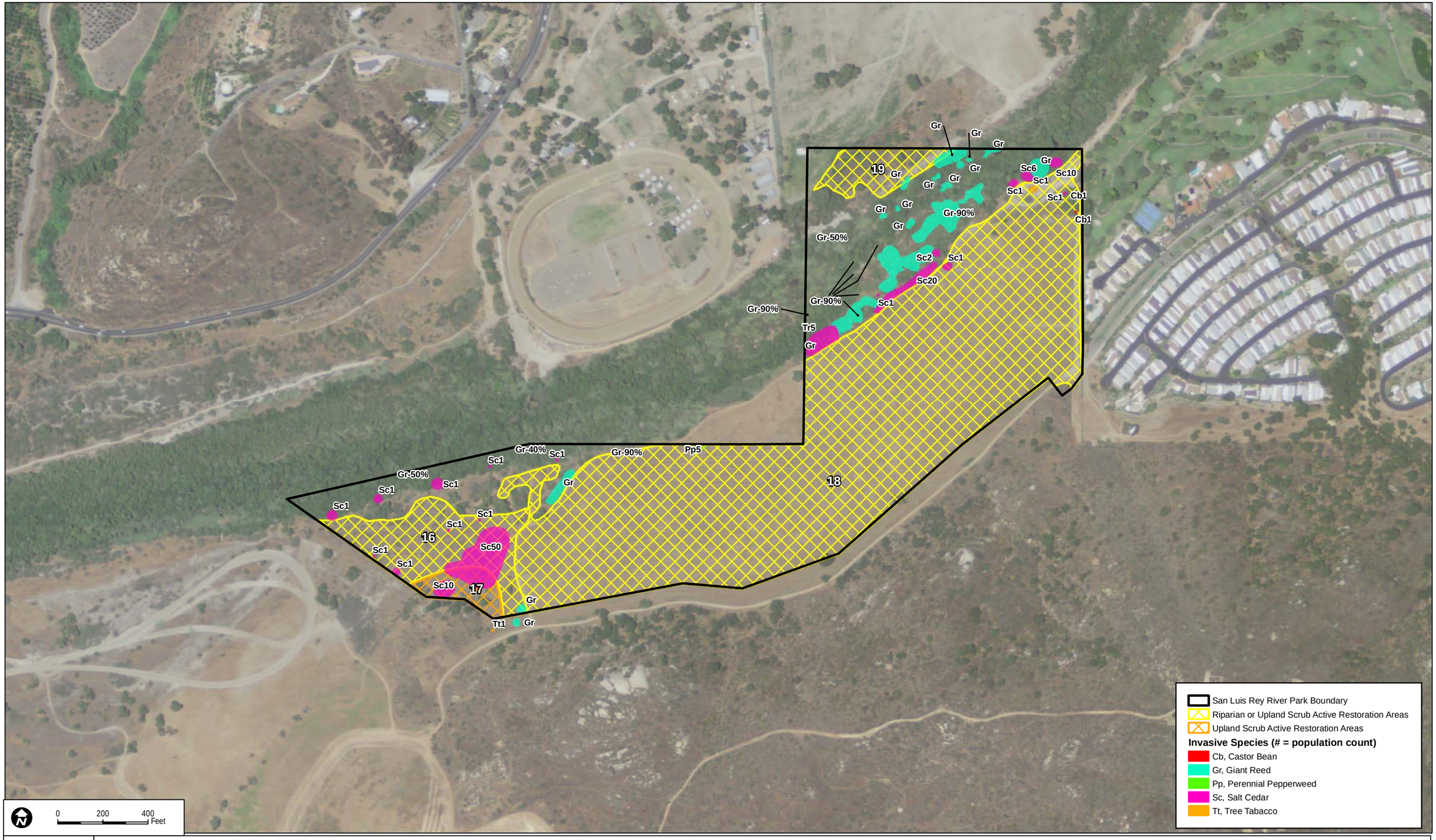
SOURCE: CDFG NAIP Imagery (2009)

FIGURE 9c

Invasive Plant Species and Potential Restoration Areas

San Luis Rey River Park



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SOURCE: CDFG NAIP Imagery (2009)

FIGURE 9d

Invasive Plant Species and Potential Restoration Areas

San Luis Rey River Park

Athel Tamarisk (*Tamarix aphylla*)

Athel tamarisk is a shrub or tree typically found along streams and lakeshores. Introduced as a landscape ornamental, athel tamarisk is less invasive than other tamarisk species. Three large individuals of Athel tamarisk were mapped within the Park, encompassing approximately 0.14 acre.

Castor Bean (*Ricinus communis*)

Castor bean is a shrub-sized flowering plant that is used as an ornamental plant in southern California. This perennial non-native can become aggressive when proper growing conditions are present, creating monotypic stands, and displacing native vegetation along wetland margins, or moderately dry upland areas. Castor bean was observed in two locations within the Park, covering only a few square feet.

English Ivy (*Hedera helix*)

English ivy is a perennial vine that can escape cultivation and establish in riparian habitats. It has creeping stems that have roots at leaf nodes that allow the plant to climb up vertical surfaces. It can affect all strata of riparian forest habitat as it grows up through the tree canopy and can crowd out native species. English ivy was observed in one location on the northern edge of the riparian area within the Park.

Eucalyptus (*Eucalyptus* spp.)

Eucalyptus is a group of large trees that have been widely planted throughout California. Some species commonly escape into natural areas and can spread rapidly, particularly in riparian habitat. Only one eucalyptus tree was observed within the Park encompassing only a few square feet.

Giant Reed (*Arundo donax*)

Giant reed is a tall perennial grass that forms dense stands on disturbed sites, sand dunes, riparian areas, and wetlands. This species invades by outcompeting native species, such as willows, for water and reduces habitat for sensitive species such as least Bell's vireo and southwestern willow flycatcher (Cal-IPC 2010). It also has the ability to stabilize stream terraces, deepening flood channels, which can result in unsuitable habitat for arroyo toads. Giant reed has been partially controlled within the Park during prior weed control efforts conducted by the Mission Resource Conservation District (MRCD). However, there is still a significant presence of this species within a portion of the Park, with scattered re-sprouting individuals observed in several areas. Over 27 acres of habitat was mapped with giant reed.

Mexican Fan Palm (*Washingtonia robusta*)

Mexican fan palm is a species of palm tree commonly used for landscaping, which has become invasive in riparian areas, orchards, and landscaped areas. It is known to create monotypic stands in riparian areas, and dead fronds of the tree can create a fire hazard. It can spread into native vegetation communities through seeds being washed downstream in drainages, or birds dispersing seeds into areas with sufficient soil moisture for the palm to germinate and establish. Six palm trees within an area approximately 0.5 acre were mapped within the Park.

Pampas Grass (*Cortaderia selloana*)

Pampas grass is an aggressive-spreading, ornamental grass that is extremely flammable and can increase the potential for fire ignition and/or spread. This species produces an abundance of seed, which can be wind-blown into surrounding areas. This species was observed in only one location within the park encompassing only a few square feet.

Perennial Pepperweed (*Lepidium latifolium*)

Perennial pepperweed, also known as tall whitetop and perennial peppercress, is a perennial herb found in moist or seasonally wet sites throughout California. Perennial pepperweed grows very aggressively, forming dense colonies that exclude native species. Perennial pepperweed is a state-listed noxious weed in California and is one of four primary species targeted for mapping and control within the County by the San Diego Weed Management Area.

Peruvian Peppertree (*Schinus molle*)

Peruvian peppertree is an aromatic, evergreen shrub or tree. Peruvian peppertree has escaped cultivation to become invasive in central and southern California. There is one Peruvian peppertree mapped within the Park.

Sweet Fennel (*Foeniculum vulgare*)

Sweet fennel is a common perennial herb that can drastically alter the composition and structure of many plant communities, including grasslands, coastal scrub, and riparian communities. In addition, it can also alter fire regimes creating an intense, fast-moving fire. Sweet fennel was observed in six locations encompassing approximately 0.2 acre in total.

Tamarisk (*Tamarix ramosissima*)

Tamarisk (also known as salt cedar) is a shrub or tree typically found along waterways, drainages and riparian areas. It can substantially alter geomorphology, groundwater availability, soil chemistry, fire frequency, plant community composition

and native wildlife diversity. Similar to giant reed, tamarisk can stabilize stream terraces, deepening flood channels, which can result in unsuitable habitat for arroyo toads. Approximately 477 individuals covering approximately 6 acres were mapped within the Park.

Tree Tobacco (*Nicotiana glauca*)

Tree tobacco is a short-lived tree or shrub that grows up to 20 feet tall. Introduced to California approximately 100 years ago, tree tobacco can be found in disturbed soils, vacant lots, and along roadsides, streamsides, and other riparian areas up to 5,000 feet AMSL. Only three tree tobacco plants were mapped in the Park encompassing only a few square feet.

In addition, ubiquitous non-native annual plant species are also present throughout the Park, and comprise the majority of species in the non-native grassland on site, which is dominated by wild oat, bromes, mustard, and filaree. While non-native grassland consists primarily of non-native plant species, it is considered a natural vegetation community under the County's MSCP because it is a naturalized community that provides habitat for native and sensitive plants and animal species. Much of the understory vegetation on the floodplain along the San Luis Rey within the Park is highly disturbed, and composed primarily of non-native herbaceous species. These non-native plant species were not mapped because of their high abundance and broad distribution across the site. These species include poison hemlock (*Conium maculatum*), black mustard (*Brassica nigra*), Italian plumeless thistle (*Carduus pycnocephalus*), crown daisy (*Glebionis [Chrysanthemum] coronarium*), shortpod mustard (*Hirschfeldia incana*), bull thistle (*Cirsium vulgare*), and tocalote (*Centauria melitensis*).

3.3 Wildlife Species

3.3.1 Wildlife Species Present

A total of 166 wildlife species were documented within the Park during the 2010-11 baseline surveys, including 3 fish, 4 amphibians, 10 reptiles, 63 birds, 31 mammals and 55 invertebrates. Appendix B provides a complete list of all wildlife species observed during the surveys.

3.3.2 Rare, Threatened or Endangered Wildlife Present

A special-status wildlife species is one (a) listed, or proposed for listing, as threatened or endangered, or otherwise designated as "listed", "candidate", "sensitive" or "species of concern" by federal and/or state agencies; (b) included on the County's Sensitive Animal List (County 2010b); or (c) proposed for coverage under the Draft North County Plan.

A total of 18 special-status wildlife species were observed or detected within the Park during the baseline surveys (Figure 10). Information on each of these species is provided below.

3.3.2.1 *Invertebrates*

Monarch Butterfly (*Danaus plexippus*)

County Group 2

Monarch butterflies follows a pattern of seasonal migration and known summer grounds of the species include the northern Rocky Mountains, which are occupied from May through late August to mid-September (Urquhart 1987). The Rocky Mountains population migrates southwest to wintering grounds along the California coast. The species' distribution is controlled by the distribution of its larval host plant (i.e., various milkweeds, genus Asclepias). Sexually mature monarch butterflies mate along their northern migratory route (while returning to their summer grounds) and deposit eggs on milkweed plants. Adults die shortly after mating and laying eggs, leaving the completion of the northern migration to their offspring.

One monarch individual was observed flying near the southern riparian fringe within the central parcel. It is likely that monarch fly through all three parcels during the spring, though it is not likely that winter roosting areas are present.

3.3.2.2 *Birds*

Barn Owl (*Tyto alba*)

County Group 2

Barn owl inhabits a variety of open habitats. Barn owls nest in cavities, both natural and man-made, including trees, cliffs, caves, riverbanks, church steeples, barn lofts, haystacks, and artificial nest boxes. Barn owls feed at night and locate prey by sound. Their diet consists primarily of rodents, but also includes shrews, bats, and leporids (rabbits and hares) and less frequently includes birds, reptiles, amphibians, and arthropods (Marti et al. 2005). Barn owls breed and winter throughout lowlands and lightly forested foothills in California. Where climate permits, barn owls can breed year-round (Marti et al. 2005).

Barn owl was detected on all three parcels during bird surveys in January, March and May 2011 at all survey locations. A total of 19 were recorded although no more than three were observed at any given time.



DUDEK

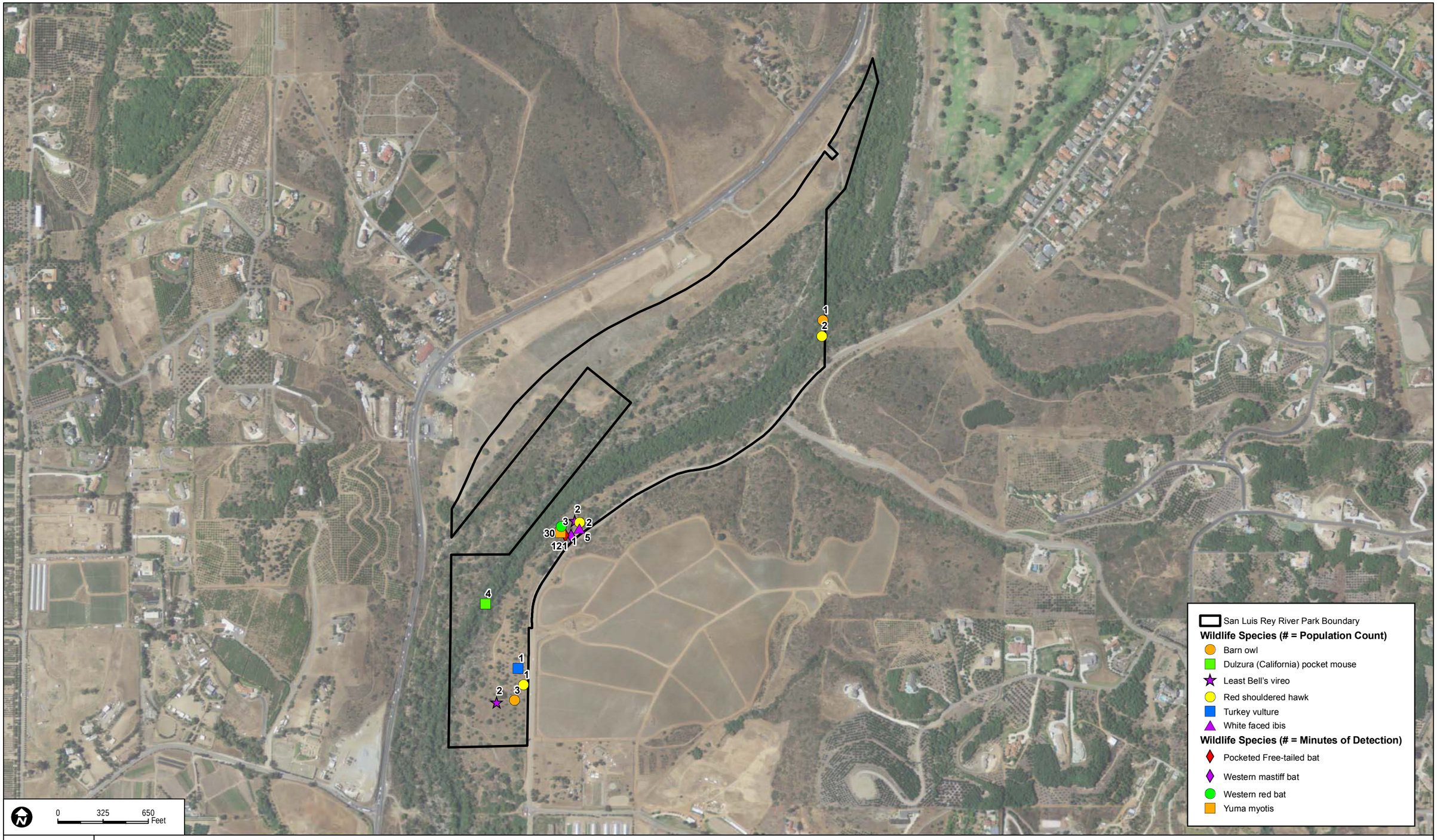
6680-03

SOURCE: CDFG NAIP Imagery (2009)

FIGURE 10a

Special-Status Wildlife Species - Index Map

San Luis Rey River Park



DUDEK

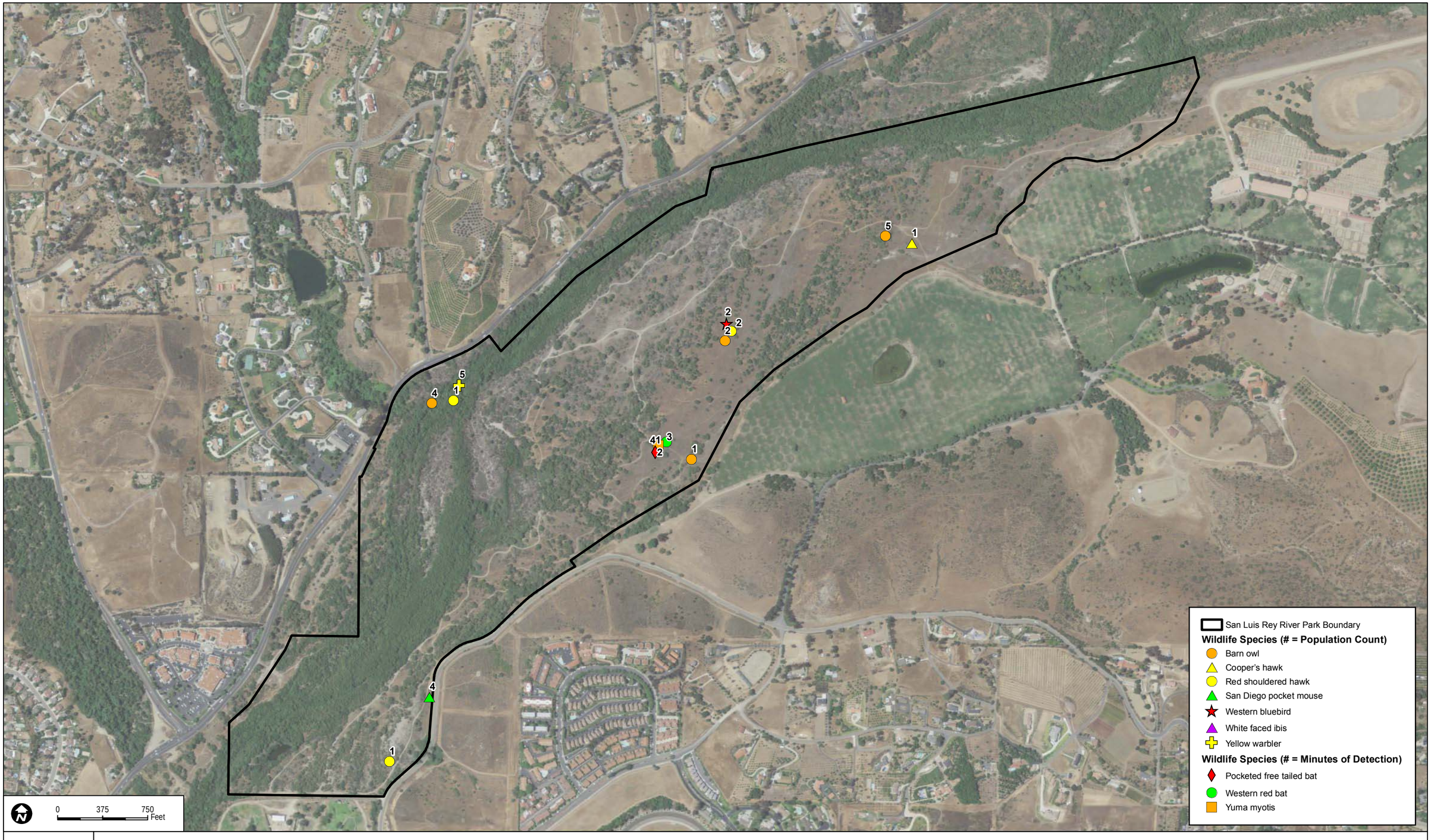
6680-03

SOURCE: CDFG NAIP Imagery (2009)

