

**DRAFT**

**Focused Surveys for the Least Bell's Vireo,  
Southwestern Willow Fly Catcher, and  
Western Yellow-Billed Cuckoo for the  
Valley-Ivyglen Transmission Line Project**

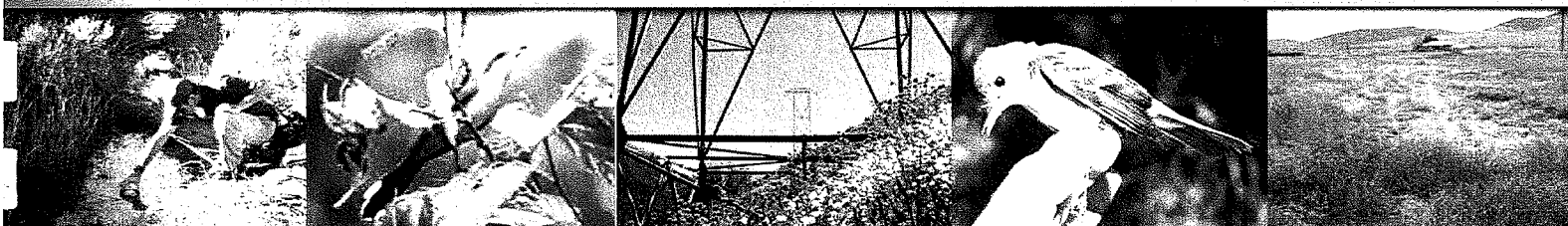
*Prepared for:*  
Southern California Edison Company

*Prepared by:*  
AMEC Earth & Environmental, Inc.

**December 2007**  
Project No. 6151000801

SOUTHERN CALIFORNIA  
**EDISON**

**amec**





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SOUTHWESTERN WILLOW FLYCATCHER, AND  
WESTERN YELLOW-BILLED CUCKOO FOR THE  
VALLEY-IVYGLEN TRANSMISSION LINE PROJECT**

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December 2007

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## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
1.1	Project Description .....	1
1.2	Background on the Least Bell's Vireo.....	7
1.3	Background on Southwestern Willow Flycatcher .....	7
1.4	Western Yellow-billed Cuckoo.....	7
<b>2.0</b>	<b>METHODS</b> .....	<b>8</b>
<b>3.0</b>	<b>RESULTS</b> .....	<b>11</b>
3.1	Habitat Descriptions .....	11
3.1.1	San Jacinto River Area .....	11
3.1.2	Nichols Road Area.....	11
3.1.3	Lake Street Area.....	11
3.1.4	Hostettler Road Area .....	11
3.2	Survey Results .....	11
3.2.1	Southwestern Willow Flycatcher.....	11
3.2.2	Least Bell's Vireo .....	12
3.2.3	Western Yellow-billed Cuckoo .....	12
3.2.4	Critical Habitat .....	12
<b>4.0</b>	<b>LITERATURE CITED</b> .....	<b>13</b>

## LIST OF FIGURES

Figure 1.	Project Location and Vicinity Map .....	2
Figure 2.	San Jacinto River Survey Area.....	3
Figure 3.	Nichols Road Survey Area .....	4
Figure 4.	Lake Street Survey Area .....	5
Figure 5.	Hostettler Road Survey Area.....	6

## LIST OF TABLES

Table 1.	Survey Data for San Jacinto River Area.....	9
Table 2.	Survey Data for Nichols Road Area.....	9
Table 3.	Survey Data for Lake Street Area.....	10
Table 4.	Survey Data for Hostettler Road Area .....	10

## LIST OF APPENDICES

Appendix A	Bird Species List.....	A-1
Appendix B	SWF Survey Forms .....	B-1

## 1.0 INTRODUCTION

This report presents the findings of focused surveys for the Least Bell's Vireo (*Vireo belli pusillus*), Southwestern Willow Flycatcher (*Empidonax traillii extimus*), and Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*) at suitable habitat patches along the Valley-Ivyglen Transmission Line Project. These habitat patches occur along or near the San Jacinto River and Temescal Wash, in Riverside County, California (Figure 1). Areas considered to contain suitable habitat along the project route are:

San Jacinto River area: approximate UTM at east end of survey area: Zone 11, 477600E, 3733000N (NAD27); approximate UTM at west end of survey area: Zone 11, 476300E, 3732800N (NAD27); USGS 7.5 minute Romoland, Calif. and Lake Elsinore, Calif. quadrangles (Figure 2).

Nichols Road area (Temescal Wash): approximate UTM at north end of survey area: Zone 11, 466400E, 3730700N (NAD27); approximate UTM at south end of survey area: Zone 11, 466800E, 3729200N (NAD27); USGS 7.5 minute Lake Elsinore, Calif. quadrangle (Figure 3).

Lake Street area (Temescal Wash): approximate UTM at east end of survey area: Zone 11, 463600E, 3732000N (NAD27); approximate UTM at west end of survey area: Zone 11, 462700E, 3732300N (NAD27); USGS 7.5 minute Alberhill, Calif. quadrangle (Figure 4).

