SAGE WILDLIFE BIOLOGY
Environmental consulting, research, and wildlife conservation in the U.S. and Latin America

Least Bell's Vireo Survey Report
For the 13th Street Bridge Project
Ramona, San Diego California

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1.0 INTRODUCTION

This report summarizes the results of protocol surveys for the least Bell's vireo (*Vireo bellii pusillus*; LBVI) conducted in 2018 by Sage Wildlife Biology (Recovery Permit TE799569-6) for the County of San Diego Department of Public Works' 13th Street Bridge Project (Project) in Ramona, California. Sage biologists have been conducting surveys and monitoring of LBVIs since 1992.

2.0 PROJECT DESCRIPTION

The Project site is located in the unincorporated community of Ramona, in northeastern San Diego County (Figures 1 and 2). The site is situated within Township 13 South, Range 1 East, in the U.S. Geological Survey Ramona and San Pasqual quadrangles. The Project consists of alterations to 13th Street/Maple Street between Main Street and Walnut Street, including construction of an approximately 480-foot-long bridge over Santa Maria Creek. Santa Maria Creek transects 13th Street (by way of a corrugated steel culvert) and parallels Walnut Street to the south. The site is bounded to the north by Olive Street, 12th Street to the east, Main Street to the south, and 14th Street and Brazos Street to the west (Figures 2 and 3).

3.0 VEGETATION COMMUNITIES

More than one vegetation community can be found within and in proximity to the Project site. The LBVI utilizes riparian willow and mule fat dominated habitat during breeding season and as a migration corridor, as such the vegetation community that was surveyed for presence / absence was focused primarily on the riparian forest habitat onsite, specifically along the Santa Maria Creek. The portion of Santa Maria Creek within and bordering the Project consists of dense, heterogeneous stands of southern willow-cottonwood riparian forest (Oberbauer et al. 2008) dominated by species such as black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), mule-fat (*Baccharis salicifolia*), wild radish (*Raphanus sativus*), California bulrush (*Schoenoplectus californicus*), and stinging nettles (*Urtica dioica*) (Photos 1-3). The elevation in the southern end of the site is approximately 1,425 feet above mean sea level. Although there is a high incidence of trash from foot traffic and nearby roads, the habitat itself is high quality in respect to that preferred for nesting by LBVI.

4.0 NATURAL HISTORY

The LBVI is a migratory song bird and a breeding season resident of San Diego County. The species utilizes riparian wetlands dominated by willow, mulefat, and to a lesser extent Freemont cottonwood (Kus et al. 2010, 2002a). Its preferred nesting season habitat includes woodlands that are dense and botanically heterogeneous with clear vegetative layers; the birds build cup nests typically two to five feet off the ground, well hidden in trees and shrubs. As such a key structural component of nesting habitat includes a dense shrub layer two to ten feet above ground (Goldwasser 1981). Individuals may forage in woodlands or scrub habitat near suitable nesting habitat, especially when actively nesting. LBVIs are also known to forage in upland vegetation adjacent to riparian corridors, especially late in the breeding season as juveniles spread out and explore their territory. Willow riparian, arroyo scrub, and hedgerows in coastal drainages are typical habitats used in winter by the species (USFWS 1998, Kus et al. 2010).

The LBVI arrives in southern California between mid-March and early April, forms pairs and begins nest building soon after arrival, and remains in the breeding territories into late September before leaving for its wintering grounds in Baja California and mainland Mexico. Breeding season is characterized by monogamous pairs that may have one to three clutches, depending on individual nesting success (Kus 2002b). Nest parasitism by the brown headed cowbird (*Molothrus ater*) (BHCO) has reduced LBVI nesting success; however trapping efforts of the BHCO have helped improve nesting success (Kus and Whitfield 2005).

LBVI usually begin breeding as first-year adults (Kus 2002a). Both adults incubate nestlings and care for fledglings. As juveniles mature they expand territorial boundaries and range over larger areas, although they generally remain in the vicinity throughout the breeding season. As males commence post-breeding season molt and undergo reduced testosterone, their singing frequency declines significantly as is typical with many passerines, making them more challenging to detect during winter.

Due to habitat loss from agricultural, urban, and commercial developments, flood control and river channelization projects, livestock grazing, invasive exotic plants, off-road vehicles, and other factors, the LBVI population declined to an estimated 300 pairs by the mid-1980s, with the majority occurring in San Diego County (Franzreb 1987). By 1985 over 95% of historical riparian habitat had been lost throughout the vireo's former breeding range in the Central Valley of California, which may have accounted for 60-80% of the original population (USFWS

1986). Similar habitat losses occurred concurrently throughout its historical range in southern California. Subsequently the LBVI was officially listed as endangered in 1986 under the federal Endangered Species Act (USFWS 1986). Critical habitat protection, riparian woodland restoration, and to a lesser degree brown-headed cowbird control have allowed populations to increase to a population estimated at roughly 2,000 by 1998 (Kus 2002a). Critical habitat for the LBVI was designated in six southern California counties in 1994 (USFWS 1994).

5.0 METHODS

Before commencing surveys, Sage biologists conducted a thorough search of the existing literature, including websites, U.S. Fish and Wildlife critical habitat maps for the LBVI (USFWS 1994), the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) (CDFW 2018), and eBird (eBird 2018) for LBVI observations in and around the study area. Suitable LBVI habitat was evaluated during the initial biological survey.

The nearest designated Critical Habitat of the LBVI is located approximately 16 miles to the southwest along the San Diego River, just south of Santee Lakes. According to the sources listed above, the nearest record of a nesting LBVI is approximately three and half miles to the northwest, in close proximity to Santa Isabel Creek.

Eight surveys were conducted at least ten days apart by qualified biologists Renée Owens and Patrick Hord throughout concurrent weeks in April, May, and June 2018. Surveys were carried out in and bordering all project areas of habitat suitable for potential breeding or migrating birds, and were conducted during times and conditions appropriate for protocol surveys (Table 1). Each survey consisted of methodically walking transects along and within all survey areas, including vegetation proximal to the project site and designated habitats. The route was arranged to ensure complete survey coverage of the site and immediately contiguous areas within a buffer zone. Binoculars were used to aid in bird detection. Although some biologists use song playback recordings to aid in detection of LBVI, Sage biologists use playback only when other means of detection fail after a minimum of 20 minutes of passive observation within a given area. For this Project song playback was unnecessary. Surveys were not conducted during periods of inclement weather such as extreme wind, rain, or abnormal heat, commenced after sunrise, and ended before 11:00 AM, and followed the *Least Bell's Vireo Survey Guidelines* (USFWS 2001).

6.0 RESULTS

One pair of LBVI was detected during the protocol surveys, using riparian habitat on both sides (east and west) of 13th Street along the Santa Maria Creek corridor. Pair observations are described in Table 1. Throughout the course of the surveys, the pair was observed building two nests; the first siting was observed on April 24, 2018 with both parents intermittently incubating eggs (Photo 4). During the subsequent survey, the same nest was observed predated; it was not being visited by the pair, and upon closer observation, it contained eggshell remains and Argentine ants. A second nest observed on May 24, 2018 was then constructed just west of the first one and successfully fledged at least one juvenile. A brown-headed cowbird female—a known nest parasite of vireos—was observed near the first nest when the nest contained LBVI eggs. However, no brown-headed cowbird eggs or nestlings were observed during any of the surveys when nests were checked. Proximity to nests was avoided as much as possible throughout the surveys to minimize chance of disturbance. Close approach to nests during the nest building period was especially avoided and observed only from a distance via binoculars, since this is one of the phases of nesting when adults are most likely to abandon a nest.