FIGURE 10b

Special-Status Wildlife Species

San Luis Rey River Park



DUDEK

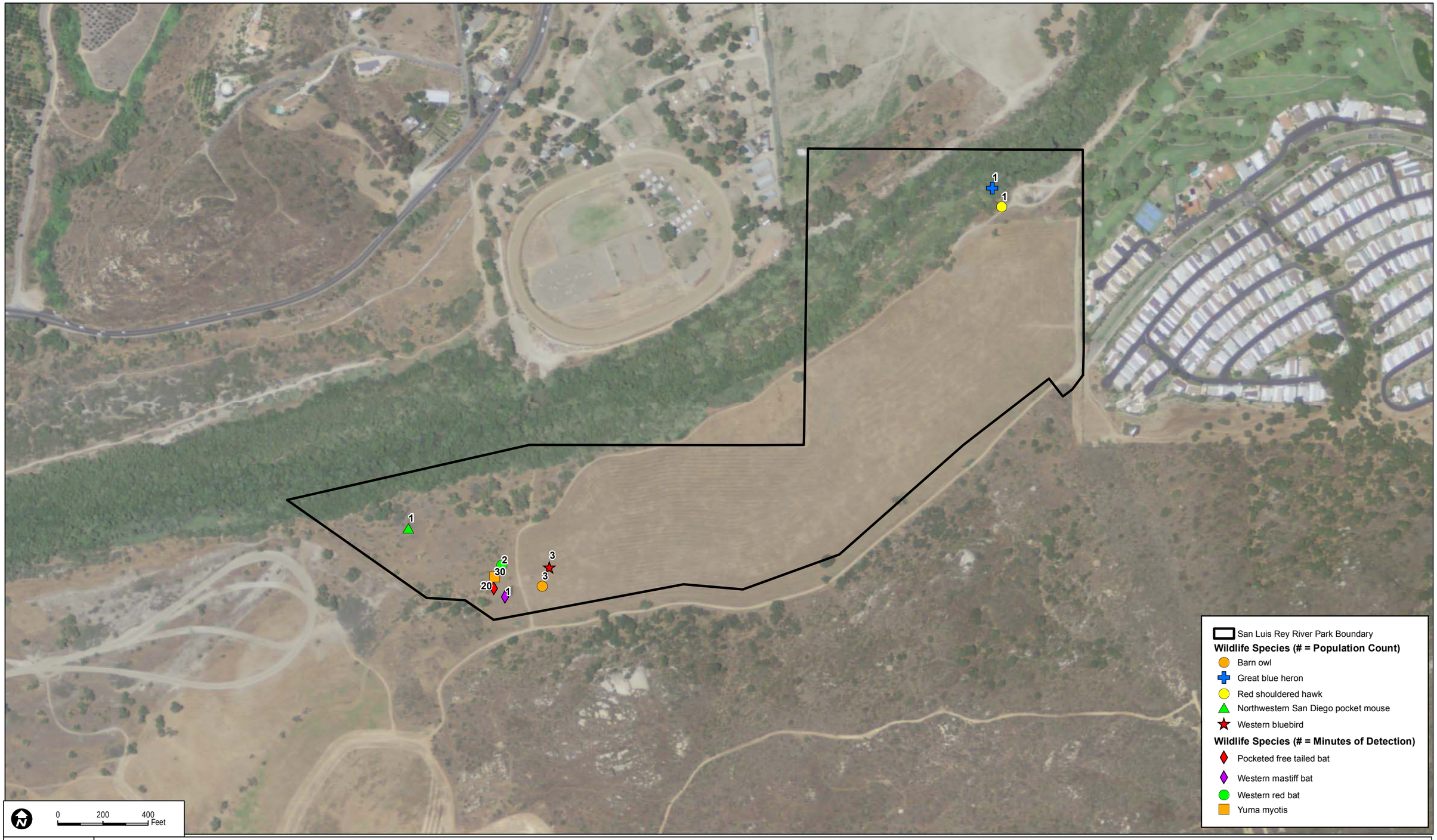
6680-03

SOURCE: CDFG NAIP Imagery (2009)

FIGURE 10c

Special-Status Wildlife Species

San Luis Rey River Park



DUDEK

6680-03

SOURCE: CDFG NAIP Imagery (2009)

FIGURE 10d

Special-Status Wildlife Species

San Luis Rey River Park

Cooper's Hawk (*Accipiter cooperii*)

State Watch List, County Group 1

Cooper's hawk is distributed throughout much of the U.S. from southern Canada to northern Mexico. It is a regular nesting species in San Diego County. This species has previously been closely associated with oak woodland, and the densely foliaged crowns of the coast live oak remain a favored site for Cooper's hawks to place their nests (Zeiner et al. 1990a). Recently, however, Cooper's hawks have adapted to the urban environment and often nest in eucalyptus trees. Additionally, they can be observed foraging in many types of upland and riparian habitats. Habitat loss, pesticide contamination, and human disturbance at the nest site limit this species population sizes (Remsen 1978).

One Cooper's hawk was observed during bird surveys in January 2011 on the central parcel. No nests were observed.

Great Blue Heron (*Ardea herodias)*

County Group 2

Great blue heron is found in estuaries, and both fresh and saltwater wetlands throughout most of California where they feed mostly on fish and sometimes amphibians, small rodents, lizards, and birds. Great blue heron nests at the top of tall groves of trees near feeding areas, where the most active feeding takes place yearlong around dawn and dusk (Zeiner et al. 1990a). Great blue heron does very little migrating, many depart eastern and northeastern areas during winter.

A single great blue heron was observed on the east parcel during the March 2011 bird surveys.

Least Bell's Vireo (*Vireo bellii pusillus*)

Federally Endangered, State Endangered, County Group 1, Draft North County Plan

The least Bell's vireo's breeding range includes coastal and inland southern California, a small area within the Central Valley, and northern Baja California, Mexico. This species primarily occupies riverine riparian habitats along water, including dry portions of intermittent streams that typically provide dense cover within one to two meters (3.3 to 6.6 feet) of the ground, often adjacent to a complex, stratified canopy. Least Bell's vireo nesting habitats in cismontane and coastal areas include southern willow scrub, mulefat scrub, arroyo willow riparian forest edge, wild blackberry thickets, and, more rarely, cottonwood forest, sycamore alluvial woodland, and southern coast live oak riparian forest (51 FR 16474–16482; Small 1994).

Since being listed as endangered, the vireo population in southern California has rebounded, largely in response to cowbird control, and habitat preservation and restoration. As of 2004, it was estimated that approximately 10% of the statewide vireo population occurs along the San Luis Rey River between I-15 and 1-5 (Lynn and Kus 2008). USFWS-designated critical habitat for least Bell's vireo occurs throughout the Park.

Multiple occurrences of this species have been previously recorded within all three Park parcels (CDFG 2011; Caltrans 2007 and 2010) and this species is known to breed on site. The USGS conducts annual monitoring of least Bell's vireo along the San Luis Rey River between College Boulevard in Oceanside and I-15, which includes portions of the Park, as part of a long-term study to track the progress of this species towards recovery and eventual de-listing. Two least Bell's vireos were detected on the west parcel during bird surveys conducted in May 2011, and this species was also observed during aquatic surveys conducted within the Park in late April 2011.

Red-Shouldered Hawk (*Buteo lineatus*)

County Group 1

Red-shouldered hawk inhabits riparian woodlands below 5,000 feet (1,524 meters) AMSL, particularly in areas with interspersed wetlands. Red-shouldered hawks forage primarily along wet meadow, swamp, and emergent wetland edges for a variety of prey including mammals, snakes, lizards, amphibians, small or young birds, and large insects. They nest in dense riparian habitats near permanent water (Zeiner et al. 1990a). Red-shouldered hawks are diurnally active and yearlong residents.

Red-shouldered hawk was detected on all three parcels during bird surveys in January, March, and May 2011 at all survey locations. A total of 10 were recorded, although no more than two were observed at any given location.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

Federally Endangered, State Endangered, County Group 1, Draft North County Plan

Southwestern willow flycatcher is a summer-breeding resident in riparian habitats in southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, southwestern Colorado, and northwestern Mexico (USFWS 2002). It is restricted to dense riparian woodlands of willow, cottonwood, and other deciduous shrubs and trees. Dense willow thickets are required for nesting, and nests are often near standing water (Zeiner et al. 1990a). The population of southwestern willow flycatchers in southern California was estimated to be less than 80 pairs in the early 1980s (Unitt 2004). In San Diego County only two substantial breeding populations are known to remain along the Santa Margarita River and the upper San Luis Rey

River, although reproduction has been documented in recent years on the San Dieguito River as well (Kus and Beck 1998). Southwestern willow flycatchers have recently been documented in several areas along the San Luis Rey River, Whelan Lake, Guajome Lake, Couser Canyon, and near Pala (Unitt 2004).

The primary cause for the decline of this species is widespread fragmentation and extensive loss of both structural components and habitat resulting from hydrological changes in low elevation cottonwood-willow riparian habitat across its range (Unitt 2004; USFWS 2002). Other factors contributing to habitat losses include urban development, road development and maintenance, livestock grazing, and high intensity and frequent wildfire (USFS 2008). Additional threats include predation, brood parasitism by brown-headed cowbirds (*Molothrus ater*), and replacement of native riparian vegetation by invasive, non-native species.

Southwestern willow flycatcher is known from the immediate area and USFWS-designated critical habitat for this species, consisting of high-quality riparian vegetation adjacent to the San Luis Rey River, occurs throughout the Park. Although this species was not detected during the 2010-11 baseline surveys, previous records of this species include: a record from 2008 overlapping the southern part of the central parcel (CDFG 2011); and multiple occurrences in the west parcel in 2002, and in the central and east parcels during 2006 and 2007 focused protocol surveys (Caltrans 2007 & 2010). In addition, the USGS records observations of southwestern willow flycatcher as part of their long-term demographic study of least Bell's vireo in the area along the San Luis Rey River that includes portions of the Park. The USGS recorded a polygynous male that paired with two females in the southwestern corner of the central parcel in 2010.

Turkey Vulture (*Cathartes aura*)

County Group 1

Turkey vulture most regularly inhabits a wide variety of habitats including pastured rangeland, non-intensive agriculture, and wild areas with rock outcrops suitable for nesting. Turkey vultures feed on a wide variety of carrion, consisting largely of mammals, ranging from rodents to large ungulates. Turkey vulture nests primarily on rocky cliffs or slopes. In California, this species occurs year-round in the Coast Ranges and inland and breeds in the eastern portion of the state (Kirk and Mossman 1998).

Turkey vulture was recorded on the west parcel in March 2011; however, there is no suitable nesting habitat on site.

Vaux's Swift (*Chaetura vauxi)*

State Species of Special Concern

Vaux's swift is a migrant throughout most of California from April to May, and August to September, and it may winter in small numbers, irregularly, in southern coastal lowlands. This species breeds in the Coast Ranges from Sonoma County north, very locally south to Santa Cruz County, in the Sierra Nevada, and potentially in the Cascade Range. Vaux's swift nests in large hollow trees and snags within redwood and Douglas fir habitats. Foraging takes place in a wide variety of habitats, often over rivers and lakes. Vaux's swift typically builds its nest on the vertical inner wall of a large, hollow tree or snag, especially tall burned-out stubs. The species feeds high in the air and takes flying insects in long, continuous foraging flights (Zeiner et al. 1990a).

Vaux's swift was observed flying over the river in the eastern parcel during butterfly surveys in late April 2011.

Western Bluebird (*Siala mexicana*)

County Group 2

Western bluebird is a common cavity-nesting songbird of oak woodland and pine forests throughout the western U.S. It breeds in open oak woodlands, riparian deciduous trees, or conifers with herbaceous understory, and winters in a wide variety of open habitats at elevations below 4,000 feet (1,200 meters) AMSL. Western bluebirds breed from the eastern reaches of lowland coastal valleys such as Lake Hodges, along the San Diego River east of Santee, and drainages east of Otay Reservoir, up through the foothills and montane areas where suitable habitat occurs. This species is vulnerable to competition with more aggressive introduced species (e.g., European starling (*Sturnus vulgaris*)) for scarce nesting cavities (Patterson 1979). However, in San Diego County, this species appears to be extending its range, successfully colonizing urban areas and adapting to novel nest sites such as nest boxes and certain species of palms (Unitt 2004).

Western bluebirds were observed on the central and east parcels during the May 2011 bird surveys.

White-Faced Ibis (*Plegadis chihi*)

State Watch List, County Group 1, Draft North County Plan

White-faced ibis is an uncommon summer resident in parts of southern California, a rare visitor in the Central Valley, and is more widespread in migration. It prefers to feed in fresh emergent wetland, shallow lake waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands and nests in dense, fresh emergent wetland (CDFG 2005). This species roosts amidst dense, freshwater emergent vegetation such as bulrushes, cattails, reeds or low shrubs over water (Ryder and Manry 1994). White-faced ibis has declined in California and stopped breeding regularly, probably from destruction of extensive marshes required for

nesting (Remsen 1978). However, two nesting colonies, one located at Guajome Lake and the other in a pond in the San Luis Rey River valley east of I-15, were known to be active from 1997 to 2001 (Unitt 2004).

Five white-faced ibis were observed on the west parcel during the March 2011 bird survey. These birds were likely foraging as there is no suitable nesting habitat on site.

Yellow Warbler (*Dendroica petechia brewsteri*)

State Species of Special Concern, County Group 2

Yellow warbler breeds throughout most of San Diego County (CDFG 2005). In southern California, yellow warblers breed in riparian woodlands in the lowlands and foothill canyons (Unitt 2004). They typically occur in riparian forests that contain cottonwoods, sycamores, willows, or alders (Stephenson and Calcarone 1999). The breeding season of yellow warbler generally begins in May and can last to August. Available data show a strong tendency for breeding- and wintering-site fidelity over successive years (Lowther et al. 1999). Nest parasitism by brown-headed cowbirds (*Molothrus ater*) has been strongly implicated as a cause of yellow warbler population declines in coastal lowland and foothill riparian areas of southern California (Unitt 2004).

Frequent observations of warblers within riparian vegetation throughout the river corridor were previously recorded in 2006-07 (Caltrans 2010). Five yellow warblers were detected on the central parcel during the May 2011 bird surveys. This species is expected to nest within suitable riparian habitat in the area.

3.3.2.3 *Mammals*

Dulzura (California) Pocket Mouse *(Chaetodipus californicus femoralis)*

State Species of Special Concern, County Group 2

Dulzura pocket mouse inhabits coastal scrub, chamise-redshank, montane chaparral, sagebrush, grassland, valley foothill hardwood, valley foothill hardwood-conifer, and montane hardwood habitats from San Francisco Bay to Mexico (Zeiner et al. 1990b). Dulzura pocket mouse eats the seeds of annual grasses and forbs, and insects and leafy vegetation in brushy areas, while foraging mainly from the ground (Zeiner et al. 1990b). Pocket mouse is nocturnal and reduces activity during cold winters (Zeiner et al. 1990b). Between April and June, usually four offspring are born in the burrows pocket mice dig in soft soil (Zeiner et al. 1990b).

Four individual Dulzura pocket mice were captured during small mammal trapping in the Park. This species was detected on the west parcel in March and April 2011.

Mule Deer (*Odocoileus hemionus fuliginatus*)

County Group 2

Mule deer occur throughout California and much of the western U.S. Mule deer inhabit a broad range of habitats including agricultural and suburban areas, desert, woodlands and forests, grassland and herbaceous vegetation communities, savanna, shrubland, and chaparral. Mule deer are herbivorous and browse on a variety of woody plants, grasses, and forbs (NatureServe 2011).

Mule deer tracks were observed throughout the Park.

Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)

State Species of Special Concern, County Group 2

San Diego pocket mouse occurs mainly in the arid coastal and desert border areas of San Diego County, but also occurs in parts of Riverside and San Bernardino Counties, from sea level to 6,000 feet (1,829 meters) AMSL. It inhabits a variety of habitats including coastal scrub, chaparral, sagebrush, and annual grassland, usually in sandy herbaceous areas with rocks or coarse gravel. San Diego pocket mouse feeds mostly on seeds of forbs, grasses, and shrubs, but also eats some insects. It carries seeds in cheek pouches and stores them in and around the burrow. San Diego pocket mouse generally breeds from March to May with an average of four young per litter (Zeiner et al. 1990b).

Five northwestern San Diego pocket mice were captured during small mammal trapping in the Park. This species was detected on the central parcel in March and April 2011, as well as on the east parcel in April 2011.

Pocketed Free-Tailed Bat (*Nyctinomops femorosaccus*)

State Species of Special Concern, County Group 2

Pocketed free-tailed bat occurs in Riverside, San Diego, and Imperial counties and is more common in Mexico. Habitats frequently used by this species include pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis. Pocketed free-tailed bat prefers rock crevices in cliffs as roosting sites. The status of this species in California is poorly known, but it appears to be rare (CDFG 2005).

Pocketed free-tailed bat was detected during both passes of passive bat surveys on all three parcels.

Western Mastiff Bat (*Eumops perotis californicus*)

State Species of Special Concern, County Group 2

Western mastiff bat is found in San Joaquin Valley and coastal ranges from Monterey County down through southern California, from the coast eastward to the Colorado Desert in open, arid habitats including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, and desert scrub. This species is nocturnal and feeds while in flight on small low-flying insects. Western mastiff bats typically roost alone in rock crevices, trees, on cliff faces or buildings. Reproduction begins in spring, and one offspring is produced each year (Zeiner et al. 1990b).

Western mastiff bat was detected on the east and west parcels in February 2011.

Western Red Bat (*Lasiurus blossevillii*)

State Species of Special Concern, County Group 2

Western red bat occurs in California from Shasta County to the Mexican border and west of the Sierra Nevada/Cascade crest and deserts (Zeiner et al. 1990b). There is little information on the distribution and relative abundance of this species in southern California (Stephenson and Calcarone 1999). This bat is associated with large deciduous trees in riparian habitat and often occurs in streamside habitats dominated by cottonwood, oaks, sycamore, and walnut. This primarily solitary species roosts in the foliage of trees and shrubs in habitats bordering forests, rivers, cultivated fields, and urban areas (Harvey et al. 1999). Western red bat forages over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands (CDFG 2005). The species does not form colonies and is difficult to find and census (USFS 2008).

Western red bat was detected on all three parcels in February and March 2011.

Yuma Myotis (*Myotis yumanensis*)

County Group 2

Yuma myotis occurs throughout California at elevations ranging from sea level to 11,000 feet (3,352 meters) AMSL, but is generally found below 8,000 feet (2,438 meters) AMSL. They can be found in many habitat types, but prefer open forests and woodlands with sources of water they can forage over. This species roosts in groups of several thousand in caves buildings, mines, and under bridges. Reproduction for Yuma myotis begins in the fall and single litter of one young is born sometime between May and June (Zeiner et al. 1990b).

Yuma myotis was detected on all three parcels in February and March 2011, and was also detected during active bat surveys in May 2011.

3.3.3 Rare, Threatened or Endangered Wildlife with High Potential to Occur

Nineteen (19) special-status wildlife species have a high potential to occur within the Park as described below. Additional information on these species can be found in Appendix B.