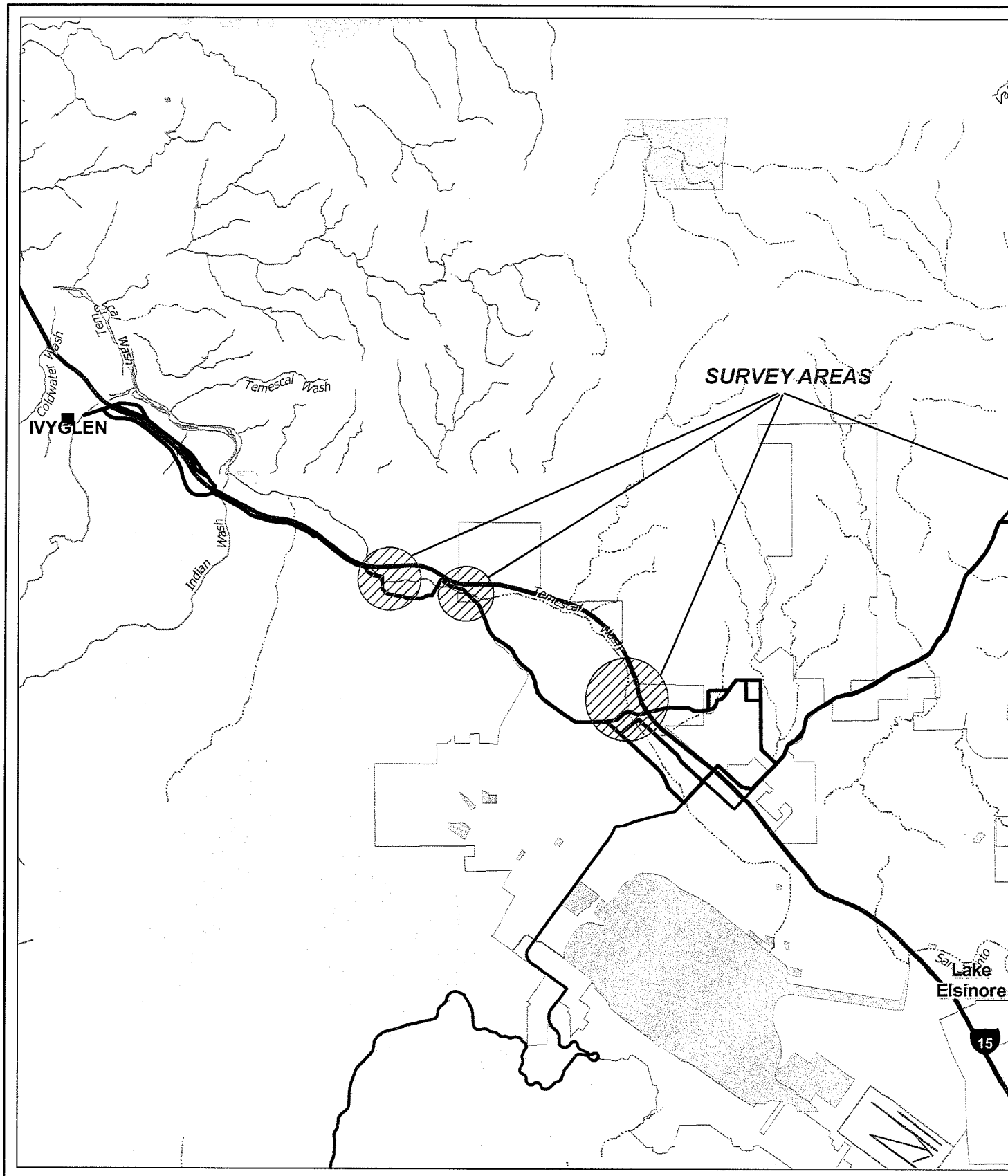
Hostettler Road area (Temescal Wash): approximate UTM at east end of survey area: Zone 11, 462700E, 3732300N (NAD27); approximate UTM at west end of survey area: Zone 11, 461400E, 3732600N (NAD27); USGS 7.5 minute Alberhill, Calif. quadrangle (Figure 5).

The proposed project is in the coverage area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in western Riverside County.