Aside from the LBVI pair described, no threatened or endangered species were detected on site. Other sensitive species incidentally observed on the Project site include a red-tailed hawk (*Buteo jamaicensis*) (flyover), a Cooper's hawk (*Buteo lineatus*), several yellow warblers (*Setophaga petechia*), and at least two orange-throated whiptails (*Aspidoscelis hyperythra*). Appendix A lists all species observed.

Table 1
13th Street Project Least Bell's Vireo Survey Data – 2018

Survey	Date	Time	Temp (°F)	% Cloud cover	Wind (km/h)	Observations
1	April 14	0820-1030	60-64	0-0	0-1	One pair observed nest site searching
2	April 24	0800-1005	72-78	30-0	0-3	Pair observed nest building
3	May 4	0800-1015	68-84	20-0	0-4	Pair observed incubating three eggs
4	May 14	0830-1030	60-65	15-0	0-2	One pair observed; nest inactive (predated with shell remains and Argentine ants)
5	May 24	0800-1015	60-63	70-25	0-2	Pair observed almost completing nest building a 2nd nest close to first one
6	June 3	0810-1015	67-74	30-10	0-3	Pair incubating 2nd nest
7	June 13	0800-1005	74-85	0-0	0-1	Pair feeding nestlings
8	June 23	0815-1015	66-73	25-0	0-1	Pair feeding one fledgling

°F = degrees Fahrenheit; km/h = kilometers per hour

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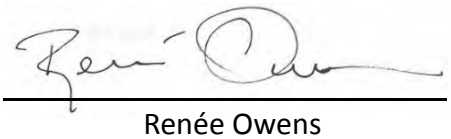
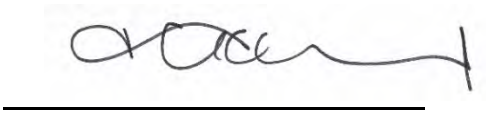
8.0 CERTIFICATION

We certify that the information in this survey report and attached exhibits fully and accurately represent our work:

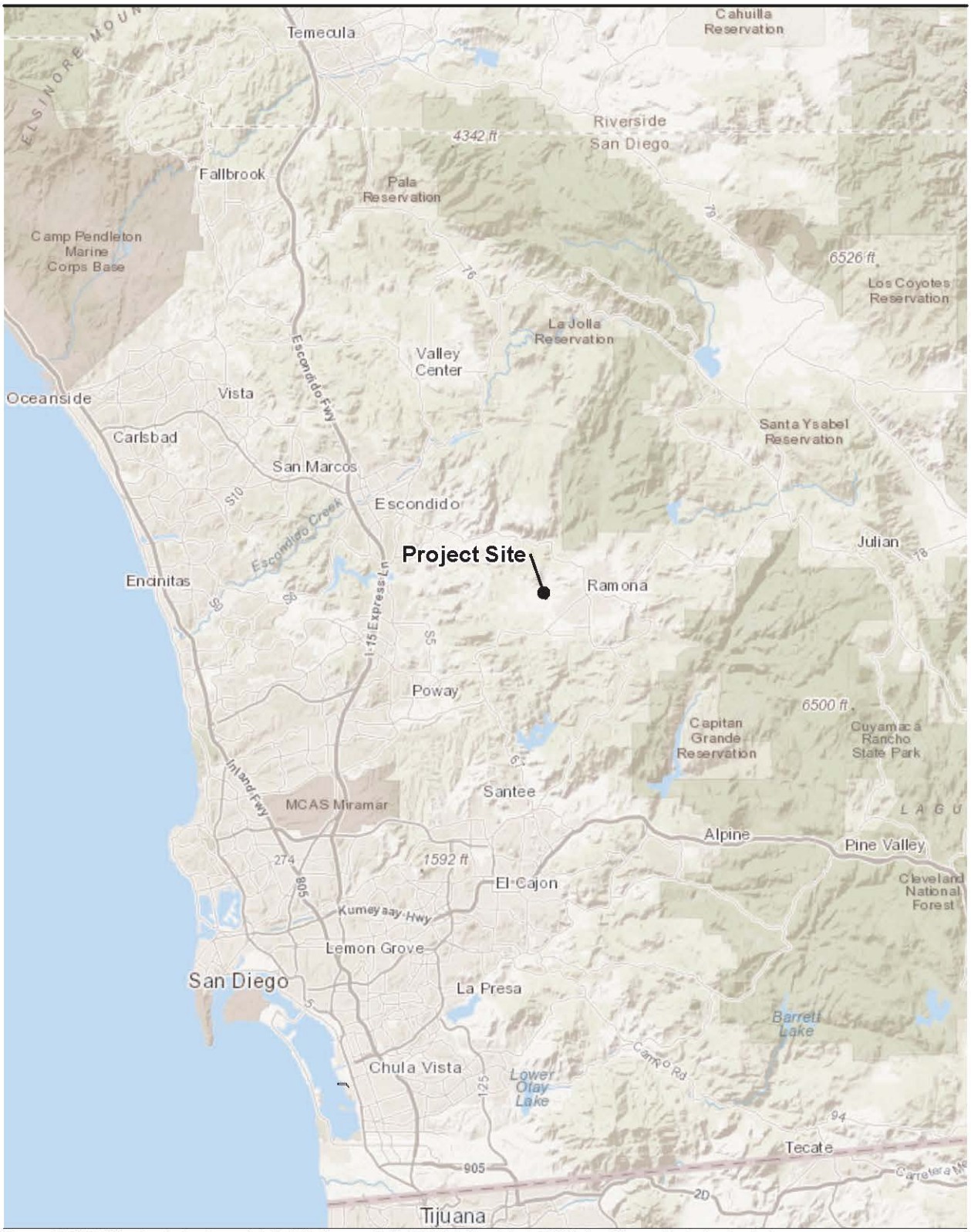


Renée Owens



Patrick Lee Hord

FIGURES



Source: USGS 7.5' Quadrangle San Pasqual, Calif 1984, Ramona, Calif. 1985; Esri, Copyright © 2013 National Geographic Society, i-cubed

0 8.5 17 Miles

Scale: 1:538,560 1 inch = 8.5 miles

Figure 1
Regional Map

13th Street Bridge Project

Path: CAProjects\AECOM\SanDiegoCounty\QuarryRd_JW\Mapping\Fig1_RegionalMap.mxd, 7/18/2018, E D Goff

Source: USGS 7.5' Quadrangle San Pasqual, Calif 1984, Ramona, Calif. 1985; Esri, Copyright © 2013 National Geographic Society, i-cubed