3.3.3.1 *Herpetofauna*

Arroyo Toad (*Anaxyrus* [=*Bufo*] *californicus*)

Federally Endangered, State Species of Special Concern, County Group 1, Draft North County Plan

The San Luis Rey River is USFWS-designated critical habitat for arroyo toad. Arroyo toad was previously recorded within the west parcel in 1998 (Caltrans 2007), the central parcel in 2006 and 2007, and the east parcel in 2006 (Caltrans 2010). The majority of these toads were visually observed along existing game trails and equestrian trails on the north side of the San Luis Rey River in sandy substrate. Arroyo toads were also observed on the south side of the San Luis Rey River, but in lower numbers. Tadpoles were observed infrequently in pools of the San Luis Rey River (Caltrans 2010). Currently, the habitat within the Park parcels does not appear to be very appropriate for arroyo toad, due to the dense vegetation and lack of naturally fluctuating river processes; however, the suitability of the habitat for arroyo toad may improve if river vegetation is thinned or scoured during rain or flood events. These events may allow the system to regain natural braids, channels, openings, and benches, which would foster better breeding habitat for arroyo toad.

Coast Horned Lizard (*Phrynosoma coronatum blainvillii*)

State Species of Special Concern, County Group 2, Draft North County Plan

Coast horned lizard is found in valley-foothill hardwood and riparian habitats, as well as in annual grassland habitat. This species was previously recorded adjacent to the central and east parcels (Caltrans 2010) and has a high potential to occur within the sandy areas, washes and floodplains within the Park.

Coastal Western Whiptail (*Aspidoscelis tigris stejnegeri*)

County Group 2

Coastal western whiptail is found in a variety of habitats including valley-foothill hardwood, valley-foothill riparian, chaparral, and annual grassland. This species has a high potential to occur in and around dense vegetation associated with sand areas along gravelly arroyos or washes within the Park.

Coronado Skink (*Eumeces skiltonianus interparietalis*)

State Species of Special Concern, County Group 2

Coronado skink is found in grassland, oak woodland and riparian habitats. This species was previously recorded within the central parcel (Caltrans 2010) and has a high potential to occur in areas with vegetative litter, rotting logs and under flat stones within the Park.

Orange-Throated Whiptail (*Aspidoscelis hyperythra*)

State Species of Special Concern, County Group 2, Draft North County Plan

Orange-throated whiptail is found in sandy soils and washes in low-elevation coastal sage scrub, chaparral, grassland, and valley-foothill hardwood habitats. This species was previously recorded adjacent to the Park (Caltrans 2007 and 2010) and has a high potential to occur in the sandy areas with patches of brush and rocks within the Park.

Red Diamond Rattlesnake (*Crotalus ruber ruber*)

State Species of Special Concern, County Group 2, Draft North County Plan

Red diamond rattlesnake is distributed along coastal San Diego County to the eastern slopes of the mountains in chaparral, woodland, and arid desert habitats in rocky areas and dense vegetation. This species was previously recorded adjacent to the east parcel (Caltrans 2010) and has a high potential to occur within shrub habitats on site where there is heavy brush, larger rocks, or boulders.

San Diego Ringneck Snake (*Diadophis punctatus similis*)

County Group 2

San Diego ringneck snake is found in moist microhabitats often near intermittent streams within valley-foothill, mixed chaparral, and annual grassland habitats. This species has a high potential to occur within the more open and rockier areas within the Park.

Silvery Legless Lizard (*Anniella pulchra pulchra*)

State Species of Special Concern, County Group 2

Silvery legless lizard is found in loose soils in coastal dune, coastal sage scrub, woodland and riparian habitats. This species was previously recorded within the central parcel (Caltrans 2010) and has a high potential to occur in sandy drainages within the Park.

South Coast Garter Snake (*Thamnophis sirtalis* ssp.)

State Species of Special Concern, County Group 2

Similar to two-striped garter snake, south coast garter snake is associated with permanent or semi-permanent bodies of water in a variety of habitats from sea level to 2,400 meters (8,000 feet) AMSL. This species has a high potential to occur near the abundant water resources within the Park.

Two-Striped Garter Snake (*Thamnophis hammondii*)

State Species of Special Concern, County Group 1, Draft North County Plan

Two-striped garter snake is associated with permanent or semi-permanent bodies of water in a variety of habitats from sea level to 2,400 meters (8,000 feet) AMSL. This species was previously recorded immediately adjacent to the central parcel (Caltrans 2010) and has a high potential to occur in dense vegetation near the abundant water resources within the Park.

Western Spadefoot (*Spea hammondi*)

State Species of Special Concern, County Group 2, Draft North County Plan

Western spadefoot is most common in grasslands, coastal sage scrub near rain pools and riparian habitat, and is known to occur within the San Luis Rey River system. This species was previously recorded adjacent to the central and east parcels (Caltrans 2010) and has a high potential to occur within the grassland and riparian areas within the Park.

3.3.3.2 *Birds*

Canada Goose (*Branta canadensis*)

County Group 2

Canada goose preferred habitats include fresh emergent wetlands and moist grasslands. This species is a widespread migrant and has a high potential to forage on the wild grasses and forbs present within the upland portions of the Park.

Northern Harrier (*Circus cyaneus*)

State Species of Special Concern, County Group 1, Draft North County Plan

Northern harrier frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. It is a permanent resident of coastal areas and a widespread winter resident and migrant

in suitable habitat. This species was previously recorded adjacent to the central and east parcels (Caltrans 2010) and has a high potential to occur in the flat open areas of tall, dense grasses, moist or dry shrubs, and edges within the Park.

Sharp-Shinned Hawk (*Accipiter striatus*)

State Watch List, County Group 1

Sharp-shinned hawk prefers, but is not restricted to, riparian habitats. It does not nest along the coastal slope of southern California and would only be expected as a winter migrant. This species was previously recorded within the central parcel (Caltrans 2010) and has a high potential to forage in the open areas of the Park.

Vermilion Flycatcher (*Pyrocephalus rubinus*)

State Species of Special Concern, County Group 1

Nesting vermilion flycatcher inhabit cottonwood, willow and other vegetation in desert riparian habitat adjacent to open mesic areas in isolated patches throughout central southern California. A single vermilion flycatcher was observed near the Park during bird surveys conducted in March 2011, and one individual male was previously recorded south of the central parcel in May 2007 (Caltrans 2010). Because of the known migration and nesting ranges of this species, it is likely these individuals were migrating through the area. This species would most likely be found where riparian thickets edge on open, mesic habitats within the Park.

White-Tailed Kite (*Elanus leucurus caeruleus*)

State Fully Protected, County Group 1

White-tailed kite is a resident in coastal and valley lowlands and is rarely found away from agricultural areas. This species was previously recorded in the immediate area both flying overhead and perched adjacent to riparian habitat south of the river (Caltrans 2007 and 2010) and has a high potential to occur in and near the herbaceous and open habitats within the Park.

Yellow-Breasted Chat (*Icteria virens*)

State Species of Special Concern, County Group 1, Draft North County Plan

Yellow-breasted chat is a summer resident and migrant in coastal California found in valley-foothill riparian habitats. This species was previously recorded adjacent to the west parcel (Caltrans 2007) and throughout the central parcel (Caltrans 2010), and has a high potential to occur in the dense, brushy thickets near the river and thick understory in the riparian woodland within the Park.

3.3.3.3 *Mammals*

Mountain Lion (*Puma* [=*Felis*] *concolor*)

County Group 2, Draft North County Plan

Mountain lion is found in nearly all habitats that support mule deer populations, and is most abundant in riparian areas and brushy stages of most habitats. The Park is located within a known wildlife movement corridor and suitable habitat for this species occurs throughout the Park. Mountain lion track and scat were previously identified both north and south of the river in the central and east parcels during a 2007-08 wildlife movement study (EDAW 2009), and a mountain lion was observed multiple times in the same area between 2006-08 (Caltrans 2010).

3.3.4 Non-native and/or Invasive Wildlife Species

Three (3) non-native and/or invasive wildlife species were detected within the Park during the baseline surveys.

American Bullfrog (*Lithobates* [=*Rana*] *catesbeianus*)

Native to the eastern United States, American bullfrog was introduced to California and is now widespread and common in the state. American bullfrog is the largest frog in California and preys on, or competes for food and space with native amphibians. Bullfrogs were detected within the Park along the San Luis Rey River during aquatic surveys in April and May 2011. The presence of adult bullfrogs within the Park may directly and indirectly impact arroyo toad, and possibly western spadefoot, both of which have been previously recorded within the Park or adjacent areas, although neither species were detected during the 2010-11 surveys. Occurrence of bullfrogs may potentially negatively affect arroyo toads if still present and would hinder recolonization of the Park. Therefore, removal of this introduced predator could improve arroyo toad and western spadefoot habitat and increase the success of recruitment. However, because source and satellite populations of bullfrog occur along the entire San Luis Rey River, efforts to eradicate and control bullfrog within the Park is likely infeasible.

Brown-Headed Cowbird (*Molothrus ater*)

Brown-headed cowbird is a native North American species, but was absent from the coastal slope of San Diego County before 1913. This species is a brood parasite, and is known to parasitize the nests of native songbirds including least Bell's vireo, southwestern willow flycatcher and California gnatcatcher (Zeiner et al. 1990a). Cowbirds are associated with the horse ranches in the surrounding area and the entire Park provides suitable breeding resources for this species. Two individual cowbirds were detected in the southern portion of the west parcel during bird surveys in March 2011. Although only two cowbirds were observed, the data may

understate the level of cowbird use in the Park as surveys were conducted before the primary cowbird breeding season, which typically occurs between April and May.

Annual cowbird trapping is currently being implemented along the San Luis Rey River in support of the San Luis Rey River Flood Risk Management Project, which occurs downstream in the City of Oceanside. Two of the trapping sites for this program are located within the west parcel of the Park adjacent to the river. The trapping program is intended to reduce impacts to the federally and State endangered least Bell's vireo and southwestern willow flycatcher in the area, and a total of 19 cowbirds were captured in the Park between 2010 and 2011.

European Starling (*Sturnus vulgaris*)

European starlings are aggressive competitors for nest cavities, and can reduce the reproductive success of native bird species, such as woodpeckers, bluebirds, swallows and wrens, by outcompeting them for nest resources (Zeiner et al. 1990a). This species was observed throughout the Park during the 2010-11 surveys; however, they are currently not considered a management concern for the Park. Management to control European starling is considered a region-wide issue, and resources would probably not be well-spent attempting to address them within the Park. European starlings travel large distances between nesting and foraging resources, and would likely just reoccupy managed areas.

As part of the annual cowbird trapping effort described above, any European starlings incidentally caught in the cowbird traps are subsequently removed from the Park.

3.4 Overall Biological and Conservation Value

The Park is located within the Lower San Luis Rey River Linkage planning area of the Draft North County Plan. The Lower San Luis Rey River Linkage consists of 5,633 acres along the San Luis Rey River and west of I-15. Approximately 64% of this area contains natural vegetation communities. Riparian vegetation occupies the river flood plain, with patches of coastal sage scrub, grassland, and chaparral on slopes above. Several sensitive species depend on the riparian habitats along the river, including least Bell's vireo, southwestern willow flycatcher, arroyo toad, San Diego ambrosia, yellow-breasted chat, white-faced ibis, and osprey (occasionally seen at Guajome Lake). California gnatcatchers occupy larger patches of coastal sage scrub and San Diego cactus wren has also been observed in the linkage area.

According to the MSCP Habitat Evaluation Model, the Park consists of very high value habitats. The Draft North County Plan species-specific habitat evaluation model for arroyo toad designates habitat within the Park as very high in value for this federally endangered species. In addition, designated USFWS Critical Habitat for arroyo toad, least Bell's vireo, southwestern willow flycatcher, and coastal California gnatcatcher occurs throughout the Park (Figure 11).

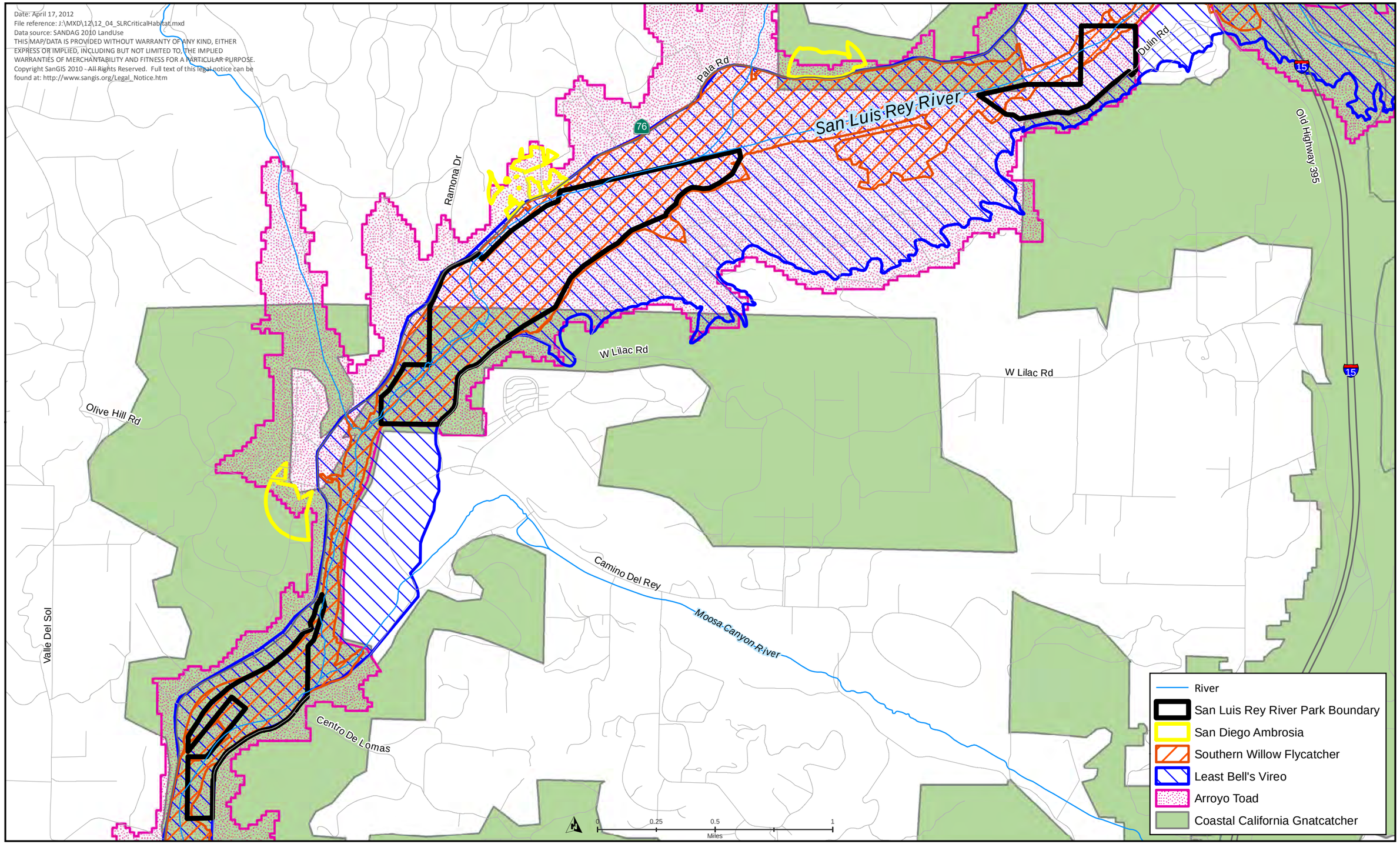


FIGURE 11
Designated USFWS Critical Habitats Map

3.4.1 Wildlife Linkages and Corridors

The Park is located within the Lower San Luis Rey River Linkage, which has been identified as a very important regional wildlife movement corridor that provides an east-west connection joining coastal habitats to substantial open space in the inland portions of North San Diego County. This corridor is somewhat fragmented given the development of this region. Specifically, urban and agricultural development borders this corridor in some areas, which constricts wildlife movement. Because the San Luis Rey River contains water throughout the year, many species, including large mammals, are able to reside permanently and maintain stable populations within the corridor. The presence of water does not preclude wildlife from crossing the river through the area.

The general area functions to convey large and small mammals within and through the Park as evidenced through wildlife camera data, track and scat observations, and visual observations of mule deer, bobcat, and coyote. In addition, a wildlife movement study conducted from July 2006 through March 2009 for the Caltrans' SR-76 improvement project identified two important trends through the Park and surrounding area: (1) regional east-west wildlife movement through the riparian corridor and in the upland habitat to the south, and (2) north and south ecotonal (upland to riparian ecotones) movement for smaller resident species attempting to find vital resources on the northern riparian/upland border (EDAW 2009). The existing SR-76, which borders the Park to the north, currently functions as a barrier to wildlife movement through direct mortality and indirect barrier effects to species behaviorally sensitive to roads.

4.0 CULTURAL RESOURCES

San Diego County is characterized by a rich and varied prehistoric and historic past. Cultural resources which reflect this history consist of: archaeological sites, historic structures, artifacts, rock art (i.e., pictographs and petroglyphs), photographs, traditional tribal cultural knowledge and oral traditions, oral histories, ethnographic accounts, sacred sites, traditional cultural properties, and public documents. This RMP identifies the known cultural resources within San Luis Rey River Park and describes areas where potential additional resources may be present.

In 2011, an archaeological survey and site inventory was completed for the Park in compliance with the Resource Protection Ordinance, and County Cultural Resources guidelines (County 2007) to assist in continued and future land use and resource protection planning. The results of this study can be found in the report entitled, *Archaeological Survey Report for the San Luis Rey River Park, San Diego County, California* (ASM 2011) attached as Appendix C. This Phase I inventory involved site records searches, literature reviews, Native American consultation, historic map reviews, field survey, and resource documentation. The survey and inventory results were used in the preparation of this RMP.

4.1 Site History

4.1.1 Pre-Contact

The San Luis Rey River Valley was occupied and used by the Luiseño (who call themselves Payómkawichum and ‘Atáaxum) before European contact. Luiseño groups occupied the northern San Diego, eastern Orange, and southwestern Riverside counties. The Luiseño referred to their homeland, including the area encompassing the San Luis Rey River as Qechla (Bean and Vane 1991).

The Luiseño inhabited the area encompassed by the Park. Settlement in the coastal region of southern California followed a pattern of permanent villages and temporary hunting and gathering camps. The settlement pattern and subsistence systems of the Luiseño, like those of other California groups, were tailored to exploit the seasonal fluctuations in resources and employed movements of populations from mountain slopes and highlands to valley floors and coastal strips. The duration and location of settlement areas were dependent on the availability of plant and animal resources. Most ethnohistoric accounts emphasize that acorns, gathered in the highlands, were an important food source for the Luiseño. Exploited animal resources included deer, bears, rabbits, ground squirrels, quail and other birds, fish and marine shellfish.

Seasonality and scheduling of resource exploitation were critical elements of the cultural adaptive system interwoven with the settlement patterns. Storage of both plants and animals was practiced regularly among the Luiseño and was often considered a necessity. During times of scarce resources, the interior Luiseño

traveled to the coast to obtain shellfish, fish, and even some land mammals (White 1963). Most inland groups had fishing and gathering locations that they visited annually when the tides were low or when the inland resources were scarce, typically during the months of January through March. The flora and fauna that are found within the vicinity of the Park would have provided food and medicine for the Luiseño.

