BIOLOGICAL TECHNICAL REPORT FOR LAKE JENNINGS MARKET PLACE

RECORD ID: PDS2014-GPA-14-005; PDS2014-REZ-14-004; PDS2014-TM-5590; PDS2014-STP-14-019; PDS2014-MUP-15-004 Environmental Log No.: PDS2014-ER-14-14013

Project Applicant:

SOUTH COAST DEVELOPMENT, LLC
Contact: Keith Gregory
P.O. Box 1053
Solana Beach, CA 92075
(858) 720-6675

Prepared by:

RC BIOLOGICAL CONSULTING, INC.
12737 Campo Road
Spring Valley, CA 91978
619-463-1072

Robin Church
County Approved Biologist

***Lead Agency/Prepared for*:**

COUNTY OF SAN DIEGO
Department of Planning and Development Services
5510 Overland Avenue, Suite 110
San Diego, CA 92123
Contact: Marcus Lubich
(858) 505-6473

May 2015

Iteration	Date	Description
1	July 2014	Initial submission
2	November 2014	To incorporate County Comments
3	January 2015	To incorporate County Comments
4	May 2015	To incorporate County Comments

TABLE OF CONTENTS

LIST OF APPENDICES

FIGURES

TABLES

GLOSSARY OF TERMS AND ACRONYMS

BMO	Biological Mitigation Ordinance
BRCA	Biological Resources Core Area
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EPA	Environmental Protection Agency
FC	Federal Candidate
LBV	Least Bell's vireo
MBTA	Migratory Bird Treaty Act
MSCP	Multiple Species Conservation Program
OHWM	Ordinary High Water Mark
QCB	Quino checkerspot butterfly
RPO	Resource Protection Ordinance
RWQCB	Regional Water Quality Control Board
SSC	California Species of Special Concern
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

SUMMARY

The project proposes to create a commercial development and the supporting infrastructure such as roads, storm drains, and utilities. In addition, the project proposes dedicated open space. The project was first proposed in 1999 as a commercial development and as such has existing information on biological resources. This report incorporates the information from the Biological Technical Report prepared by REC Consultants, Inc. (June 2001), and the June 2002, January 2008, and March 29, 2014 reports prepared by this company regarding existing conditions and sensitive species surveys for the site. Additional surveys have been performed since the preparation of the 2001 report. This report adds additional information regarding compliance with the Resource Protection Ordinance (RPO) and performs an impact analysis based on the current site design. This report also identifies mitigation measures that conform to the Biological Mitigation Ordinance (BMO) and RPO, therefore, reducing any impacts to below a level of significance.

Biological surveys, a focused least Bell's vireo survey, two focused Quino checkerspot butterfly (*Euphydryas editha quino*) surveys and an RPO wetland delineation of the approximately 13.09-acre Lake Jennings Market Place site were performed. The site is located south of Old Highway 80, near the community of Lakeside, County of San Diego.

The biological resources onsite include three habitat types: southern riparian forest which encompasses the RPO wetland, non-native grasslands, and developed. Biological resources that are afforded some level of protection under the BMO would include the southern riparian forest and non- native grasslands. The RPO would afford protection to the RPO wetland.

No state or federally listed plant or animal species were observed onsite. However, two sensitive bird species, a red-shouldered hawk (*Buteo lineatus*) and Cooper's hawk (*Accipiter cooperii*) were observed onsite.

Impacts to approximately 6.91 acres of non-native grassland and approximately 4.69 acres of urban developed habitat would occur as a result of the proposed project. The RPO wetland buffer revegetation area would serve as a vegetated buffer between the riparian habitat and development. All impacts would be fully mitigated in accordance with the BMO. No impacts would occur to the RPO wetland. The RPO wetland buffer is proposed to be enhanced through revegetation as a native shrub/grass community.

Mitigation for impacts to 6.91 acres of non-native grasslands on and off-site will be mitigated by the off-site acquisition of 3.46 acres of Tier III or higher habitat in a pre-approved mitigation area. Additionally, impacts to 15 coast live oak trees will be mitigated through the off-site acquisition of 0.90 acre of oak woodland. All mitigation will be within the Multiple Species Conservation Program (MSCP) (Crestridge Conservation Bank or other MSCP approved mitigation area) that covers the project area. Implementation of these mitigation measures would reduce impacts to below a level of significance.

1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

The purpose of this report is to document the biological resources present on the project site, including sensitive plants, animals, and plant communities, anticipated impacts to these resources, and proposed mitigation for significant impacts. This Biological Technical Report (BTR) has been prepared for the Lake Jennings Market Place Project in accordance with the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Biological Resources (2010).

1.1.1 Project Location and Description

The proposed project is a commercial shopping center located on an existing vacated site. Work to be done including supporting infrastructure such as sewer, road improvements and utilities, the vacation of an existing paved road, and dedication of a biological open space easement on an approximately 13.09 acre site. The project is located near the Community of Lakeside in East San Diego County, south of Old Highway 80, and east of Lake Jennings Park Road (Figures 1 and 2). The project would include off-site improvements for a 125-foot storm drain. The regional setting is shown on Figure 3.

Commercial Shopping Center

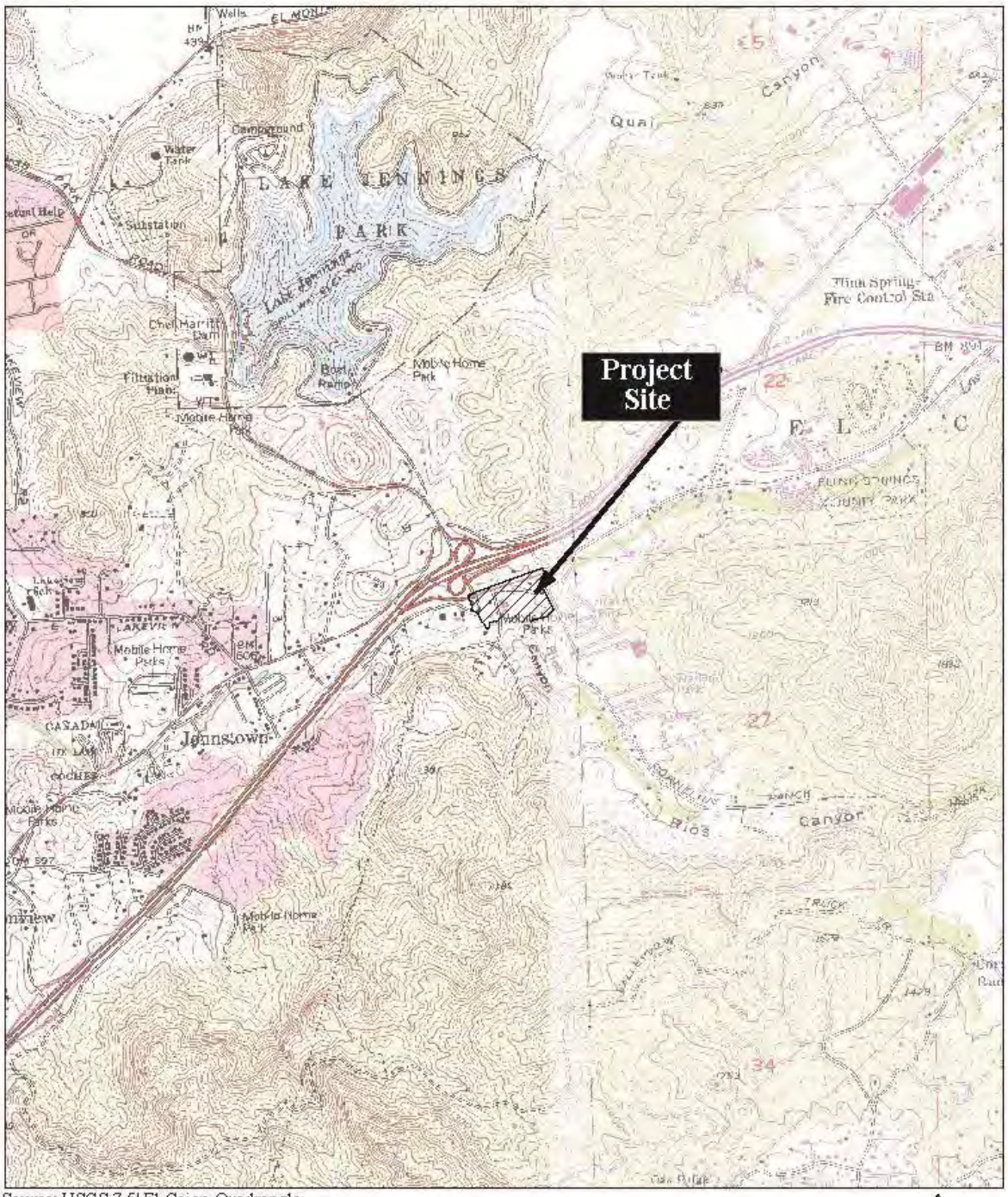
The project proposes to construct a commercial shopping center with 76,100 square feet (sq. ft.) of building area. The project would include six structures, all of which would be located on individual lots. The development would include the following:

1. Market Building (Building A – 43,000 sq. ft.) located along the east side of the project site.
2. Financial Building with drive through (Building B – 4,500 sq. ft.) located on the northeast intersection of Olde Highway 80 and the proposed signalized project entrance on Olde Highway 80.
3. Restaurant with drive through (Building C – 3,500 sq. ft.) located on the northwest intersection of Olde Highway 80 and the proposed signalized project entrance on Olde Highway 80.
4. Restaurant-Retail Building (Building D – 9,600 sq. ft.) located along the southern boundary of the project's developed area.
5. Gas Station with convenience store and car wash (42,210 sq. ft. pad[1]) at the intersection of Olde Highway 80 and Lake Jennings Park Road, and Commercial Building (Building E – 3,000 sq. ft.) located directly south of the gas station.

[1] The 42,210 sq. ft. pad for the gas station is not included in the project's total square footage (76,100 sq. ft.).

6. Restaurant-Retail Building (Building F – 12,500 sq. ft.) located along the southern boundary of the project's developed area. Building F shares a common wall with Building D.

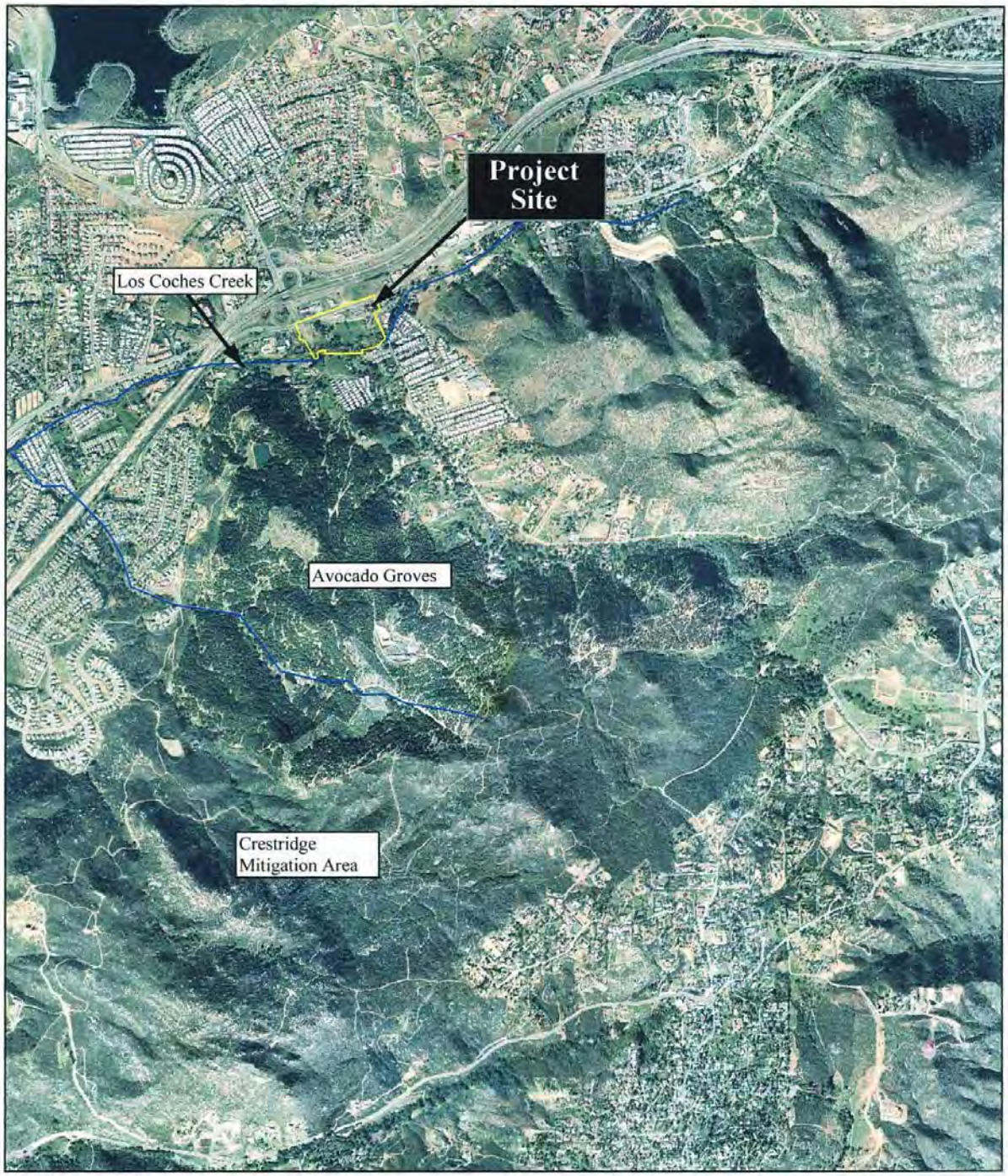
Figure 1
Regional Location Map



Source: USGS 7.5' El Cajon Quadrangle

Figure 2

Project Location



Aerial Access 2000

Figure 3. Lake Jennings Market Place Regional Setting

N

Feet
2,000

Trail Component

The project would construct a multi-use trail suitable for pedestrians and equestrian users. The trail would be 10 feet wide and constructed of decomposed granite material. The trail segments adjacent to the two public streets are proposed as standard trail pathways per the Park Lands Dedication Ordinance (PLDO). The trail segment within the open space lot would run along the southern edge of the development area (immediately north of the proposed open space area) within a 20-foot-wide trail easement and would include a 10-foot-wide treadway.

Access

The project requires four access points; one from Ridge Hill Road located on the west side of the project, and three others located along Olde Highway 80; a right-in (only) approximately 200 feet east of the intersection of Olde Highway 80 and Lake Jennings Park Road, a full signalized project entry half way along the project frontage, and a second non-signalized project entry (right in – right out only) near the northeast corner of the property.

Walls and Signage

There would be a comprehensive coordinated sign program designed for the project. It includes a Freeway Pylon Display, Monument Center ID Displays, Monument Signage at the signalized entrance on Olde Highway 80, and a state required Gas Pricing Sign for the gas station, convenience store and car wash pad.

Parking

The project proposes 389 parking spaces. The project parking is almost entirely located within the central portion of the site and would largely be out of the casual view of traffic on Lake Jennings Park Road and Olde Highway 80. The County of San Diego Zoning Ordinance requires a total of 389 parking spaces to be provided by the proposed project based on the size and uses proposed in the buildings. Therefore, the project meets the parking requirements of the County of San Diego Zoning Ordinance.

Landscaping Plan

A landscape plan has been prepared for the commercial part of the project (Lots 1 through 6). The landscape plan incorporates a variety of species that are intended to provide a visual buffer from Interstate 8 (I-8) and be compatible with the riparian zone associated with Los Coches Creek. The plant palette reflects a selection of native plant material which can naturally be found in riparian zones of Southern California.

1.2 TOPOGRAPHY, SOILS, AND LAND USE

The proposed project is located within the USGS 7.5' El Cajon quad, Township 15 south, range 1 east (Figure 2). The project is generally flat with elevations ranging onsite from 654 feet above mean sea level within Los Coches Creek in the southern portion of the creek, to 693 feet above mean sea level on the prominent hilltop near the western portion of the property.

The soils onsite consist largely of Escondido very fine sandy loam (EsC) 5 to 9 percent slope. Visalia sandy loam (VaB) 2 to 5 percent slope is found onsite primarily along Los Coches Creek. A very small amount of Escondido very fine sandy loam (EsD2) 9 to 15 percent slope, eroded is found in the northwest corner of the site. A large drainage encompassing Los Coches Creek traverses the site along the southern boundary.

There is currently a large developed area onsite, which includes a commercial business and residential area. Pecan Park Lane bisects the site from west to east, but would be vacated. Various trash piles occur on the site including wood debris, tires, metal tanks, signs, and old fencing. The site is bound by Highway 8 to the north, Rios Canyon Road to the east, Los Coches Creek to the south and Lake Jennings Park Road to the west.

1.3 SURVEY METHODOLOGY

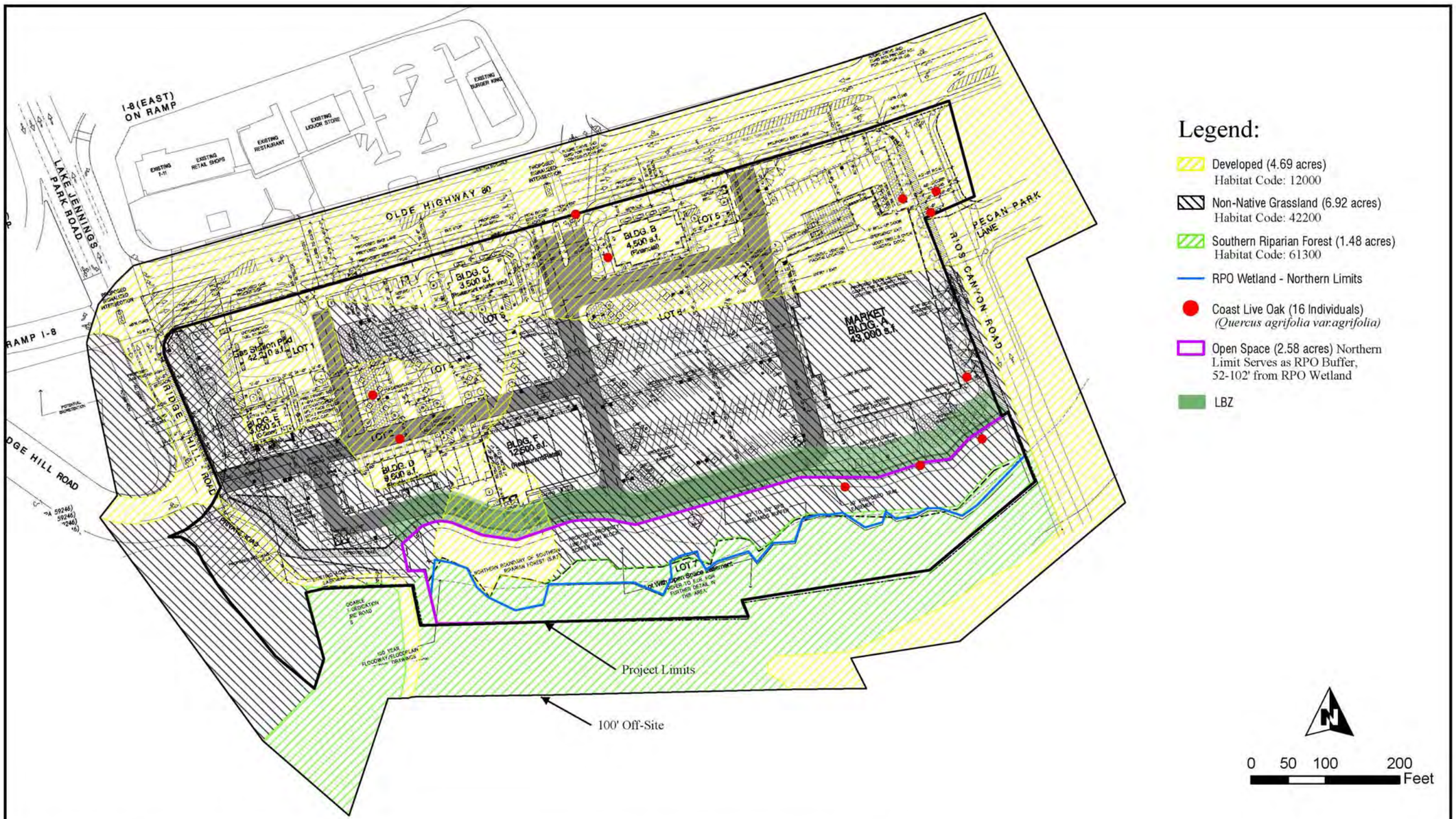
The site was surveyed on foot and habitat was mapped (Figures 4 and 5). Wildlife species were identified directly by sight or by vocalizations, and indirectly by scat, tracks, or burrows. Field notes were maintained throughout the surveys and species of interest were mapped. Surveys focused on sensitive plant and wildlife species and all species observed were noted. The presence or absence of suitable habitat for sensitive species was also identified. The primary focus of the survey was to document and map the size, location, and general quality of all habitat types and the presence or potential presence of any sensitive resources (plant or wildlife) onsite. In addition, a focused survey for the state and federally endangered least Bell's vireo (*Vireo bellii pusillus*) and two surveys for the federally endangered Quino checkerspot butterfly were completed. Surveys are listed in Table 1 by type and date. All plant and animal species observed onsite are listed in Appendices A and B.