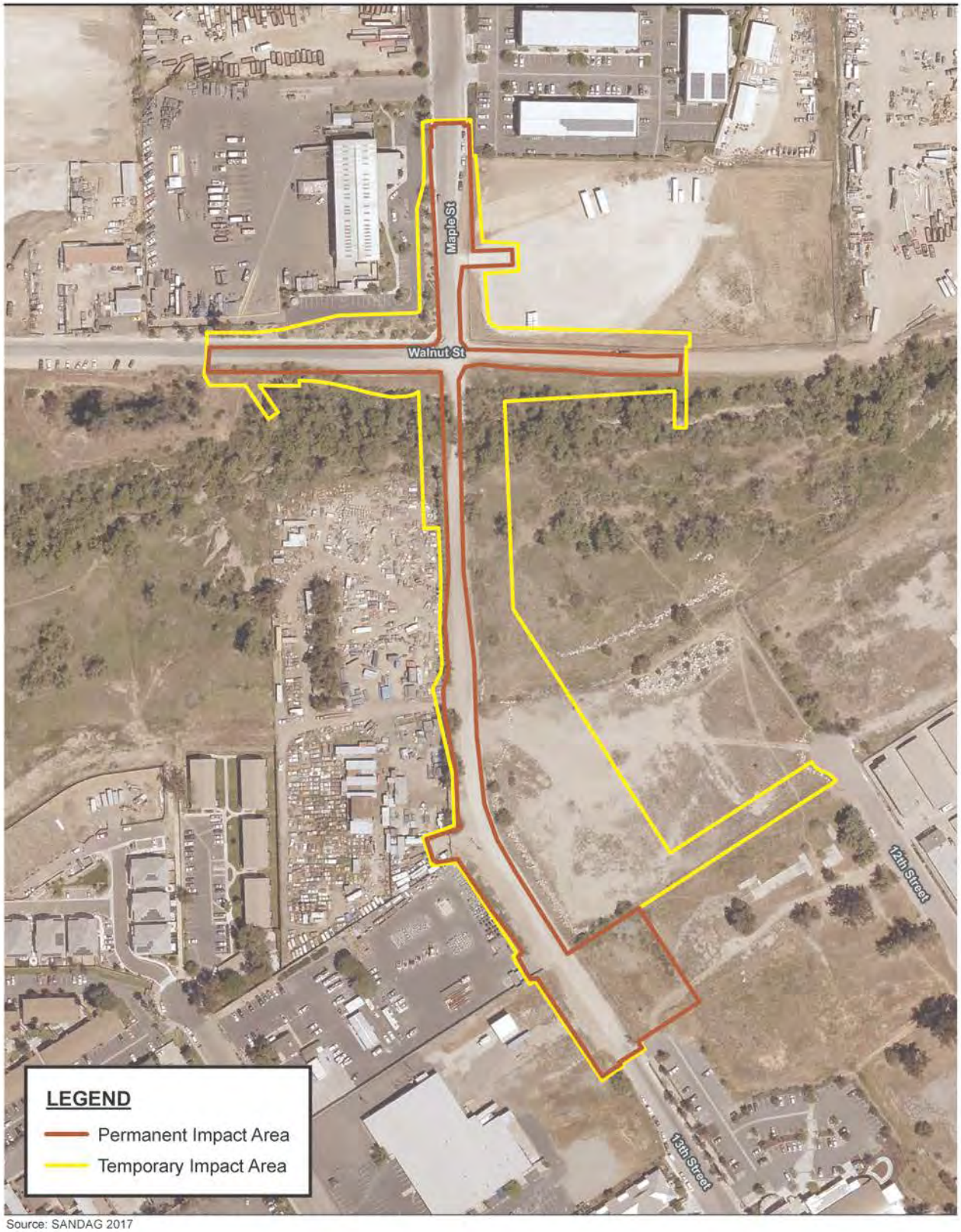
0 2,000 4,000 Feet

Scale: 1:24,000; 1 inch = 2,000 feet

Figure 2
Vicinity Map

13th Street Bridge Project

Path: CAProjects\AECOM\SanDiegoCounty\QuarryRd_JW\Mapping\Fig2_VicinityMap.mxd, 7/18/2018, E D Goff



Source: SANDAG 2017

0 250 500 Feet

Scale: 1:3,000; 1 inch = 250 feet

Figure 3
Aerial Map

13th Street Bridge Project

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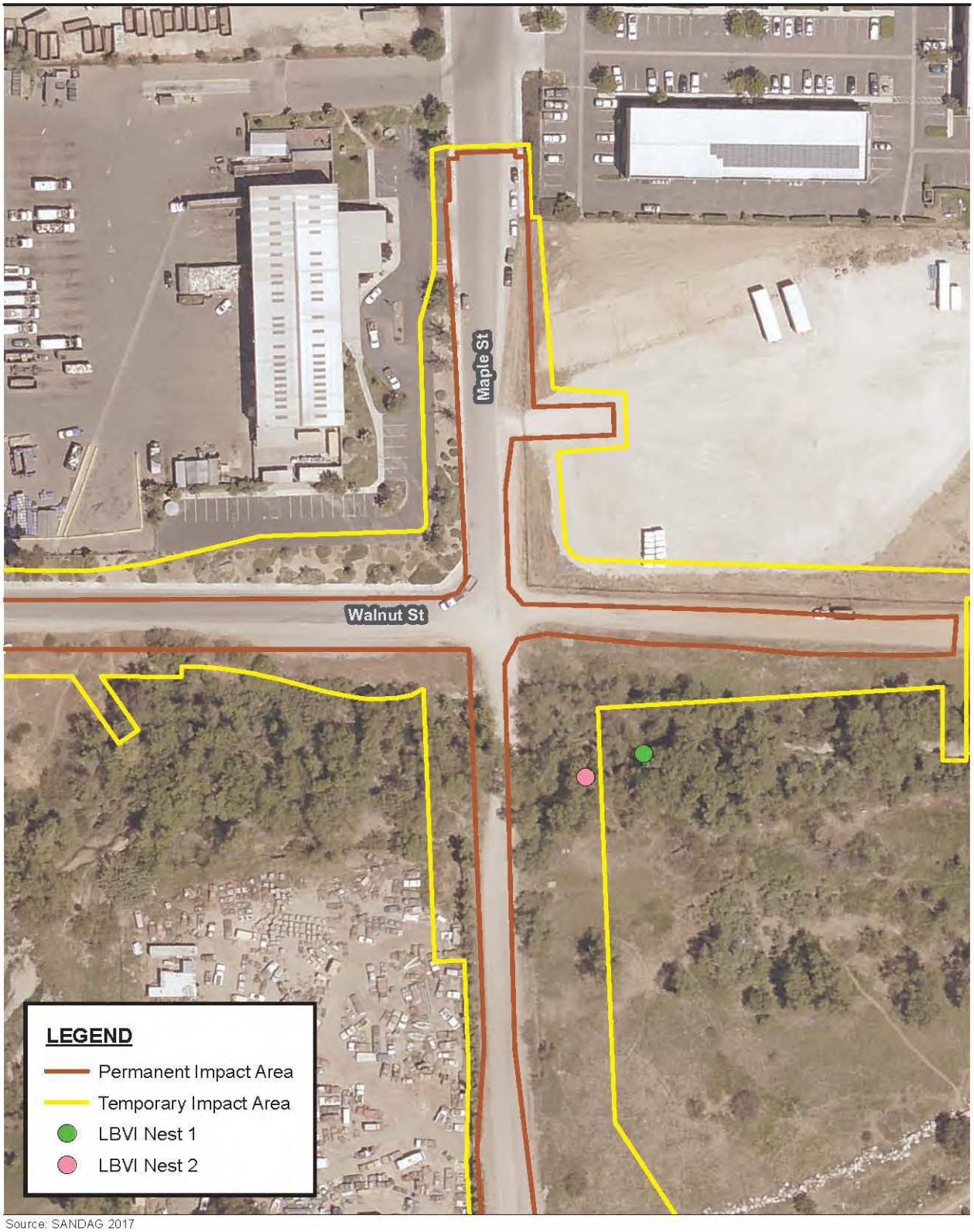