4.1.2 Post-Contact

4.1.2.1 *Spanish Period*

Spanish explorers first discovered California in 1542. More than two centuries later, Christian missionaries and soldiers arrived both by sea and overland from Baja California and founded the first of 21 Spanish missions (1769-1823). The mission system and its soldiers were charged with converting pagan Indians to Christianity. The mission system operated under the expectation that once the Indians had been Christianized and "civilized," the lands would become a pueblo. In July 1769, Father Juan Crespí arrived in the San Luis Rey River Valley and reported back to his superiors that it was an ideal location for a mission. This led to the eventual founding of Mission San Luis Rey de Francia, the 18th California mission (Pourade 1961). The mission was formally dedicated June 13, 1798. Named for King Louis IX of France, this mission became known as the "King of Missions" due to its size and success.

At the time of European contact, the San Luis Rey Valley was occupied by Takic-speaking Indians, who were later named Luiseño after the mission. In 1824, Mission San Luis Rey had an Indian neophyte population of 3,000 and the extensive mission lands supported 1,500 horses, 2,800 sheep, and 22,000 cattle. Approximately 20 miles northeast, Pala was founded in 1810, as an *asistencia*, or outpost, of Mission San Luis Rey (Pourade 1961). An *asistencia* is defined as a mission on a small scale that offers religious services on days of obligation but lacks a resident priest (Weber 1988). By 1818 Mission San Luis Rey had become the richest and most populous of Spain's missions in California (Heilbron 1936). The Park is located between Mission San Luis Rey and Pala, and the historic travel route between the mission and the *asistencia* (P-37-028134) runs through the Park area.

4.1.2.2 *Mexican Period*

After a long struggle in Mexico, the Mexican War of Independence ended in 1821, severing the Spanish hold on the Californias. The San Diego area began transitioning from a religious and military outpost to a town. The mission movement was dwindling as 17 of the oldest missions no longer had resident priests and the native population had drastically declined from the impact of Spanish occupation (Engstand 2005; Robinson 1948).

Land grants or ranchos largely characterized the Mexican period (1821-1848). Although some land had been granted to Indians, most of the land went to military

men or merchants. A majority of ranchos were demarcated after secularization of mission land beginning in 1833, which prompted a rush for land grants. The lands formerly held by Mission San Luis Rey were parceled into six ranchos: Santa Margarita, Las Flores, Buena Vista, Agua Hedionda, Monserrate, and Guajome. Some of the Park parcels lie within the Hispanic-era land grant of Monserrate. The remaining lands of San Luis Rey were sold in 1846 to José Cota and José A. Pico by Pío Pico, Governor of California, and the Luiseño converts who had lived around the mission were removed to nearby Pala (Hawthorne 2000).

4.1.2.3 *American Period*

After the Mexican-American War, land ownership in California became hotly contentious. Proof of rancho land ownership with the new government often meant years of effort to obtain a federal patent, and many rancheros had difficulty maneuvering through the process. Capitalizing on the uncertainty of those transitional years, Anglo settlers increasingly squatted on land that belonged to *Californios* and began challenging the validity of Spanish-Mexican claims (Garcia 1975). An influx of Anglo squatters and new government taxes severely hindered *Californio* rancho owners, and by 1860, most did not retain their original land holdings. Unimproved farmland and substantial, often unconfirmed, ranchos characterized the largely uninhabited San Diego County (Garcia 1975).

The confirmation of ranchos' boundaries in the late 1860s and early 1870s drew additional settlers into the San Luis Rey Valley as land became officially conveyable. These settlers, who came from eastern states and a wide variety of European countries, raised dairy cattle, sheep, and horses, grew barley and alfalfa, and maintained bee colonies. A small town site began to grow adjacent to the San Luis Rey mission. In 1880, the California Southern Railroad was formed to construct a rail line between San Diego and San Bernardino. By 1882, 211 miles of track had been constructed from National City to Fallbrook Junction, just north of Oceanside, and inland through Temecula Canyon to Colton and San Bernardino, bringing a greater level of connection to the San Luis Rey Valley.

4.1.3 Historic Overview of the San Luis Rey River Park

Historically, a portion of the Park parcels were within the boundaries of the 13,322-acre Rancho Monserrate, granted to Don Ysidro María Alvarado in 1846. In those early days, Alvarado constructed an adobe ranch house on the north side of the San Luis Rey River for his family, where they raised cattle and horses on a relatively small scale (Moyer 1969). In 1863, Alvarado died from smallpox and left his estate to his son, Tomás Alvarado, who quickly increased the value of his father's estate, and by 1869, he constructed a second Alvarado house, this time south of the river. While the family primarily raised cattle, sheep, and horses, they also cultivated the land. Tomás Alvarado's property is close to, but outside, the Park boundaries.

Across San Diego County, settlers bought rural properties as they became available either from federal patents or land sales. Following the confirmation of Rancho Monserrate in 1872, much of the land was split amongst heirs and thereafter sold as ranch parcels to families that worked grain, livestock, and fruit ranches in the greater Bonsall and Fallbrook areas (Gunn 1945). One of the new owners was Henry H. Gird, who bought a large section of the rancho in the late 1870s and built his family's home off present-day Gird Road. The Gird family remained one of the larger ranching families and bred Devon cattle for many years (Moyer 1969; Myers 1939). Farming became increasingly favored over ranching across the County as ranchos were sold and the economy changed.

As transportation vehicles changed from stage coaches to automobiles in the twentieth century, the routes also changed. Locals remembered the main County road along the southern part of the river as a beautiful route with many ponds along the river. In the early days, this was a place where groves of thick elders, fresh berry bushes, large trees, and small wild grapes fed off the river water. People used to pass through or camp along the route, some stopping at Don Tomás Alvarado's house for respite (Kelly n.d.). By 1915, the main old river road that extended along the southern part of the river from Bonsall became a local route and present-day Pala Road/SR-76 served as the primary route along the northern side of the river.

As is characteristic of rivers, the San Luis Rey's course shifted over time, leaving alluvial plains that made the area attractive to farmers. While the river could become swollen in the rainy season (October to April), most of the year it was described as a "small stream rippling over a bed of gravel." While the river could cause seasonal havoc, close proximity also meant locals could pump water from the riverbed for irrigation and domestic use. Despite the potential for great flooding, such as the 1893 and 1916 floods, some farmers were willing to construct their homes near the river. One such property was the Dulin Ranch. It or a predecessor ranch has occupied the area south of the Park since at least 1928. Dulin Ranch had been established by 1946. Edgar S. Dulin was later noted for owning a large portion of the Monserrate grant; he grew avocados, lemons, oranges, and gladiolus bulbs, and raised Hereford cattle.

Damming of the river for the Henshaw Dam in 1923 altered the natural flow and prompted additional use of irrigation and domestic wells that were bored into the riverbed. Auto travelers required safe passage over the river, which the new bridge (1925) at Bonsall on SR-76 afforded until its replacement in the 1980s by a wider bridge (Nunes 1983). Bonsall continued to be a small agricultural community of dairies and farms into the 1930s and beyond, with a post office, service station, and general store at Moosa Valley and Gopher Canyon (Federal Writers Project 1937). Over the years, the Park parcels abutted a number of agricultural properties until the 1960s when growth and infill altered the more pastoral and agricultural landscape (USGS 1946, 1968).

4.2 Native American Consultation

The Native American Heritage Commission (NAHC) was contacted on October 4, 2010 requesting a Sacred Lands File search for any recorded Traditional Cultural Properties or Native American heritage sites. The NAHC responded that the search did not indicate the presence of Native American cultural resources within one-half mile of the Park, but that there are Native American cultural resources within close proximity. The response letter also provided a listing of all Native American tribal representatives who may have further knowledge of such sites. For this reason, and to ensure that all potential Native American resources are adequately addressed, letters were sent on October 7, 2010 to each of those tribal representatives to solicit further information.

Responses were received from both the San Luis Rey Band of Mission Indians (on January 12, 2011 and February 3, 2011) and the Pechanga Cultural Resources Department (on November 5, 2010) indicating they had significant information pertaining to the area and wished to formally consult with the County regarding future plans for the Park. In response to these requests, the County met with the San Luis Rey Band of Mission Indians on March 16, 2011, and Pechanga on April 6, 2011. The County continues to consult with both tribes on an on-going basis.

In addition, a representative of the San Luis Rey Band of Mission Indians participated as a Native American monitor throughout the field survey.

4.3 Cultural Resource Descriptions

Ten (10) cultural resources have been recorded within the Park, including one previously recorded prehistoric isolate, one previously recorded historic road, and eight newly recorded historic sites.

4.3.1 Prehistoric Resources

P-37-028137

This resource was originally recorded in 2006 and consists of two isolated prehistoric flakes. This resource was not relocated during the 2011 survey.

4.3.2 Historic Resources

P-37-028134

Previously recorded in 2006, this unpaved historic road is a 3.5-mile segment of the historic travel route from San Luis Rey Mission to the Pala Asistencia. During the 2011 survey, the historic travel route was found to be in the same location and general condition as previously recorded.

CA-SDI-20,172 (P-37-031756)

The site consists of double concrete standpipes that rest on a concrete base, a rectangular concrete pad, a retaining wall along the bank of the San Luis Rey River, and two marine shell fragments.

P-37-031757

The site consists of an earthen dam/irrigation feature perpendicular to the San Luis Rey River. No artifacts were identified within the vicinity of the feature.

P-37-031758

The site consists of a concrete standpipe, roughly constructed in segments and held together with mortar. No artifacts were located within the vicinity.

P-37-031759

This isolate consists of two historic metal car door handles.

CA-SDI-20,173 (P-37-031760)

The site consists of two sets of double concrete standpipes, a barbed wire fence, and a metal and concrete capped well.

CA-SDI-20,174 (P-37-031761)

The site consists of a rectangular cistern, concrete pipe fence posts, broken concrete water pipe fragments, two linear ditches containing concrete water pipes, a concrete standpipe, the base of a concrete standpipe, and an oval watering hole. Based on historic aerial photographs, the large rectangular cistern appears to be a recent addition to the site.

P-37-031762

The site consists of two circular cisterns. No artifacts were located within the vicinity.

P-37-031763

This isolate consists of metal fragments from a motorcycle exhaust pipe.

4.4 Resource Significance

The 10 archaeological sites identified within the Park have not been previously evaluated for significance and may be considered significant under the County of San Diego Resource Protection Ordinance, the San Diego County Register of

Historical Resources, the California Environmental Quality Act (CEQA), and the National Register of Historic Places guidelines. According to the County of San Diego guidelines, sites are considered significant until tested and determined otherwise (County 2007). Isolated artifacts are not interpreted as significant and do not warrant subsurface testing. Table 3 summarizes the current significance status of the cultural resources within the Park.

Table 3. Significance Status of Cultural Resources within the Park

Site Number	Era	Significance Status	Discussion
P-37-028134	Historic	Significant	Not evaluated - must be treated as significant
P-37-028137	Prehistoric	Not Significant	Isolate - not considered significant
CA-SDI-20,172 (P-37-031756)	Historic	Significant	Not evaluated - must be treated as significant
P-37-031757	Historic	Significant	Not evaluated - must be treated as significant
P-37-031758	Historic	Significant	Not evaluated - must be treated as significant
P-37-031759	Historic	Not Significant	Isolate - not considered significant
CA-SDI-20,173 (P-37-031760)	Historic	Significant	Not evaluated - must be treated as significant
CA-SDI-20,174 (P-37-031761)	Historic	Significant	Not evaluated - must be treated as significant
P-37-031762	Historic	Significant	Not evaluated - must be treated as significant
P-37-031763	Historic	Not Significant	Isolate - not considered significant

5.0 RESOURCE MANAGEMENT

5.1 Management Goals and Objectives

Management of the natural and cultural resources within the Park will be guided by the goals and objectives of the MSCP and the Draft North County Plan.

5.1.1 Draft North County Plan Goals

The Draft North County Plan provides general and planning segment-specific goals and objectives. The Park parcels are located within the Lower San Luis Rey River Linkage planning segment. The overall MSCP goal is to maintain and enhance biological diversity in the region and conserve viable populations of endangered, threatened, and key sensitive species and their habitat, thereby preventing local extirpation and ultimate extinction.

Specific conservation goals for the Lower San Luis Rey River Linkage, which are applicable to the Park, include the following:

- Protect the following sensitive species: San Diego ambrosia (including salvage and transplantation to preserve areas).

- Minimize impacts to the following sensitive habitats: occupied San Diego cactus wren habitat, coastal sage scrub habitat important to the California gnatcatcher, arroyo toad and western spadefoot toad habitat (particularly for aestivation), including existing agricultural areas with upland habitat and pastures.

- Maintain riparian and upland habitat along the San Luis Rey River for water quality and rainbow/steelhead trout, pacific lamprey, southwestern pond turtle, least Bell's vireo, southwestern willow flycatcher, arroyo toad, San Diego ambrosia, yellow-breasted chat, tricolored blackbird, and white-faced ibis.

- Removal of invasive, non-native species (e.g., *Tamarix*, *Arundo*, brown-headed cowbirds, crayfish, bull frogs etc.) to enhance habitat quality.

- Maintain connectivity through natural and agricultural lands for wildlife movement of large and medium sized mammals between agricultural lands of the San Luis Rey River and hill region to the south of the San Luis Rey River, near Interstate 15.

5.1.2 Management Directives and Implementation Measures

Based on the above goals and objectives, recommended management directives have been identified. The ASMDs provided herein have been designated as Priority

1 or Priority 2. This designation recognizes the fact that many of the directives cannot be immediately implemented, but instead will occur over the life of the Draft North County Plan. Priority designations are as follows:

Priority 1: Directives that protect the resources in the Park and the Draft North County Plan preserve, including management actions that are necessary to ensure that special-status species are adequately protected.

Priority 2: Directives other than those required for special-status species and other long-term items that may be implemented during the life of the Draft North County Plan as funding becomes available.

This RMP includes management directives and implementation measures to meet Draft North County Plan goals and objectives under the following elements: (A) Biological Resources, (B) Vegetation Management, (C) Public Use, Trails, and Recreation, (D) Operations and Facility Maintenance, and (E) Cultural Resources.

5.2 Biological Resources Element (A)

5.2.1 Biological Monitoring

Biological monitoring will be performed on site to gather information that will assist DPR in making land management decisions to conform to Draft North County Plan goals and objectives, as well as DPR objectives. The biological monitoring that will occur will be designed to guide decisions at the individual preserve level. Baseline inventory surveys of the Park have been conducted and the results are included as Appendix B. On-going monitoring is expected to commence in 2016. Additional monitoring results will be incorporated into stand alone monitoring reports. These reports may recommend revisions to the management directives contained within this RMP.

Monitoring at the individual preserve scale is focused on obtaining information for management purposes, but can be useful for subregional and ecoregional monitoring assessment as well. DPR will monitor the status and trends of species proposed for coverage under the Draft North County Plan (in accordance with the Draft Framework RMP) and collect data on key environmental resources within the Park to select, prioritize, and measure the effectiveness of management activities. In most instances, the array of threats or stressors on preserved habitats, their mechanisms of action, and the responses of the habitats and associated species are not completely understood at this time. Therefore, ASMDs must comprehensively address resource management issues for each preserve. Information collected within each preserve will be aggregated for analysis at the subregion and ecoregion scales.

The key to successful monitoring at the individual preserve level is: close coordination with stakeholder groups that are performing subregional monitoring; sharing of data, future plans and schedules; and keeping abreast of monitoring methods as they are developed. To ensure uniformity in the gathering and treatment of data, a San Diego Association of Governments (SANDAG) land management working group has been formed. This group, known as the San Diego Monitoring and Management Program (SDMMP), is intended to assist jurisdictions in coordinating monitoring programs and analyzing data, as well as provide other information and technical assistance. The County is an active participant in the development of monitoring methods for the Draft North County Plan. Once these methods are fully developed, and as feasible, these methods will be adapted for the Park.

Currently, DPR will follow the habitat- and species-specific monitoring requirements outlined in the Draft North County Plan. Additionally, DPR will prioritize species for monitoring based on the Draft North County Plan conservation analysis, and follow USGS rare plant monitoring protocols (McEachern et al. 2007), San Diego State University habitat and vegetation community monitoring protocols (Deutschman et al. 2009) and USFWS wildlife monitoring protocols (USFWS 2008). These

references will assist DPR in developing monitoring methods at the individual preserve level, and management directives for specific species. When the Draft North County Plan is finalized, this RMP will be revised to include updated monitoring methodology.

Management Directive A.1 – Meet the biological monitoring requirements of the Draft North County Plan (*Priority 1*)

***Implementation Measure A.1.1*:** DPR will conduct habitat monitoring at five-year intervals to document the status of vegetation communities and relative cover of native plant species within the Park. The monitoring effort will identify any adverse changes in vegetation community distribution and habitat quality and indicate if modifications to current management actions are needed. More frequent monitoring will occur during active or passive enhancement/restoration projects (see B.1.3 & B.2.3), and may also be required following a significant fire within the Park.

***Implementation Measure A.1.2*:** DPR will conduct general wildlife and rare plant surveys at five-year intervals utilizing and refining baseline monitoring methods to facilitate trend and distribution status analysis.

***Implementation Measure A.1.3*:** DPR will conduct monitoring for invasive, non-native plant species at five-year intervals to assess invasion or re-invasion by invasive, non-native plants within the Park. Surveys will be focused in areas where invasive, non-native plants have been detected in the past and in the vicinity of special-status species, but will also look for new occurrences in the Park. The surveys will document the location of invasive, non-native plants and quantify the numbers/acreages of individual species within the Park.

***Implementation Measure A.1.4*:** DPR will conduct corridor monitoring at five-year intervals along the San Luis Rey River to monitor corridor usage by target large mammals including mountain lion and southern mule deer. The scope of monitoring will be sufficient to determine if corridors are being utilized, but not to determine the extent of use (i.e., how many individuals of any given species use a corridor).

***Implementation Measure A.1.5*:** DPR will prepare a biological monitoring report that summarizes the monitoring goals, objectives, methodology and results of the biological monitoring efforts described in implementation measures A.1.1 to A.1.4. The report will also address the effectiveness of current stewardship and management actions, identify the need for corrective actions, and include recommendations for adaptive management.

Management Directive A.2 – Meet the biological monitoring requirements for projects subject to the provisions of the Draft Biological Mitigation Ordinance (*Priority 1*)

The Draft Biological Mitigation Ordinance will be the implementing ordinance for the Draft North County Plan. This ordinance will require biological resources surveys and reports as part of the administrative process for projects subject to its provisions.

> ***Implementation Measure A.2.1*:** DPR will conduct site-specific biological surveys to determine the presence/absence of biological resources within the Area of Potential Effect for all future development projects proposed in the Park including, but not limited to, new multi-use trails, sports fields, and staging/parking areas. Surveys will be performed using protocols approved by the Wildlife Agencies. A biological resources report summarizing the results of the survey(s) will be prepared in accordance with County Biological Resources guidelines (County 2010b).

5.2.2 Draft North County Plan Covered Species-Specific Monitoring and Management

Not all species occurring within the Park are expected to require species-specific management. It is expected, rather, that other management directives and implementation measures outlined under the Biological Resources and Vegetation Management elements should be sufficient to protect and manage optimal habitat conditions for most, if not all, species to maintain and/or thrive within the Park.

The Draft North County Plan provides habitat-specific management and monitoring guidelines that will benefit certain covered species for the following habitat types: riparian, marsh and wet meadow habitat; coastal sage scrub, chaparral, and grassland habitat; oak woodlands and coniferous forest; and vernal pools. The Draft Framework RMP outlines the major factors that are a risk to these specific habitats and discusses management and monitoring to reduce the threats. Additionally, the Draft North County Plan conservation analysis provides species-specific monitoring and management conditions for proposed covered species that may need more specialized management directives.

Management Directive A.3 - Provide species-specific management and monitoring of proposed Draft North County Plan Covered Species (*Priority 1*)

DPR will implement the habitat-based and, in some cases, species-specific management and monitoring guidelines as outlined in the Draft Framework RMP and conservation analysis for all proposed Draft North County Plan covered species within the Park.