A site visit was conducted on March 19, 2014 to assess the site conditions. The conclusions from that site visit indicated that the site remains essentially the same as when the previously approved biological resources report were prepared with one exception. Since the last report was completed, the Lakeside River Park Conservancy conducted Arundo removal within the creek area. Otherwise, conditions are previously noted.

Table 1
Lake Jennings Market Place

Date	Time	Survey	Temperature (F)	Sky	Wind (mph)	Personnel*
February 1, 1999*	1300 to 1500	General	65 to 65	Clear	0-5	RC
April 30, 1999*	1230 to 1345	General	60 to 60	Cloudy	0-5	DM, ER
May 7, 1999*	850 to 930	LBV Survey	70 to 76	Partly Cloudy	0-5	RC
May 14, 1999*	930 to 1015	LBV Survey	60 to 60	Partly Cloudy	0-5	RC
May 28, 1999*	910 to 945	LBV Survey	68 to 70	Clear	0	RC
June 11, 1999*	930 to 1015	LBV Survey	70 to 70	Clear	0	DM
June 18, 1999*	815 to 845	LBV Survey	70 to 70	Clear	0	DF
July 2, 1999*	835 to 905	LBV Survey	70 to 70	Overcast	0	RC
July 15, 1999*	835 to 900	LBV Survey	76 to 76	Partly Cloudy	0	RC
July 29, 1999*	845 to 915	LBV Survey	74 to 74	Clear	0	RC, DF
April 3, 2000*	1145 to 1230	QCB Survey	80	Clear	0-2	DM
April 7, 2000*	1245 to 1345	QCB Survey	76 to 78	Clear	0-3	DM
April 20, 2000*	0915 to 1020	QCB Survey	61 to 63	Clear	0-1	ER
April 26, 2000*	1115 to 1215	QCB Survey	82 to 90	Clear	0	DM
May 1, 2000*	1100 to 1200	QCB Survey	80 to 85	Clear	0-2	DM
June 24, 2002	1000 to 230	RPO Study	78 to 85	Clear	0-5	RC
January 31, 2003	1445 to 1545	QCB Survey	88	Clear	1-3	DS, RC
February 6, 2003	1130 to 1230	QCB Survey	65	Clear	1-3	DS
February 15, 2003	1150 to 1315	QCB Survey	65	Partly Cloudy	0-1	DS
March 02, 2005	1430 to 1530	QCB Survey	66	Clear	3-5	DS
March 4, 2005	1145 to 1250	QCB Survey	59	Cloudy	3-5	DS
March 8, 2005	1450 to 1555	QCB Survey	70	Clear	0-1	DS
March 14, 2003	1015 to 1105	QCB Survey	67 to 68	Clear	1-3	DSS
August 8, 2005	0904 to 1030	General	78 to 92	Clear	0-3	NB, AG
November 9, 2005	0930 to 1015	Carex spissa	68	Cloudy	0-3	AG
March 28, 2014	1100 to 1145	General	68	Clear	1	RC
May 8, 2014	0730 to 0900	LBV Survey	57 to 63	Overcast	0-3	AP
May, 30, 2014	0730 to 0900	LBV Survey	63 to 72	Hazy	0-3	AP
June 10, 2014	0730 to 0900	LBV Survey	64 to 66	Overcast	3-6	AP
June 18, 2014	0730 to 0900	LBV Survey	63 to 70	Sunny	0-4	AP
June 27, 2014	0730 to 0900	LBV Survey	68 to 74	Sunny	0-3	AP
July 7, 2014	0730 to 0900	LBV Survey	73 to 90	Sunny	0-3	AP
July 18, 2014	0730 to 0900	LBV Survey	66 to 71	Overcast	0-3	AP
July 29, 2014	0730 to 0900	LBV Survey	73 to 80	Sunny	0-3	AP

* Surveys performed by REC, Inc.
LBV= Least Bells Vireo Survey, QCB= Quino checkerspot butterfly Survey RPO= Resource Protection Ordinance
DM= Denise Moe, DF= Danielle Flynn, RC= Robin Church, ER= Elyssa Robertson, DS = Darren Smith, NB= Nicole Bailey, AG= Amanda Gabrielson, AP= Andrew Pigniolo



RC
Biological Consulting, Inc.

Biological Resources Map for the Lake Jennings Marketplace

April 2015

Figure 4

This page intentionally blank.

RC
Biological Consulting, Inc.

Biological Resources Map for the Lake Jennings Marketplace

April 2015

Figure 5

This page intentionally blank.

Nomenclature for this report conforms to Hickman (1993), for plants, Holland (1986) and Oberbauer (1996) for plant communities and habitat types, American Ornithological Union (AOU 1998) for birds, Jennings (1983) and Stebbins (2003) for reptiles and amphibians, Jones (1992) for mammals, and Powell (1979) for insects.

1.4 ENVIRONMENTAL SETTING (EXISTING CONDITIONS)

The following discussion summarizes the existing biological resources onsite including habitats, vegetation and wildlife. Habitats are depicted on Figures 4 and 5.

1.4.1 Regional Context

The proposed project is located within the Metro-Lakeside-Jamul portion of the MSCP. The site consists primarily of one business, two residences, and land that has been used for agriculture for many years. In addition, Los Coches Creek traverses the site along the southern boundary. Los Coches Creek is bounded by development for its entire upstream length until it crosses under I-8, a distance of approximately 1 mile (Figure 3). Los Coches Creek continues downstream from the site through development. The site is located approximately 1 mile north/northeast of the Crestridge Conservation Bank. Development and avocado orchards occur between the site and the Crestridge Conservation Bank (Figure 3). An area of undeveloped lands occurs to east of the site; however, Rios Canyon Road and a mobile home park occur between the site and the area of undeveloped land. The site is an “in-fill” project within surrounding development (Figure 3).

The area directly south of the project is undeveloped as can be seen on the aerial photograph in Figure 3. The MSCP Habitat Evaluation Map identifies the majority of the project site as disturbed with the riparian corridor as very high habitat value.

1.4.2 Habitat Types/Vegetation Communities

Habitat descriptions are based on the County of San Diego’s Biological Mapping Requirements (Oberbauer 1996); however, it has been shown that habitats on the project sites in San Diego County are often not pristine and rarely fit into one description. Therefore, the best-fit definition based on the County’s current descriptions is provided. Three vegetation types occur within the project site including: southern riparian forest, non-native grassland, and urban developed. A complete list of plant species observed on- site is included in Appendix A.

Southern Riparian Forest (Habitat Code: 61300)

Southern riparian forest habitat is found onsite along the southern boundary encompassing Los Coches Creek. Black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and California sycamore (*Platanus racemosa*) dominate this habitat type. In addition, coast live oak (*Quercus agrifolia*) occurs towards the upper portions of the bank and above the top of bank. This habitat is degraded onsite with portions of the

creek being composed only of dense giant reed (*Arundo donax*). In addition, several exotics such as California pepper tree (*Schinus molle*), pecan trees (*Carya* sp.), and olive trees (*Olea europaea*) occur within this habitat onsite. Further degradation to the habitat has resulted from the dumping of debris onsite. Approximately 1.48 acres of this habitat occurs onsite.

RPO Wetland (Encompassed within the Southern Riparian Forest)

An RPO wetland delineation was performed to identify the portion of the southern riparian forest that also meets the criteria established by the RPO to define County wetlands. The criterion for the delineation of RPO wetlands is discussed in Section 1.5, *Applicable Regulations*, below. Only the northern boundary of the RPO wetland was delineated since proposed impacts would only occur to the north of the wetland.

Non-Native Grassland (Habitat Code: 42200)

Non-native grassland is a dense to sparse cover of annual grasses. This habitat type is often associated with native annual forbs, occurring on fine-textured soils that are moist during the winter rainy season and very dry during the summer and fall (Holland 1986). Onsite, non-native grassland dominates most of the site, occurring throughout the central, eastern, and western portion of the site. The non-native grassland is dominated by wild oats (*Avena* spp.), brome grasses (*Bromus* spp.), rye grasses (*Festuca* spp.), and black mustard (*Brassica nigra*). Overall, this habitat overall occupies approximately 6.92 acres onsite.

Urban Developed (Habitat Code: 12000)

Developed habitat includes areas that have been cleared in the past and/or are still used to access portions of the site. Developed portions onsite include a paved road, commercial buildings, parking lots, landscaped areas, and landscaped homes. Approximately 4.69 acres of developed habitat occur onsite.

1.4.3 Flora

The project site is highly disturbed with isolated and scattered native plants. The majority of the site is currently comprised of non-native grasslands and developed areas. A complete list of plant species observed onsite, including natives and non-natives, is included as Appendix A.

Sixteen native plant species and 27 non-native plant species were observed onsite. Representative plant species for each plant community were described in Section 1.4.2, above.

1.4.4 Fauna

Due to the highly disturbed nature of the site, wildlife diversity is limited. The area of non-native grassland, however, does provide valuable raptor foraging areas. A complete list of wildlife species observed onsite is included as Appendix B.

Nineteen species of birds, three species of mammals, and twelve species of insects were detected onsite. Representative species of the grassland habitat onsite include bushtits (*Psaltriparus minimus*), California towhee (*Pipilo crissalis*), and house finches (*Carpodacus mexicanus*). Species observed within the southern riparian forest include hooded oriole (*Icterus cucullatus*), common yellowthroat (*Geothlypis trichas*), song sparrow (*Melospiza melodia*), and Wilson's warbler (*Wilsonia pusilla*).

Two raptor species were observed onsite: red-shouldered hawk and Cooper's hawk Figure 4 shows that these species were generally observed within the southern riparian forest onsite.

1.4.5 Sensitive Plant Species and Habitats

Sensitive or special interest plant species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive plant species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sensitive habitats, as identified by these same groups, are those which generally support plant or wildlife species considered sensitive by these resource protection agencies or groups. Sensitive plant species and habitats are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, degradation due to development or invasion by non- native species, or a combination of all of these factors.

In addition to the RPO and the MSCP, the following were used in the determination of sensitive biological resources: United States Fish and Wildlife Service (USFWS) (USFWS 2001); California Department of Fish and Wildlife (CDFW) (CDFW 1999, 2000 and 2001); and California Native Plant Society (CNPS 2001).

No rare, threatened, endangered, or sensitive plant species were observed onsite. There are 24 sensitive plant species known from the general area. Of these, only one has a moderate potential to occur onsite, the state and federally endangered willowy monardella (*Monardella linoides* ssp. *viminea*). The site's riparian area was surveyed and no willowy monardella plants were identified onsite. Sensitive plant species with the potential to occur onsite are discussed in Appendix C.

Individual Coast Live Oak Trees

Coast live oak trees occur sporadically throughout the site and outside of the upper bank of the southern riparian forest. Although individual oak trees are not specifically

afforded protection under the BMO, they are considered a sensitive resource due to both their aesthetic value and value as wildlife habitat.

Southern Riparian Forest (Tier I)

Southern riparian forests are associated with creeks and drainages that are protected by the County, the CDFW, the United States Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), the USFWS, and the Environmental Protection Agency (EPA). Riparian habitats, in general, are considered sensitive biological resources because they have been dramatically reduced in San Diego County and across the nation and typically represent wetlands. Due to the regional and national loss of wetland habitat, resource agencies have a "no net loss policy" for wetlands. Riparian habitat is important because it has high levels of food and nutrients, high wildlife diversity, and it is a valuable water source in the arid climate of Southern California. This habitat's sensitivity and its ultimate reduction is evidenced by the large number of declining bird species closely associated with, or dependent on this habitat type for reproduction and ultimate success. This habitat is in a degraded condition onsite as evidence by a large component of invasive exotic species and trash. This habitat would be considered a Tier I habitat in the MSCP.

RPO Wetland (Encompassed within the Southern Riparian Forest)

An RPO wetland delineation was performed to delineate the limits of the southern riparian forest that also meet the criteria established under the RPO that defines County wetlands. The northern limits of this boundary are indicated on Figures 4 and 5.

Non-native Grassland (Tier III)

Non-native grasslands onsite are afforded protection by the County of San Diego BMO due to this community's value as raptor foraging habitat. The BMO requires that impacts to non-native grassland be mitigated.

1.4.6 Sensitive Animal Species

Sensitive or special interest animal species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sources used for the determination of sensitive animal species include: USFWS (USFWS 2015) and CDFW (CDFW 2015). Additional species receive federal protection under the Bald Eagle Protection Act and the Migratory Bird Treaty Act and Convention for the Protection of Migratory Birds and Animals.

The CDFW also lists species as threatened or endangered, or candidates for listing as threatened or endangered. Lower sensitivity animals may be listed as "Species of Special Concern" (CDFW 2015). The CDFW further classifies some species under the

following categories: “fully protected”, “protected furbearer,” “harvest species,” “protected amphibian,” and “protected reptile.” The designation “protected” indicates that a species may to be taken or possessed except under special permit from the CDFW; “fully protected” indicates that a species can be taken only for scientific purposes. The designation “harvest species” indicates that take of the species is controlled by the state government. Two sensitive species were observed onsite: Cooper’s hawk and red-shouldered hawk (Figure 4). These species are discussed below.

Cooper’s Hawk (Accipiter cooperii)

Status: California Species of Special Concern (SSC)when nesting

The Cooper’s hawk when nesting is listed as an SSC by the CDFW. This species is a year-long resident in southern California. It is most likely to occur in areas with dense stands of live oak, riparian deciduous or other forest habitats near water. Two individuals of this species were observed onsite, primarily in the southern riparian forest onsite and off-site. This is a covered species within the MSCP. California Natural Diversity Database Forms for this species are included as Appendix F.

Red-shouldered Hawk (Buteo lineatus)

Status: County Sensitive Species

The red-shouldered hawk is a County sensitive species. The red-shouldered hawk is a year-round resident that frequents low-elevation riparian woodlands, especially where interspersed with swamps and emergent wetlands. One individual of this species was observed roosting within the southern riparian forest. California Natural Diversity Database Forms for this species are included as Appendix F.

Additional Sensitive Species with the Potential to Occur

Fifty-one wildlife species have the potential to occur onsite. Of the 51 species with the potential to occur, none have a high potential to occur and only eight have a moderate potential to occur onsite. The eight species with a moderate potential to occur onsite are: two-striped garter snake (*Thamnophis hammondii*), black-shouldered kite (*Elanus caeruleus*), common barn-owl (*Tyto alba*), loggerhead shrike (*Lanius ludovicianus*), turkey vulture (*Cathartes aura*), western bluebird (*Sialia mexicana*), yellow warbler (*Dendroica petechia brewsteri*), and yellow-breasted chat (*Icteria virens*). The two-striped garter snake, common barn-owl, yellow warbler, and yellow-breasted chat are all SSCs. The loggerhead shrike is an SSC . The turkey vulture and western bluebird are County Sensitive species. The black-shouldered kite is considered sensitive by the CDFW when nesting and is a sensitive species in the County. Additionally, the County asked for focused surveys for California gnatcatcher (*Polioptila californica californica* - CAGN), a federally threatened species and the Hermes copper butterfly (*Lyceana hermes*), a federal candidate for listing. Neither of these species has more than a low potential to occur due to a lack of suitable habitat onsite. A focused survey was performed for least Bell’s vireo, a state and federally endangered species, and Quino

Checkerspot butterfly, a federally endangered species. These species are discussed below. Additional sensitive wildlife species with the potential to occur onsite are identified in Appendix D.

Least Bell's Vireo (Vireo bellii pusillus)

Status: State and Federally listed as Endangered

Formerly a common and widespread resident, the least Bell's vireo is now a rare, local, summer resident below about 600m (2,000 ft) in willows and other low riparian habitat. The population declined primarily from cowbird parasitism and habitat destruction. Due to the disturbed nature of the southern riparian forest onsite, it appears to be poor least Bell's vireo habitat. Focused surveys were performed to determine the presence/absence of the least Bell's vireo and other sensitive riparian dependent bird species were performed onsite. Eight least Bell's vireo surveys were performed and no vireos were found onsite. The portion of Los Coches Creek that traverses the site has a large component of exotic species, and does not have the well developed understory that least Bell's vireos are typically associated with during the breeding season. Since a protocol survey was performed and no vireos were detected onsite, no impacts to least Bell's vireo would occur. No additional focused surveys are recommended due to a lack of suitable nesting habitat onsite.

Quino Checkerspot Butterfly (Euphydryas editha quino)

Status: Federally listed as Endangered

A survey for the host plant, dot-seed plantain (*Plantago erecta*) was performed onsite. No host plant was documented onsite, nor did any "hilltopping" locations occur onsite in the Spring of 1999. As a result of the lack of host plant or hilltopping locations onsite, it is unlikely that Quino checkerspot butterfly uses the site. However, to be confident that Quino checkerspot butterflies do not occur onsite, a protocol survey was performed in the spring of 2000. Due to the amount of time involved in processing the project, a second Quino Checkerspot butterfly survey was performed in 2003 (Appendix G). No Quino checkerspot butterflies were identified onsite nor were any host plants detected during any of the surveys. Therefore, this species is not expected to occur onsite.

California gnatcatcher (Polioptila californica californica)

Status: Federally listed as Threatened, State Species of Special Concern

The California gnatcatcher, a federally threatened species and SSC, is a small gray songbird that is a resident of scrub-dominated communities in southwestern California from the Los Angeles Basin through Baja California, Mexico. California gnatcatcher populations have declined due to extensive loss of Diegan coastal sage scrub (CSS) habitat resulting from urbanization and agricultural uses. No CSS or suitable CAGN habitat occur onsite or near the project site. This species is not expected to occur onsite due to a lack of suitable foraging and nesting habitat.

Hermes Copper Butterfly (Lycaena hermes)

Status: Federal Candidate, County Sensitive Species

The Hermes copper butterfly is an endemic species to the San Diego bioregion. Except for a few records in northern Baja California, it has never been recorded anywhere else in North America. It is classified as an FSC and a County sensitive species. It occurs primarily in CSS and southern mixed chaparral communities. Its larval host plant is spiny redberry (*Rhamnus crocea*). Adults feed on nectar primarily of flat-top buckwheat (*Eriogonum fasciculatum*), but they have also been observed using slender sunflower (*Helianthus gracilentus*) and other plants in the Asteraceae family (Faulkner and Klein 2003). They are sedentary and rarely move more than 100 yards from their host plant (Faulkner, pers. comm.). As a result, they don't make long distance dispersals and their populations are usually at low enough levels that it does not force dispersal. No host plants (spiny redberry) or nectar plants (flat-top buckwheat) occur onsite, nor does any CSS or mixed chaparral. Therefore, this species is not expected to occur onsite.

1.4.7 Wetlands/Jurisdictional Waters

A blue-line stream, Los Coches Creek, traverses the site from east to west along the southern boundary. Los Coches Creek and the associated habitat is assessed and discussed below regarding USACE and CDFW jurisdiction and their relationship as wetlands within the RPO. Regulations applicable to wetlands/jurisdictional waters determinations are provided below in Section 1.5.

Based on the definition of waters of the United States and limits of jurisdiction, waters of the U.S. occur onsite and would be located at the same location as the RPO wetland line identified on Figures 4 and 5.

The limits of the southern riparian forest would also be the limits of the CDFW jurisdiction onsite. If any regulated impacts are proposed to the southern riparian forest as a result of the proposed project, then the CDFW must be notified pursuant to Section 1602 of the Fish and Game Code.