Source: SANDAG 2017

0 125 250 Feet

Scale: 1:1,500; 1 inch = 125 feet

Figure 4
LBVI Nest Locations

PHOTOS

Photo 1 Project Site Least Bell's Vireo Habitat 1

Photo 2 Project Site Least Bell's Vireo Habitat 2

Photo 3 Project Site Least Bell's Vireo Habitat 3

Photo 4 Least Bell's Vireo Female Nest Incubating

APPENDIX A

LIST OF OBSERVED SPECIES

APPENDIX A

List of Observed Species*

INVERTEBRATES FAMILY	COMMON NAME	SCIENTIFIC NAME
Apidae		
	Honey bee	*Apis mellifera*
	California carpenter bee	*Xylocopa californica*
Coenagrionidae		
	Vivid dancer	*Argia vivida*
Formicidae		
	Argentine ant	*Linepithema humile*
	California harvester ant	*Pogonomyrmex californicus*
Hesperiidae		
	Fiery skipper	*Hylephila phyleus*
	Funereal duskywing	*Erynnis funeralis*
Libellulidae		
	Flame skimmer	*Libellula saturata*
	Western pondhawk	*Erythemis collocata*
Lycaenidae		
	Acmon blue	*Icaricia acmon acmon*
	Marine blue	*Leptotes marina*
Nymphalidae		
	California sister	*Adelphia bredowii californica*
	Common buckeye	*Junonia coenia grisea*
	Mourning cloak	*Nymphalis antiopa*
	Painted lady	*Vanessa cardui*
Papilionidae		
	Pale swallowtail	*Papilio eurymedon*
Pieridae		
	Cabbage white	*Pieris rapae*
	Orange sulphur	*Colias eurytheme*
	Sara orangetip	*Anthocharis sara sara*
Pompilidae		
	Tarantula hawk wasp	*Pepsis* sp.
Tenebrionidae		
	Darkling beetle	*Coelocnemis californicus*

INVERTEBRATES FAMILY	COMMON NAME	SCIENTIFIC NAME
REPTILES		
Colubridae		
	Gopher snake	*Pituophis catenifer*
Phrynosomatidae		
	Granite spiny lizard	*Sceloporus orcuttii*
	Western fence lizard	*Sceloporus occidentalis*
Teiidae		
	Orange-throated whiptail	*Aspisdoscelis hyperythra*
BIRDS		
Accipitridae		
	Cooper's hawk	*Accipiter cooperii*
	Red-tailed hawk	*Buteo jamaicensis*
Aegithalidae		
	Bushtit	*Psaltriparus minimus*
Ardeidae		
	Great blue heron	*Ardea herodias*
	Great egret	*Casmerodius albus*
Cardinalidae		
	Black-headed grosbeak	*Pheucticus melanocephalus*
	Blue grosbeak	*Passerina caerulea*
Cathartidae		
	Turkey vulture	*Cathartes aura*
Charadriidae		
	Killdeer	*Charadrius vociferous*
Columbidae		
	Mourning dove	*Zenaida macroura*
Corvidae		
	American crow	*Corvus brachyrhyncus*
	Western scrub jay	*Aphelocoma coerulescens*
Emberizidae		
	Song sparrow	*Melospiza melodia*
Fringillidae		
	American goldfinch	*Carduelis tristis*
	House finch	*Carpodacus mexicanus*
	Lesser goldfinch	*Careuelis psaltria*

INVERTEBRATES FAMILY	COMMON NAME	SCIENTIFIC NAME
Hirundinidae		
	Cliff swallow	*Petrochelidon pyrrhonota*
	Northern rough-wing swallow	*Stelgidopteryx serripennis*
	Tree swallow	*Tachycineta bicolor*
Icteridae		
	Bullock's oriole	*Icterus bullocki*
Mimidae		
	California thrasher	*Toxostoma redivivum*
	Northern mockingbird	*Mimus polyglottos*
Muscicapidae		
	Western bluebird	*Sialia mexicana*
Parulidae		
	Audubon's warbler	*Setophaga coronata auduboni*
	Common yellowthroat	*Geothlypis trichas*
	Orange-crowned warbler	*Oreothlypis celata*
	Townsend's warbler	*Setophaga townsendi*
	Wilson's warbler	*Cardellina pusilla*
	Yellow warbler	*Setophaga petechia*
	Yellow-rumped warbler	*Dendroica coronata*
Passerelidae		
	California towhee	*Melozone crissalis*
	Spotted towhee	*Pipilo maculatus*
Phasianidae		
	California quail	*Callipepla californica*
Picidae		
	Acorn woodpecker	*Melanerpes formicivorus*
	Northern flicker	*Colaptes auratus*
	Nuttall's woodpecker	*Picoides nuttallii*
Ptilogonatidae		
	Phainopepla	*Phainopepla nitens*
Sittidae		
	White-breasted nuthatch	*Sitta carolinensis*
Sturnidae		
	European starling	*Sturnis vulgaris*

INVERTEBRATES FAMILY	COMMON NAME	SCIENTIFIC NAME
Trochilidae		
	Anna's hummingbird	*Calypte anna*
	Black-chinned hummingbird	*Archilochus alexandrii*
Troglidytidae		
	Bewick's wren	*Thryomanes bewickii*
Tyrannidae		
	Ash-throated flycatcher	*Myiarchus cinerascens*
	Black phoebe	*Sayornis nigricans*
	Cassin's kingbird	*Tyrannus vociferans*
	Pacific slope flycatcher	*Empidonax difficilis*
	Say's phoebe	*Sayornis saya*
Vireonidae		
	Least Bell's vireo	*Vireo bellii pusillus*
	Warbling vireo	*Vireo gilvus*
MAMMALS		
Canidae		
	Coyote	*Canis latrans*
Cricetae		
	Woodrat	*Neotoma* sp.
Geomyidae		
	Botta's pocket gopher	*Thomomys bottae*
Leporidae		
	Desert cottontail	*Sylvilagus auduboni*
Procyonidae		
	Raccoon	*Procyon lotor*
Sciuridae		
	California ground squirrel	*Spermophilus beecheyi*

* = Species observed visually, by sound, tracks, nests, and/or scat.

RESULTS OF LEAST BELL'S VIREO SURVEYS FOR THE 13TH STREET BRIDGE PROJECT IN RAMONA, CALIFORNIA

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ICF International. 2012. Results of Least Bell's Vireo Surveys for the 13th Street Bridge Project in Ramona, California. July 2012. San Diego, CA. Prepared for California Department of Transportation, San Diego, CA.