The recommended guidelines for those species currently known or with high potential to occur in the Park are listed below followed by an explanation of how monitoring and/or management activities in the Park will comply. In order to avoid repetition, the following is a list of the common threats/risk factors to habitats and proposed covered species, and the corresponding management directives or implementation measures intended to address these factors.

- ***Invasive, non-native plants***: Management directives B.2 & B.3, and implementation measures A.1.1 & A.1.3
- ***Invasive, non-native animals***: Management directive A.5
- ***Fire***: Management directives B.2, B.3 & B.4
- ***Human Disturbance***: Management directives C.1, C.2, C.3 & C.5 and implementation measures C.4.1 & D.3.2
- ***Edge effects***: Management directives D.6 & D.7, and implementation measures B.4.1 & B.4.2
- ***Hydrological Management***: Management directive D.3

San Diego Ambrosia (*Ambrosia pumila*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Trend Monitoring (High Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3), as well as the species-specific monitoring described in the implementation measures below.

> ***Implementation Measure A.3.1*:** In order to increase the likelihood of detecting potential occurrences of San Diego ambrosia, which blooms in the late summer and fall (May to October), DPR will conduct one fall survey for this species in conjunction with the general rare plant surveys described in implementation measure A.1.2.
>
> ***Implementation Measure A.3.2*:** If fall surveys detect San Diego ambrosia within the Park, DPR will collect and monitor species-specific information on the observed population(s) including the number, size, variability and health status (e.g., new vegetative growth, flowering). The species-specific monitoring will also document observations of insect pollinators, the status of invasive, non-native plant species in the vicinity of San Diego ambrosia, and the condition of soils and evidence of soil disturbance. These surveys will be conducted at five-year intervals in conjunction with the monitoring efforts indicated above.

Management: Population/Habitat Maintenance/Enhancement

The current management approach for this species is maintenance and, when necessary, enhancement of suitable habitat (grasslands and coastal sage scrub in upper terraces of San Luis Rey River) within the Park. These habitats will be managed to reduce the threat of fire and invasive, non-native species, and maintain hydrology. If, in the future, San Diego ambrosia is detected within the Park, management will also include maintenance of any observed population(s).

Arroyo Toad (*Anaxyrus* [=*Bufo*] *californicus*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Trend Monitoring (High Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3).

Management: Population/Habitat Maintenance/Enhancement

The current management approach for this species is maintenance and, when necessary, enhancement of suitable breeding habitat (riparian areas and wetlands) and upland foraging and aestivation habitat (grasslands and coastal sage scrub) within the Park. These habitats will be managed to reduce the threat of fire and invasive, non-native species, and maintain hydrology. Specific management actions include active restoration of suitable habitat at appropriate densities for arroyo toad (see B.1.2). If, in the future, arroyo toad is detected within the Park, management will also include maintenance of any observed population(s).

Coast Horned Lizard (*Phrynosoma coronatum blainvillii*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3), as well as monitoring for presence of Argentine ant (see A.5.1).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (riparian areas and grasslands) within the Park. These habitats will be managed to reduce the threat of both fire and invasive, non-native species, and riparian areas will also be managed to maintain hydrology. Argentine ants are a demonstrated

stressor on this species in areas with substantial urban development, which is not typical of this region. No Argentine ants have been documented within the Park.

Orange-Throated Whiptail (*Aspidoscelis hyperythra*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (grasslands and coastal sage scrub) within the Park. These habitats will be managed to reduce the threat of fire and invasive, non-native species.

Red Diamond Rattlesnake (*Crotalus ruber ruber*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (coastal sage scrub and grasslands near rocks or boulders) within the Park. These habitats will be managed to reduce the threat of fire and invasive, non-native species.

Two-Striped Garter Snake (*Thamnophis hammondii*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (riparian/wetlands and coastal sage scrub) within the Park. These habitats will be managed to reduce the threat of both fire and invasive, non-native species, and the riparian/wetland areas will also be managed to maintain hydrology.

Western Spadefoot (*Spea hammondii*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable breeding habitat (riparian areas and wetlands) and upland foraging and aestivation habitat (grasslands and coastal sage scrub) within the Park. These habitats will be managed to reduce the threat of both fire and invasive, non-native species, and the riparian/wetland areas will also be managed to maintain hydrology.

Least Bell's Vireo (*Vireo bellii pusillus*)

Potential/Known Occurrence: Present

Monitoring: Trend Monitoring (Medium Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3), as well as cowbird monitoring (see A.5.1) and the species-specific monitoring described in the implementation measure below.

> ***Implementation Measure A.3.3*:** DPR will continue to allow USGS to conduct annual monitoring of least Bell's vireo within the Park as part of their on-going, long-term study to track the progress of this species towards recovery and eventual de-listing. The USGS conducts annual monitoring pursuant to protocol survey guidelines established by the USFWS. The survey goals are to determine the abundance and distribution of vireos in the study area; collect information on dispersal and site fidelity of banded vireos; and collect nesting data to assess baseline fecundity, nest success, and productivity, as well as rates of cowbird parasitism. As a condition of the Right-of-Entry permit issued to USGS by the County, the monitoring data from the surveys is required to be submitted to DPR. This data will be used by DPR for adaptive management of the species.

Management: Population/Habitat Maintenance/Enhancement

The management approach for this species is maintenance of the population and suitable habitat (riparian areas and wetlands) within the Park and, when necessary, enhancement. These habitats will be managed to reduce the threat of fire and invasive, non-native species, and maintain hydrology. Specific management actions include cowbird trapping (see A.5.2) and active restoration of suitable habitat including planting of large *Salix* species (see B.1.2).

Northern Harrier (*Circus cyaneus*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3).

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (grassland and open sage scrub) within the Park. These habitats will be managed to reduce the threat of fire and invasive, non-native species.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

Potential/Known Occurrence: Known to Occur

Monitoring: Trend Monitoring (High Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3), as well as the species-specific monitoring described in the implementation measure below.

> ***Implementation Measure A.3.4*:** DPR will continue to allow USGS to annually record observations of southwestern willow flycatcher within the Park. Southwestern willow flycatcher primarily breeds up and/or downstream of the Park, and due to their high site fidelity, are not anticipated to be found on a regular basis within the Park. Therefore, the USGS records all observations of southwestern willow flycatcher within the Park boundary as part of their on-going, long-term study of least Bell's vireo, but conducts focused surveys for this species in the known breeding areas further downstream. As a condition of the Right-of-Entry permit issued to USGS by the County, the monitoring data from the surveys is required to be submitted to DPR. This data will be used by DPR for adaptive management of the species.

Management: Population/Habitat Maintenance/Enhancement

The current management approach for this species is maintenance of the population and suitable habitat (riparian areas and wetlands) within the Park and, when necessary, enhancement. These habitats will be managed to reduce the threat of fire and invasive, non-native species, and maintain hydrology. Specific management actions include cowbird trapping (see A.5.2) and active restoration of suitable habitat including planting of large *Salix* species (see B.1.2).

White-Faced Ibis (*Plegadis chihi*)

Potential/Known Occurrence: Present

Monitoring: Trend Monitoring (Medium Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3).

Management: Population/Habitat Maintenance/Enhancement

The management approach for this species is maintenance of the population and suitable foraging habitat (riparian areas and wetlands) within the Park and, when necessary, enhancement. There is no suitable nesting habitat on site. These habitats will be managed to reduce the threat of fire and invasive, non-native species, and maintain hydrology.

Yellow-Breasted Chat (*Icteria virens*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring, general wildlife and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3), as well as the species-specific monitoring described in the implementation measure below.

> ***Implementation Measure A.3.5*:** If future surveys detect yellow-breasted chat within the Park, DPR will conduct focused surveys to determine the status of the breeding population and proportion of suitable habitat occupied. The focused surveys will also document the observed level of brown-headed cowbird nest parasitism (see also A.5.1) and urban-related predator impacts. These surveys will be conducted at five-year intervals in conjunction with the monitoring efforts indicated above.

Management: Habitat Maintenance

The management approach for this species is maintenance of suitable habitat (riparian areas and wetlands) within the Park. These habitats will be managed to reduce the threat of fire and invasive, non-native species, and maintain hydrology.

Mountain Lion (*Puma* [=*Felis*] *concolor*)

Potential/Known Occurrence: High Potential to Occur

Monitoring: Status Monitoring (Low Priority)

Monitoring efforts include habitat monitoring, general wildlife (including status of prey populations) and rare plant surveys, and monitoring for invasive plant species (see A.1.1, A.1.2 & A.1.3) as well as corridor monitoring (see A.1.4).

Management: Habitat Maintenance

The management approach for this species is maintenance of open space within the Park to facilitate large mammal movement.

Management Directive A.4 - Provide management and monitoring of other special-status species listed on the County's Sensitive Plant List (Lists A and B) (*Priority 1*)

The Draft Biological Mitigation Ordinance will require avoidance of narrow endemic plant species as well as species included in Lists A and B of the County's Sensitive Plant List. List A and B species are considered rare, threatened or endangered in California. The general management directives and implementation measures outlined in this RMP are intended to be adequate for the conservation of these species, and the County will monitor these species to ensure this is the case. Monitoring efforts for List A and B plants will include the monitoring described in the implementation measure below.

> ***Implementation Measure A.4.1*:** DPR will conduct surveys of County List A and B plant species not covered by the Draft North County Plan within the Park, including smooth tarplant, which has a high potential to occur within the Park. Although no List A or B species have been recorded within the Park, future surveys will document the location of any newly observed species, and quantify the number of individuals and/or the acreage of the population. These surveys will be conducted at five-year intervals in conjunction with habitat monitoring and rare plant surveys (see A.1.1 & A.1.2).

5.2.3 Non-Native and/or Invasive Wildlife Species Control

One of the conservation goals for the Lower San Luis Rey Linkage is the removal of invasive, non-native species to enhance habitat quality. The Draft North County

Plan-wide and habitat-specific management and monitoring guidelines for invasive, non-native species control were used to develop the management directives and implementation measures provided below, in order to meet this goal.

Management Directive A.5 – Reduce, control, or where feasible, eradicate non-native and/or invasive wildlife known to be detrimental to native species and/or the local ecosystem (*Priority 2*)

As discussed in Section 3.3.4, non-native and/or invasive species of management concern detected within the Park include brown-headed cowbird. American bullfrog was detected within the Park, but due to its widespread presence along the entire length of the San Luis Rey River, eradication and control efforts are considered infeasible. Therefore, they are not addressed in the implementation measures below. Although not observed within the Park, Argentine ant is another invasive, non-native species known to adversely affect sensitive species that occur within the Park.

> ***Implementation Measure A.5.1*:** DPR will conduct surveys for the presence of non-native and/or invasive wildlife species of management concern, including cowbirds and Argentine ants, at five-year intervals in conjunction with habitat monitoring and general wildlife surveys (see A.1.1 & A.1.2).
>
> ***Implementation Measure A.5.2*:** DPR will continue to allow annual cowbird trapping in the Park as part of the San Diego Flood Management Project. If future monitoring data from USGS indicates that least Bell's vireo populations within the Park are declining for two or more successive years as a result of increased cowbird parasitism rates, DPR will coordinate with the San Diego Flood Management Project trapping program and request additional cowbird traps be placed within the Park in order to increase the nesting success of target species.

5.2.4 Future Research

The Draft North County Plan preserve presents a rich array of research opportunities for the academic and professional communities, primarily in disciplines related to biology, ecology, and natural resources management, but also ranging to environmental design, sociology, and park use and administration. In addition, research on vegetation associations and habitats, natural regeneration, restoration, fragmentation, edge effects, genetics, viability, predation, wildlife movement, and much more, is useful to provide information on the health and dynamics of this open space system as well as how to improve conditions. The County encourages research within the Park in order to gain valuable information unavailable through other means.

Management Directive A.6 – Allow for future research opportunities within the Park (*Priority 2*)

***Implementation Measure A.6.1*:** DPR will accept and review proposals for scientific research, monitoring, and habitat restoration and enhancement activities, which are permitted within the Draft North County Plan preserve. Proposed research activities will be subject to approval by DPR. All such activities must obtain any necessary permits and shall be consistent with this RMP. Additionally, any person conducting research of any kind within the Park shall obtain a Right-of-Entry Permit from DPR, which will outline the precautions to be taken to preserve and protect sensitive biological and cultural resources within the Park, and require results of any research to be made available to DPR.

5.3 Vegetation Management Element (B)

The Draft North County Plan provides plan-wide and habitat-specific management and stewardship guidelines for non-native invasive species control, habitat restoration, and fire and vegetation management. In addition, a Vegetation Management Plan (VMP) was developed for San Luis Rey River Park (Dudek 2011b) in conjunction with the baseline surveys. The VMP characterizes current site conditions and details recommended measures for invasive species control, habitat restoration, and fire management within the Park. These guidelines and recommendations were used to develop the management directives and implementation measures provided below.

5.3.1 Habitat Restoration

Per the Draft North County Plan, habitat restoration on preserve lands is not typically required, but is encouraged if resources are available.

Management Directive B.1 – Restore degraded habitats to protect and enhance populations of rare and sensitive species (*Priority 2*)

The VMP proposes recommended restoration opportunities within the Park including both passive and active restoration. However, future development planning within the Park, including trails and recreation facility design and construction, may supersede habitat restoration work in some of these areas. It is anticipated that the majority of habitat restoration work, including invasive, non-native plant removal, will be implemented as mitigation projects to meet the needs of future recreational development within the Park.

> ***Implementation Measure B.1.1*:** DPR will assess and pursue mitigation opportunities within the Park that implement passive restoration methods (e.g., dethatching, weed treatment, limitation of access) in proposed restoration areas (Figure 9) as recommended in the VMP (Dudek 2011b) that do not conflict with future Park development. See also B.2.2.
>
> ***Implementation Measure B.1.2*:** DPR will assess and pursue mitigation opportunities within the Park that implement active restoration methods (e.g., seed application and installation of cuttings or container plants) in the proposed restoration areas (Figure 9) as recommended in the VMP (Dudek 2011b) that do not conflict with future Park development. Priority will be given to sites closest to the primary San Luis Rey River channel as restoring native habitat in these areas would improve habitat connectivity and protect the native riparian vegetation from invasion by non-native species.
>
> All plant materials will be native species from San Diego County, preferably originating within 25 miles of the Park. Quantities, rates and composition of seed mixes or planting palettes will be determined on an individual basis,

based on the existing plant composition surrounding the restoration sites. Plantings in designated critical arroyo toad habitat will be less dense with an ultimate vegetative cover target of 60% in order to provide open areas, which are needed by arroyo toad. Plantings in designated critical habitat for least Bell's vireo and southwestern willow flycatcher will include large *Salix* species (*S. lasiolepis, S. laevigata, and S. goodingii*) in order to provide microhabitat cover that may lower the incidence of cowbird parasitism.

***Implementation Measure B.1.3*:** DPR will monitor and document the results of any habitat restoration activities conducted as mitigation within the Park, and maintain the mitigation areas, as needed, to ensure that established success criteria are met. Monitoring efforts will be conducted by a qualified biologist(s), who will also oversee all maintenance activities.

5.3.2 Invasive, Non-Native Plant Species Removal and Control

One of the conservation goals for the Lower San Luis Rey River Linkage is the removal of invasive, non-native species to enhance habitat quality. The following management directives and implementation measures are intended to meet this goal. In addition, invasive, non-native plant removal serves the dual purpose of vegetation thinning for fire suppression.

Management Directive B.2 – Reduce, control, or where feasible eradicate non-native plants that are known to be detrimental to native species and/or the local ecosystem (*Priority 1*)

As described in Section 3.2.4, 19 Cal-IPC rated invasive, non-native plant species were identified within the Park. These species were ranked for removal priority (high, moderate and low) in the VMP (Dudek 2011b) to assist management efforts within the Park.

***Implementation Measure B.2.1*:** Park Rangers will routinely pull weeds or remove any invasive, non-native plants in early stages of growth observed during patrols along trails or access roads.

***Implementation Measure B.2.2*:** DPR will assess and pursue mitigation opportunities that implement invasive, non-native plant removal within the Park. Precedence will be given to those areas occupied by species identified as high priority, followed by moderate and then low priority species. See also B.1.1.

***Implementation Measure B.2.3*:** DPR will monitor and document the results of any invasive, non-native plant treatment/control activities conducted as mitigation within the Park, and maintain mitigation areas, as needed, to ensure that established success criteria are met. Monitoring efforts will be

conducted by a qualified biologist (s), who will also oversee all maintenance activities.

Management Directive B.3 – Manage and minimize the expansion of invasive, non-native plants within the Park (*Priority 2*)

***Implementation Measure B.3.1*:** DPR will identify and assess upstream sources of invasive, non-native plants on adjacent properties that have the potential to expand into the Park. DPR will coordinate with the adjacent land owners and managers of those properties and encourage them to treat and control the invasive, non-native plants on their property.

5.3.3 Fire Prevention, Control, and Management

As described in Section 2.3.4, the Park parcels are classified as High or Very High Fire Hazard Severity Zones by CAL FIRE (FRAP 2011) and are located within the San Luis Rey West Priority Area for fuel management as identified by the Forest Area Safety Task Force (County 2009c).

DPR maintains several fuel modification zones within the Park. The intent of the fuel modification zones and defensible space is to protect habitable structures within and adjacent to the Park from wildfires and provide for safe access for fire agency vehicles and crew when responding to a fire within the Park. These areas may further protect the resources within the Park by absorbing some of the “edge effects” that might otherwise occur within the Park.

Management Directive B.4 – Provide for necessary fire management activities that are sensitive to biological and cultural resources protection (*Priority 1*)

All fire management activities within the Park will adhere to the guidelines of the Memorandum of Understanding (MOU) between the USFWS, CDFG, CAL FIRE, San Diego County Fire Chief’s Association and the Fire District’s Association of San Diego County, signed February 26, 1997. This MOU authorizes the take of species listed as threatened or endangered, or candidate species for management purposes necessitated by or incidental to the described fire protection measures.

***Implementation Measure B.4.1*:** Park Rangers will annually maintain the established fuel modification zones within the Park including: the area adjacent to the neighboring mobile home park; the previous agricultural field within the east parcel; the east parcel access at the end of Dulin Road; and the 30-foot buffer along the dirt access road directly adjacent to the San Luis Rey Downs golf course. Management of the fuel modification zone and defensible space will adhere to CAL FIRE requirements. In addition, DPR will strive to minimize impacts during maintenance activities and, if possible, conduct activities outside of the bird breeding season.

***Implementation Measure B.4.2*:** Park Rangers will install and maintain inconspicuous fuel modification extent markers for all fuel modification zones to minimize additional thinning outside the intended areas and protect adjacent sensitive resources.

***Implementation Measure B.4.3*:** DPR will continue to coordinate with the North County Fire Protection District and CAL FIRE to ensure that the fire response and implementation measures outlined in this RMP and in the VMP (Dudek 2011b) are up-to-date and adequate for effective fire response within the Park. As part of this effort, DPR will review fire history maps at least once every 10 years to determine if Park lands are within natural fire return intervals and for estimation of fuel age class.

5.4 Public Use, Trails, and Recreation Element (C)

THE PARK IS CURRENTLY NOT OPEN TO THE PUBLIC

5.4.1 Public Access

The Park is currently not open to the public; however, evidence of unauthorized use is apparent from the existing unofficial trail network within the Park parcels

Management Directive C.1 – Limit types of public uses to those that are appropriate for the Park (*Priority 1*)

***Implementation Measure C.1.1*:** Park Rangers will patrol and monitor the Park parcels for any unauthorized public access and use of the Park. Park Rangers will document any illegal access and use of the Park, and inform any unauthorized persons observed on site that the Park is not open to the public and request that they leave the property.