1.4.8 Habitat Connectivity and Wildlife Corridors

Wildlife movement corridors, also called dispersal corridors or landscape linkages, are linear features with a primary wildlife function to connect at least two habitat areas (Beier and Loe 1992). Other definitions of corridors and linkages are as follows:

1. A corridor is a specific route that is used for movement and migration of species. A corridor may be different from a "linkage" because it represents a smaller or narrower avenue for movement. "Linkage" shall mean an area of land which supports or contributes to the long-term movement of wildlife and genetic material.

2. A linkage is a habitat area that provides connectivity between habitat patches, as well as year-round foraging, reproduction, and dispersal habitat for resident plants and animals.

Wildlife corridors and linkages are important features in the landscape, and the viability and quality of a corridor or linkage are dependent upon site-specific factors. Topography and vegetative cover are important factors for corridors and linkages. These factors should provide cover for both predator and prey species. They should direct animals to areas of contiguous open space or resources and away from humans and development. The corridor or linkage should be buffered from human encroachment and other disturbances (e.g., light, loud noises, domestic animals) associated with developed areas that have caused habitat fragmentation (Schweiger et al. 2000). Wildlife corridors and linkages may function at various levels depending upon these factors and, as such, the most successful of wildlife corridors and linkages accommodate all or most of the necessary life requirements of predator and prey species.

Width and connectivity are assumed to be the primary factors of a "good" corridor (Forman 1987) and with that connectivity should also be included the concept of stepping stone reserves for pollinators, seed dispersers, and other flying species such as birds, bats, and insects (Soulé 2003). The level of connectivity needed to maintain a population of a particular species varies with the demography of the population, including population size, survival and birth rates, and genetic factors such as the level of inbreeding and genetic variance (Rosenberg et al. 1997). Areas not considered as functional wildlife dispersal corridors or linkages are typically obstructed or isolated by concentrated development and heavily-traveled roads, known as "chokepoints." One of the worst scenarios for dispersing wildlife occurs when a large block of habitat leads animals into "cul-de-sacs" of habitat surrounded by development. These habitat cul-de-sacs frequently result in adverse human/animal interface.

The project site is located within the Metro-Lakeside-Jamul Segment of the MSCP. Five linkages have been identified within that segment (County of San Diego 1997). The project site is located approximately one mile north/northeast of the CDFW Crestside Ecological Reserve and Crestridge Conservation Bank, identified as one of the linkages. Los Coches Creek is bounded by development for its entire upstream length until it crosses under I-8, a distance of approximately one mile to the east. Los Coches Creek continues downstream from the site through development. Development and avocado orchards occur between the site and the Crestridge Conservation Bank. Rios Canyon Road and a mobile home park are located to the east of the site. Undeveloped lands are located further east; however, due to Rios Canyon Road and the mobile home park, this undeveloped area would not serve as an important local wildlife movement corridor or habitat linkage. In addition, the project site does not support any nursery sites.

1.5 APPLICABLE REGULATIONS

In San Diego County, regulations have been adopted which define and provide protection to certain types of sensitive biological resources as follows:

Resource Protection Ordinance (RPO)

The purpose of the RPO is to protect sensitive resources and to prevent their degradation and loss. The sensitive resources protected by the RPO include wetlands, wetland buffer areas, and sensitive habitat lands, which are defined as follows:

Lands having one or more of the following attributes are “wetlands’’:

aa. At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);

bb. The substratum is predominantly undrained hydric soil; or

i. An ephemeral or perennial stream is present, whose substratum is predominately non-soil, and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

“Wetland buffer” areas include lands that provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community. Buffer widths shall be 50 to 200 feet from the edge of the wetland as appropriate based on above factors. Where oak woodland occurs adjacent to the wetland, the wetland buffer shall include the entirety of the oak habitat (not to exceed 200 feet in width).

“Sensitive habitat lands” include those which support unique vegetation communities, or the habitats of rare or endangered species or sub-species of animals or plants, including the area which is necessary to support a viable population of any of these species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning corridor.

Multiple Species Conservation Program (MSCP) and Biological Mitigation Ordinance (BMO)

In response to the continued loss of sensitive biological resources, especially CSS, the County adopted the MSCP in 1997. The proposed project must conform to the MSCP Subarea Plan, and the project must demonstrate that it has incorporated avoidance measures to meet the preserve design requirements of the Plan. To implement the MSCP Subarea Plan, the County enacted the BMO. Habitats are classified in different "Tier" levels that require different levels of mitigation. Application of the BMO to individual projects is the method by which the County will achieve the conservation goals set forth in the MSCP. Mitigation requirements for different habitat types are based on the location of both the impact and the proposed mitigation. Impacts within core habitat areas or pre-approved mitigation areas require higher mitigation ratios. Conversely, more credit is allowed for preservation or mitigation within core habitat areas or pre-approved mitigation areas.

Army Corps of Engineers (USACE) – Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA), any onsite wetlands and waters of the U.S. would be subject to permit provisions regulating activities within their boundaries. These provisions are enforced by the USACE, as well as the EPA, with technical input from the USFWS. Three factors are considered in the designation of wetlands: the presence of hydrophytic vegetation, hydric soils, and site hydrology. According to the latest USACE methodology, all three wetland indicators must be present to make a jurisdictional ruling (Environmental Laboratory 1987). Areas indicated as wetlands by all three factors during the rainy season may lack the indicators of hydrology and/or vegetation during the dry season, or the vegetation may have been altered or removed through human disturbance. Such areas may still be regarded as wetlands by resource agencies.

In addition, the USACE has jurisdiction over "waters of the United States." Waters of the United States are defined in 33 CFR part 328 (referred to as "waters"). The lateral limits of the jurisdiction of waters may be divided into three categories, territorial seas, tidal waters and non-tidal waters. 33 CFR part 328.3 provides the definition of waters of the United States as follows:

(a) The term waters of the United States means

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

(2) All interstate waters including interstate wetlands;

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

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are or could be used for industrial purpose by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

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

(6) The territorial seas

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

Waste treatment systems, including treatments of ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds

as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

(8) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding the CWA remains with the EPA.

(b) The term *wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

(c) The term *adjacent* means bordering, contiguous or neighboring. Wetlands separated from other waters of the United States by man made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

(d) The term *high tide line* means the line of intersection of the land with the water's surface to the maximum height reached by a rising tide……

(e) The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(f) The term *tidal waters* mean those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun.

The limits of jurisdiction in non-tidal waters are defined in 30 CFR part 328.4. When non-tidal waters occur in the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark (OHWM).

California Department of Fish and Wildlife – Streambed Alteration Program

The CDFW regulates wetlands under Section 1601/1603 of the California Fish and Game Code through their Streambed Alteration Agreement Program. Any alteration of any stream course within the State of California requires a Streambed Alteration Agreement from the CDFW. Section 1601 pertains to public projects where Section 1603 applies to private projects and specifically states: "It is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity…"

A stream is defined by the California Code of Regulations (14 CCR 1.72) as a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic wildlife. This includes watercourses having a surface or subsurface flow that supports or has supported riparian habitat.

The limits of CDFW jurisdiction are defined in the code (Section 1601/1603) as the bed, channel, or bank of any river, stream or lake designated by the department in which there is at any time existing fish or wildlife resource or from which these resources derive benefit.

County of San Diego RPO

The County of San Diego RPO defines wetlands within Chapter 6, Section 86.602(q) as:

Lands having one or more of the following attributes are “wetlands’’:

aa. At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);

bb. The substratum is predominantly undrained hydric soil; or

cc. An ephemeral or perennial stream is present, whose substratum is predominately non-soil, and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

The County of San Diego RPO defines wetlands buffers within Chapter 6, Section 86.602(r) as:

> "Wetland buffer" areas include lands that provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community. Buffer widths shall be 50 to 200 feet from the edge of the wetland as appropriate based on above factors. Where oak woodland occurs adjacent to the wetland, the wetland buffer shall include the entirety of the oak habitat (not to exceed 200 feet in width).

The RPO wetlands were mapped using the presence of any one of the criteria listed above. The primary criterion used based on the site condition was the predominance of hydrophytic vegetation. “Predominance” was interpreted to mean at least 50% of the cover was formed by hydrophytes. The 1988 National List of Wetland Plants for California (USACE 1988) was used as a reference to determine whether a plant was considered hydrophytic. All plants that have an indicator of obligate or facultative wetland as defined by the National List were considered hydrophytes. Plants with an indicator of facultative were assessed on an individual basis. This occurred only in the instance where a blue elderberry (*Sambucus nigra* subsp. *caerulea*) occurred. Since the elderberry trees were located above the top of bank and in association with upland plants, it was determined that in this instance they were “upland” species. All plants with an indicator of facultative upland, obligate upland, or not on the list were considered upland plants.

In addition to the presence of hydrophytic vegetation determining the limits of the RPO wetland, there was a small stretch toward the eastern end where the hydrology defined the limit. This portion lacked hydrophytic vegetation but had water flowing and

evidence of scour. The ordinary high water mark or assumed limits of the one year flood were used to delineate this portion. The ordinary high water mark was determined to be a bench or bank that occurred approximately one foot outside of the limits of flowing water and approximate six inches higher in elevation.

An RPO buffer ranging from 52 to 102 feet and which encompasses the oak trees in association with the Southern Riparian Forest as required by the RPO is proposed (Figure 6).

2.0 PROJECT EFFECTS

Impacts on biological resources can be categorized as either direct, indirect, or cumulative. Direct impacts are a result of project implementation, and generally include: the loss of vegetation and sensitive habitats and populations; the introduction of non- native species which may out-compete and displace native vegetation; activity-related to mortalities of wildlife; loss of foraging, nesting or burrowing habitat; destruction of breeding habitats; and fragmentation of wildlife corridors. Indirect impacts occur as a result of the increase in human encroachment in the natural environment and include: off- road vehicle use which impacts sensitive plant or animal species; harassment and or collection of wildlife species; increased noise and lighting; and inadvertent increased wildlife mortalities along roads. Cumulative impacts occur as a result of on-going direct and indirect impacts for unrelated or fragmented projects overall. Cumulative impacts are assessed on a regional basis and determined the overall effect of numerous activities on a sensitive resource over a larger area.

Generally, there are three levels of adverse impacts associated with biological resources: significant, locally important, and not significant. The County of San Diego adopted the regional Multiple Species Conservation Program and Subarea Plan in 1997. To implement the Subarea Plan, the County enacted the BMO. These documents identify biological resources and, indirectly, thresholds for significance. Habitats are classified in different tier levels which require different levels of mitigation. Habitats within Tiers I to III, require mitigation under the BMO and therefore are considered significant.

These levels of impacts were applied to the project site and are used below in the discussion of specific potential impacts. Figures 4 and 5 detail the proposed impact areas. Figure 6 identifies the proposed open space. A 40-foot limited building zone (LBZ) is identified on Figure 6. The LBZ is based on the low quality of riparian habitat onsite and meets fire safety standards because it exceeds the 34-foot flame height modeling that was conducted for the site (see Fire Protection Plan for a more thorough analysis).

The proposed project is commercial, supporting infrastructure such as storm drains and utilities, vacation of an existing paved road, an equestrian trail, and dedication of an open space easement on an approximately 13.09-acre site. The project would include off-site improvements for a 125-foot storm drain. A wall and/or fence is proposed along

the southern limits of the development. A 10-foot-wide trail is located south of the development limits and north of the beginning of open space. Signs will be placed on posts at 50-foot intervals along the limits of the open space to identify the area of sensitive lands.

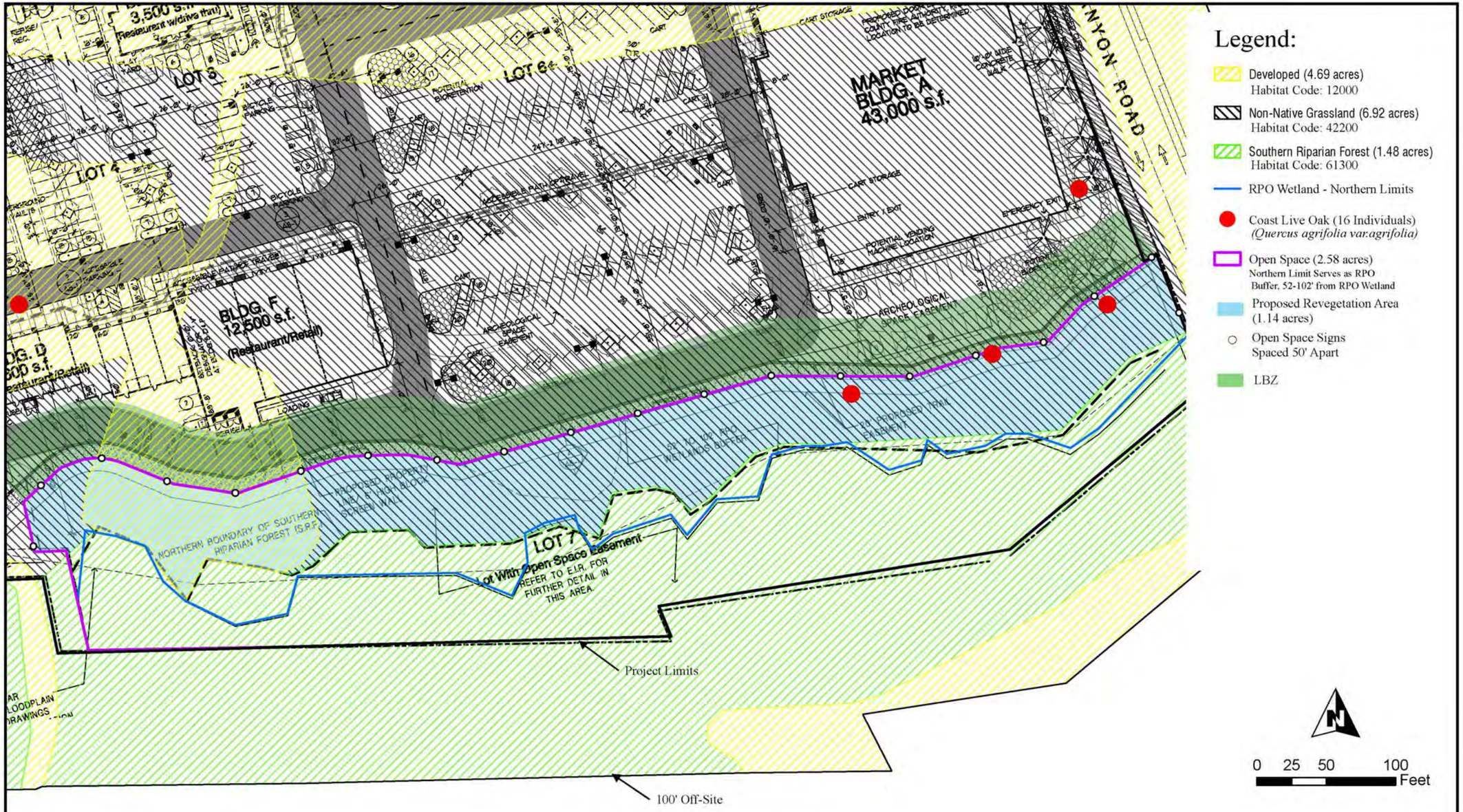
Additionally the project has prepared a fire protection plan. The fire protection plan has allowed for the reduction of the 100-foot standard fire clearing to a minimum of 45 feet in some portions of the project. A non-combustible wall and enhanced fire resistive constructions are being provided as mitigation measures for the reduction. The Lakeside Fire Marshal has conditionally approved the fire protection plan provided that the Conceptual Landscape for the project is implemented and invasive exotic plants are removed from the wetland.

The direct impacts were calculated from the habitat map overlain on the grading plan provided by Stuart Engineering (May 2007). In addition, the edge of the southern riparian forest and RPO wetland were plotted using survey data for accuracy.

Table 2
Habitat Acreages and Anticipated Impacts

Habitat	Total Acres	Impact Neutral (acres)	Direct Impacts (Grading and Fire Clearing)	Mitigation Ratio	Mitigation Required (acres)
Southern Riparian Forest (Tier 1)	1.48	1.48[1]	0.00	1:1	NA
Non-Native Grassland (Tier III)	6.92	0.01[2]	6.91	0.5:1	3.46
Urban-Developed (Tier IV)	4.69	0	4.69	NA	NA
Total Onsite	13.09	1.49	11.60		
Off-site Improvements-Non-native Grassland	0.01	NA	0.01	0.5:1	0.005

1. 1.44 acres within the biological open space easement, remainder in existing road easement; however; no impacts would occur as a result of this project.
2. 0.01 acre of non-native grassland within existing road easement, no impacts would occur as the result of this project.



RC Biological Consulting, Inc.	**Open Space Map for the Lake Jennings Marketplace April 2015**	**Figure 6**

This page intentionally blank.

3.0 SPECIAL STATUS SPECIES

3.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

According to Appendix G of the State CEQA guidelines, the proposed project would have a potentially significant effect on onsite biological resources if it would:

- Have a substantial adverse affect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS.

In addition, based on County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources (County of San Diego, 2010), the County Planning and Development Services Department has found the following thresholds to be acceptable to address significance criteria related to special status species. The project would have a substantial adverse project-level or cumulative environmental effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by the CDFW or the USFS if:

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

B. The project would impact an on-site population of a County List A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern. Impacts to these species are considered significant; however, impacts of less than 5 percent of the individual plants or of the sensitive species' habitat on a project site may be considered less than significant if a biologically-based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of that plant or animal taxon.

C. The project would impact the local long-term survival of a County List C or D plant species or a County Group II animal species.

D. The project may impact arroyo toad aestivation, foraging or breeding habitat. Any alteration of suitable habitat within 1 kilometer (3,280 feet) in any direction of occupied breeding habitat or suitable stream segments (unless very steep slopes or other barriers constrain movement) could only be considered less than significant if a biologically-based determination can be made that the project would not have a substantially adverse effect on the aestivation or breeding behavior of arroyo toads.

E. The project would impact golden eagle habitat. Any alteration of habitat within 4,000 feet of an active golden eagle nest could only be considered less than significant if a biologically-based determination can be made that the project would not have a substantially adverse effect on the long-term survival of the identified pair of golden eagles.

F. The project would result in the loss of functional foraging habitat for raptors. Impacts to raptor foraging habitat is considered significant; however, impacts of less than 5 percent of the raptor foraging habitat on a project site may be considered less than significant if a biologically-based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of any raptor species.

G. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species. Alteration of any portion of a core habitat could only be considered less than significant if a biologically-based determination can be made that the project would not have a substantially adverse effect on the core area and the species it supports.

H. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term. The following issues should be addressed in determining the level of significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests, or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown to adversely affect sensitive species.

I. The project would impact occupied burrowing owl habitat.

J. The project would impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

K. The project would impact occupied Hermes copper butterfly habitat.

L. The project would impact nesting success of the following sensitive bird species through grading, clearing, fire fuel modification, and/or other noise generating activities such as construction.

Species	**Breeding Season**
Coastal cactus wren	February 15 to August 15
Coastal California gnatcatcher	February 15 to August 31
Least Bell's vireo	March 15 to September 15
Southwestern willow flycatcher	May 1 to September 1
Tree-nesting raptors	January 15 to July 15
Ground-nesting raptors	February 1 to July 15
Golden eagle	January 1 to July 31
Light-footed clapper rail	February 15 to September 30

3.2 ANALYSIS OF PROJECT EFFECTS

Individual Coast Live Oak Trees

Approximately 15 individual coast live oak trees would be removed as a result of the proposed project. Impacts to these locally important trees would be considered significant.

Cooper's Hawk and Red-shouldered Hawk

Cooper's hawk and red-shouldered hawk (both County Group I animal species) were observed within the southern riparian forest habitat onsite (Figure 4). Cooper's hawk is an SSC and an MSCP covered species. Red-shouldered hawk is a County sensitive species. Implementation of the proposed project would not result in direct impacts to the southern riparian forest onsite. However, the project would reduce foraging habitat for these species through direct impacts to 6.91 acres of non-native grassland. Impacts to foraging habitat and potential indirect impacts to these sensitive species during the nesting season would be considered significant. Due to the proximity of the buildings and the parking areas to Los Coches Creek, indirect impacts to the wildlife using the southern riparian forest may occur. In particular, accessibility to the site, trash dumping, and increased noise and light may cause significant impacts.