Contents

Tables and Figures

Summary

ICF International was retained by the County of San Diego (County) Department of Public Works (DPW) to conduct focused surveys for least Bell's vireo (*Vireo bellii pusillus*) at the site of the 13th Street Bridge Project. The County DPW, in cooperation with the California Department of Transportation (Caltrans), is proposing to improve a segment of 13th Street, between Walnut Street to the north and Main Street (State Route 67 [SR-67]) to the south, in the unincorporated community of Ramona, San Diego County, California. The proposed road improvement will include replacing the existing Santa Maria Creek culvert crossing with a bridge. The segment of 13th Street that will be improved is currently unpaved road (except for an approximately 250-foot-long segment of paved roadway near Main Street), and the existing culvert does not have sufficient capacity to convey the volume of water following storm events. The crossing at Santa Maria Creek frequently becomes impassable for motor vehicles and pedestrians due to flooding during the rainy season. The improvements would include widening and paving the roadway to approximately 72 feet between Main Street and Walnut Street. The bridge would be approximately 540-feet-long. Bridge specifications include six new bridge pier supports; the new piers would be aligned with the flow of the river to minimize turbulent flow and scour potential. Rock slope protection would be placed at the foot of the bridge abutments. All foundations would be designed to withstand a 100-year flood event, and the bridge would be elevated above the river to convey the 100-year flood event beneath the lowest point of the bridge deck. Additionally, the proposed bridge would include all of the applicable seismic design criteria. The objective of the project is to provide an adequate and safe crossing that allows for conveyance of water from 100-year flood events.

The 13th Street bridge construction will require ground disturbance within and immediately adjacent to Santa Maria Creek. Work along 13th Street is anticipated to take approximately several months and will require crews to access the creek area beneath the proposed bridge. Moderately dense southern cottonwood-willow riparian forest occurring along the banks of the creek provides potentially suitable habitat for least Bell's vireo. This vegetation community is predominated by southern cottonwood (*Populus fremontii*), mule-fat (*Baccharis salicifolia*), and several species of willow such as black willow (*Salix gooddingii*) and arroyo willow (*Salix lasiolepis*). The flow of water along this portion of the creek was intermittent and flowing water was not observed on any of the survey dates. The survey area consisted of the southern cottonwood-willow riparian forest occurring in the vicinity of the proposed bridge and an additional 250-foot-wide area surrounding the proposed bridge.

The focused surveys for least Bell's vireo followed the U.S. Fish and Wildlife Service (USFWS 2001) protocol. Eight separate surveys were conducted at least 10 days apart within the survey area between May 9 and July 24, 2012, in all potentially suitable habitats and during suitable weather conditions. Surveys were completed by Cheryl Rustin. Surveys were performed during morning hours prior to 1100, when vireos are most active and included frequent stops to look and listen for least Bell's vireo vocalizations (songs and/or scolds). Surveys were not conducted during inclement weather, such as extreme hot or cold temperatures, fog, high winds, or rain.

No least Bell's vireo individuals were detected during the focused surveys conducted at the site. The riparian forest habitat within the survey area represents low-quality habitat for this species mainly due to the lack of flowing water in the creek and the level of disturbance to the riparian habitat and

surrounding areas. This habitat also lacks a dense under-story, resulting in the absence of vertical stratification, which is preferred by least Bell's vireo.

Chapter 1
Introduction

Project Description

ICF International was retained by the County of San Diego (County) Department of Public Works (DPW) to conduct focused surveys for least Bell's vireo (*Vireo bellii pusillus*) at the site of the 13th Street Bridge Project. The County DPW, in cooperation with Caltrans, is proposing to improve a segment of 13th Street between Walnut Street to the north and Main Street (SR-67) to the south, located in Ramona, San Diego County (Thomas Bros. 1152: F/6). This segment of 13th Street is currently an unimproved dirt road, except for the gravel at the Santa Maria Creek culvert crossing and an approximately 250-foot-long segment of paved roadway near Main Street.

The proposed project would involve widening and paving the roadway to approximately 72 feet between Main Street and Walnut Street; project maps are provided in Appendix A. In addition, a bridge would be constructed over Santa Maria Creek that will replace the existing, graveled culvert crossing that does not have sufficient capacity to convey the volume of water following storm events. The bridge would span approximately 540 feet. This work will require ground disturbance within and immediately adjacent to Santa Maria Creek. Representative photographs of the project area are provided in Appendix B. As shown on the U.S. Geological Survey 7.5-minute Ramona Quadrangle map, the proposed project area is situated within Township 13 South, and Range 1 East, (Figures 1 and 2).

Environmental Setting

The portion of Santa Maria Creek occurring in the vicinity of 13th Street is intermittent with a flat, sandy bottom. Dense southern cottonwood-willow riparian forest occurs along the banks of the creek and is predominated by southern cottonwood (*Populus fremontii*), mule-fat (*Baccharis salicifolia*), and several species of willow such as black willow (*Salix gooddingii*) and arroyo willow (*Salix lasiolepis*). During the surveys, there was no water flowing through the creek. Elevation ranges from 2,920 – 3,040 feet above mean sea level. With the exception of 13th Street, the survey area is undeveloped but is surrounded by industrial and commercial uses (automotive body repair, towing yards, propane sales, wrecking yard, and solid waste collection / transfer), single-family residential development, and minor agricultural uses.

Soils located within the survey area consist of Riverwash (Rm); Placentia sandy loam, 2 to 9 percent slopes (PeC); Visalia sandy loam, 0 to 2 percent slopes (VaA); Fallbrook sandy loam, 15 to 30 percent slopes, eroded (FaE2); Fallbrook sandy loam 9 to 15 percent slopes, eroded (FaD2); and Chino silt loam, saline, 0 to 2 percent slopes (CkA) (USDA 1973). Riverwash typically occurs in intermittent streams and channels. The material is sandy, gravelly, or cobbly and is excessively drained and rapidly permeable (USDA 1973).