***Implementation Measure C.1.2*:** Park Rangers will enforce the following prohibited uses and restrictions within the Park. Park Rangers may call the Sheriff for legal enforcement, as appropriate.

a. Off-road or cross-country vehicle and public off-highway recreational vehicle activity (except for law enforcement, Park management, scientific research, and/or emergency purposes)

b. Hunting or discharge of firearms (except for law enforcement, and/or emergency purposes)

c. Poaching, collecting or otherwise adversely impacting plant or animal species, archaeological or historical features, artifacts or fossils

d. Fishing, swimming, and wading in rivers, streams, or creeks

e. Camping (including homeless and itinerant worker camps)

f. Feeding wildlife

g. Domestic animals

h. Smoking

i. Campfires/Open Flames

j. Littering/Dumping

k. Trespassing

***Implementation Measure C.1.3*:** Park Rangers will ensure that prohibited uses are clearly specified on posted signage.

Management Directive C.2 – Manage access in sensitive biological and cultural resource areas within the Park (*Priority 1*)

***Implementation Measure C.2.1*:** DPR has identified and mapped sensitive vegetation communities, special-status plant and wildlife species (including narrow endemics and County-listed species), and cultural sites in the Park so that these areas can be avoided and/or monitored. Updated information on sensitive resources in relation to access points (i.e., existing access roads and unofficial trails) will be obtained in conjunction with on-going monitoring efforts (see A.1.1, A.1.2, C.5.1, D.3.2 & E.2.4).

***Implementation Measure C.2.2*:** In areas where unauthorized access (e.g., off-road activity and illegal dumping) and/or adverse effects to sensitive resources are observed, DPR will implement measures, such as installation of signage and/or fencing, to restrict public access and protect highly sensitive areas (see also C.4.1 & C.6.1). The appropriate types of measures to be taken will be determined based on location, setting, and use.

Management Directive C.3 – Analyze any future proposed public access such that recreational use of the Park is consistent with the protection and enhancement of biological and cultural resources (*Priority 1*)

The Park is currently not open to the public; however, the goal of the SLRRP is to provide three fundamental components: ±1,600 acres of open space preserve, ±40 acres of active recreational amenities, and a network of multi-use trails. DPR is currently in the process of developing a Trails Master Plan for the Park in accordance with the SLRRP Master Plan and certified Programmatic EIR. The Trails Master Plan for the Park will implement, to the extent possible, the County-approved CTMP.

Implementation Measure C.3.1: DPR will develop public-use facilities that provide passive and active recreational opportunities within the Park including, but not limited to, new multi-use trails, sports fields, and staging/parking areas, that are compatible with the Draft North County Plan objectives using the recommendations and guidelines in the SLRRP Master Plan, certified programmatic EIR, and the County-approved CTMP. Any new passive and active recreational facilities will be designed and constructed to avoid and/or minimize impacts to sensitive biological and cultural resources. See also E.2.1.

Implementation Measure C.3.2 DPR will conduct the necessary environmental review for all proposed passive and active recreational facilities within the Park in accordance with CEQA, and obtain all required permits prior to public use of these facilities. See also A.2.1 & E.1.2.

5.4.2 Fencing and Gates

Existing fencing within the Park consists of bollard and cable barriers located along the southern boundary of the central parcel. This fencing serves to restrict access and prevent unauthorized off-road activity. There are also several existing gates at various access points along the Park parcel boundaries (Figure 7).

Management Directive C.4 – Install and maintain fencing and gates within the Park (*Priority 1*)

> ***Implementation Measure C.4.1*** Park Rangers will install fencing and/or gates as needed to restrict unauthorized access and protect sensitive resources from impacts. Points of unauthorized access and sensitive resource impacts will be identified in conjunction with on-going monitoring efforts (see A.1.1, A.1.2, C.5.1, D.3.2 & E.2.4). Fences and gates will be designed and located so they do not impede wildlife movement or impact cultural resources.
>
> ***Implementation Measure C.4.2*****:** Park Rangers will regularly inspect and maintain all installed fencing and gates within the Park. Fencing segments and gates will be repaired or replaced as necessary.

5.4.3 Trail and Access Road Maintenance

The Park is currently not open to the public. However, it contains several dirt roads and multiple disturbed trails, which are currently used for management purposes.

Management Directive C.5 – Properly maintain access road and trails for user safety, and to protect biological and cultural resources (*Priority 1*)

> ***Implementation Measure C.5.1*****:** Park Rangers will monitor the existing dirt roads and trails currently used for management purposes (e.g., routine patrols and stewardship) for degradation and off-trail access and use. Special attention will be paid to access areas through sensitive habitats near the San Luis Rey River such as southern cottonwood-willow riparian forest and tamarisk scrub, which provide habitat for least Bell's vireo, southwestern willow flycatcher, and arroyo toad. Park Rangers will provide any necessary repair/maintenance as needed.

5.4.4 Signage

Management Directive C.6 – Install and maintain appropriate signage to effectively communicate Park rules and regulations (*Priority 1*)

Park rules and regulations (e.g., Off Roading and ATV Activity Prohibited, Smoking and Open Flames Prohibited, No Trespassing, No Dumping, No Hunting) signs are currently posted in multiple locations along the Park boundaries.

> ***Implementation Measure C.6.1*:** Park Rangers will install appropriate signage in the Park, as needed, to communicate Park rules and regulations (see C.1.3 & D.2.1), and restrict unauthorized public access (see C.2.2 & D.3.2).
>
> ***Implementation Measure C.6.2*:** Park Rangers will regularly inspect and maintain all posted signs within the Park in good condition. Signs will be kept free from vandalism and will be repaired or replaced as necessary.

5.5 Operations and Facility Maintenance Element (D)

5.5.1 Litter/Trash and Materials Storage

Management Directive D.1 – Maintain a safe and healthy environment within the Park (*Priority 1*)

***Implementation Measure D.1.1*:** DPR prohibits the permanent storage of hazardous and toxic materials within the Park. Any temporary storage will be in accordance with applicable regulations, and otherwise designed to minimize any potential impacts.

Management Directive D.2 – Publicize and enforce regulations regarding littering/dumping (*Priority 1*)

***Implementation Measure D.2.1*:** DPR and Park Rangers will ensure that regulations regarding littering/dumping are clearly posted on signs throughout the Park, with an emphasis in areas where illegal dumping has been observed. See also C.1.3.

***Implementation Measure D.2.2*:** Park Rangers will enforce posted regulations regarding littering/dumping (County Code of Regulatory Ordinance Section 41.116). Penalties for littering and dumping will be imposed by law enforcement officers sufficient to prevent recurrence and reimburse costs to remove and dispose of debris, restore the area if needed, and pay for additional DPR staff time. Areas where dumping recurs will be evaluated for potential barrier placement. Additional monitoring and enforcement will be provided as needed. See also C.1.2.

5.5.2 Hydrological Management

Conservation goals for the Lower San Luis Rey River Linkage include maintaining riparian and upland habitat along the San Luis Rey River for water quality. The draft North County Plan habitat-specific hydrology management and monitoring guidelines were used to develop the management directives and implementation measures provided below, in order to meet this goal.

Management Directive D.3 – Retain the San Luis Rey River and floodplain in its natural condition (*Priority 1*)

***Implementation Measure D.3.1*:** Park Rangers will inspect for unauthorized trail access and use along the San Luis Rey River during regular patrols and monitoring. If necessary, Park Rangers will implement measures to control public access along the river, such as installation of signage and/or fencing (see C.2.2, C.4.1 & C.6.1), access road/trail management (see C.5.1), and increased patrols, as necessary.

***Implementation Measure D.3.2*:** DPR will conduct visual assessments of the San Luis Rey River channel conditions in conjunction with habitat monitoring (see A.1.1). Where channel conditions are considered poor (e.g., unstable banks), follow up surveys will be conducted to determine if management actions are necessary. Where necessary, DPR will determine appropriate measures to stabilize banks and control erosion.

***Implementation Measure D.3.3*:** DPR will monitor and document the results of any bank and/or soil stabilization activities conducted within the Park, and maintain these areas, as needed, to ensure success of these efforts.

5.5.3 Emergency, Safety and Police Services

Management Directive D.4 – Cooperate with public health and safety personnel to achieve their goals while helping to reduce or eliminate impacts to biological and cultural resources within the Park (*Priority 1*)

***Implementation Measure D.4.1*:** DPR will allow law enforcement officials and all medical, rescue and other emergency agencies to access Park property as necessary to enforce the law and carry out operations necessary to protect the health, safety, and welfare of the public. DPR will coordinate with the applicable agencies to inform field personnel of the locations of particularly sensitive biological and significant cultural resources and how to minimize damage to these resources.

5.5.4 Adjacency Management Issues

As described in Section 2.4.2, the Park parcels abut areas of conserved open space owned and/or managed by Caltrans, CDFG, City of Oceanside, and DPW.

Management Directive D.5 – Coordinate with adjacent open space landowners and land managers (*Priority 1*)

Implementation Measure D.5.1: DPR will coordinate with Caltrans, CDFG, City of Oceanside, and DPW as the adjacent open space landowners and land managers on an annual basis, or more regularly as needed, to ensure the contiguous preserved lands are managed consistently and in accordance with the Draft North County Plan.

Management Directive D.6 - Enforce Park boundaries (*Priority 1*)

***Implementation Measure D.6.1*:** DPR and Park Rangers will enforce, prevent, and/or remove illegal intrusions into the Park (e.g., orchards, decks) on an annual and complaint basis.

Management Directive D.7 – Educate residents in surrounding areas about Park adjacency issues (*Priority 2*)

***Implementation Measure D.7.1*:** DPR will post the RMP on the DPR website (www.sdparks.org) to inform surrounding residents of Park adjacency issues including access, invasive plant impacts and appropriate landscaping, construction or disturbance within the Park boundaries, pet intrusion, and fire management. See also B.3.1.

5.6 Cultural Resources Element (E)

The goal of this section of the RMP is long-term preservation of cultural resources, public interpretation of cultural resources, and interaction with the bands of Native Americans in whose traditional tribal territory this Park exists.

Management Directive E.1 – Identify, record, and assess the significance of any new cultural resources discovered within the Park (*Priority 1*)

Because archaeological surveys near the San Luis Rey River were limited due to high water level and dense vegetation, it is likely that undiscovered significant cultural resources exist in areas of the Park that were not accessible during the 2011 surveys.

> ***Implementation Measure E.1.1*:** DPR will identify and record cultural resource sites in previously unsurveyed areas of the Park where, if in the future, vegetation is thinned or removed as a result of wildfire or planned ground disturbing activities including clearing, grubbing or other related activities associated with invasive plant removal, habitat restoration and fire management efforts, as well as after large flood events. Surveys will be conducted in accordance with CEQA (when applicable) and County Cultural Resources guidelines (County 2007), and will include a Luiseño Native American monitor. Any new resources identified will be evaluated for significance, in consultation with local Native American tribes, or significance will be assumed if testing is not conducted. See also E.4.1.
>
> ***Implementation Measure E.1.2*:** DPR will conduct site-specific cultural resources surveys to determine the presence/absence of cultural resources within the Area of Potential Effect for all future development projects proposed in the Park including, but not limited to, new multi-use trails, sports fields, and staging/parking areas. Surveys will be conducted in accordance with CEQA and County Cultural Resources guidelines (County 2007), and will include a Luiseño Native American monitor. Any new resources identified will be evaluated for significance, in consultation with local Native American tribes, or significance will be assumed if testing is not conducted. See also E.2.1 & E.4.1.
>
> ***Implementation Measure E.1.3*:** In the event that human remains are discovered during archaeological surveys or testing, DPR will immediately stop all work and notify the County Coroner. If the Coroner determines the remains are Native American, the Most Likely Descendant, as identified by the NAHC, will be contacted in order to determine proper treatment and disposition of the remains. Per County guidelines, any time human remains are encountered, the site is considered significant (County 2007). See also E.2.1.

Management Directive E.2 – Preserve and protect significant cultural resources to ensure that sites are available for present and future generations (*Priority 1*)

Potential impacts to cultural resources within the Park are most likely to result from fire suppression and maintenance activities (e.g., vegetation removal), and future Park development and public use. In order to protect these resources, it is necessary that impacts be prevented, reduced, eliminated, or adverse effects mitigated.

> ***Implementation Measure E.2.1*:** DPR will design all future development projects within the Park to avoid adverse impacts to any cultural resources to the maximum extent feasible. Potential project impacts (direct, indirect and cumulative) to cultural resources will be assessed, in consultation with local Native American tribes, in order to determine appropriate design conditions and/or mitigation measures. No ground disturbing activities will be allowed on or in any cultural resource site within the Park until the impacts have been assessed, and consultation with the local Native American tribes has occurred. Should avoidance be feasible, a management or preservation plan may be developed in consultation with local Native American tribes to ensure that the cultural resource(s) is protected from future disturbances.
>
> If avoidance is not feasible, appropriate mitigation measures will be established in consultation with local Native American tribes. Preservation in place is the preferred form of mitigation. Removal or disturbance of cultural resources will not occur prior to completion of an approved mitigation program, such as data recovery and a grading monitoring program consisting of a County-approved archaeologist and Luiseño Native American monitor. Any cultural materials collected from the Park will be curated at a County-approved curation facility. No removal or modification of cultural resources will occur without consultation with local Native American tribes and written approval by the Director of Parks and Recreation.
>
> All ground disturbing activities will be monitored by a County-approved archaeologist and Luiseño Native American monitor. If human remains are discovered, the County Coroner will be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, will be contacted in order to determine proper treatment and disposition of the remains. Per County guidelines, any time human remains are encountered, the site is considered significant and the only appropriate mitigation is preservation (County 2007). DPR will consult with the Most Likely Descendant on the need for additional avoidance and management measures, which may include, but is not limited to, development of a management or preservation plan to ensure that the burial area(s) is protected from future disturbances.

***Implementation Measure E.2.2*:** DPR and Park Rangers will avoid all recorded, sensitive cultural sites with an appropriate buffer, which will be determined on a site-specific basis in consultation with local Native American tribes, when conducting management and maintenance activities within the Park including, but not limited to, fuel management and habitat restoration activities. If access to cultural sites is necessary, manual methods will be used to the maximum extent possible, and any ground disturbance will be monitored by a County-approved archaeologist and Luiseño Native American monitor.

***Implementation Measure E.2.3*:** Park Rangers will enforce the protection of recorded, sensitive cultural resource sites from vandalism and other forms of human impact in accordance with County of San Diego ordinances (Title 4; Public Property, Division 1; Parks and Beaches, Article 2, Section 41.113), and applicable state and federal laws. If a person(s) is suspected of vandalism to cultural resources, Park Rangers will notify the appropriate law enforcement authorities. If vandalism and damage continue or increase, DPR will coordinate with the appropriate authorities and local Native American tribal representatives to develop additional measures to protect cultural resources, as needed.

***Implementation Measure E.2.4*:** DPR will note the condition and status of known cultural resources within the Park as part of on-going monitoring efforts conducted on a five-year basis (or on a more frequent basis as determined by DPR). If damage is noted, DPR will notify and consult with local Native American tribal representatives to assess the damage and develop appropriate remedial measures, if needed. Monitoring of the sites in the Park will follow County Cultural Resources guidelines (County 2007), and all site location information will be kept strictly confidential and will be available only for qualified cultural resource staff and land managers. Site locations will not be shown on maps or divulged to the public.

Management Directive E.3 – Promote cultural resources interpretation and educational programs (*Priority 2*)

***Implementation Measure E.3.1*:** DPR will develop off-site, and when possible, on-site interpretive programs for Native American heritage, local and regional history, and prehistory appropriate to the Park in coordination with Native American tribal representatives. These may include lectures, walks, kiosks, signs, historic brochures and displays, but will not include excavations, collecting of artifacts, or disclosure of confidential site locations. Such programs will not be implemented until the Park is officially open to the public.

Management Directive E.4 – Honor Native American Heritage and promote Native American ceremonies, gathering, and cultural practices (*Priority 2*)

***Implementation Measure E.4.1*:** DPR will continue to coordinate and consult with local tribal representatives who may have knowledge of the Park area, including those representing the San Luis Rey Band of Mission Indians and Pechanga Band of Luiseño Indians, in order to keep them informed of activities associated with the Park. Consultation is required pursuant to Section 65352.3 of the Government Code (Senate Bill 18 (SB-18) [2004]) for any project that involves a General Plan Amendment, Specific Plan, or Specific Plan Amendment. Additionally, the County consults with Native American groups outside of the requirements of SB-18 in accordance with County Cultural Resources guidelines (County 2007). Specifically, the County requires a Native American monitor for surface and subsurface investigations (survey, significance testing, and data recovery) and grading in areas with potential presence of cultural resources, and conducts consultations for projects that have a positive finding for the presence of cultural resources (see E.1.1, E.1.2, E.2.1 & E.2.2).

DPR will also consult with local Native American tribes and encourage their participation in development of interpretive programs, and the protection and preservation of cultural resources including, but not limited to, development of long-term management or preservation plans (see E.1.1, E.1.2, E.2.1, E.2.3 & E.2.4). Consultation will be conducted frequently, and in a way that is mutually respectful of each party's sovereignty, in order to identify appropriate management of pre-contact and ethnographic cultural resources. Consultation shall also recognize the tribe's potential needs for confidentiality with respect to places that have traditional tribal cultural significance. All consultation will be coordinated through the County of San Diego Tribal Liaison.

***Implementation Measure E.4.2*:** DPR will open the Park to traditional uses by the San Luis Rey Band of Mission Indians, Pechanga Band of Luiseño Indians, and other local Native American tribes which may have traditionally used the Park area. All activities by Native Americans in the Park shall be conducted under a Hold Harmless Agreement or a Right-of-Entry permit specifically designed for the Park.

6.0 REFERENCES

51 FR 16474–16482. Final rule: “Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Least Bell’s Vireo.” 1986.

59 FR 64589–64866. Final rule: “Endangered and Threatened Wildlife and Plants: Determination of Endangered Status for the Arroyo Southwestern Toad.” 1994.

66 FR 9413–9474. Final rule: “Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad.” 2001.

70 FR 19562–19633. Final rule: “Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad (Bufo californicus).” April 13, 2005.

ASM (ASM Affiliates, Inc.). 2011. Archaeological Survey Report for the San Luis Rey River Park, San Diego County, California. Prepared for the County of San Diego Department of Parks and Recreation.

Bean, L.J., and S.B. Vane. 1991. Ethnology of Alta California Indians. Garland Publishing, New York.

CA RWQCB (California Regional Water Quality Control Board), San Diego Region. 1994. Water Quality Control Plan for the San Diego Basin. Available at: http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml.

Cal-IPC (California Invasive Plant Council). 2010. “California Invasive Plant Inventory”. Berkley, California: California Invasive Plant Council. Accessed December 2010. Available at: http://www.cal-ipc.org/ip/inventory/weedlist.php

Caltrans (California Department of Transportation). 2007. Natural Environment Study: State Route 76 Melrose to South Mission Highway Improvement Project in San Diego County, California. 11-SD-76-KP 12.1–21.1 (PM 7.5–13.1), EA 080100. September 2007.

———. 2010. Natural Environment Study: State Route 76 Mission Road to Interstate 15 Highway Improvement Project in San Diego County, California. 11-SD-76 (PM 12.4/17.6), 11-SD-15 (PM 46.1/47.1), EA number 257110. August 2010.

CDFG (California Department of Fish and Game). 2005. California Wildlife Habitat Relationships System (CWHR), version 8.1 personal computer program. Sacramento, CA: California Department of Fish and Game.