Least Bell's Vireo

Eight least Bell's vireo surveys were performed and no vireos were found onsite. The portion of Los Coches Creek that traverses the site has a large component of exotic species, and does not have the well-developed understory that least Bell's vireos are typically associated with during the breeding season. However, in the event that least Bell's vireos move into the riparian area prior to project construction, and construction is proposed during the breeding season and within 300 feet of the riparian habitat, an indirect impact to this species would occur.

3.3 CUMULATIVE IMPACT ANALYSIS

Cumulative impacts of the proposed project were evaluated within the context of past, present, and future projects located within the cumulative impact study area that could cumulatively contribute to the proposed project's significant impacts. As previously noted, the proposed project is located within the MSCP and is subject to requirements of the MSCP Subarea Plan, the BMO, and the RPO. The proposed project is surrounded by developed land with the exception of Las Coches Creek to the south and an undeveloped area to the east that is separated from the project site by Rios Canyon Road and mobile homes. Avocado orchards separate the project site from the Crestridge Conservation Bank, located one mile to the southwest of the proposed project site. Given the regional context of the project, cumulative projects were selected from within the same watershed as the proposed project, generally within one mile of the project site. These cumulative projects are also located within the MSCP and would be subject to the same requirements as the proposed project.

Two projects were identified within the cumulative impact study area – the Lakeside Tractor Supply Project and the Lake Jennings Park Road – Discretionary Permit for Tentative Map Replacement TM#5578 Project. The locations of these projects are shown in Figure 7. Project information and potential impacts on biological resources are shown in Table 3. These projects are in the early planning stages. No biological technical reports or other site specific survey information with respect to biological resources is currently available for these two projects. Habitat types potentially present on the project site were determined based on aerial photography of the project site. General vegetation mapping from the County of San Diego shows the Lakeside Tractor Supply Project area as all disturbed habitat and the Lake Jennings Park Road Residential Project as all Diegan coastal sage scrub habitat. However, it appears that additional vegetation communities, as noted below, may be present within the project limits or within a 500-foot buffer survey area for these two sites. The cumulative project sites appear disturbed, with off road vehicle or bicycle tracks evident on both sites. There is the potential for native plant communities on these sites, including Diegan coastal sage scrub and coast live oak trees. These habitat types were used to determine sensitive species that may be present on the two cumulative impact project sites to qualitatively address the potential for cumulative impacts on these species and their habitats.

Individual Coast Live Oak Trees

The proposed project would result in the loss of 15 individual coast live oak trees. Both of the cumulative projects have the potential to result in the loss of individual coast live oak trees, if present on the project sites (site reconnaissance would be required to determine whether oak trees occur on these sites). There is the potential for the project to add to a cumulative loss of this resource. Therefore, cumulative impacts to individual coast live oak trees would be considered significant prior to mitigation.

Sensitive Animal Species

The project would result in an indirect impact to southern riparian forest, which is known to support Cooper's hawk and red-shouldered hawk on the project site. Of the cumulative projects, only the Lake Jennings Park Road Residential Project may have a riparian or eucalyptus woodland community that could support these or other sensitive raptor species. There is the potential for the proposed project to add to a cumulative loss of this resource through potential indirect impacts on these species. Therefore, cumulative impacts to Cooper's hawk and red-shouldered hawk would be considered significant prior to mitigation. Least Bell's vireo was not observed on site, and the cumulative projects do not appear to have suitable habitat for least Bell's vireo. Therefore, cumulative impacts to least Bell's vireo are determined to be less than significant.

Figure 7. Cumulative Projects

This page intentionally blank.

Table 3
Cumulative Projects

Map Label	Project Number	Project Name	Description	Habitat Types Present[1]	Species Potentially Present[2]
1	Major Use Permit #MUP-14-015	Lakeside Tractor Supply	The project is located at 14140 Olde Highway 80 in Lakeside. The project is a Major Use Permit to authorize a retail store with outdoor display. The project would generate 900 daily trips. **Status:** Major Use Permit application submitted April 15, 2014.	disturbed habitat developed Diegan coastal sage scrub? coast live oak trees? non-native grassland	coast live oak trees raptors?
2	Tentative Map Replacement #PDS2013-TM5578 (TM5578)	Lake Jennings Park Road – Discretionary Permit for Tentative Map Replacement TM#5578	Located at 9317 Lake Jennings Park Road and Jennings Vista Drive. This project was previously approved in December 5, 2013. The original Tentative Map consisted of 21 lots, with the development of 18 residential units. The replacement Tentative Map proposes 20 lots, with the development of 18 residential units. The project would generate 180 daily trips. **Status:** Tentative Map application submitted January 2, 2014.	disturbed habitat eucalyptus woodland? Diegan coastal sage scrub non-native grassland coast live oak trees? riparian woodland?	coast live oak raptors, including Cooper's hawk and red-tailed hawk

[1] Habitat types are based on an assessment of aerial photography and have not been ground truthed. Likely vegetation communities are listed; those that may or may not be present include a question mark after the habitat type.

[2] The cumulative project sites could support other sensitive plant or animal species, but only those species that may be significantly impacted by the proposed project are considered in the cumulative impacts analysis.

3.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

3.4.1 Plant Species

Individual Coast Live Oak Trees

Under the proposed site plan, 15 individual coast live oak trees would be removed to accommodate structures, roadways, parking lots, and grading. Due to the development constraints, it was infeasible to redesign the project to avoid these individual trees. Although they are not afforded protection under the BMO, individual

oak trees are considered locally important; therefore, impacts to these 15 individual coast live oak trees are considered significant. Direct impacts to individual oak trees would be reduced to below a level of significance through implementation of the following mitigation measure:

- Impacts to approximately 15 individual oak trees will be mitigated through the off-site acquisition of 0.90 acre of coast live oak woodland within a pre-approved mitigation bank within the MSCP (Crestridge Conservation Bank or other MSCP approved mitigation area).

3.4.2 Animal Species

Cooper's Hawk and Red-Shouldered Hawk

The habitat-based mitigation approach discussed below in Section 4.4 would also serve as mitigation for potential impacts to Cooper's hawk and red-shouldered hawk.

Least Bell's Vireo

No least Bell's vireos were found during focused surveys for the project site. However, the following mitigation measure is proposed in the event that least Bell's vireos move into the riparian area prior to project construction, and construction is proposed during the breeding season and within 300 feet of the riparian habitat:

- If any construction activities are proposed between March 15 and September 15, prior to initiation of any construction activities within 300 feet of the southern riparian forest, two least Bell's vireo surveys at least one week apart shall be performed by a qualified biologist with experience in conducting least Bell's vireo surveys. If no least Bell's vireos are identified during the surveys, then construction may proceed; however, the site shall be surveyed weekly for least Bell's vireo. If least Bell's vireos are detected during the protocol survey or weekly site surveys, construction-related noise levels must not exceed 60 dBA hourly Leq at the limits of the southern riparian forest.

3.5 CONCLUSIONS

With implementation of site-specific mitigation measures identified in Section 3.4.1 and 3.4.2, above and Section 4.4, below, impacts to sensitive plant and animal species will be mitigated to below a level of significance.

4.0 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

4.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

According to Appendix G of the State CEQA guidelines, the proposed project would have a potentially significant effect on onsite biological resources if it would:

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS.

In addition, based on County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources (County of San Diego, 2010), the County Planning and Development Services Department has found the following thresholds to be acceptable to address significance criteria for riparian habitats or sensitive natural communities. The project would have a substantial adverse project-level or cumulative environmental effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS if:

A. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No *de minimus* standard is specified under which an impact would not be significant, however; minor impacts to native or naturalized habitat that is providing essentially no biological habitat or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant. An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence of habitat type in project vicinity, its condition and size, presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in project vicinity, and current degree of urbanization and edge effects in project vicinity. An area that is disturbed or partially developed may provide a habitat "island" that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by the USACE, CDFW, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance or the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

D. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests or exotic species; altering natural drainage; and

increasing noise and/or nighttime lighting to a level above ambient that has been shown by the best available science to adversely affect the functioning of sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the RPO, buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths.

    - A 50-foot wetland buffer would be appropriate for lower quality RPO wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25%.
    - A wetland buffer of 50-100 feet is appropriate for moderate to high quality RPO wetlands which support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25%) with highly erosive soils. Within the 50-100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.
    - Wetland buffers of 100-200 feet are appropriate for RPO wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.
    - Buffering of greater than 200 feet may be necessary when an RPO wetlands is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) which could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO wetland buffers, actions may be subject to other laws and regulations (such as the Endangered Species Act, ESA) that require greater wetland buffer widths.

4.2 ANALYSIS OF PROJECT EFFECTS

Southern Riparian Forest and Buffer (Tier I/ Sensitive Habitat Land): Direct Construction Impacts

This habitat is a Tier I habitat within the MSCP and a Sensitive Habitat Land as defined by the RPO. Tier I habitats are the most sensitive habitats within the region. No direct construction impacts would occur to the southern riparian forest onsite. Approximately 1.44 acres of the 1.48 total acres of southern riparian forest would be placed in an approximately 2.58 acre open space easement (Figure 6). The remaining 0.04 acre is located within undeveloped sections of road easements to the east and west of the

proposed open space and is impact neutral. The project provides a minimum 52-foot buffer between the edge of the development and the riparian habitat. The easement restricts future activities allowed in this area. The sole exceptions to the prohibitions are: continued use and maintenance of the existing access and utility easements; and activities required to be conducted pursuant to revegetation, habitat management, or landscaping plan approved by the Director of Planning and Development Services. No development would occur within the southern riparian forest habitat area or the easements as a result of this project.

Southern Riparian Forest and Buffer: Removal of Invasive Exotic Species

Impacts may occur within this habitat for the removal of invasive exotic plant species. Provided the removal is performed without the use of mechanized equipment and impacts to bed and/or bank do not occur, a permit from the U.S. Army Corps of Engineers (USACE) would not be required. However, the removal and continual eradication of exotic invasive species within this area may require a Streambed Alteration Agreement pursuant to Section 1602 of the Fish and Game Code.

Southern Riparian Forest and Buffer: Indirect Construction Impacts

General construction activities in the vicinity of Los Coches Creek have the potential to indirectly impact riparian resources. Activities such as storage and fueling of construction-related equipment could potentially release contaminants and/or hazardous materials into the riparian area, and could, therefore, significantly impact riparian resources. Short-term noise impacts related to construction could impact sensitive wildlife utilizing the riparian area. These are potentially significant indirect impacts.

Southern Riparian Forest and Buffer: Indirect Impacts from Post-Construction Project Operation

Due to the proximity of the buildings and the parking areas to Los Coches Creek, indirect impacts to the wildlife using the southern riparian forest may occur. In particular, accessibility to the site, trash dumping, and increased noise and light from operation of the proposed project may cause adverse impacts. These effects could be potentially significant and require mitigation.

Non-native Grassland – Tier III – Direct Construction Impacts

Non-native grassland is a Tier III habitat within the MSCP. Tier III habitats are regionally common habitats but are afforded protection within the MSCP. Impacts to this habitat would be considered locally important and significant in accordance with the BMO. Approximately 6.92 acres of this habitat are proposed to be impacted on and off-site. Approximately 0.01 acre is impact neutral within an existing road easement that is not proposed to be impacted as the result of this project.

Urban Developed – Tier IV

Urban developed lands are a Tier IV habitat within the MSCP. Impacts to Tier IV habitats do not require mitigation within the MSCP. Impacts to urban developed lands would not be considered significant. Approximately 4.69 acres of this habitat are proposed to be impacted.

4.3 CUMULATIVE IMPACT ANALYSIS

Non-native Grassland

Loss of biological resources due to development of cumulative projects in the vicinity of the project may include an unquantified amount of non-native grassland, if determined to be present on the cumulative project sites. The proposed project would result in an impact to approximately 6.91 acres of non-native grassland, which may result in significant cumulative impacts to this habitat prior to mitigation. Impacts to non-native grassland will be mitigated through the dedication of onsite and offsite easements. The mitigation would be adopted in accordance with the MSCP and the BMO, which have been adopted to address cumulative impacts on a regional level. The MSCP and the BMO allow for limited impacts to protected habitat; however, their primary goals are to ensure protection of regional blocks of biologically viable habitat of adequate size to preserve sensitive species. Each cumulative project is expected to mitigate significant project-level impacts to below a level of significance in accordance with the mitigation requirements of the MSCP.

Within the MSCP, there are over 10,000 acres of grassland habitat (County of San Diego 997). While loss of at least 6.91 acres represents an incremental decrease of the overall non-native grassland habitat within the MSCP, it is not considered to be cumulatively significant.

Southern Riparian Forest

The proposed project would not result in direct impacts to southern riparian forest; however, indirect impacts are anticipated during project construction and operation. Of the cumulative projects, only the Lake Jennings Park Road Residential Project may have a southern riparian forest community on the project site (a site reconnaissance would be necessary to determine if trees evident on the aerial would be mapped as this vegetation community). The proposed project has the potential to contribute to cumulative indirect impacts on this plant community. Cumulative indirect impacts to southern riparian forest would be considered significant prior to mitigation.

4.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Resource Protection Ordinance

Under the RPO (discussed above), development of sensitive habitat lands is restricted, as follows:

Within *sensitive habitat lands*, the RPO prohibits development, grading, grubbing, clearing or any other activity or use damaging to such lands, and states that the approving authority may allow development when all feasible measures necessary to protect and preserve the sensitive habitat lands are required as a condition of approval and mitigation provides an equal or greater benefit to the protected species.

Biological Mitigation Ordinance

The BMO requires that mitigation be provided, in accordance with ratios which take into account factors such as: (1) what "Tier" the impacted habitat falls into; (2) whether the impacted resources are located within a Biological Resources Core Area (BRCA) and (3) whether the mitigation land would be located onsite or off-site.

The application of these criteria to the above resources, and the resulting mitigation requirements, are discussed below (Table 4).

Table 4
Proposed Mitigation

Habitat	Mitigation Required	Onsite Open Space (acres)	Onsite	Offsite
Southern Riparian Forest (Tier 1)	N/A	1.44	N/A	N/A
Non-Native Grassland (Tier III)	3.46	0.85	0	3.46
Urban-Developed (Tier IV)	N/A	0.29	N/A	N/A
Coast Live Oak Trees (*Quercus agrifolia*)	0.90[1]	N/A	0	0.90
Total	**N/A**	**2.58[2]**	**N/A**	**N/A**

1. Mitigation for impacts to 15 individual oak trees will occur through the preservation of 0.90 acre of coast live oak woodland off-site. This acreage was calculated based on the canopy area of the oaks impacted onsite.
2. This acreage is encompassed within the RPO wetland and buffer and cannot be counted as mitigation. Approximately 1.14 acres within the proposed onsite open space easement also cannot be counted as mitigation because it is proposed to be revegetated.

Southern Riparian Forest and Buffer – Design Considerations and Mitigation Measure

The proposed project has been designed so individual project components (buildings, parking areas) are not located in the southern riparian forest habitat. This habitat is a Tier I habitat within the BMO and Sensitive Habitat Land within the RPO. Tier I habitats are the most sensitive habitats within the region.

Approximately 1.44 acres of the 1.48 acres of southern riparian forest would be placed in an open space easement. The remaining 0.04 acre is impact neutral and associated with an undeveloped section of the road easements (Figure 5). The project provides a buffer with a minimum of 52 feet between the edge of the development and the riparian

habitat. The establishment of this easement is to avoid future impacts from disturbing this area. The easement informs the County staff and potential users of restrictions on the activities allowed in this area.

Southern Riparian Forest and Buffer - Avoidance and Minimization Measures:

- No storage or fueling of construction equipment within 100 feet of the Los Coches Creek floodway will be allowed.
- No storage or fueling of construction equipment within the RPO wetland buffer.
- Lighting shall be selectively placed and/or shielded to avoid light directly entering into the southern riparian forest and RPO wetland habitat from the proposed development and/or construction.
- As a result of short-term construction impacts, for construction from January 1 to June 1, prior to initiation of any construction activities within 300 feet of the southern riparian forest, one survey for the presence of nesting raptor species listed as an SSC by the CDFW, shall be performed by a qualified biologist. If no nesting raptors are identified, then construction may proceed. If nesting raptors are identified onsite, then no construction within 300 feet shall be allowed until the nest is no longer active.
- Temporary construction fencing shall be placed along the edge of the RPO wetland buffer revegetation area during construction activities.
- The initial phases of vegetation clearing within 300 feet of the southern riparian forest shall be monitored by a biologist experienced in construction monitoring. The biologist shall be supervised by a County Certified Biologist. The monitor shall perform daily visits and make a written report within 10 working days to the Director of Planning and Land Use confirming compliance with the construction mitigation measures. If noncompliance is observed, the biological monitor shall immediately halt construction activities and shall report the noncompliance within 24 hours by phone or in person to the County Inspector.
- A 6-foot cinderblock wall and/or fence shall be placed north of the trail at the top of the slope to prevent unauthorized access into the open space area.
- Only use of low-sodium lighting shall be permitted. Such lighting shall be both directed away and shielded from the southern riparian forest and RPO wetland habitat.
- Permanent signage shall be placed along the open space boundary. Specific placement of the signage includes the northern side of the masonry wall, the eastern edge of the open space boundary adjacent to Rios Canyon Road, the western edge of the open space boundary adjacent to Ridge Hill Road, and along the southern side of the trail. The signage shall be installed at intervals of 50 feet. The signs shall be corrosion resistant and a minimum size of 6 inches

by 9 inches. The signage shall be attached to posts, not less than 3 feet in height from the ground surface. The sign shall state the following:

Sensitive Environmental Resources
Area Restricted by Easement
Entry without express written permission from the County of San Diego
is prohibited. To report a violation or for more information about easement
restrictions and exceptions contact the County of San Diego,
Planning & Development Services
Reference: PDS2014-ER-14-014-013:

- Evidence that the permanent signs have been placed to protect all open space easements shall be submitted to the Director of Planning and Development Services. Evidence shall include photographs of all signs installed and a signed statement, from a California Registered Engineer or licensed surveyor, that permanent signs have been placed on the open space easement boundaries in accordance with the requirements of this condition.
- The applicant shall enter into an Open Space Agreement with the County to ensure perpetual management of the open space and security to ensure that the maintenance is performed in accordance with on-going conditions of the Site Plan. The management shall include all maintenance responsibilities and security issues including but not limited to regular removal of horse manure, trash, and invasive species.

Non-Native Grasslands: Mitigation Measure

Impacts to 6.91 acres of non-native grassland, which is potential raptor foraging habitat (a Tier III habitat), onsite will be mitigated at a 0.5:1 mitigation ratio in conformance with the MSCP. This mitigation will occur through:

- Impacts to 6.91 acres of non-native grassland shall be mitigated though the off-site acquisition of 3.46 acres of a Tier III or greater habitat within a pre-approved mitigation area (Crestridge Conservation Bank or other MSCP approved mitigation area) which meets the satisfaction of the County's Director of Planning and Land Use.

Additional Design Features and Mitigation Measures

Proposed additional design features and mitigation measures to ensure compliance with fire safety and protection include:

- A 40-foot limited building zone (Figure 6) is being provided to restrict future development from occurring in a manner that would result in fire clearing into the open space. Provisions within the Fire Protection Plan include the requirement of a 6-foot non-combustible wall between proposed open space and structures, implementation of the Conceptual Landscape Plan, and the removal of invasive exotics within the proposed open space.

- All structures shall be constructed using enhanced fire resistive construction as defined by the County of San Diego Fire and Building Codes.

4.5 CONCLUSIONS

Project design has avoided development within the riparian area. In addition, an open space easement will be granted to the County of San Diego encompassing the entirety of the RPO buffer, southern riparian forest, which includes the RPO wetland, except where the private road easement occurs. This easement places legal restrictions over the property that preclude development of structures, grading, and other disturbances that would prevent the area from remaining in its natural state. Finally, a 1.14-acre vegetated buffer will be established between the riparian habitat and the development which will be included within the open space easement.

Potential indirect construction impacts to the southern riparian forest would be reduced to below a level of significance by ensuring fueling and storage of construction equipment takes place at least 100 feet away from riparian resources, ensuring that the project does not affect least Bell's vireo (implementing noise control measures if least Bell's vireo occupy the site), ensuring that the project does not affect nesting raptor species listed as an SSC by the CDFW, construction of a silt fence to prevent sediment from entering the habitat, and directing lighting away from the riparian area.

Potential indirect impacts from operation would be reduced to below a level of significance through the construction of a cinderblock wall or fence and the use of shielded low-sodium lighting directed away from sensitive habitat. Additionally, signs will be posted at 50-foot intervals along the northern limits of the open space indicating that it is sensitive lands.