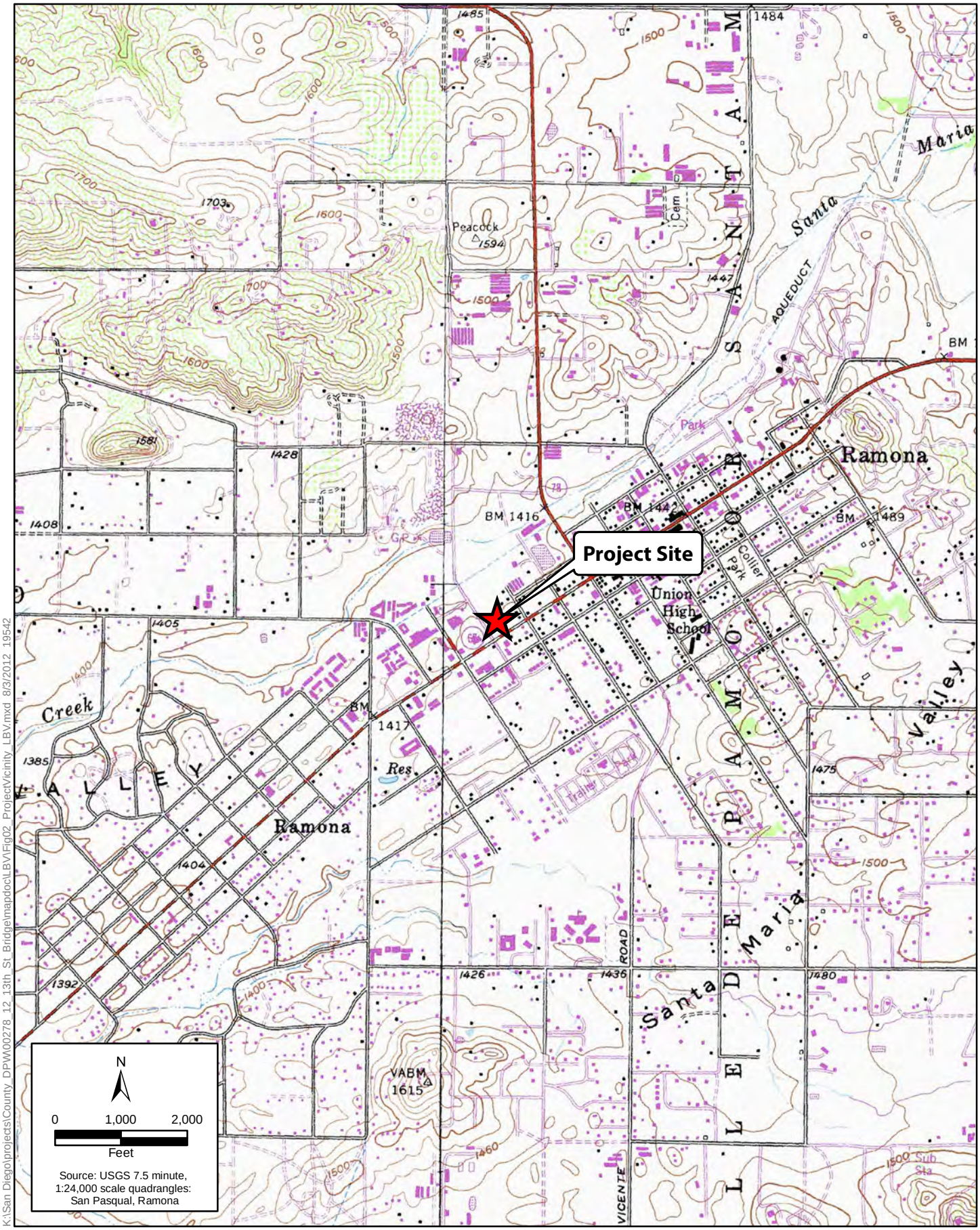

Figure 2
Project Vicinity
13th Street Bridge Least Bell's Vireo Survey Report

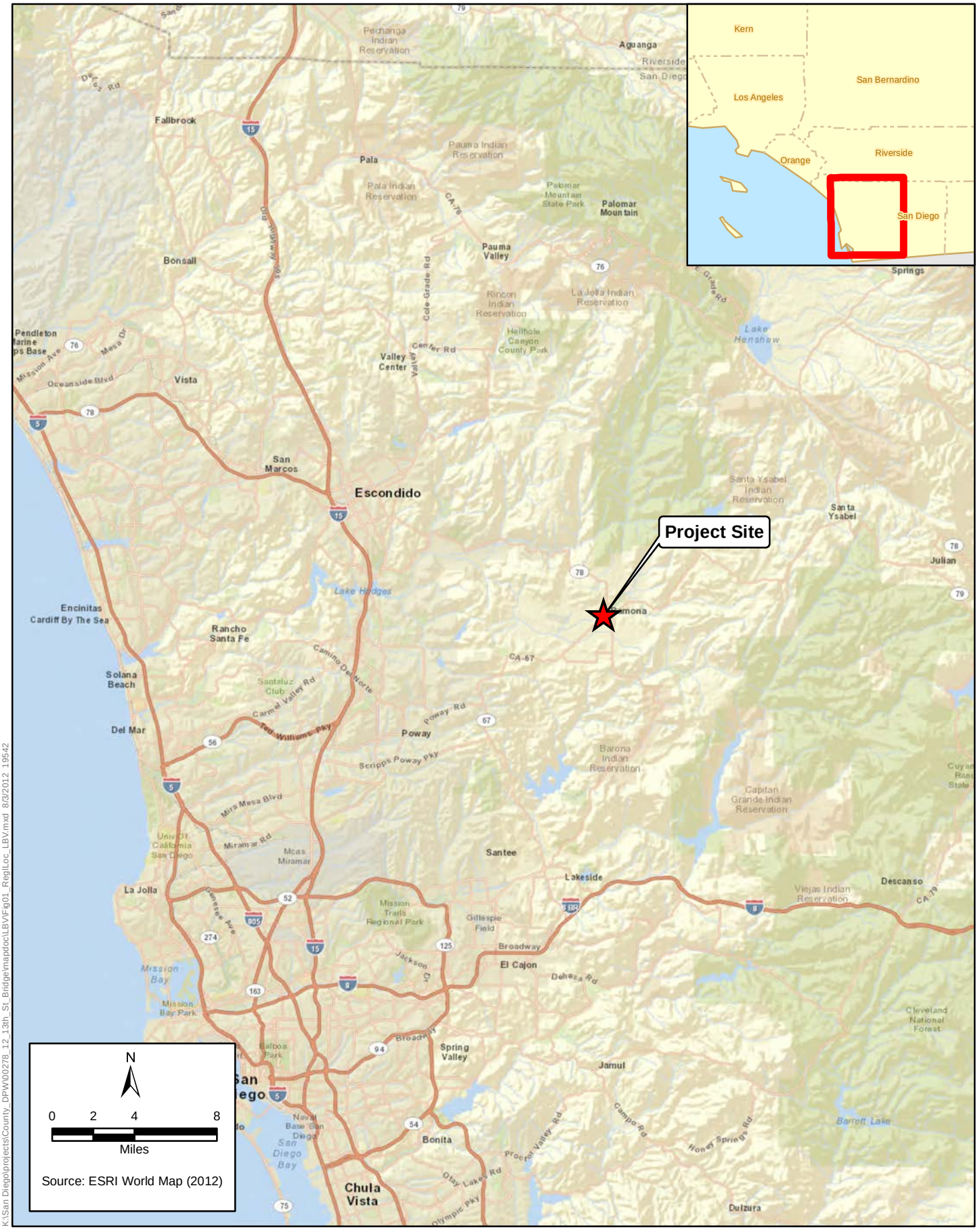

Figure 1
Regional Location
13th Street Bridge Least Bell's Vireo Survey Report

Species Description

Least Bell's Vireo

There are four subspecies of the Bell's vireo (*Vireo bellii*); the westernmost—the least Bell's vireo (*V.b. pusillus*)—breeds in California and northern Baja California. The least Bell's vireo is a small, migratory insectivore that prefers dense riparian vegetation for foraging and nesting. The California Department of Fish and Game (CDFG) listed the least Bell's vireo as endangered in 1980. The U. S. Fish and Wildlife Service (USFWS) followed suit in 1986. Critical habitat was designated for this subspecies in 1994 along the southwestern coastline of California below Santa Barbara (USFWS 1994).

Historically, least Bell's vireo was a common to locally abundant species found in lowland riparian habitats between northern California and coastal southern California. However, loss of riparian habitats and brown-headed cowbird (*Molothrus ater*) parasitism led to a large population decline. When USFWS first listed the bird in 1986, the population was estimated to be a mere 300 pairs. The latest Five Year Review, dated September 2006, reported a 10-fold increase in population size since the time of its listing to an estimated 2,968 territories (USFWS 2006). Least Bell's vireo is found only in mid- to southern California, with the majority in San Diego County.