———. 2011. RareFind, Version 4. Sacramento, California: California Natural Diversity Database. Accessed May 2011. Available at: http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp

County (County of San Diego). 2007. County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Cultural Resources: Archaeological and Historic Resources. Available at: http://www.co.san-diego.ca.us/dplu/procguid.html#Cultural Resources

———. 2009a. County Trails Program: Community Trails Master Plan. 2005, updated 2009. Available at: http://www.co.san-diego.ca.us/reusable_components/images/parks/doc/tocrev.pdf

———. 2009b. Multiple Species Conservation Program: Draft North County Plan. San Diego County. Available at: http://www.sdcounty.ca.gov/dplu/mscp/docs/Plan_Appendices.pdf

———. 2009c. Vegetation Management Report: A Report on Vegetation Management in the Unincorporated Area of San Diego County. Available at: http://www.sdcounty.ca.gov/dplu/mscp/FINAL_VEGETATION_MGMT_PLAN.pdf

———. 2010a. County of San Diego: Adopted Operational Plan Fiscal Years 2010-2011 and 2011-2012. Available at: http://www.sdcounty.ca.gov/auditor/pdf/adoptedplan_10-12.pdf

———. 2010b. County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources. Available at: http://www.co.san-diego.ca.us/dplu/procguid.html#Biological Resources

Deutschman, D., and S. Strahm. 2009. Improving Statistical Sampling and Vegetation Monitoring for the San Diego MSCP. Final Report. Prepared for the San Diego Association of Governments, contract 5001033.

Dudek. 2011a. Baseline Biodiversity Survey for the San Luis Rey River Park. Prepared for the County of San Diego Department of Parks and Recreation. October.

———. 2011b. San Luis Rey River Park Vegetation Management Plan. Prepared for the County of San Diego Department of Parks and Recreation. August.

EDAW (EDAW, Inc.). 2008. San Luis Rey River Park Master Plan Program Environmental Impact Report. State Clearinghouse Number 2006051074. Prepared for the County of San Diego Department of Parks and Recreation. September.

———. 2009. State Route 76 Highway Improvement Project Wildlife Movement Study 2007/2008 South Mission Road to Interstate 15. Prepared for Caltrans. August.

Engstand, Iris. 2005. San Diego: California's Cornerstone. Sunbelt, San Diego.

Federal Writers Project. 1937. San Diego: A California City. San Diego Historical Society.

FRAP (Fire and Resource Assessment Program). 2011. California Department of Forestry and Fire Protection. Accessed May 9, 2011. Available at: http://frap.cdf.ca.gov/

Garcia, Mario T. 1975. Merchants and Dons San Diego's Attempt at Modernization, 1850-1860. Journal of San Diego History 21(1):53-80.

Gunn, Guard D. 1945. Rancho Monserate. The Southern California Rancher, December.

Hargreaves Associates. 2007. San Luis Rey River Park Master Plan. Prepared for the County of San Diego Department of Parks and Recreation. December.

Harvey, M. J., J. S. Altenbach, T. L. Best. 1999. Bats of the United States. Arkansas: Arkansas Game and Fish Commission.

Hawthorne, Kristi. 2000. Oceanside: Where Life is Worth Living. Donning Company Publishers, Virginia.

Heilbron, C. H. 1936. History of San Diego County. San Diego Press Club, San Diego.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California Department of Fish and Game, Non-game Heritage Program, Sacramento.

Kajtaniak, David and S.T. Downie, Scott. 2010. San Luis Rey River Watershed Assessment. Coastal Watershed Planning and Assessment Program. Department of Fish and Game. Available at: http://coastalwatersheds.ca.gov/Watersheds/SouthCoast/SanLuisReyRiver/SLRRiverAssessmentReport/tabid/679/Default.aspx

Kelly, Charles. n.d. Something About the Monserrate Valley. San Diego Historical Society, Box 78, "Rancho Monserate."

Kirk, David A. and Michael J. Mossman. 1998. "Turkey Vulture (*Cathartes aura*)," The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of

Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/339doi:10.2173/bna.339

Kus, B. E. and P. Beck. 1998. Distribution and abundance of the least Bell's vireo (*Vireo bellii pusillus*) and the southwestern willow flycatcher *(Empidonax traillii extimus*) at selected southern California sites in 1997. Prepared for California Department of Fish and Game, Wildlife Management Division, Sacramento, CA.

Kus, B. E. and M. J. Whitfield. 2005. Parasitism, productivity, and population growth: response of least Bell's vireos (*Vireo bellii pusillus*) and southwestern willow flycatchers (*Empidonax traillii extimus*) to cowbird (*Molothrus* spp.) control. Ornithological Monographs Volume (2005), No. 57, 16-27.

Lowther, P. E., C. Celada, N. K. Klein, C. C. Rimmer, D. A. Spector. 1999. Yellow warbler (*Dendroica petechia*). In: Poole, A.; Gill, F., eds. The birds of North America, No. 454. Philadelphia, PA: The Birds of North America, Inc. and Washington, DC: The American Ornithologists' Union.

Lynn S. and B. E. Kus. 2008. Least Bell's Vireo surveys on the San Luis Rey River, College Boulevard in Oceanside to Interstate 15 in Fallbrook, San Diego County, California. 2008 data summary. Prepared for Mission Resource Conservation District, Fallbrook, California.

McEachern, K., B. Pavlik, J. Rebman, and R. Sutter. 2007. San Diego Multiple Species Conservation Program Rare Plant Monitoring Review and Revision. Technical report prepared for the City of San Diego.

Marti, Carl D., Alan F. Poole and L. R. Bevier. 2005. "Barn Owl (*Tyto alba*)," The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/001doi:10.2173/bna.1

Moyer, Cecil C. 1969. Historic Ranchos of San Diego. Union-Tribune, San Diego.

Myers, Fred. 1939. Fallbrook Family Has Fine Old Pioneering Tradition. San Diego Union. September 3.

NatureServe. 2011. NatureServe Explorer: An Encyclopedia of Life. Version 7.1. February 2, 2009. Data last updated August 2010. Accessed March 2011. http://www.natureserve.org/explorer/index.htm

Nunes, John. 1983. Bye, Bye Old Bridge. Escondido Times-Advocate. March 16.

Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge. 2008. Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the

Terrestrial Natural Communities of California", Robert F. Holland, Ph.D., October 1986. March.

Patterson, R. M. 1979. Experimental nesting box program: sparrow competition thwarted? Sialia 1:36-39.

Pourade, Richard F. 1961. Time of the Bells. Union-Tribune, San Diego.

Remsen, J. V. 1978. Bird species of special concern in California. Calif. Dept. Fish and Game, Wildlife Mgmt. Branch Admin. Rep. 78-1.

Robinson, W. W. 1948. Land in California. University of California Press, Berkeley.

Rogers, T.H. 1965. Santa Ana Sheet. Geologic Map of California. California Division of Mines and Geology, Sacramento.

Rourke, J. W. and B. E. Kus. 2006. Distribution and breeding activities of the least Bell's vireo and southwestern willow flycatcher at the San Luis Rey River, San Diego County, California. 2005 Annual Report. Prepared for the State of California, Department of Transportation, District 11.

Ryder, R. A. and D. E. Manry. 1994. White-faced Ibis (*Plegadis chihi*). In, The Birds of North America, No. 130 (A. Poole and F. Gill, eds.). Philadelphia: The Academy of Natural Sciences; Washington, D. C.: The American Ornithologists' Union.

SDG&E (San Diego Gas & Electric Company). 1995. Subregional Natural Community Conservation Plan, Final. San Diego Gas & Electric Company Real Estate Operations Department, San Diego.

Sharp, B. L. and B.E. Kus. 2006. Factors influencing the incidence of cowbird parasitism of least Bell's vireos. Journal of Wildlife Management 70(3):682-690.

Small, A. 1994. California Birds: Their Status and Distribution. Vista, California: Ibis Publishing.

Smith, J.N.M., T.L. Cook, S.K. Robinson, S.I. Rothstein, and S.G. Sealy, eds. 2000. Ecology and Management of Cowbirds and Their Hosts, Univ. of Texas Press, Austin, Texas. 388 pp.

Stephenson, J. R. and G. M. Calcarone. 1999. Southern California mountains and foothills assessment: Habitat and species conservation issues. General Technical Report GTR-PSW-172. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture.

Unitt, P. 2004. San Diego County Bird Atlas. San Diego, California: San Diego Natural History Museum.

Urquhart, F.A. 1987. The Monarch Butterfly: International Traveler. Toronto, Canada: University of Toronto Press.

USDA (U.S. Department of Agriculture). 1973. Soil Survey, San Diego Area, California. Washington, DC: U.S. Dept. of Agriculture, Soil Conservation Service [now Natural Resources Conservation Service] and Forest Service.

USFS (U.S. Forest Service). 2008. Species Accounts: Animals. Available at: http://www.fs.fed.us/r5/scfpr/projects/lmp/read.htm.

USFWS (U.S. Fish and Wildlife Service). 1998. Draft Recovery Plan for the Least Bell's Vireo. Portland, Oregon.

———. 1999. Arroyo Southwestern Toad (*Bufo microscaphus californicus*) Recovery Plan. Portland, Oregon.

———. 2002. Southwestern Willow Flycatcher Recovery Plan. Albuquerque, New Mexico.

———. 2008. Draft San Diego Multiple Species Conservation Program Animal Monitoring Protocols. Prepared for the City of San Diego Department of City Planning and Community Investment.

USGS (U.S. Geological Survey). 1946. Bonsall 7.5-Minute Quadrangle.

———. 1968. Bonsall 7.5-Minute Quadrangle.

USMC (U.S. Marine Corps). 2007. Marine Corps Base Camp Pendleton Integrated Natural Resources Management Plan (INRMP).

Wagner, D.L. and D.D. Maldonado. 2000. Generalized Geologic Map of California. California Geologic Survey, Sacramento. Available at: www.conservation.ca.gov

Weber, Francis J. (compiler and editor). 1988. El Caminito Real, A Documentary History of California's Asistencias. Yee Tin Tong Printing, Hong Kong.

Western Regional Climate Center. 2009. California Climate Data Archive. Available at: http://www.calclim.dri.edu/rawslist.html.

White, Raymond. 1963. University of California Publications in American Archaeology and Ethnology 48:91-194. Berkeley.

Zeiner, D.C., W.F. Laudenslayer, Jr., and K.E. Mayer, ed. 1988. California's Wildlife, Volume 1: Amphibians and Reptiles. Sacramento, California: California Department of Fish and Game.

———. 1990a. California's Wildlife, Volume 2: Birds. Sacramento, California: California Department of Fish and Game.

———. 1990b. California's Wildlife, Volume 3: Mammals. Sacramento, California: California Department of Fish and Game.

APPENDIX A

Management Directive and Implementation Measure Summary Table

Management Directives	Implementation Measures	Timeframe	Responsible Party*
	BIOLOGICAL RESOURCES ELEMENT (A)		
A.1 Meet the biological monitoring requirements of the Draft North County Plan (*Priority 1*)	*A.1.1*: DPR will conduct habitat monitoring at five-year intervals to document the status of vegetation communities and relative cover of native plant species within the Park. The monitoring effort will identify any adverse changes in vegetation community distribution and habitat quality and indicate if modifications to current management actions are needed. More frequent monitoring will occur during active or passive enhancement/restoration projects (see B.1.3 & B.2.3), and may also be required following a significant fire within the Park.	Every 5 years	RMD
	A.1.2: DPR will conduct general wildlife and rare plant surveys at five-year intervals utilizing and refining baseline monitoring methods to facilitate trend and distribution status analysis.	Every 5 years	RMD
	A.1.3: DPR will conduct monitoring for invasive, non-native plant species at five-year intervals to assess invasion or re-invasion by invasive, non-native plants within the Park. Surveys will be focused in areas where invasive, non-native plants have been detected in the past and in the vicinity of special-status species, but will also look for new occurrences in the Park. The surveys will document the location of invasive, non-native plants and quantify the numbers/acreages of individual species within the Park.	Every 5years	RMD
	A.1.4: DPR will conduct corridor monitoring at five-year intervals along the San Luis Rey River to monitor corridor usage by target large mammals including mountain lion and southern mule deer. The scope of the monitoring will be sufficient to determine if corridors are being utilized, but not to determine the extent of use (i.e., how many individuals of any given species use a corridor).	Every 5 years	RMD
	A.1.5: DPR will prepare a biological monitoring report that summarizes the monitoring goals, objectives, methodology and results of the biological monitoring efforts described in implementation measures A.1.1 to A.1.4. The report will also address the effectiveness of current stewardship and management actions, identify the need for corrective actions, and include recommendations for adaptive management.	Every 5 years	RMD
A.2 Meet the biological monitoring requirements for projects subject to the provisions of the Draft Biological Mitigation Ordinance (*Priority 1*)	*A.2.1*: DPR will conduct site-specific biological surveys to determine the presence/absence of biological resources within the Area of Potential Effect for all future development projects proposed in the Park including, but not limited to, new multi-use trails, sports fields, and staging/parking areas. Surveys will be performed using protocols approved by the Wildlife Agencies. A biological resources report summarizing the results of the survey(s) will be prepared in accordance with County Biological Resources guidelines (County 2010b).	As-needed	RMD
A.3 Provide species-specific management and monitoring of proposed Draft North County Plan Covered Species (*Priority 1*)	DPR will implement the habitat-based management and monitoring guidelines as outlined in the Draft Framework RMP and conservation analysis for all proposed Draft North County Plan covered species within the Park, as well as the species-specific measures described below.		
	<u>San Diego Ambrosia</u> *A.3.1*: In order to increase the likelihood of detecting potential occurrences of San Diego ambrosia, which blooms in the late summer and fall (May to October), DPR will conduct one fall survey for this species in conjunction with the general rare plant surveys described in implementation measure A.1.2.	Every 5 years	RMD
	A.3.2: If fall surveys detect San Diego ambrosia within the Park, DPR will collect and monitor species-specific information on the observed population(s) including the number, size, variability and health status (e.g., new vegetative growth, flowering). The species-specific monitoring will also document observations of insect pollinators, the status of invasive, non-native plant species in the vicinity of San Diego ambrosia, and the condition of soils and evidence of soil disturbance. These surveys will be conducted at five-year intervals in conjunction with the monitoring efforts indicated above (A.1.1, A.1.2 & A.1.3).	Every 5 years	RMD
	<u>Least Bell's Vireo</u> *A.3.3*: DPR will continue to allow USGS to conduct annual monitoring of least Bell's vireo within the Park as part of their on-going, long-term study to track the progress of this species towards recovery and eventual de-listing. The USGS conducts annual monitoring pursuant to protocol survey guidelines established by the USFWS. The survey goals are to determine the abundance and distribution of vireos in the study area; collect information on dispersal and site fidelity of banded vireos; and collect nesting data to assess baseline fecundity, nest success, and productivity, as well as rates of cowbird parasitism. As a condition of the Right-of-Entry permit issued to USGS by the County, the monitoring data from the surveys is required to be submitted to DPR. This data will be used by DPR for adaptive management of the species.	Annually	RMD
	<u>Southwestern Willow Flycatcher</u> *A.3.4*: DPR will continue to allow USGS to annually record observations of southwestern willow flycatcher within the Park. Southwestern willow flycatcher primarily breeds	Annually	RMD

Management Directives	Implementation Measures	Timeframe	Responsible Party*
	up and/or downstream of the Park, and due to their high site fidelity, are not anticipated to be found on a regular basis within the Park. Therefore, the USGS records all observations of southwestern willow flycatcher within the Park boundary as part of their on-going, long-term study of least Bell's vireo, but conducts focused surveys for this species in the known breeding areas further downstream. As a condition of the Right-of-Entry permit issued to USGS by the County, the monitoring data from the surveys is required to be submitted to DPR. This data will be used by DPR for adaptive management of the species. <u>Yellow-Breasted Chat</u> *A.3.5*: If future surveys detect yellow-breasted chat within the Park, DPR will conduct focused surveys to determine the status of the breeding population and proportion of suitable habitat occupied. The focused surveys will also document the observed level of brown-headed cowbird nest parasitism (see also A.5.1) and urban-related predator impacts. These surveys will be conducted at five-year intervals in conjunction with the monitoring efforts indicated above (A.1.1, A.1.2 & A.1.3).	Every 5 years	RMD
A.4 Provide management and monitoring of other special-status species listed on the County's Sensitive Plant Lists (Lists A & B) (*Priority 1*)	*A.4.1*: DPR will conduct surveys of County List A and B plant species not covered by the Draft North County Plan within the Park, including smooth tarplant, which has a high potential to occur within the Park. Although no List A or B species have been recorded within the Park, future surveys will document the location of any newly observed species, and quantify the number of individuals and/or the acreage of the population. These surveys will be conducted at five-year intervals in conjunction with habitat monitoring and rare plant surveys (see A.1.1 & A.1.2).	Every 5 years	RMD
A.5 Reduce, control, or where feasible eradicate non-native and/or invasive wildlife known to be detrimental to native species and/or the local ecosystem (*Priority 1*)	*A.5.1*: DPR will conduct surveys for the presence of non-native and/or invasive wildlife species of management concern, including cowbirds and Argentine ants, at five-year intervals in conjunction with habitat monitoring and general wildlife surveys (see A.1.1 & A.1.2). *A.5.2*: DPR will continue to allow annual cowbird trapping in the Park as part of the San Diego Flood Management Project. If future monitoring data from USGS indicates that least Bell's vireo populations within the Park are declining for two or more successive years as a result of increased cowbird parasitism rates, DPR will coordinate with the San Diego Flood Management Project trapping program and request additional cowbird traps be placed within the Park in order to increase the nesting success of target species.	Every 5 years Annually	RMD RMD
A.6 Allow for future research opportunities within the Park (*Priority 2*)	*A.6.1*: DPR will accept and review proposals for scientific research, monitoring, and habitat restoration and enhancement activities, which are permitted within the Draft North County Plan preserve. Proposed research activities will be subject to approval by DPR. All such activities must obtain any necessary permits and shall be consistent with this RMP. Additionally, any person conducting research of any kind within the Park shall obtain a Right-of-Entry Permit from DPR, which will outline the precautions to be taken to preserve and protect sensitive biological and cultural resources within the Park, and require results of any research to be made available to DPR.	On-going	DPM & RMD
VEGETATION MANAGEMENT ELEMENT (B)			
B.1 Restore degraded habitats to protect and enhance populations of rare and sensitive species (*Priority 2*)	*B.1.1*: DPR will assess and pursue mitigation opportunities within the Park that implement passive restoration methods (e.g., dethatching, weed treatment, limitation of access) in proposed restoration areas (Figure 9) as recommended in the VMP (Dudek 2011b) that do not conflict with future Park development. See also B.2.2. *B.1.2*: DPR will assess and pursue mitigation opportunities within the Park that implement active restoration methods (e.g., seed application and installation of cuttings or container plants) in proposed restoration areas (Figure 9) as recommended in the VMP (Dudek 2011b) that do not conflict with future Park development. Priority will be given to sites closest to the primary San Luis Rey River channel as restoring native habitat in these areas would improve habitat connectivity and protect the native riparian vegetation from invasion by non-native species. All plant materials will be native species from San Diego County, preferably originating within 25 miles of the Park. Quantities, rates and composition of seed mixes or planting palettes will be determined on an individual basis, based on the existing plant composition surrounding the restoration sites. Plantings in designated critical arroyo toad habitat will be less dense with an ultimate vegetative cover target of 60% in order to provide open areas, which are needed by arroyo toad. Plantings in designated critical habitat for least Bell's vireo and southwestern willow flycatcher will include large *Salix* species (*S. lasiolepis, S. laevigata, and S. goodingii*) in order to provide microhabitat cover that may lower the incidence of cowbird parasitism. *B.1.3*: DPR will monitor and document the results of any habitat restoration activities conducted as mitigation within the Park, and maintain the mitigation areas, as needed, to ensure that established success criteria are met. Monitoring efforts will be conducted by a qualified biologist(s), who will also oversee all maintenance activities.	As-needed As-needed As-needed	DPM, DEV & RMD DPM, DEV & RMD RMD
B.2 Reduce, control, or where feasible eradicate non-native plants that are known to be detrimental to native species and/or the	*B.2.1*: Park Rangers will routinely pull weeds or remove any non-native, invasive plants in early stages of growth observed during patrols along trails or access roads. *B.2.2*: DPR will assess and pursue mitigation opportunities that implement invasive, non-native plant removal within the Park. Precedence will be given to those areas	On-going As-needed	Park Rangers DPM, DEV & RMD