Direct impacts to 6.91 acres of non-native grassland would be reduced to below a level of significance through the off-site acquisition of 3.46 acres of Tier III or higher habitat within a MSCP pre-approved mitigation area which meets the satisfaction of the County's Director of Planning and Land Use.

With implementation of site-specific mitigation measures, impacts to riparian habitats or sensitive natural communities would be mitigated to below a level of significance.

5.0 JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

According to Appendix G of the State CEQA guidelines, the proposed project would have a potentially significant effect on onsite biological resources if it would:

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh,

vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

In addition, based on County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources (County of San Diego, 2010) and BMO guidelines, the County Planning and Development Services Department has found the following thresholds to be acceptable to address significance criteria related to jurisdictional wetlands and waterways. The project would have a substantial adverse project-level or cumulative environmental effect on jurisdictional wetlands and waterways through direct removal, filling, hydrological interruption or other means if:

A. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by the USACE, CDFW, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance or the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

B. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

C. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the RPO, buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths.

    - A 50-foot wetland buffer would be appropriate for lower quality RPO wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25%.
    - A wetland buffer of 50-100 feet is appropriate for moderate to high quality RPO wetlands which support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25%) with highly erosive soils. Within the 50-100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.
    - Wetland buffers of 100-200 feet are appropriate for RPO wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species or where stream meander,

erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.

- Buffering of greater than 200 feet may be necessary when an RPO wetlands is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) which could result in a high degree of edge effects within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO wetland buffers, actions may be subject to other laws and regulations (such as the ESA) that require greater wetland buffer widths.

5.2 ANALYSIS OF PROJECT EFFECTS

RPO Wetland and Wetland Buffer

The RPO wetland encompasses the southern riparian forest and would not be impacted by the proposed project. Portions of the southern riparian forest are not included within the RPO wetland due to the fact that they do not meet any of the three criteria to be considered a "wetland" under the RPO. These portions of southern riparian forest that are outside of the RPO wetland are comprised primarily of "non-hydrophytic" plant species such as coast live oaks, do not have hydric soils, and are outside of the streambed. A wetland buffer ranging in width from 52 to 102 feet (Figure 6) from the northern RPO wetland limits has been identified. The buffer includes all of the oak trees associated with the southern riparian forest as required by the RPO. The RPO wetland buffer, currently composed primarily of non-native grassland, is proposed to be enhanced through revegetation as a native shrub and grassland community. A seed mix and container plant palette has been prepared for this area.

5.3 CUMULATIVE IMPACT ANALYSIS

Since the southern riparian forest occurs within the RPO wetland, the cumulative impact analysis for this wetland is consistent with the analysis provided in Section 4.3. The cumulative projects are not expected to contain any RPO wetlands based on aerial photographs; however, site reconnaissance would be required to determine if the Lake Jennings Park Road Residential Project includes any RPO wetlands within the project limits or within a 500-foot buffer area. If RPO wetlands are determined to be present within the residential project area, then the proposed project would contribute to cumulative indirect impacts on this resource. Cumulative indirect impacts on RPO wetlands would be considered significant prior to mitigation.

5.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Resource Protection Ordinance

Under the RPO (discussed above), development of wetlands and wetland buffer areas is restricted, as follows:

Within *wetlands*, the RPO restricts uses to aquaculture, scientific research, educational or recreational uses, removal of diseased or invasive exotic plant species, wetland restoration or creation, and crossings for roads, driveways, or trails/pathways provided certain criteria are met.

Within *wetland buffer areas*, the RPO allows uses permitted in wetland areas, and other improvements necessary to protect adjacent wetlands.

Mitigation measures described in Section 4.4 for impacts to the southern riparian forest and buffer would apply to the RPO wetland.

5.5 CONCLUSIONS

With implementation of site-specific mitigation measures described in Section 4.4, above, indirect construction impacts and potential direct impacts to the RPO wetland resulting from removal of invasive, exotic plant species would be mitigated to below a level of significance.

6.0 WILDLIFE MOVEMENT AND NURSERY SITES

6.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

According to Appendix G of the State CEQA guidelines, the proposed project would have a potentially significant effect on onsite biological resources if it would:

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

In addition, based on County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources (County of San Diego, 2010), the County Planning and Development Services Department has found the following thresholds to be acceptable to address significance criteria related to wildlife movement and nursery sites. The project would interfere substantially with the movement of a native resident of migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites if:

A. The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

B. The project would substantially interfere with connectivity between blocks of habitat, or woud potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges will be required to provide connectivity. Wildlife underpasses shall

have dimensions (length, width, height) suitable for passage by the affected species based on a site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant road-kill or interference with an existing wildlife corridor/linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns. For example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages.

F. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkages. For example, development (such as homes or structures) sited along the rim of a corridor could present a visual barrier to wildlife movement. For stepping-stone/archipelago corridors, a projects does not maintain visual continuity between habitat patches.

6.2 ANALYSIS OF PROJECT EFFECTS

As discussed in Section 1.4.8, the project site does not support a wildlife corridor or nursery sites. While the portions of the site associated with Los Coches Creek may provide for the movement of some wildlife, the project would not directly impact these resources. Preservation of the creek area in an open space easement would keep the creek and associated riparian habitat in its present condition. Therefore, impacts to wildlife corridors and nursery sites are determined to be less than significant.

6.3 CUMULATIVE IMPACT ANALYSIS

The proposed project would not result in temporary or permanent impacts to wildlife movement or nursery sites due to project construction and operation. Neither of the cumulative projects would impact wildlife movement corridors or nursery sites as they are surrounded by existing developed areas and roads. There is no potential for the project to add to a cumulative loss of this resource. Therefore, cumulative impacts to wildlife movement and nursery sites are determined to be less than significant.

6.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Because the project would not result in any significant impacts to wildlife movement or nursery sites, no mitigation measures are required.

6.5 CONCLUSIONS

Preservation of the Los Coches Creek area in an open space easement will maintain the creek and associated riparian habitat in its present condition. Therefore, the project would not impact any locally or regionally important wildlife movement corridors or nursery sites.

7.0 LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

7.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

According to Appendix G of the State CEQA guidelines, the proposed project would have a potentially significant effect on onsite biological resources if it would:

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

In addition, based on County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources (County of San Diego, 2010), the County Planning and Development Services Department has found the following thresholds to be acceptable to address significance criteria related to local policies, ordinances, and adopted plans. The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional or state habitat conservation plan if:

A. For lands outside of the MSCP, the project would impact CSS vegetation in excess of the County's 5% habitat loss threshold as defined by the Southern California CSS Natural Communities Conservation Planning Process (NCCP) Guidelines.

B. The project would preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

C. The project will impact any amound of wetlands or sensitive habitat lands as outlined in the RPO.

D. The project would not minimize and/or mitigated CSS habitat loss in accordance with Section 4.3 of the NCCP Guidelines.

E. The project does not conform to the goals and requirements as outlined in any applicable HCP, Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.

F. For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the BMO.

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California CSS NCCP Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.

I. The project does not avoid impacts to MSCP narrow endemic species and would impact cover populations of narrow endemics.

J. The project would reduce the likelihood of survival and recovery of listed species in the wild.

K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).

L. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

7.2 ANALYSIS OF PROJECT EFFECTS

The proposed project and mitigation measures (see Sections 3.4, 4.4, 5.4, and 6.4) were designed in conformance with all relevant local policies, ordinances, and adopted plans (including the MSCP, BMO, and RPO), as well as federal and state regulations identified in Section 7.1.

7.3 CUMULATIVE IMPACT ANALYSIS

The proposed project and both cumulative projects are all required to conform to local policies, ordinance, and adopted plans, as well as to federal and state regulations. Therefore, there is no potential for the proposed project to add to a cumulative impact with respect to these plans, and cumulative impacts relative to these plans are determined to be less than significant.

7.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Mitigation measures (see Sections 3.4, 4.4, 5.4, and 6.4) for significant impacts were designed in conformance with all relevant local policies, ordinances, and adopted plans (including the MSCP, BMO, and RPO), as well as federal and state regulations identified in Section 7.1.

7.5 CONCLUSIONS

With implementation of site-specific mitigation measures identified in Sections 3.4, 4.4, 5.4, and 6.4, the proposed project is in compliance with local policies, ordinance, and adopted plans, as well as federal and state regulations.

8.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Table 5 summarizes project impacts on biological resources and proposed mitigation measures to reduce impacts to biological resources to below a level of significance.

Table 5
Project Biological Impacts and Mitigation Measures

Project Impact	Mitigation Measure
Direct project impacts to 15 coast live oak trees	Impacts to approximately 15 individual oak trees will be mitigated through the off-site acquisition of 0.90 acre of coast live oak woodland within a pre-approved mitigation bank within the MSCP (Crestridge Conservation Bank or other MSCP approved mitigation area).
Potential indirect construction impacts to least Bell's vireo	If any construction activities are proposed between March 15 and September 15, prior to initiation of any construction activities within 300 feet of the southern riparian forest, two least Bell's vireo surveys at least one week apart shall be performed by a qualified biologist with experience in conducting least Bell's vireo surveys. If no least Bell's vireos are identified during the protocol surveys, then construction may proceed; however, the site shall be surveyed weekly for least Bell's vireo. If least Bell's vireos are detected during the protocol survey or weekly site surveys, construction-related noise levels must not exceed 60 dBA hourly Leq at the limits of the southern riparian forest.
Direct project impacts to 6.91 acres of non-native grassland (a Tier III community)	Impacts to 6.91 acres of non-native grassland will be mitigated through the off-site acquisition of 3.46 acres of a Tier III or greater habitat within a pre-approved mitigation area (Crestridge Conservation Bank or other MSCP approved mitigation area) which meets the satisfaction of the County's Director of Planning and Land Use.
Indirect project construction impacts to southern riparian forest, RPO wetland buffer, and raptors	Avoidance and Minimization Measures: • No storage or fueling of construction equipment within 100 feet of the Los Coches Creek floodway will be allowed. • No storage or fueling of construction equipment within the RPO wetland buffer will be allowed. • Only use of low-sodium lighting shall be permitted. Lighting shall be selectively placed and/or shielded

Project Impact	Mitigation Measure
	to avoid light directly entering into the southern riparian forest and RPO wetland habitat from the proposed development and/or construction. • As a result of short-term construction impacts, for construction from January 1 to June 1, prior to initiation of any construction activities within 300 feet of the southern riparian forest, one survey for the presence of nesting raptor species listed as an SSC by the CDFW, shall be performed by a qualified biologist. If no nesting raptors are identified, then construction may proceed. If nesting raptors are identified onsite, then no construction within 300 feet shall be allowed until the nest is no longer active. • Temporary construction fencing shall be placed along the edge of the RPO wetland buffer revegetation area during construction activities. • The initial phases of vegetation clearing within 300 feet of the southern riparian forest shall be monitored by a biologist experienced in construction monitoring. The biologist shall be supervised by a County Certified Biologist. The monitor shall perform daily visits and make a written report within 10 working days to the Director of Planning and Land Use confirming compliance with the construction mitigation measures. If noncompliance is observed, the biological monitor shall immediately halt construction activities and shall report the noncompliance within 24 hours by phone or in person to the County Inspector. • Removal of invasive exotic species within the southern riparian forest and buffer shall be performed without the use of mechanized equipment.
Indirect project operation impacts to southern riparian forest, RPO wetland buffer, and raptors	Avoidance and Minimization Measures: • A 6-foot cinderblock wall and/or fence shall be placed north of the trail at the top of the slope to prevent unauthorized access into the open space area. • Permanent signage shall be placed along the open space boundary. Specific placement of the signage includes the northern side of the masonry wall, the eastern edge of the open space boundary adjacent to Rios Canyon Road, the western edge of the open space boundary adjacent to Ridge Hill Road, and along the southern side of the trail. The signage shall be installed at intervals of 50 feet. The signs shall be corrosion resistant and a minimum size of 6 inches by 9 inches. The signage shall be attached

Project Impact	Mitigation Measure
	to posts, not less than 3 feet in height from the ground surface. The signs shall state the following: Sensitive Environmental Resources Area Restricted by Easement Entry without express written permission from the County of San Diego is prohibited. To report a violation or for more information about easement restrictions and exceptions contact the County of San Diego, Planning & Development Services Reference: PDS2014-ER-14-014-013 • Evidence that the permanent signs have been placed to protect all open space easements shall be submitted to the Director of Planning and Development Services. Evidence shall include photographs of all signs installed and a signed statement, from a California Registered Engineer or licensed surveyor, that permanent signs have been placed on the open space easement boundaries in accordance with the requirements of this condition. • The applicant shall enter into an Open Space Agreement with the County to ensure perpetual management of the open space and security to ensure that the maintenance is performed in accordance with on-going conditions of the Site Plan. The management shall include all maintenance responsibilities and security issues, including but not limited to the regular removal of horse manure, trash, and invasive species.
Direct project impacts to RPO wetland buffer	Avoidance and Minimization Measures: • Dedication of an open space easement (as described above under indirect project operation impacts to RPO wetland buffer). • Dedication of a 40-foot limited building zone easement. • Off-site mitigation for non-native grassland and oak woodland (as described above under direct project impacts to 15 coast live oak trees and direct project impacts to 6.91 acres of non-native grassland). • Temporary construction fencing shall be placed along the edge of the RPO wetland buffer revegetation area during construction activities. • Permanent fencing and signage shall be used (as described above under indirect project operation impacts to the RPO wetland buffer). • Breeding season avoidance (as described above under potential indirect construction impacts to least Bell's vireo).

Project Impact	Mitigation Measure
	• The buffer between the RPO wetland and development shall be revegetated to convert 1.14 acres of non-native grassland to a higher quality (Tier III or greater), low density native shrub/grassland community that meets County requirements for fire safety and protection. • A Revegetation Plan will be prepared for the 1.14 acre habitat conversion area. • The applicant shall enter into an Open Space Agreement with the County to ensure perpetual management of the open space and security to ensure that the maintenance is performed in accordance with on-going conditions of the Site Plan. The management shall include all maintenance responsibilities and security issues including but not limited to regular removal of horse manure, trash, and invasive species.
Potential construction and operation phase project impacts related to fire hazard	• A 40-foot limited building zone is being provided to restrict future development from occurring in a manner that would result in fire clearing into the open space. Provisions within the Fire Protection Plan include the requirement of a 6-foot non-combustible wall between proposed open space and structures, implementation of the Conceptual Landscape Plan, and the removal of invasive exotic plant species within the proposed open space. • All structures shall be constructed using enhanced fire resistive construction materials as defined by the County of San Diego Fire and Building Codes.

9.0 REFERENCES

[AOU] American Ornithological Union. 1998. Thirty-Fourth Supplement to the American Ornithologists' Union Checklist of North American Birds. *Auk*99(3).

Beier, P. and Loe, S. 1992. A checklist for evaluating impacts to wildlife movement corridors. Wildl. soc. bull. 20: 434-440.

[CDFW] California Department of Fish and Wildlife. 2015. List of CDFW Special Status Plants, Animals and Natural Communities of San Diego County, California Natural Diversity Data Base, CDFW Natural Heritage Division, Sacramento.

CDFW. 1999. "Endangered, Threatened and Rare Plants of California." State of California Dept. of Fish and Wildlife, Natural Heritage Division, Plant Conservation Program, Sacramento. April 1999.

CDFW. 2015. CDFW Natural Diversity Data Base. Special Animals. March 2015.

CDFW. 2015. "State and Federal Endangered, Rare, and Threatened Animals of California." State of California Resources Agency, Sacramento. March 2015.

[CNPS] California Native Plant Society. 2015. *Inventory of Rare and Endangered Plants of California* (sixth edition – electronic version). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor.

County of San Diego. 2010. Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources. Land Use and Environment Group. Department of Planning and Development Services. Fourth Revision. September 15, 2010.

County of San Diego. 1997. Biological Mitigation Ordinance, Ordinance No. 8845.

County of San Diego 1997. Multiple Species Conservation Program Subarea Plan. County of San Diego. Resource Protection Ordinance, Ordinance No. 7968.

Environmental Laboratory. 1987. “Corps of Engineers Wetland Delineation Manual”, Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Faulkner David and Michael Klein. 2003. San Diego’s Sensitive Butterflies Workshop Book.

Forman, R.T.T. 1987. Emerging directions in landscape ecology and applications in natural resource management. In: R. Herrmann and T.B. Craig (eds.), Conference on Science in National Parks: The Fourth Triennial Conference on Research in the National Parks and Equivalent Reserves, pp59-88. The George Wright Society and the U.S. National Park Service.

Hickman, J. C. 1993. The Jepson Manual Higher Plants of California. University of California Press, Berkeley.

Holland, R. F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* Non-game Heritage Program, State of California Department of Fish and Wildlife, Sacramento, CA. 157 p.

Jennings, M. R. 1983. An Annotated Checklist of the Amphibians and Reptiles of Southern California. California Department of Fish and Wildlife 69(3):151-171.

Jones, J.K., *ET AL*. 1992. Revised Checklist of North American Mammals North of Mexico, 1991. Occasional Papers The Museum Texas Tech. University. Number 146. February 7, 1992.

Oberbauer, T. 1996. Terrestrial Vegetation Communities in San Diego County Based on *Holland's Descriptions*. San Diego Association of Governments, San Diego, CA 6 p.

Powell, J.A., C.L. Hogue. 1979. California Insects. University of California Press, Berkeley.

REC Consultants, Inc. 2001. Biological Technical Report for South Coast Lake Jennings Property.

Rosenberg, D.K., B.R. Noon, and E.C. Meslow. 1997. Biological corridors: Form, function, and efficacy. BioScience 47:677-687.

Schweiger, E.W., J.E. Diffendorfer, R.D. Holt, R. Pierotti, and M.S. Gaines. 2000. The interaction of habitat fragmentation, plant, and small mammal succession in an old field. Ecological Monographs 70:383-400.

Soulé, M. 2003. Page 5 in: Missing linkages: Restoring connectivity to the California landscape. California Wilderness Coalition. 79pp.

Stebbins, R. C. 2003. Field Guide to Western Reptiles and Amphibians Houghton Mifflin Co., Boston.

[USACE] Army Corps of Engineers 1988. National List of Plant Species that Occur in Wetlands: California.

[USFWS] U.S. Fish and Wildlife Service. 2001. U.S. Endangered, Threatened and Candidate Plant and Animal Species by State and Lead Region. U.S. Department of the Interior. United States Fish and Wildlife Service Threatened and Endangered Species System, 12/2001.

10.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

Robin Church, County Certified Biologist
RC Biological Consulting

Shelly Austin, Senior Biologist
HDR, Inc.