Least Bell's vireos typically begin to arrive on their breeding grounds by mid to late March and begin to depart by late July; most having left by September. Males tend to arrive first and establish territories; females arrive a few days later. Site fidelity is high among adult least Bell's vireo, with many birds returning to the same territory each year and even using the same shrub as previous years (Salata 1983, Kus 2002). Nests are typically placed within 1 meter of the ground in dense shrubby riparian habitat, and a diverse canopy height is required for foraging, with willows often dominating the canopy layer (Salata 1983). In southern California, least Bell's vireo nest sites were most frequently located in riparian stands between 5 and 10 years old (SANDAG and RECON 1990). Based on rigorous statistical analysis of least Bell's vireo habitat structure and composition, this species appears to preferentially select sites with large amounts of shrub and tree cover, a large degree of vertical stratification, and small amounts of aquatic and herbaceous cover (SANDAG and RECON 1990).

Chapter 2
Methods

Survey Area and Habitat Suitability

The need for focused surveys for least Bell's vireo at the project site was determined by a habitat assessment conducted by ICF biologists, as well as counsel with the USFWS. The survey area consisted of the riparian habitat occurring in the vicinity of the proposed bridge and an additional 250-foot-wide area surrounding the proposed bridge (Figure 3). All areas supporting southern cottonwood-willow riparian forest within the survey area provide potentially suitable habitat for least Bell's vireo.

In the survey area, southern cottonwood-willow riparian forest occurs along the banks of Santa Maria Creek and supports cottonwoods, arroyo willow, black willow, sandbar willow (*Salix exigua*), mule fat (*Baccharis salicifolia*), and tamarisk (*Tamarix* sp.). The understory within the creek bed consisted of cattails (*Typha* sp.), umbrella sedge (*Cyperus eragrostis*), and stinging nettle (*Urtica dioica*).

A record search of the California Natural Diversity Database (CNDDB 2012) and USFWS database (USFWS 2012) was conducted in order to review historical occurrences of least Bell's vireo in the area. The search parameters included the Ramona quadrangle and the eight surrounding quadrangles (Mesa Grande, Warner's Ranch, Santa Ysabel, Tule Springs, San Vicente Reservoir, San Pasqual, Rodriguez Mountain, and El Cajon Mountain) for CNNDB, and a five-mile radius from the project site for USFWS. The search indicated that least Bell's vireo were documented within five miles of the project site in 2009 and 2011 (USFWS 2012).

Survey Methods

Least Bell's Vireo

The focused surveys for least Bell's vireo followed the USFWS (2001) protocol. Eight separate surveys were conducted at least 10 days apart between May 9 and July 24, 2012, in all potentially suitable habitats within the survey area and during suitable weather conditions. ICF biologist Cheryl Rustin conducted the surveys on May 9, 20, and 31; June 10 and 21; and July 3, 13, and 24, 2012 (see Table 1). The surveys were conducted in areas of southern cottonwood-willow riparian forest within the project impact area and a within a 250-foot-wide area surrounding the project impact area. All visits were performed during morning hours prior to 1100, when vireos are most active and included frequent stops to look and listen for least Bell's vireo vocalizations (songs and/or scolds). Surveys were not conducted during inclement weather, such as extreme hot or cold temperatures, fog, high winds, or rain. At this time, no special permits are required to perform focused surveys for least Bell's vireo in accordance with the recommended guidelines.

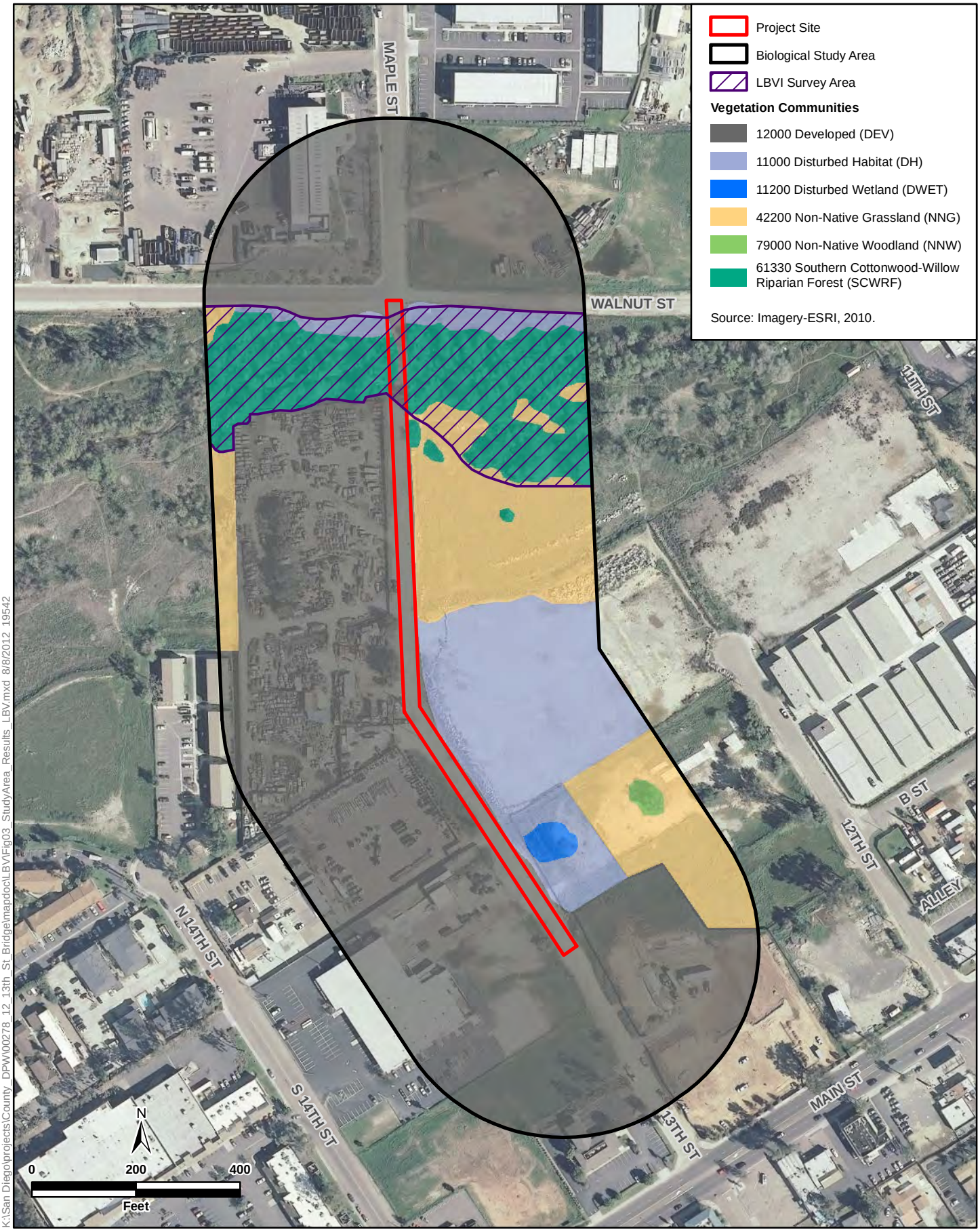

Figure 3
Biological Study Area and Results
13th Street Bridge Least Bell's Vireo Survey Report