Management Directives	Implementation Measures	Timeframe	Responsible Party*
local ecosystem (*Priority 1*)	occupied by species identified as high priority, followed by moderate and then low priority species. See also B.1.1.		
	B.2.3: DPR will monitor and document the results of any invasive, non-native plant treatment/control activities conducted as mitigation within the Park, and maintain the mitigation areas, as needed, to ensure that established success criteria are met. Monitoring efforts will be conducted by a qualified biologist(s), who will also oversee all maintenance activities.	As-needed	RMD
B.3 Manage and minimize the expansion of non-native, invasive plants within the Park (*Priority 2*)	*B.3.1*: DPR will identify and assess upstream sources of invasive, non-native plants on adjacent properties that have the potential to expand into the Park. DPR will coordinate with the adjacent landowners and managers of those properties and encourage them to treat and control the invasive, non-native plants on their property.	On-going	DPM & RMD
B.4 Provide for necessary fire management activities that are sensitive to biological and cultural resources protection (*Priority 1*)	*B.4.1*: Park Rangers will annually maintain the established fuel modification zones within the Park including: the area directly adjacent to the neighboring mobile home park; the previous agricultural field in the east parcel; the access point to the east parcel at the end of Dulin Road; and the 30-foot buffer along the dirt access road adjacent to the San Luis Rey Downs golf course. Management of the fuel modification zone and defensible space will adhere to CAL FIRE requirements. In addition, DPR will strive to minimize impacts during maintenance activities and, if possible, conduct activities outside the bird breeding season.	Annually	Park Rangers
	B.4.2: Park Rangers will install and maintain inconspicuous fuel modification extent markers for all fuel modification zones to minimize additional thinning outside the intended areas and protect adjacent sensitive resources.	Annually	Park Rangers
	B.4.3: DPR will continue to coordinate with the North County Fire Protection District and CAL FIRE to ensure that the fire response and implementation measures outlined in this RMP and in the VMP (Dudek 2011b) are up-to-date and adequate for effective fire response within the Park. As part of this effort, DPR will review fire history maps at least once every 10 years to determine if Park lands are within natural fire return intervals and for estimation of fuel age class.	On-going	DPM & RMD
PUBLIC USE, TRAILS & RECREATION ELEMENT (C)			
C.1 Limit types of public uses to those that are appropriate for the Park (*Priority 1*)	*C.1.1*: Park Rangers will patrol and monitor the Park parcels for any unauthorized public access and use of the Park. Park Rangers will document any illegal access and use of the Park, and inform any unauthorized persons observed on site that the Park is not open to the public and request that they leave the property.	On-going	Park Rangers
	C.1.2: Park Rangers will enforce the following prohibited uses and restrictions within the Park. Park Rangers may call the Sheriff for legal enforcement, as appropriate. a. Off-road or cross-country vehicle and public off-highway recreational vehicle activity (except for law enforcement, Park management, scientific research, and/or emergency purposes) b. Hunting or discharge of firearms (except for law enforcement, and/or emergency purposes) c. Poaching, collecting or otherwise adversely impacting plant or animal species, archaeological or historical features, artifacts or fossils. d. Fishing, swimming, and wading in rivers, streams, or creeks e. Camping (including homeless and itinerant worker camps) f. Feeding wildlife g. Domestic animals h. Smoking i. Campfires/Open Flames j. Littering/Dumping k. Trespassing	On-going	Park Rangers
	C.1.3: Park Rangers will ensure that prohibited uses are clearly specified on posted signage.	On-going	Park Rangers
C.2 Manage access in sensitive biological and cultural resource areas within the Park (*Priority 1*)	*C.2.1*: DPR has identified and mapped sensitive vegetation communities, special-status plant and wildlife species (including narrow endemics and County-listed species), and cultural sites in the Park so that these areas can be avoided and/or monitored. Updated information on sensitive resources in relation to access points (i.e., existing access roads and unofficial trails) will be obtained in conjunction with on-going monitoring efforts (see A.1.1, A.1.2, C.5.1, D.3.2 & E.2.4).	Every 5 years	RMD
	C.2.2: In areas where unauthorized access (e.g., off-road activity and illegal dumping) and/or adverse effects to sensitive resources are observed, DPR will implement measures, such as installation of signage or fencing, to restrict public access and protect highly sensitive areas (see also C.4.1 & C.6.1). The appropriate types of measures to be taken will be determined based on location, setting, and use.	As-needed	DPM, RMD & Park Rangers
C.3 Analyze any future proposed public access	*C.3.1*: DPR will develop public-use facilities that provide passive and active recreational opportunities within the Park including, but not limited to, new multi-use trails,	One-time	DPM, DEV & RMD

Management Directives	Implementation Measures	Timeframe	Responsible Party*
such that recreational use of the Park is consistent with the protection and enhancement of biological and cultural resources (*Priority 1*)	sports fields, and staging/parking areas, that are compatible with the Draft North County Plan objectives using the recommendations and guidelines in the SLRRP Master Plan, certified programmatic EIR, and the County-approved CTMP. Any new passive and active recreational facilities will be designed and constructed to avoid and/or minimize impacts to sensitive biological and cultural resources. See also E.2.1. *C.3.2*: DPR will conduct the necessary environmental review for all proposed passive and active recreational facilities within the Park in accordance with CEQA, and obtain all required permits prior to public use of these facilities. See also A.2.1 & E.1.2.	 One-time	 RMD
C.4 Install and maintain fencing and gates within the Park (*Priority 1*)	*C.4.1*: Park Rangers will install fencing and/or gates as needed to restrict unauthorized access and protect sensitive resources from impacts. Points of unauthorized access and sensitive resource impacts will be identified in conjunction with on-going monitoring efforts (see A.1.1, A.1.2, C.5.1, D.3.2 & E.2.4). Fences and gates will be designed and located so they do not impede wildlife movement or impact cultural resources. *C.4.2*: Park Rangers will regularly inspect and maintain all installed fencing and gates within the Park. Fencing segments and gates will be repaired or replaced as necessary.	As-needed On-going	Park Rangers Park Rangers
C.5 Properly maintain access road and trails for user safety, and to protect biological and cultural resources (*Priority 1*)	*C.5.1*: Park Rangers will monitor the existing dirt roads and trails currently used for management purposes for degradation and off-trail access and use. Special attention will be paid to access areas through sensitive habitats near the San Luis Rey River such as southern cottonwood-willow riparian forest and tamarisk scrub, which provide habitat for least Bell's vireo, southwestern willow flycatcher, and arroyo toad. Park Rangers will provide any necessary repair/maintenance as needed.	On-going	Park Rangers
C.6 Install and maintain appropriate signage to effectively communicate Park rules and regulations (*Priority 1*)	*C.6.1*: Park Rangers will install appropriate signage in the Park, as needed, to communicate Park rules and regulations (see C.1.3 & D.2.1), and restrict unauthorized public access (see C.2.2 & D.3.2). *C.6.2*: Park Rangers will regularly inspect and maintain all posted signs within the Park in good condition. Signs will be kept free from vandalism and will be repaired or replaced as necessary.	On-going On-going	Park Rangers Park Rangers
OPERATIONS & FACILITY MAINTENANCE ELEMENT (D)			
D.1 Maintain a safe and healthy environment within the Park (*Priority 1*)	*D.1.1*: DPR prohibits the permanent storage of hazardous and toxic materials within the Park. Any temporary storage will be in accordance with applicable regulations, and otherwise designed to minimize any potential impacts.	On-going	DPM, RMD & Park Rangers
D.2 Publicize and enforce regulations regarding littering/dumping (*Priority 1*)	*D.2.1*: DPR and Park Rangers will ensure that regulations regarding littering/dumping are clearly posted on signs throughout the Park, with an emphasis in areas where illegal dumping has been observed. See also C.1.3. *D.2.2*: Park Rangers will enforce posted regulations regarding littering/dumping (County Code of Regulatory Ordinance Section 41.116). Penalties for littering and dumping will be imposed by law enforcement officers sufficient to prevent recurrence and reimburse costs to remove and dispose of debris, restore the area if needed, and pay for additional DPR staff time. Areas where dumping recurs will be evaluated for potential barrier placement. Additional monitoring and enforcement will be provided as needed. See also C.1.2.	On-going On-going	DPM & Park Rangers Park Rangers
D.3 Retain the San Luis Rey River and floodplain in its natural condition (*Priority 1*)	*D.3.1*: Park Rangers will inspect for unauthorized trail access and use along the San Luis Rey River during regular patrols and monitoring. If necessary, Park Rangers will implement measures to control public access along the river, such as installation of signage and/or fencing, access road/trail management (see C.5.1), and increased patrols, as necessary. *D.3.2*: DPR will conduct visual assessments of the San Luis Rey River channel conditions in conjunction with habitat monitoring (see A.1.1). Where channel conditions are considered poor (e.g., unstable banks), follow up surveys will be conducted to determine if management actions are necessary. Where necessary, DPR will determine appropriate measures to stabilize banks and control erosion. *D.3.3*: DPR will monitor and document the results of any bank and/or soil stabilization activities conducted within the Park, and maintain these areas, as needed, to ensure success of these efforts.	Every 5 years On-going As-needed	RMD Park Rangers DPM, RMD & Park Rangers
D.4 Cooperate with public health and safety personnel to achieve their goals while helping to reduce or eliminate impacts to biological and cultural resources within the Park (*Priority 1*)	*D.4.1*: DPR will allow law enforcement officials and all medical, rescue and other emergency agencies to access Park property as necessary to enforce the law and carry out operations necessary to protect the health, safety, and welfare of the public. DPR will coordinate with the applicable agencies to inform field personnel of the locations of particularly sensitive biological and significant cultural resources and how to minimize damage to these resources.	As-needed	DPM, RMD & Park Rangers

Management Directives	Implementation Measures	Timeframe	Responsible Party*
D.5 Coordinate with adjacent open space landowners and land managers (*Priority 1*)	*D.5.1*: DPR will coordinate with Caltrans, CDFG, City of Oceanside, and DPW as the adjacent open space landowners and land managers on an annual basis, or more regularly as needed, to ensure the contiguous preserved lands are managed consistently and in accordance with the Draft North County Plan.	Annually	RMD
D.6 Enforce Park boundaries (*Priority 1*)	*D.6.1*: DPR and Park Rangers will enforce, prevent, and/or remove illegal intrusions into the Park (e.g., orchards, decks) on an annual and complaint basis.	Annually	DPM & Park Rangers
D.7 Educate residents in surrounding areas about Park adjacency issues (*Priority 2*)	*D.7.1*: DPR will post the RMP on the DPR website (www.sdparks.org) to inform surrounding residents of Park adjacency issues including access, invasive plant impacts and appropriate landscaping, construction or disturbance within the Park boundaries, pet intrusion, and fire management. See also B.3.1.	On-going	RMD
CULTURAL RESOURCES ELEMENT (E)			
E.1 Identify, record, and assess the significance of any new cultural resources discovered within the Park (*Priority 1*)	*E.1.1*: DPR will identify and record cultural resource sites in previously unsurveyed areas of the Park where, if in the future, vegetation is thinned or removed as a result of wildfire or planned ground disturbing activities including clearing, grubbing or other related activities associated with invasive plant removal, habitat restoration and fire management efforts, as well as after large flood events. Surveys will be conducted in accordance with CEQA (when applicable) and County Cultural Resources guidelines (County 2007), and will include a Luiseño Native American monitor. Any new resources identified will be evaluated for significance, in consultation with local Native American tribes, or significance will be assumed if testing is not conducted. See also E.4.1.	As-needed	RMD
	E.1.2: DPR will conduct site-specific cultural resources surveys to determine the presence/absence of cultural resources within the Area of Potential Effect for all future development projects proposed in the Park including, but not limited to, new multi-use trails, sports fields, and staging/parking areas. Surveys will be conducted in accordance with CEQA and County Cultural Resources guidelines (County 2007), and will include a Luiseño Native American monitor. Any new resources identified will be evaluated for significance, in consultation with local Native American tribes, or significance will be assumed if testing is not conducted. See also E.2.1 & E.4.1.	As-needed	RMD
	E.1.3: In the event that human remains are discovered during archaeological surveys or testing, DPR will immediately stop all work and notify the County Coroner. If the Coroner determines the remains are Native American, the Most Likely Descendant, as identified by the NAHC, will be contacted in order to determine proper treatment and disposition of the remains. Per County guidelines, any time human remains are encountered, the site is considered significant (County 2007). See also E.2.1.	As-needed	RMD
E.2 Preserve and protect significant cultural resources to ensure that sites are available for present and future generations (*Priority 1*)	*E.2.1*: DPR will design all future development projects within the Park to avoid adverse impacts to any cultural resources to the maximum extent feasible. Potential project impacts (direct, indirect and cumulative) to cultural resources will be assessed, in consultation with local Native American tribes, in order to determine appropriate design conditions and/or mitigation measures. No ground disturbing activities will be allowed on or in any cultural resource site within the Park until the impacts have been assessed, and consultation with the local Native American tribes has occurred. Should avoidance be feasible, a management or preservation plan may be developed in consultation with local Native American tribes to ensure that the cultural resource(s) is protected from future disturbances. If avoidance is not feasible, appropriate mitigation measures will be established in consultation with local Native American tribes. Preservation in place is the preferred form of mitigation. Removal or disturbance of cultural resources will not occur prior to completion of an approved mitigation program, such as data recovery and a grading monitoring program consisting of a County-approved archaeologist and Luiseño Native American monitor. Any cultural materials collected from the Park will be curated at a County-approved curation facility. No removal or modification of cultural resources will occur without consultation with local Native American tribes and written approval by the Director of Parks and Recreation. All ground disturbing activities will be monitored by a County-approved archaeologist and Luiseño Native American monitor. If human remains are discovered, the County Coroner will be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, will be contacted in order to determine proper treatment and disposition of the remains. Per County guidelines, any time human remains are encountered, the site is considered significant and the only appropriate mitigation is preservation (County 2007). DPR will consult with the Most Likely Descendant on the need for additional avoidance and management measures, which may include, but is not limited to, development of a management or preservation plan to ensure that the burial area(s) is protected from future disturbances.	As-needed	DPM, DEV & RMD
	E.2.2: DPR and Park Rangers will avoid all recorded, sensitive cultural sites with an appropriate buffer, which will be determined on a site-specific basis in consultation with local Native American tribes, when conducting management and maintenance activities within the Park including, but not limited to, fuel management and habitat restoration activities. If access to cultural sites is necessary, manual methods will be used to the maximum extent possible, and any ground disturbance will be monitored by a County-approved archaeologist and Luiseño Native American monitor.	As-needed	DPM, RMD & Park Rangers

Management Directives	Implementation Measures	Timeframe	Responsible Party*
	E.2.3: Park Rangers will enforce the protection of recorded, sensitive cultural resource sites from vandalism and other forms of human impact in accordance with County of San Diego ordinances (Title 4; Public Property, Division 1; Parks and Beaches, Article 2, Section 41.113), and applicable state and federal laws. If a person(s) is suspected of vandalism to cultural resources, Park Rangers will notify the appropriate law enforcement authorities. If vandalism and damage continue or increase, DPR will coordinate with the appropriate authorities and local Native American tribal representatives to develop additional measures to protect cultural resources, as needed.	On-going	Park Rangers
	E.2.4: DPR will note the condition and status of known cultural resources within the Park as part of on-going monitoring efforts conducted on a five-year basis (or on a more frequent basis as determined by DPR). If damage is noted, DPR will notify and consult with local Native American tribal representatives to assess the damage and develop appropriate remedial measures, if needed. Monitoring of the sites in the Park will follow County Cultural Resources guidelines (County 2007), and all site location information will be kept strictly confidential and will be available only for qualified cultural resource staff and land managers. Site locations will not be shown on maps or divulged to the public.	Every 5 years	RMD
E.3 Promote cultural resources interpretation and educational programs (*Priority 2*)	*E.3.1*: DPR will develop off-site, and when possible, on-site interpretive programs for Native American heritage, local and regional history, and prehistory appropriate to the Park in coordination with Native American tribal representatives. These may include lectures, walks, kiosks, signs, historic brochures and displays, but will not include excavations, collecting of artifacts, or disclosure of confidential site locations. Such programs will not be implemented until the Park is officially open to the public.	On-going	DPM, RMD & Park Rangers
E.4 Honor Native American Heritage and promote Native American ceremonies, gathering, and cultural practices (*Priority 2*)	*E.4.1*: DPR will continue to coordinate and consult with local tribal representatives who may have knowledge of the Park area, including those representing the San Luis Rey Band of Mission Indians and Pechanga Band of Luiseño Indians, in order to keep them informed of activities associated with the Park. Consultation is required pursuant to Section 65352.3 of the Government Code (Senate Bill 18 (SB-18) [2004]) for any project that involves a General Plan Amendment, Specific Plan, or Specific Plan Amendment. Additionally, the County consults with Native American groups outside of the requirements of SB-18 in accordance with County Cultural Resources guidelines (County 2007). Specifically, the County requires a Native American monitor for surface and subsurface investigations (survey, significance testing, and data recovery) and grading in areas with potential presence of cultural resources, and conducts consultations for projects that have a positive finding for the presence of cultural resources (see E.1.1, E.1.2, E.2.1 & E.2.2). DPR will also consult with local Native American tribes and encourage their participation in development of interpretive programs, and the protection and preservation of cultural resources including, but not limited to, development of long-term management or preservation plans (see E.1.1, E.1.2, E.2.1, E.2.3 & E.2.4). Consultation will be conducted frequently, and in a way that is mutually respectful of each party's sovereignty, in order to identify appropriate management of pre-contact and ethnographic cultural resources. Consultation shall also recognize the tribe's potential needs for confidentiality with respect to places that have traditional tribal cultural significance. All consultation will be coordinated through the County of San Diego Tribal Liaison.	On-going	DPM & RMD
	E.4.2: DPR will open the Park to traditional uses by the San Luis Rey Band of Mission Indians, Pechanga Band of Luiseño Indians, and other tribes which may have traditionally used the Park area. All activities by Native Americans in the Park shall be conducted under a Hold Harmless Agreement or a Right-of-Entry permit specifically designed for the Park.	As-needed	DPM & RMD

* DEV = Development Division Staff
DPM = District Park Manager (Operations Division)
RMD = Resource Management Division Staff

APPENDIX B

Baseline Biodiversity Survey for the San Luis Rey River Park

(See www.co.san-diego.ca.us/parks/management_plans.html)

APPENDIX C

Archaeological Survey Report for the San Luis Rey River Park, San Diego County, California

(*Confidential*)

APPENDIX D

San Luis Rey River Park
Vegetation Management Plan

(*Available upon request*)