APPENDIX A
Observed Species List - Flora

APPENDIX A
Plant Species Observed on the Lake Jennings Market Place

Family Name	Species Name♦	Common Name	Habitat*
AIZOACEAE	♦*Carpobrotus* sp.	Ice plant	DEV
ANACARDIACEAE	♦*Schinus molle*	California pepper	DEV
	Toxicodendron diversilobum	Poison oak	SRF
ARECACEAE	♦*Washingtonia robusta*	Mexican fan palm	DEV
ASTERACEAE	*Ambrosia psilostachya*	Ragweed	SRF, NNG
	Artemisia californica	Coastal sagebrush	SRF
	Baccharis sarothroides	Broom baccharis	NNG
	♦*Silybum marianum*	Milk thistle	NNG
BRASSICACEAE	♦*Brassica nigra*	Black mustard	NNG, SRF
	♦*Raphanus sativus*	Wild radish	NNG, SRF
CAPRIFOLIACEAE	*Sambucus nigra* subsp. *caerulea*	Blue elderberry	NNG, SRF
CHENOPODIACEAE	♦*Atriplex semibaccata*	Australian saltbush	NNG
	♦*Salsola tragus*	Russian thistle	NNG
CUCURBITACEAE	*Marah macrocarpus*	Wild cucumber	SRF
FAGACEAE	*Quercus agrifolia*	Coast live oak	SRF, NNG, DEV
GERANIACEAE	♦*Erodium cicutarium*	Filaree	NNG
	♦*Geranium carolinianum*	Carolina geranium	NNG
	♦*Pelargonium* sp.	Geranium	DEV
JUGLANDACEAE	♦*Carya* sp.	Pecan tree	NNG, DEV
LAMIACEAE	♦*Marrubium vulgare*	Horehound	NNG
LILIACEAE	♦*Kniphofia uvaria*	Red-hot poker	DEV
OLEACEAE	♦*Olea europaea*	Olive tree	NNG, DEV
OXALIDACEAE	♦*Oxalis pes-caprae*	Sorrel	Dev
PINACEAE	*Pinus* sp.	Pine tree	DEV
PLATANACEAE	*Platanus racemosa*	California sycamore	SRF
POACEAE	♦ *Arundo donax*	Giant Reed	SRF
	♦*Avena* sp.	Wild oat	NNG, SRF
	♦*Bromus diandrus*	Ripgut grass	NNG, SRF
	♦*Bromus tectorum*	Downy brome	NNG
	♦*Cynodon dactylon*	Bermuda grass	NNG, DEV
	♦*Festuca* sp.	Ryegrass	NNG
	♦*Pennisetum setaceum*	Fountain grass	NNG
POLEMONIACEAE	*Eriastrum sapphirinum*	Wooly-star	NNG
POLYGONACEAE	♦*Rumex crispus*	Curly dock	NNG

Family Name	Species Name♦	Common Name	Habitat*
PUNICACEAE	♦*Punica granatum*	Pomegranate tree	DEV
ROSACEAE	*Rubus ursinus*	California blackberry	SRF
RUBIACEAE	*Galium angustifolium*	Narrow-leaf Bedstraw	NNG
SALICACEAE	♦*Populus balsamifera*	Black cottonwood	DEV
	Salix gooddingii	Black willow	SRF
	Salix lasiolepis	Arroyo willow	SRF
	Salix sp.	Willow	SRF
SOLANACEAE	♦*Nicotiana glauca*	Tree tobacco	SRF, NNG
VITACEAE	*Vitis girdiana*	Wild grape	SRF, NNG

♦ Denotes non-native species
SRF – Southern Riparian Forest NNG- Non-native Grassland DEV- Urban developed

APPENDIX B
Observed Species List - Fauna

APPENDIX B
Wildlife Species Observed on the Lake Jennings Market Place

Common Name	Scientific Name	Habitat Observed *	# Observed (estimate)
Insects			
Cabbage white	*Artogeia rapae*	NNG	many
California ringlet	*Coenonympha tullia california*	NNG	2
Common white	*Pontia protodice*	NNG	many
Cricket	**Family** Gryllidae	NNG	many
Harvester ant	*Pogonomyrmex rugosus*	NNG	many
Fiery Skipper	*Hylephila phyleus*	NNG	many
Painted lady	*Vanessa cardui*	NNG	many
Pigmy Blue	*Brephidium exilis*	NNG	2
Red Admiral	*Vanessa atalanta*	NNG	many
Red ant	*Formica* sp.	NNG	many
Sara orangetip	*Anthocharis sara*	NNG	1
Umber skipper	*Paratrytone melane*	NNG	1
Birds			
American crow	*Corvus brachyrhynchos*	Overhead	1
Black-headed grosbeak	*Pheucticus melanocephalus*	SRF	2
Black phoebe	*Sayornis nigricans*	DEV	1
Bushtit	*Psaltriparus minimus*	NNG, SRF	20+
California quail	*Callipepla californica*	NNG	2
California towhee	*Pipilo crissalis*	NNG, SRF	3
Common raven	*Corvus corax*	Overhead	3
Common yellowthroat	*Geothlypis trichas*	SRF	2
Coopers Hawk ◆	*Accipiter cooperii*	DEV, SRV	2
European starling	*Sturnus vulgaris*	DEV	2
Hooded oriole	*Icterus cucullatus*	SRF	5
House finch	*Carpodacus mexicanus*	NNG, SRF	12
Lesser goldfinch	*Carduelis psaltria*	SRF	1
Mourning dove	*Zenaida macroura*	DEV	1
Red-shouldered hawk ◆	*Buteo lineatus*	SRF	1
Scrub jay	*Aphelocoma coerulescens*	DEV	1
Song sparrow	*Melospiza melodia*	SRF	2
White-crowned sparrow	*Zonotrichia leucophrys*	SRF	2
Wilson's warbler	*Wilsonia pusilla*	SRF	1
Mammals			
Gopher	*Thomomys bottae*	NNG	burrows
Ground squirrel	*Spermophilus beecheyi*	DEV	1
Domestic dog	*Canis domestica*	DEV	3

◆ Indicates a sensitive species
SRF – Southern Riparian Forest NNG- Non-native Grassland DEV - Developed

This page intentionally blank.

APPENDIX C
Potential Sensitive Species Table - Flora

APPENDIX C
Sensitive Plant Species with the Potential to Occur Within or Adjacent to the Lake Jennings Market Place

Species	Status Federal/State/ CRPR*	Potential to Occur
Acanthomintha ilicifolia San Diego thorn-mint Annual herb, Blooms: April-June	FT/SE/1B.1	Low likelihood; no clay soils onsite and this species would have been identifiable at time of survey as survey was conducted during blooming period.
Ambrosia pumila San Diego ambrosia Perennial herb, Blooms: May-September	FE/-/1B.1	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Artemisia palmeri San Diego sagewort Shrub (deciduous), Blooms: May September	-/-/4.2	Low likelihood; though appropriate habitat is found onsite, this shrub species would have been identifiable at time of survey.
Astragalus deanei Dean's milk-vetch Perennial herb, Blooms: February-May	-/-/1B.1	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Baccharis vanessae Encinitas baccharis Shrub (deciduous), Blooms: August-November	FT/SE/1B.1	Low likelihood; appropriate habitat is not found onsite. This species has not been previously documented within the El Cajon quad. Additionally, this shrub species would have been identifiable at time of survey.
Bloomeria clevelandii *San Diego goldenstar* *Perennial herb (bulbiferous),* *Blooms: May*	-/-/1B.1	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Brodiaea orcuttii Orcutt's brodiaea Perennial herb, Blooms: May-July	-/-/1B.1	Low likelihood; no clay soils onsite and this species would have been identifiable at time of survey as survey was conducted during blooming period.
Ceanothus cyaneus Lakeside ceanothus Shrub (evergreen), Blooms: April-June	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. Additionally, this shrub species would have been identifiable at time of survey.
Ceanothus verrucosus Wart-stemmed ceanothus Shrub (evergreen), Blooms: December-April	-/-/2B.2	Low likelihood; appropriate habitat is not found onsite. This species has not been previously documented within the El Cajon quad. Additionally, this shrub species would have been identifiable at time of survey.

Species	Status Federal/State/ CRPR*	Potential to Occur
Centromadia pungens subsp. *laevis* Smooth tarplant Annual herb Blooms:April - September	-/-/1B.1	Low likelihood, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Chorizanthe polygonoides var. *longispina* Long-spined spineflower Annual herb, Blooms: April-July	-/-/1B.2	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Clarkia delicata Delicate clarkia Annual herb Blooms: April-June	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. Additionally, this species has not been previously documented within the El Cajon Quad.
Comarostaphylis diversifolia subsp. *diversifolia* Summer holly Shrub (Evergreen), Blooms: April-June	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. This species has not been previously documented within the El Cajon quad. Additionally, this shrub species would have been identifiable at time of survey.
Dudleya variegata Variegated dudleya Perennial herb, Blooms: May-June	-/-/1B.2	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Ericameria palmeri var. *palmeri* Palmer's goldenbush Shrub (evergreen), Blooms: July-November	-/-/1B.1	Low likelihood; appropriate habitat is not found onsite. Additionally, this shrub species would have been observable at time of survey.
Ferocactus viridescens San Diego barrel cactus Shrub (stem succulent), Blooms: May-June	-/-/2B.1	Low likelihood; though appropriate habitat is found onsite, this shrub species would have been identifiable at time of survey.
Harpagonella palmeri Palmer's grapplinghook Annual herb, Blooms: March-May	-/-/4.2	Low likelihood; though appropriate habitat is found onsite, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Monardella hypoleuca subsp. *lanata* Felt-leaved monardella Perennial herb, Blooms: June-August	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. Additionally, this species has not been previously documented within the El Cajon Quad.
Monardella viminea Willowy monardella Perennial herb,	FE/SE/1B.1	Moderate likelihood; appropriate habitat is found onsite. This species would have been identifiable at time of survey. This

Species	Status Federal/State/ CRPR*	Potential to Occur
Blooms: June-August		species has not been documented in the El Cajon quad.
Nolina interrata Dehasa nolina Perrenial herb, Blooms: June-July	-/SE/1B.1	Low likelihood; appropriate habitat is not found onsite. Additionally, this species has not been previously documented within the El Cajon Quad.
Stipa diegoensis *San Diego Needlegrass* *Perennial herb* *Blooms: February - June*	-/-/4.2	Low likelihood, this species would have been identifiable at time of survey as survey was conducted during blooming period.
Tertracoccus diocus Parry's tetracoccus Shrub (deciduous), Blooms: April-May	-/-/1B.2	Low likelihood; appropriate habitat is not found onsite. Additionally, this species has not been previously documented within the El Cajon Quad.

* = APPENDIX E – Sensitivity Codes

This page intentionally blank.

APPENDIX D
Potential Sensitive Species Table - Fauna

APPENDIX D
Sensitive Animal Species with the Potential to Occur Within or Adjacent to Lake Jennings Market Place

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
INSECTS				
Dun skipper	*Euphyes vestris harbisoni*	-/-/-	Woods and edges, prairies and roadsides, seeps and springs in southern California (Glassberg 2001). Primary host plant *Carex spissa* (Faulkner and Klein 2003).	Low: no host plant (*Carex spissa*) onsite.
Hermes copper butterfly	*Lycaena hermes*	FC/- /County Sensitive	Coastal sage scrub, mixed chaparral and chamise chaparral; 0-3000ft. Host plant *Rhamnus crocea*, in proximity to *Eriogonum fasciculatum*.	Low, no host plant or nectar plant onsite.
Monarch butterfly	*Danaus plexippus*	Under Review/-/-	Wintering sites composed of grassland, oak woodlands and montaine meadows; host plant milkweed (*Asclepias* sp.). 500 to over 3000ft.	Low. Host plant does not occur onsite.
Quino checkerspot butterfly	*Euphydryas editha quino*	FE/-/-	Open shrub habitats, primary host plant is *Plantago erecta.*	Low. No Quino checkerspot butterfly were observed during focused surveys.
AMPHIBIANS				
California red-legged frog	*Rana draytonii*	FT/SSC/-	Inhabits quiet pools of streams, marshes, and occasionally ponds; 500-3,000 ft.	Low: No permanent sources of water onsite.
Southwestern pond turtle	*Actinemys marmorata pallida*	-/SSC/-	Found in major rivers and streams, especially in headwater areas; 0-1,000 ft.	Low. Appropriate river and stream habitat do not occur onsite.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
Western spadefoot	*Spea hammondii*	Under Review/ SSC/-	Grassland situations can occasionally occur in valley-foothill hardwood woodlands. Populations may persist a few years in orchard-vineyard habitats; 0-3,000 ft.	Low: No appropriate habitat onsite.
REPTILES				
Coastal whiptail	*Aspidoscelis tigris stejnegeri*	-/-/-	Mixed chaparral, riparian, oak woodlands and chamise chaparral. Prefers rocky firm soils but avoids dense grasslands and wet areas; 0-1,000 ft.	Low. No appropriate habitat onsite.
Coronado Island skink	*Plestiodon skiltonianus interparietalis*	-/SSC/-	Coastal sage scrub, grassland, riparian, near vernal pools, oak woodlands, chamise chaparral, mixed conifer, closed cone forests, and freshwater marshes. Found during the winter after rainfalls or during spring; 0-3,000 ft.	Low. No appropriate habitat onsite.
Orangethroat whiptail	*Cnemidophorus hyperythrus*	-/SSC/-	Can be found in coastal sage scrub, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rock, well drained soils; 0-1,000 ft.	Low. No appropriate habitat onsite.
San Diego banded gecko	*Coleonyx variegatus abbotti*	-/-/-	This species is uncommon in coastal scrub and chaparral mostly occurring in granite or rocky out crops in this habitat (Zeiner *et. al.* 1988).	Low. No appropriate habitat onsite.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
San Diego horned lizard	*Phrynosoma coronatum blainvillii*	-/SSC/-	Occurs in valley-foothill hardwood, conifer and riparian habitats, as well as in pine-cypress, juniper and annual grass habitats; needs open areas for basking, ants and other insect prey. 0-8,000 ft.	Low. No appropriate habitat onsite.
San Diego ringneck snake	*Diadophis punctatus similis*	-/-/County Sensitive	Coastal sage scrub, mixed chaparral, riparian, oak woodlands, chamise chaparral, mixed conifer, closed cone forest in moist micro-habitats. Can be found on surface during winter after rainfalls or during spring; 0-7,200 ft.	Low. No appropriate habitat onsite.
Black legless lizard	*Anniella pulchra pulchra*	-/SSC/-	Coastal sage scrub, grassland, riparian and coastal desert dunes. Found in sandy loam and areas of accumulated leaf litter beneath shrubs and trees in moist micro-habitats; 0 to 5,000 ft.	Low. No appropriate habitat onsite.
South Coast garter snake	*Thamnophis sirtalis novum*	-/SSC/-	South Coast garter snake appears restricted to marsh and upland habitats near permanent water that have good strips of riparian vegetation.	Low. Appropriate riparian vegetation does not occur onsite.
Two-striped garter snake	*Thamnophis hammondii*	-/SSC/-	Found in or near permanent fresh water, often along streams with rocky beds bordered by willows or other streamside growth. Sometimes near vernal pools.	Moderate. Appropriate habitat occurs onsite, but surrounded by development.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
MAMMALS				
American badger	*Taxidea taxus*	-/SSC/-	This species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats; 0 to over 3,000 ft.	Low. Habitat onsite is highly disturbed.
Big free-tailed bat	*Nyctinomops macrotis*	-/SSC/-	This species is found in a variety of plant associations including desert scrub, various woodlands and coniferous forests. Is a colonial roosting species that is typically found in crevices of rugged cliffs and high, rocky outcrops; 0 to 3,000 ft.	Low. Appropriate roosting habitat does not occur onsite. In addition the site is not wide enough to support this species.
Dulzura pocket mouse	*Chaetodipus californicus femoralis*	-/SSC/-	Occupies coastal sage scrub, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats; 0 to over 3,000 ft.	Low. Appropriate habitat does not occur onsite.
Western mastiff bat	*Eumops perotis californicus*	-/SSC/-	Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting.	Low. Appropriate nesting habitat does not occur onsite. In addition the site is not wide enough to support this species.
California mountain Lion	*Felis concolor californica*	-/-/County Sensitive	Found in a variety of different habitats from desert to coast range forest; 0 to 10,000 ft.	Low. Habitat is surrounded by development.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	-/SSC/-	Nocturnal. Found in coastal sage scrub and mixed and chamise chaparral. Seeks cover in rocky/gravelly areas with a yucca overstory; 500-3,000 ft.	Low, appropriate yucca overstory does not occur onsite.
Pallid bat	*Antrozous pallidus*	-/SSC/-	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, desert wash and desert scrub. Prefers snags (especially oak), rocky outcrops, cliffs and crevices with access to open habitats for foraging; 0-6,000 ft.	Low. Appropriate roosting habitat does not occur onsite. In addition the site is not wide enough to support this species.
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	-/SSC/-	This species is found in a variety of plant associations including desert scrub, coastal scrub and pine oak woodlands. Is a colonial roosting species that is typically found in crevices of rugged cliffs and high, rocky areas.	Low. Appropriate roosting habitat does not occur onsite. In addition the site is not wide enough to support this species.
San Diego black-tailed jackrabbit	*Lepus californicus bennetti*	-/SSC/-	0 to 3,000 ft. Chaparral, coastal sage scrub, mixed oak woodlands, chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops.	Low. Appropriate habitat does not occur onsite.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
San Diego desert woodrat	*Neotoma lepida intermedia*	-/SSC/-	Nocturnal in coastal sage scrub, desert, oak woodlands, chamise chaparral and rocks in moderate to dense vegetation. Most abundant in rocky areas -- prefers rock outcrops and crevices for nest sites, but also builds nests in low branches of trees. 500-3,000 ft.	Low. No nests were observed onsite.
Western small-footed myotis	*Myotis ciliolabrum*	-/-/-	Occurs in arid uplands -- woody and brushy habitats near water. Roosts in caves, buildings, mines, crevices, bridges, and bark. 0 – 8,000 ft.	Low. Appropriate roosting habitat does not occur onsite.
Southern grasshopper mouse	*Onychomys torridus ramona*	-/SSC/-	Nocturnal in coastal sage scrub, mixed chaparral, grassland, and chamise chaparral. Low to moderate shrub cover is preferred; 500-3,000 ft.	Low. Habitat onsite is highly disturbed.
Southern mule deer	*Odocoileus hemionus fuiliginata*	-/-/County Sensitive	The mule dear is extremely adaptable occupying all but two or three of the major vegetation types in the western United States	Low, habitat is surrounded by development.
Spotted bat	*Euderma maculatum*	-/SSC/-	Found in foothills, mountains, and desert regions of southern California. Feeds over water and near ground Roosts in rock crevices, cliffs, caves, and buildings. Moth specialist.	Low, appropriate foraging habitat does not occur onsite.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
Townsend's big-eared bat	*Corynorhinus townsendii*	-/SSC/-	10 600 ft all but subalpine and alpine Found in habitats. Requires caves, mines, tunnels, buildings, or other human- made structures for night, day, hibernation or maternity roosts; 500-10,000 ft.	Low. Appropriate nesting habitat does not occur onsite.
Western red bat	*Lasiurus blossevillii*	-/SSC/ County Sensitive	Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. Feeds over a wide variety of habitats including grasslands, shrublands, open woodlands forests, and croplands; 0 to 3,000 ft.	Low. Appropriate roosting habitat does not occur onsite.
Yuma myotis	*Myotis yumanensis*	-/-/-	Mixed chaparral, riparian, oak woodland and pinon juniper. Optimal habitats are open forests and woodlands with sources of water over which to feed; roosts in buildings, mines, caves, bridges, crevices, and abandoned swallow nests. Sea level to 11,000 feet, but uncommon above 8,000 feet.	Low, appropriate water source over which to feed does not occur onsite.
BIRDS				
White-tailed kite (nesting)	*Elanus leucurus*	-/FP/-	Yearlong coastal & valley lowlands, usually near ag. areas. Forage: open grasslands, meadows, farmlands, wetlands, freeway divides. Nests in tops of tall trees near open areas.	Moderate. Appropriate habitat occurs onsite.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
Western burrowing owl	*Athene cunicularia hypugea*	BCC/SSC/ -	Open, dry grasslands agricultural and range lands, and desert habitats of low growing vegetation (associated with burrowing animals); 0-1,000 ft.	Low. Habitat onsite is highly disturbed.
California Gnatcatcher	*Polioptila californica californica*	FT/SSC/-	Most numerous in low, dense coastal sage scrub habitat of coastal hills.	Low, no coastal sage scrub or other suitable habitat onsite.
California gull (nesting colony)	*Larus californicus*	-/WL/-	Non-breeding colonies in lakes and bays; In breeding season on interior lakes and marshes and in winter mostly on the seacoast; 0 to over 3,000 ft.	Low. Appropriate breeding habitat does not occur onsite.
Common barn-owl	*Tyto alba*	-/-/-	Riparian and oak woodlands; 0-1,000 ft.	Moderate. Appropriate habitat occurs onsite.
Golden eagle (nesting and wintering)	*Aquila chrysaetos*	BCC/FP, WL/-	Mountains, foothills, and adjacent grassland, open areas and canyons; 0-11,500 ft. (nesting/wintering)	Low. Appropriate nesting habitat does not occur onsite.
Grasshopper sparrow (nesting)	*Ammodramus savannarum*	-/SSC/ MSCP Covered species	Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches; 0 to over 3,000 ft.	Low. Habitat onsite is highly disturbed and grassland is not dense enough.
Great blue heron (nesting colony)	*Ardea herodias*	-/-/-	Wetlands with tall trees and rock ledges; 0-1,000 ft.	Low, appropriate wetland does not occur onsite.
California horned lark	*Eremophila alpestris actia*	-/WL/-	Open patches of bare land alternating with low vegetation in grasslands, montaine meadows, and sagebrush plains; 0 to over 3,000 ft.	Low. Not observed during surveys.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
Least Bell's vireo (nesting)	*Vireo belli pusillus*	FE/SE/-	Rivers and larger creeks. Nests in willows, mule fat, and riparian species; 0-1,000 ft.	Low: not detected during focused surveys and habitat onsite highly disturbed
Loggerhead shrike (nesting)	*Lanius ludovicianus*	-/SSC/-	Roadside vegetation, thickets, savanna, coastal sage scrub, grasslands, riparian, oak woodlands and desert scrub and wash or any open country with high perches as lookouts; 0-3,000 ft.	Moderate. Roadside vegetation, grasslands and high perches occur onsite.
Northern harrier (nesting)	*Circus cyaneus*	-/SSC/-	Grasslands and salt, alkali and freshwater marshes; 0-1000ft. Nests on ground in shrubby vegetation, usually emergent wetlands or along rivers or lakes. May also nest in grasslands, grain fields, or on sagebrush flats several miles from water.	Low. Appropriate marsh habitat does not occur onsite.
Prairie falcon (nesting)	*Falco mexicanus*	-/WL/-	Rare to uncommon winter visitor, rare breeding resident. Widespread throughout San Diego County during migration (fall) and winter, occurring usually in open grassland, agricultural	Low. Habitat onsite is highly disturbed and not large enough to support this species.
Southwestern willow flycatcher (nesting)	*Empidonax traillii extimus*	FE/SE/-	Fields and desert scrub along streams. Found in dense willows and rivers. Nests over standing or running waters; 0-1,000 ft.	Low: Habitat onsite highly disturbed and dominated by arundo. In addition, not wide enough to support.