Table 1. Survey Conditions

Survey #	Date (2012)	Start Time	End Time	Temp. (°F)	Wind Speed (mph)	Sky Condition	Surveyor
1	05/09/12	0845	1000	72-75	0-1	Clear	Cheryl Rustin
2	05/20/12	0800	0915	64-66	0-1	Hazy	Cheryl Rustin
3	05/31/12	1000	1100	73-75	0-1	Clear	Cheryl Rustin
4	06/10/12	0815	0915	67-68	1-2	Hazy	Cheryl Rustin
5	06/21/12	0830	0930	60-63	1-2	Clear	Cheryl Rustin
6	07/03/12	0830	0930	65-70	0-2	Clear	Cheryl Rustin
7	07/13/12	0830	0930	75-76	0-1	Cloudy	Cheryl Rustin
8	07/24/12	0845	1000	71-75	0-1	Clear	Cheryl Rustin

Chapter 3
Results

Least Bell's Vireo

No least Bell's vireo individuals were detected during the eight focused surveys. The southern cottonwood-willow riparian forest habitat within the survey area represents low-quality habitat for least Bell's vireo. Although this habitat contains a shrubby mid-story, it lacks regularly flowing open water preferred by least Bell's vireo for foraging. The habitat consists mostly of a dense upper canopy layer. Least Bell's vireo typically uses habitat with large amounts of shrub and tree cover, a large degree of vertical stratification, and small amounts of aquatic and herbaceous cover.

Other Special-Status Species

In total, 33 wildlife species were detected during the surveys, including one amphibian, two reptiles, 26 birds, and four mammals. No special status species were observed during any of the surveys. A complete list of wildlife species detected during the surveys is presented in Appendix B.

Chapter 4
Certification

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Cheryl Rustin — Date
Senior Biologist – *Field Surveys, Primary Author*

Chapter 5
References

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Appendix A
Site Photos

View of inner structure of southern cottonwood-willow riparian forest, facing west.

View of southern cottonwood-willow riparian forest, facing south.

Appendix B
Wildlife Species Detected On Site

Appendix F: Wildlife Species Detected on the 13th Street Bridge Site

Scientific Name	Common Name	Special Status
VERTEBRATES		
Amphibians		
Pseudacris regilla	Pacific Chorus Frog	
Reptiles		
Sceloporus occidentalis	Western Fence Lizard	
Uta stansburiana	Side-blotched Lizard	
Birds		
Anas platyrhynchos	Mallard	
Cathartes aura	Turkey Vulture	
Accipiter cooperii	Cooper's Hawk	
Buteo jamaicensis	Red-tailed Hawk	
Buteo lagopus	Rough-legged Hawk	
Falco sparverius	American Kestrel	
Zenaida macroura	Mourning Dove	
Calypte anna	Anna's Hummingbird	
Picoides nuttallii	Nuttall's Woodpecker	
Sayornis nigricans	Black Phoebe	
Myiarchus cinerascens	Ash-throated Flycatcher	
Tyrannus verticalis	Western Kingbird	
Aphelocoma californica	Western Scrub-Jay	
Corvus brachyrhynchos	American Crow	
Corvus corax	Common Raven	
Petrochelidon pyrrhonota	Cliff Swallow	
Psaltriparus minimus	Bushtit	
Mimus polyglottos	Northern Mockingbird	
Geothlypis trichas	Common Yellowthroat	
Pipilo maculatus	Spotted Towhee	
Melospiza melodia	Song Sparrow	
**Molothrus ater*	Brown-headed Cowbird	
Carpodacus mexicanus	House Finch	
Carduelis psaltria	Lesser Goldfinch	
**Passer domesticus*	House Sparrow	

Scientific Name	Common Name	Special Status
Mammals		
Sylvilagus audubonii	Desert Cottontail	
Spermophilus beecheyi	California Ground Squirrel	
Mustela frenata	Long-tailed Weasel	
**Felis catus*	Domestic Cat	

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened
CSC = California Species of Special Concern
CFP = California Fully Protected Species

Appendix C
Field Notes

P 12320 – Nightshade
75 % BG   Popcorn Flower
25 % CSS   Yucca

access to 12320 through SDGE gate located off Caminito Daniella
walk thru driveway @ 3315 Caminito Daniella
go thru gate onto Caminito Luna Nueva then to Caminito Cabo Viejo – access on E side of pool

PZ12336 – inaccessable due to construction @ Flower Hill mall – took pics from outside construction site.

OT whiptail, CAGN

5/9/12   13th St Bridge
8:45 Am   LBVI ①   10:00
72°   75
Clear   Clear
0-1 mph   0-1

an hu
no mo
Cora
mall
BrCo
modo
sosp
Lego
Scja
buti
woodpecker (red "mohawk")
Coha (OH)

Good qual habitat but no water in stream – maybe different conditions too

* look for old bird list for Project

5/20/12 Ramona

0800 13th St 9:15

64 ② 66

Clear Clear

0-10 0-1

So Sp

Co ra Weasel (long tailed)

~~Bushy tailed ferret?~~

Ho fi

No mo NO LBVI

mo do

Co ha

as tu Phy

Cowbird

sc ja

ro do

mall

5/31/12 13th St

10:00am	LBVI (3)	11:00
73°	JD	75
Clear		clear
0-1 mph		0-1

Nofi ~~Dusky~~
sosp western fence
Cora
nomo NO LBVI
Cato
woodpecker
coye
wrek i

JD-
004 - 0511652; 3656177
culvert on W side of Rd
OHWM ~ 10 ft
narrows down to ~3 feet
about ____ ft down stream.

6/10/12

8:15 Am	13th St	9:15
67°	LBU1	68
1-2	(9)	1-2
hazy		hazy
NO DO		
NO MO	NO	LBU1
HO fi		
Amhu		
cora		
Reta		
Tuun		
cato		
Buti		
Nuwo		

6/21/12
8:30 Am
60°
partly Cloudy
1-2 mph

13th St
Ramona
LBVI (5)

9:30
63
clear
1-2

Coye
Cato
Fofi
SOSP
Cora
coha
amhu
nomo
spto
mido
BrCo
Swallows
Amer

Gr sq
fence lizard

NO LBVI

7/3/12
8:30 Am
65°F
1-2
hazy

13th St
Bridge
LBVI #6

9:30
70°F
0-1
clear

Spto
Buti
Nomo
Leso
Amke
Amcr
Hosi
modo
Amhu
tuvu
Blph
Brhe
Clsw
Nuwo
Role
Coye

No LBVI observed

7/13/12 13th st
8:30 Am LBU1 (7) 9:30
75° F 75°
0-1 mph 0-1
Cloudy/rain Cloudy

HOSP Domcat
HOFI
NOMO
SPTO
CORA
AMCR
BEWR
CATO
MODO
BIPN
CISW
AMHU

No LBU1

7/24/12 13th St

8:45 am LBVI (8) 10:00

71° F 75°

clear Clear

0-1 mph 0-1

AmCr

Hofi no LBVi

SPto

Lego

Cora

BlPh

Buti

Greg