Common Name	Scientific name	Federal/ State/ County Status	Habitat	Potential Onsite
Turkey vulture	*Cathartes aura*	-/-/County Sensitive	Spring and fall migrant, uncommon to locally common winter visitor and rare to uncommon summer resident of San Diego County (Unitt 1984)	Moderate. Foraging habitat occurs offsite.
Western bluebird	*Sialia mexicana*	-/-/County Sensitive	Occupy open habitats with scattered trees and the edges of open coniferous and deciduous forests	Moderate: potential winter resident.
Yellow warbler (nesting)	*Setophaga petechia*	BCC/SSC/ -	Riparian; 0-500 ft.	Moderate: Appropriate habitat onsite.
Yellow-breasted chat (nesting)	*Icteria virens*	-/SSC/-	Found in dense thickets and brushy areas in riparian habitats; 0-3,000 ft.	Moderate: Appropriate habitat onsite.

* = See Appendix E – Sensitivity Codes

APPENDIX E
Sensitivity Codes

APPENDIX E
Sensitivity Codes

FEDERAL SPECIES DESIGNATIONS (USFWS 2001)

Category

FE Federally Endangered species
FT Federally Threatened species
FPE Taxa proposed to be listed as Endangered
FPT Taxa proposed to be listed as Threatened
FC Federal Candidate
BCC Birds of Conservation Concern

STATE SPECIES DESIGNATIONS (CDFW 2000)

Category

SE State listed as Endangered
ST State listed as Threatened
SR State-listed Rare
SCE State candidate for listing as Endangered
SCT State candidate for listing as Threatened
SSC CDFW "Species of Special Concern"
FP Fully Protected
WL Watch List

CALIFORNIA NATIVE PLANT SOCIETY DESIGNATIONS (CNPS 2015)

The California Rare Plant Rank (CRPR) Lists:

1A Plants presumed extirpated in California and either rare or extinct elsewhere.
1B Plants rare, threatened, or endangered in California and elsewhere.
2A Plants presumed extirpated in California, but common elsewhere.
2B Plants rare, threatened, or endangered in California, but more common elsewhere.
3 Plants about which we need more information (A Review List).
4 Plants of limited distribution (A Watch List).

Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)

0.3 Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

APPENDIX F
California Natural Diversity Database Forms

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814
Fax: (916) 324-0475 email: WHDAB@dfg.ca.gov

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work mm/dd/yyyy: 01/24/2002

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Accipiter cooperi*

Common Name: Cooper's Hawk

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 2 Subsequent Visit? ☐ yes ☐ no
Is this an existing NDDB occurrence? _____ Yes, Occ. # ☐ no ☑ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Robin Church
Address: 9621 Campo Road, Suite C
Spring Valley, CA 91977
E-mail Address: Robin@rcbio.com
Phone: (619) 463-1072

Plant Information

Phenology: _____ % vegetative _____ % flowering _____ % fruiting

Animal Information

2 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☑ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: San Diego Landowner / Mgr.: Private
Quad Name: El Cajon Elevation: _____
T 15S R 1E Sec ____ , ____ ¼ of ____ ¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): _____
T____ R ___ Sec ____ , ____ ¼ of ____ ¼, Meridian: H☐ M☐ S☐ GPS Make & Model _____
Datum: NAD27☐ NAD83☑ WGS84☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10☑ UTM Zone 11☐ *OR* Geographic (Latitude & Longitude)☐
Coordinates: Easting/Longitude 511,000 Northing/Latitude 3,636,000

Habitat Description *(plant communities, dominants, associates, substrates/soils, aspects/slope)*:
Disturbed southern riparian forest surrounded by development

Other rare taxa seen at THIS site on THIS date:

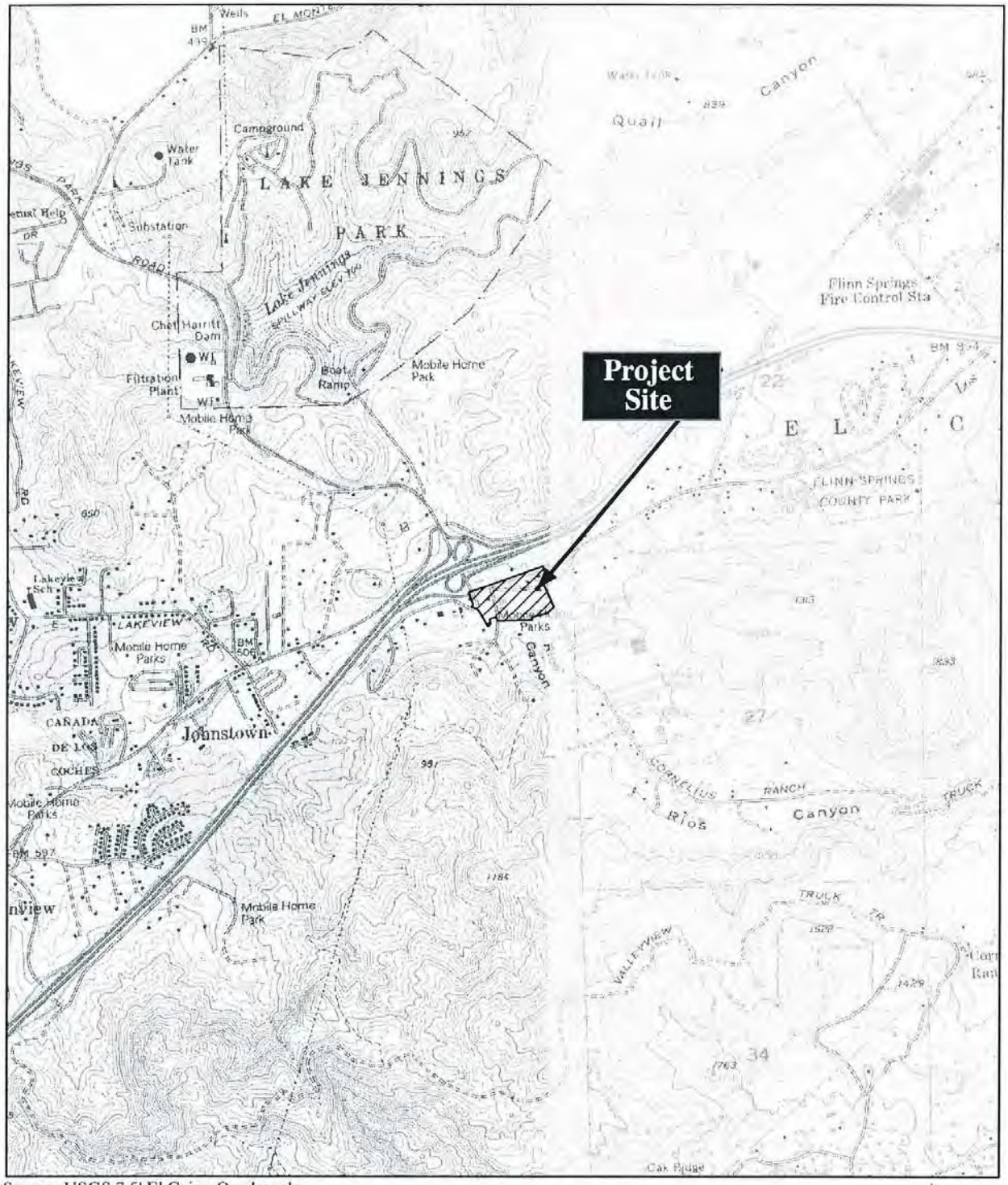
Site Information Overall site quality: ☐ Excellent ☐ Good ☐ Fair ☑ Poor
Current / surrounding land use: Developed and fallow agriculture, surrounded by development
Visible disturbances:
Threats:
Comments:

Determination: *(check one or more, and fill in blanks)*
☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☑ Compared with photo / drawing in: Western Birds
☐ By another person (name): _____
☐ Other: _____

Photographs: *(check one or more)* Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

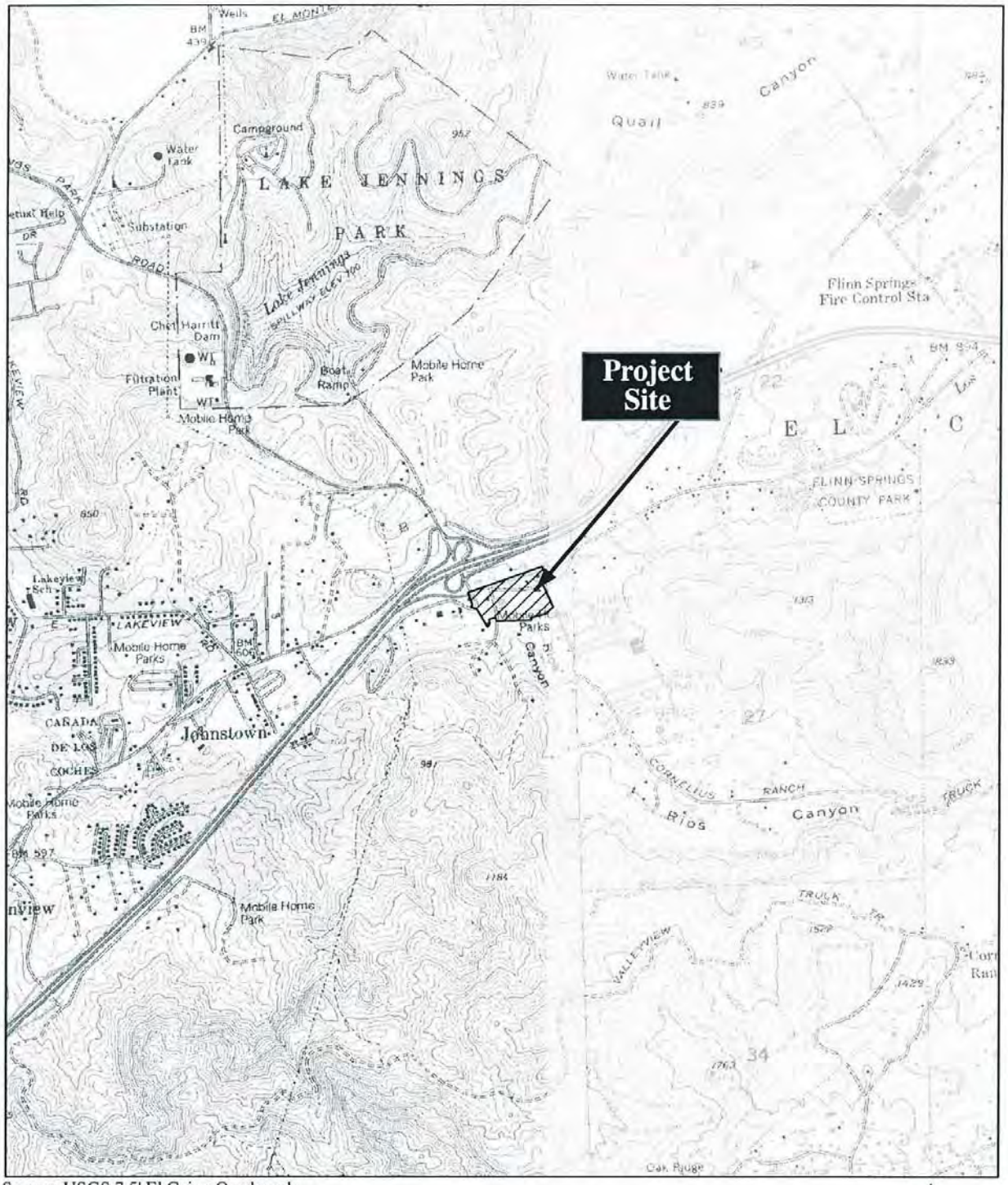
May we obtain duplicates at our expense? ☐yes ☐no

FG/WHDAB/1747 Rev.10/20/03



Source: USGS 7.5' El Cajon Quadrangle

Figure 2
Project Location



Source: USGS 7.5' El Cajon Quadrangle

Figure 2

Project Location

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814
Fax: (916) 324-0475 email: WHDAB@dfg.ca.gov

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work mm/dd/yyyy: 07/29/1999

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Buteo lineatus*

Common Name: Red-shouldered Hawk

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 1 Subsequent Visit? ☐ yes ☐ no
Is this an existing NDDB occurrence? _____ ☐ no ☑ unk.
Yes, Occ. #

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Robin Church
Address: 9621 Campo Road, Suite C
Spring Valley, CA 91977
E-mail Address: Robin@rcbio.com
Phone: (619) 463-1072

Plant Information

Phenology: _____ % vegetative _____ % flowering _____ % fruiting

Animal Information

1				
# adults	# juveniles	# larvae	# egg masses	# unknown

☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☑ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: San Diego Landowner / Mgr.: Private
Quad Name: El Cajon Elevation: _____
T 15S R 1E Sec ____ , ____ ¼ of ____ ¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): _____
T ____ R ____ Sec ____ , ____ ¼ of ____ ¼, Meridian: H☐ M☐ S☐ GPS Make & Model _____
Datum: NAD27☐ NAD83☑ WGS84☐ Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10☑ UTM Zone 11☐ *OR* Geographic (Latitude & Longitude) ☐
Coordinates: Easting/Longitude 511,000 Northing/Latitude 3,636,000

Habitat Description *(plant communities, dominants, associates, substrates/soils, aspects/slope):*
Disturbed southern riparian forest surrounded by development

Other rare taxa seen at THIS site on THIS date:

Site Information Overall site quality: ☐ Excellent ☐ Good ☐ Fair ☑ Poor
Current / surrounding land use: Developed and fallow agriculture, surrounded by development
Visible disturbances:
Threats:
Comments:

Determination: *(check one or more, and fill in blanks)*
☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☑ Compared with photo / drawing in: Western Birds
☐ By another person (name): _____
☐ Other: _____

Photographs: *(check one or more)* Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? ☐ yes ☐ no

FG/WHDAB/1747 Rev.10/20/03

APPENDIX G
Quino Checkerspot Butterfly Survey 2003

Mr. Daniel Marquez
U. S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, California 92009

Subject: ***45-Day Report for the Lake Jennings Commercial Center Quino Checkerspot Butterfly Flight Survey, Lakeside, San Diego County, California PERMIT #TE-007628***

Dear Mr. Marquez:

This report documents the results of seven (7) flight survey visits conducted by Darren Scott Smith (Permit #TE-007628), for the presence of the federally-listed endangered quino checkerspot butterfly (*Euphydryas editha quino*; QCB). QCB was not observed during the survey. Dwarf plantain (*Plantago erecta*), the QCB's primary host plant, was not observed onsite. No plants known or suspected to support QCB larvae were observed on the site. This is the second negative survey result for QCB on the property (refer to REC Consultants 45-day report July 2000).

Site Location and Description

The Lake Jennings Commercial Center property occurs in east San Diego County, within the City of El Cajon, south of Interstate 8. The proposed project is located within the USGS 7.5' El Cajon quadrangle, township 15 south, range 1 east (Figure 1). The project area occurs within Survey Area 2, as designated on the Year 2002 Survey Areas Map (USFWS 2002). The areas surveyed include all suitable habitat (*e.g.,* host plant populations, nectar plant populations, hilltops, ridgelines, native and sparsely vegetated areas) within the property. The proposed project involves a commercial retail center and dedication of native riparian habitat to open space.

The project site covers approximately 13 acres and supports mainly exotic vegetation, with a narrow strip of native riparian vegetation. Most of the exotic vegetation is the result of past agricultural and residential land uses including a former residence and poultry farm. Topography onsite is generally flat (< 2% slope) with elevation range from 620 to 640 feet above mean sea level. The site has a slight knoll at the northeastern edge that previously supported a residence, and the northern edge of a stream bank and associated riparian vegetation. Soils onsite consist of Escondido very fine sandy loam (EsC) and Visalia sandy loam (VaB) (Bowman 1973).

Vegetation Communities

Based on a previous survey, approximately 7 acres of annual grassland were considered suitable for QCB. Five acres supporting development or dense riparian habitat could be excluded from surveys (Figure 2).

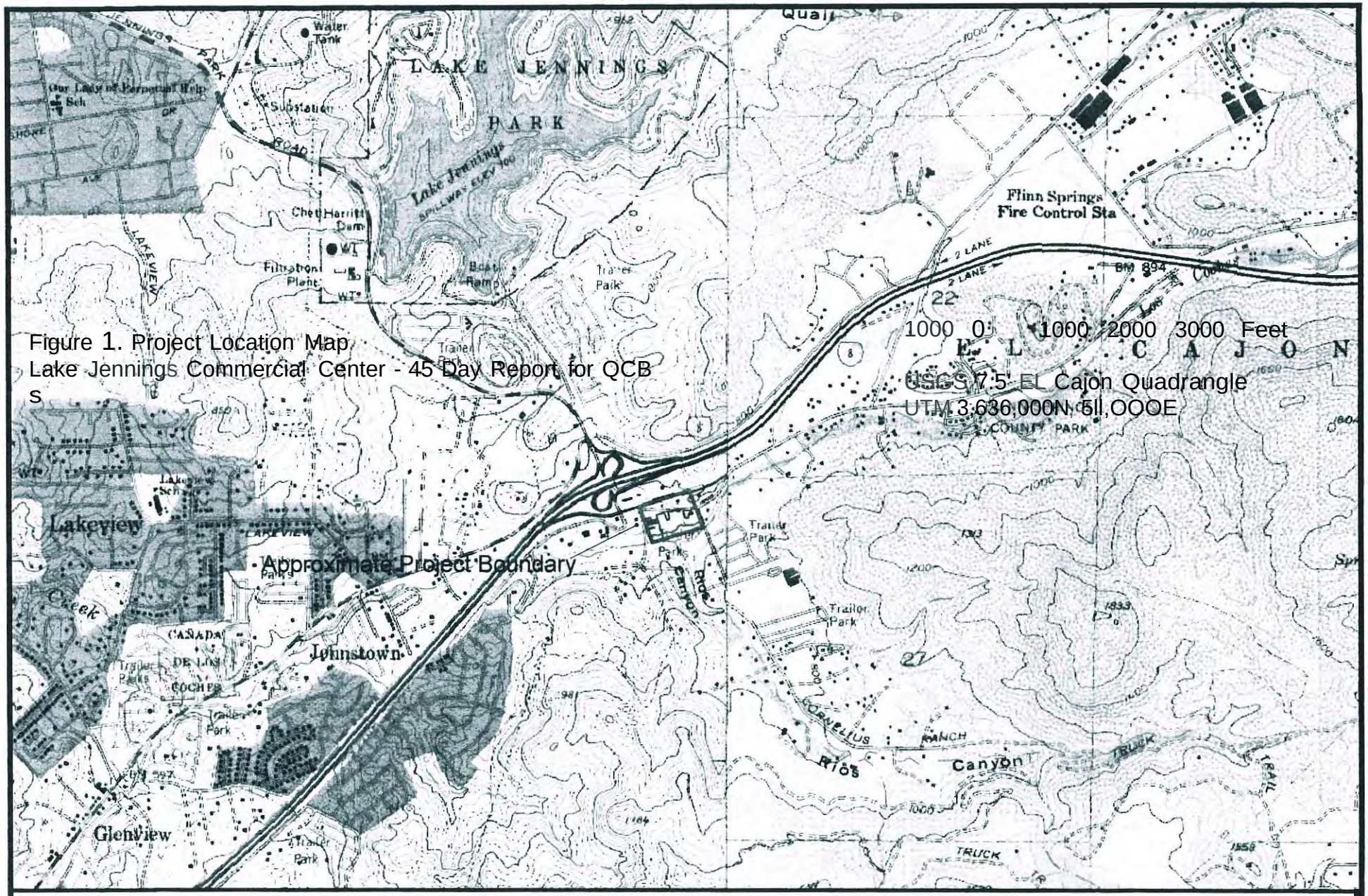


Figure 1. Project Location Map
Lake Jennings Commercial Center - 45 Day Report for QCB
s

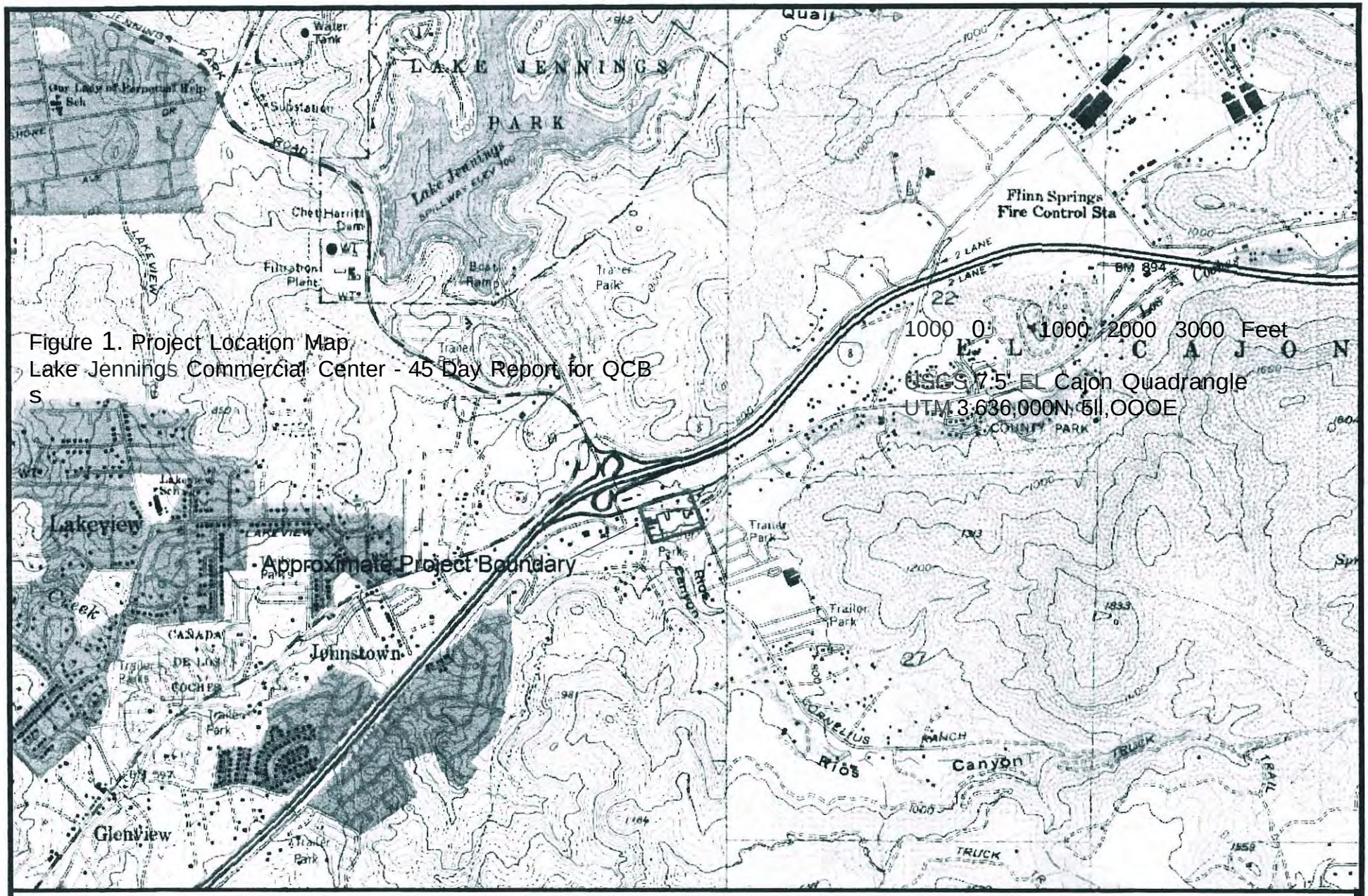


Figure 1. Project Location Map
Lake Jennings Commercial Center - 45 Day Report for QCB
s

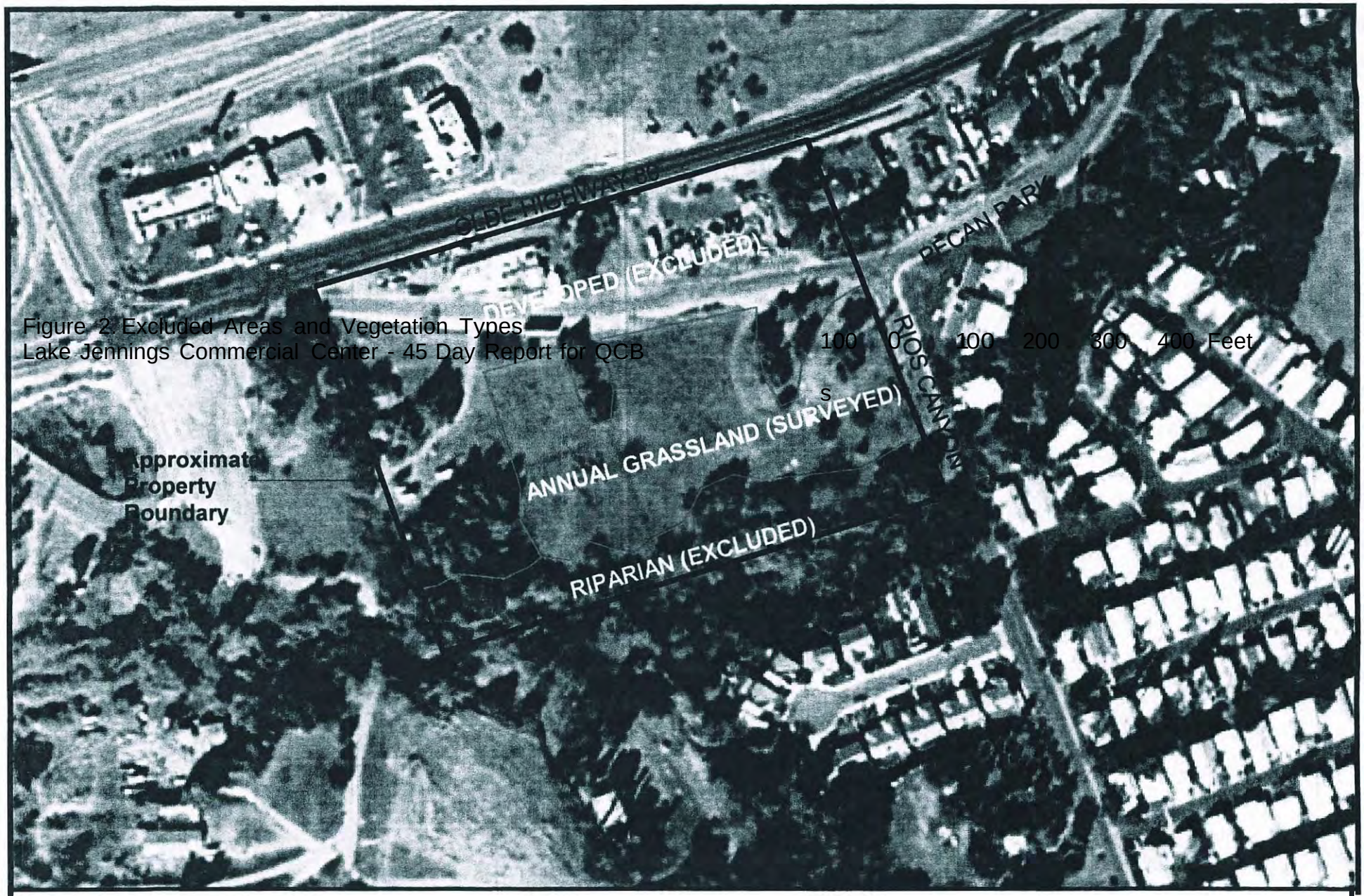


Figure 2: Excluded Areas and Vegetation Types
Lake Jennings Commercial Center - 45 Day Report for QCB

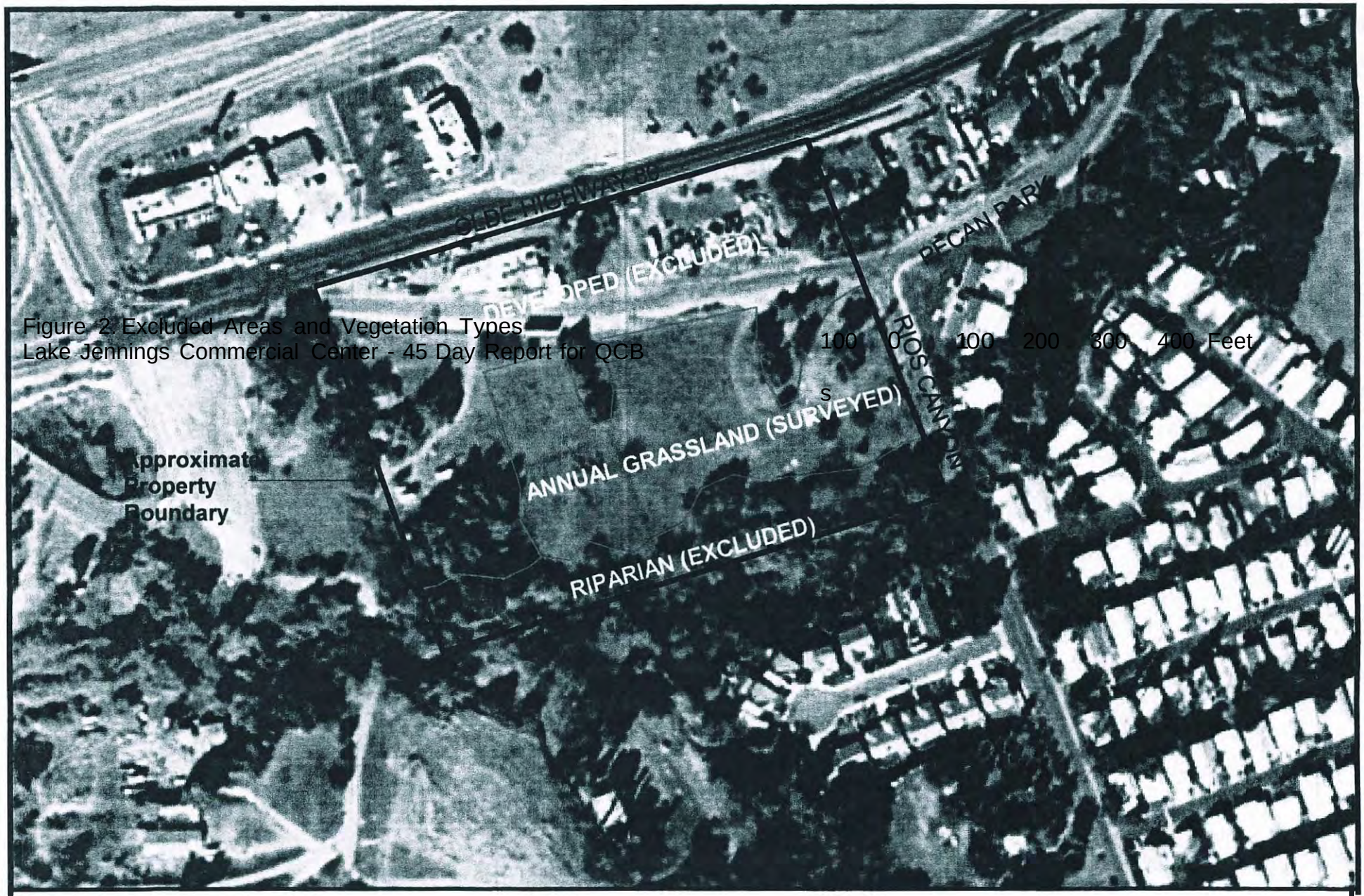


Figure 2: Excluded Areas and Vegetation Types
Lake Jennings Commercial Center - 45 Day Report for QCB

The project site currently supports two habitat types - annual grassland and southern riparian forest. Portions of the project site also support developed land. These habitats are discussed in further detail below (refer to Photo pages 1 and 2 for site photos).

Annual grassland covers approximately 7 acres of the site and consists of dense annual grasses, exotic dicots, and a few native herbs. Common species include wild oat (*Avena barbata*), black mustard (*Brassica nigra*), ripgut grass (*Bromus diandrus*), tumble mustard (*Sisymbrium altissimum*), cheese weed (*Malva parviflora*), wild radish (*Raphanus sativa*), burclover (*Medicago polymorpha*), and yellow fiddleneck (*Amsinkia intermedia*). Included within the area mapped as annual grassland were isolated trees associated with the former buildings including Mexican elderberry (*Sambucus mexicana*), live oak (*Quercus agrifolia*), black cottonwood (*Populus balsamifera* ssp. *trichocalyx*), pecan (*Carya illioensis*), pomegranate (*Punica granatum*), and Peruvian pepper tree (*Schinus molle*).

Southern Riparian Forest occurs on approximately 1.5 acres at the southern edge of the property. This vegetation is largely composed of arroyo willow (*Salix lasiolepis*), mulefat (*Baccharis salicifolia*), Mexican elderberry, giant reed (*Arundo donax*), California mugwort (*Artemisia douglasiana*), California blackberry (*Rubus ursinus*), and bristly ox-tongue (*Picris echioides*).

Developed land onsite consists of roads, buildings, landscaped areas, and scrap storage areas. This land cover type occupies approximately 4.5 acres of the site.

Quino Checkerspot Survey Methods

Survey methods followed those outlined in the Year 2002 Survey Protocol for the Quino checkerspot butterfly (USFWS 2002). Surveys consisted of approximately linear transects within the annual grassland habitat. Surveys did not continue beyond March 14, 2003 because the site had no potential larval host plants, no significant patches of nectar species, and exotic annual cover approached greater than 100 percent. Two additional site visits (beyond the minimum of five (5) recommended in the protocol) were attempted to make up for poor weather conditions during mid-February to early March. Conditions during the March 4, 2003 survey did not conform to the protocol. Survey conditions are detailed in Table 1. Field notes are attached in Appendix 1.

Table 1. Survey Conditions.

Survey Number Duration Acres/Hour	Date	Time	Temp. (°F)	Sky (% Cloud Cover)	Wind Mph (Gusts)	Observers
1 1.0 7.0	01/31/03	1445 1545	88° 88°	0 0	1-3 1-3	DSS RC
2 1.0 9.1	2/06/03	1130 1230	65° 65°	0 0	1-3 1-3	DSS
3 1.3 5.4	02/15/03	1150 1315	65° 65°	50 50	0-1 0-1	DSS
4 3.0 7.0	03/02/03	1430 1530	66° 66°	0 0	3-5	DSS
5* 1.1 6.4	03/04/03	1145 1250	59° 59°	95 95	3-5	DSS
6 1.0 7.0	03/08/03	1450 1555	70° 70°	0 0	0-1	DSS
7 0.9 8.0	03/14/03	1015 1105	67° 68°	0 0	1-3 1-3	DSS

Results

Host Plants and Nectar Sources

No known or suspected larval host plants for the QCB were observed onsite. Potential nectar sources for QCB were limited to a few dense annual grassland patches that supported sparse populations of yellow fiddleneck or possibly black or tumble mustards (*Brassica nigra* or *Sisymbrium* spp.). Additionally, very little bare ground was observed onsite.

Butterflies Observed

QCB was not observed onsite. Nine butterfly species were observed on the property during the surveys (see Table 2). Identification of the umber skipper (*Paratrytone melane*) was tentative for the site, as a voucher specimen was not collected and the visual identification was not certain.

Dense annual grassland

Eastwardview of grassland and knoll

Close up of knoll

Westward view of annual grassland

Table 2. Butterflies Observed During Surveys

Species	1	2	3	4	5*	6	7
Sara Orangetip *(Anthocharis sara)*		1					
Painted Lady *(Vannessa cardui)*			4			1	
Fiery skipper *(Hylephila phyleus)*				2		4	1
Red Admiral *(Vannessa atalanta)*							1
Pigmy Blue *(Brephidium exilis)*		1					1
Umber skipper (*Paratrytone melane?*)						1?	
Cabbage white (*Artogeia rapae*)	3	8	9	5	1	7	6
California ringlet (*Coenonympha tullia california*)	1	1					
Common white (*Pontia protodice*)	1	1	2	1		2	1

Conclusion

QCB was not observed onsite during the survey. Neither the QCB's primary host plant (*Plantago erecta*) nor any other known or suspected larval host plant was observed on the site. Based on the level of soil disturbance and the productivity of exotic grass and forb species, it is unlikely that there is any potential for QCB larvae to occur onsite. Due to the presence of urban land uses surrounding the site and the lack of well-developed native flower fields, it is doubtful that an adult QCB would use the site for nectaring or as a movement corridor.

Please feel free to call me if you have any questions regarding the survey or if you need any additional information

Sincerely,

5/9/2005

Darren Scott Smith
Permit Number # TE-007628

References

Bowman, U.S. Department of Agriculture. 1973. *Soil Survey. San Diego Area, California.* Soil Conservation Service and Forest Service.

U.S. Fish and Wildlife Service, 2002. *Year 2002 Survey Protocol: Quino Checkerspot Butterfly (Euphydrvas editha quino).* Unpublished manuscript, http://carlsbad.fws.gov/Rules/QuinoDocuments/Quino_htms/quino_flight.htm

U.S. Fish and Wildlife Service, 2000. *Information on the Quino Checkerspot Butterfly Year 2000 Survey Protocol.* Unpublished manuscript, available from the Carlsbad Field Office, Carlsbad, California.

APPENDIX H
Field Notes

arg ants!

Nomo
Scrubjay
Sleerop?
Moths
Hog

LAKE JENNINGS
3/14/03

10:15 67F - 1-3 MPH CLEAR - 10% clouds
11:05 68F - 1-3 CLEAR

COM WHITE 1
CAB WHITE |||| 1
PL 11
PYG BLUE (at semi knoll)
SKIPPER Frey? 1
1 RED ADM (urticaceae)

BROM DIANDRUS - Flow
SISYM alt/semi f. - Flow fruit
AMS INT Flower
Atr semi - fruit
ERO CIC
ERO MOS
Malva sp
Fil C4 |

3/4/03

Lake Jennings Site
11:45 - 12:50
95% Cloudy 3-5 mph
59°F -
Soil Saturated Cool
Rain this morning
Grasses wet - Standing water @ knoll
Ambrosia in bunch
Repl sat
Sisyrinch in front

Ladybug larvae
Flies
CABWHITE 1
(on Raphanus)
↓
No others observed
None in flight

3

Ladybird beetles Hairy Bees
Scolopendra Cal Ground Squirrel
CONA in Fig
Lake Jennings commercial / U. formica sp. Moths
2/15/05 CORA

11:50 High Clouds Hazy 50%
0-1mph
ca. 65°F

1:15 Hazy High Clouds Slightly warmer
1-3mph
65°F

mating — ||||
CABBAGE WHITE ||||| |
Common white ||
Painted lady ||||
Sunning in Malva park

Moist Soil
a few puddles
Erodium cic. blm
Amsinckia Start blm
Medicago poly in Blm

1

Lake Jennings Commerce Center

1/31/03

2:45 - 88°F — CAB WHITE 111

3:45 - 88°F — Com white 1

Brassica nigra — Ca finglet 1

Amsinckia menziesii — UTG

Chrysanthemum cor

Ero mos

Mal parv

~~Bross~~

Centaurea solstitialis

Schinus molle

Filago gallica

Rubus ursinus

Ome agr

Sisymbrium alt

Erod cic

Ambrosia psy

Re can

Sal Kali