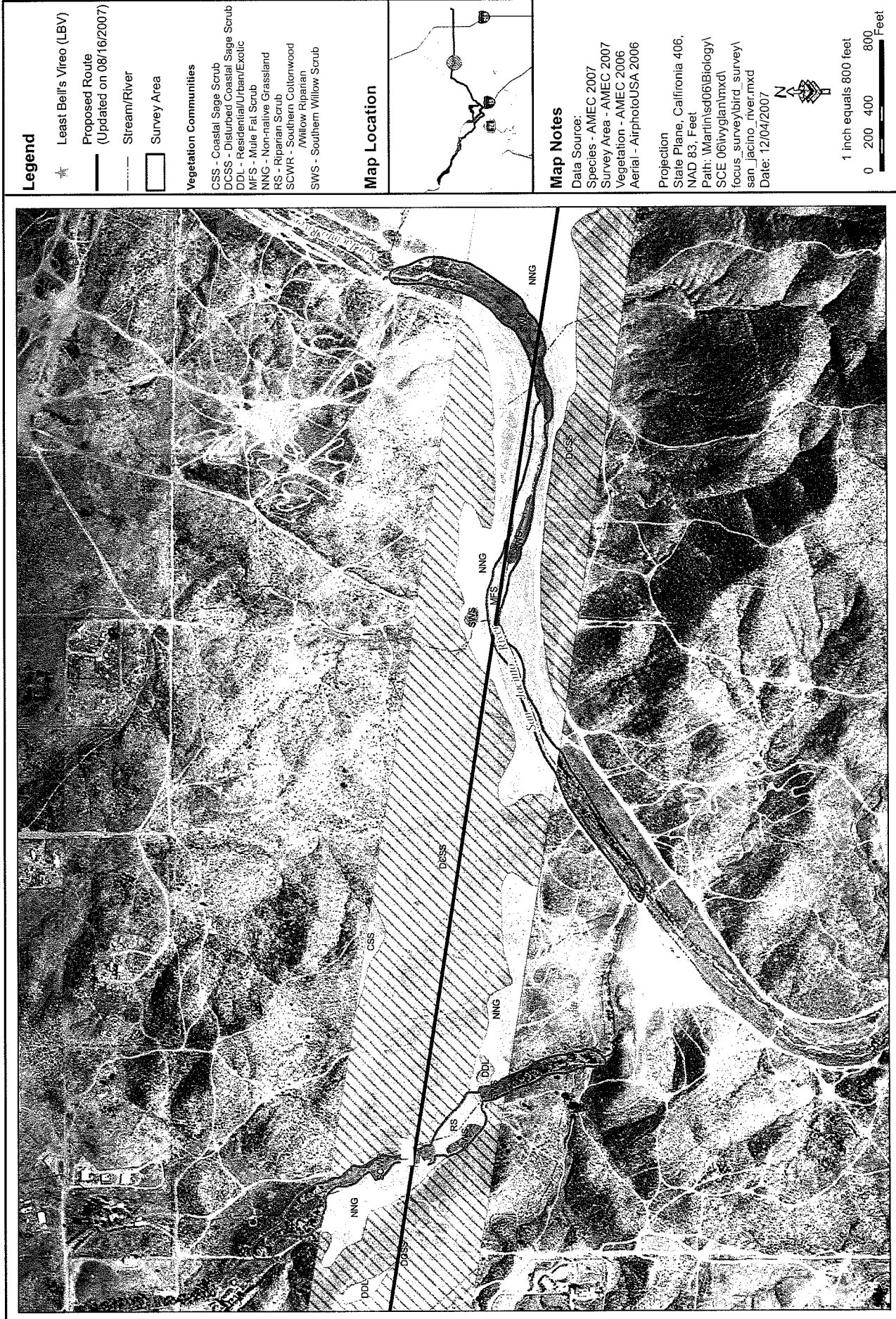
### 1.1 Project Description

The Valley-Ivyglen Transmission Line Project involves the construction of a new 115kV transmission line which will connect the Valley Substation to the Ivyglen Substation. This transmission line will be installed in an existing right-of-way (ROW) where available, and new ROWs where none exist. The Valley Substation is located in the southwest corner of an unincorporated area known as Romoland, adjacent to the city of Perris. The Ivyglen Substation is located in the southeastern portion of unincorporated Corona, along Temescal Canyon Road and near the Glen Ivy Hot Springs (Figure 2). The Ivyglen Substation is approximately 19 miles west of the Valley Substation.

The proposed project is located in western Riverside County; the proposed transmission line routes also traverse unincorporated Riverside County, and the cities of Lake Elsinore, Corona, Perris, Sun City, and Canyon Lake, California. The proposed routes also traverse through portions of the following U.S. Geological Survey (USGS) 7.5-minute series topographic quadrangles: Corona South, Lake Matthews, Steele Peak, Perris, Lakeview, Santiago Peak, Alberhill, Lake Elsinore, Romoland, Winchester, Sitton Peak, and Wildomar.



Valley-Ivyglen Transmission  
 Least Bell's Vireo, Southwestern Willow Flycatcher, and  
 Project Location and V



**FIGURE**  
**2**

**Valley-Ivyglan Transmission Line Project**  
**Least Bell's Vireo, Southwestern Willow Flycatcher, and Western Yellow-billed Cuckoo Surveys**  
**San Jacinto River Survey Area**



**Valley-Ivyglen Transmission Line Project**  
**Least Bell's Vireo, Southwestern Willow Flycatcher, and Western Yellow-billed Cuckoo Surveys**  
**Nichols Road Survey Area**

**FIGURE**

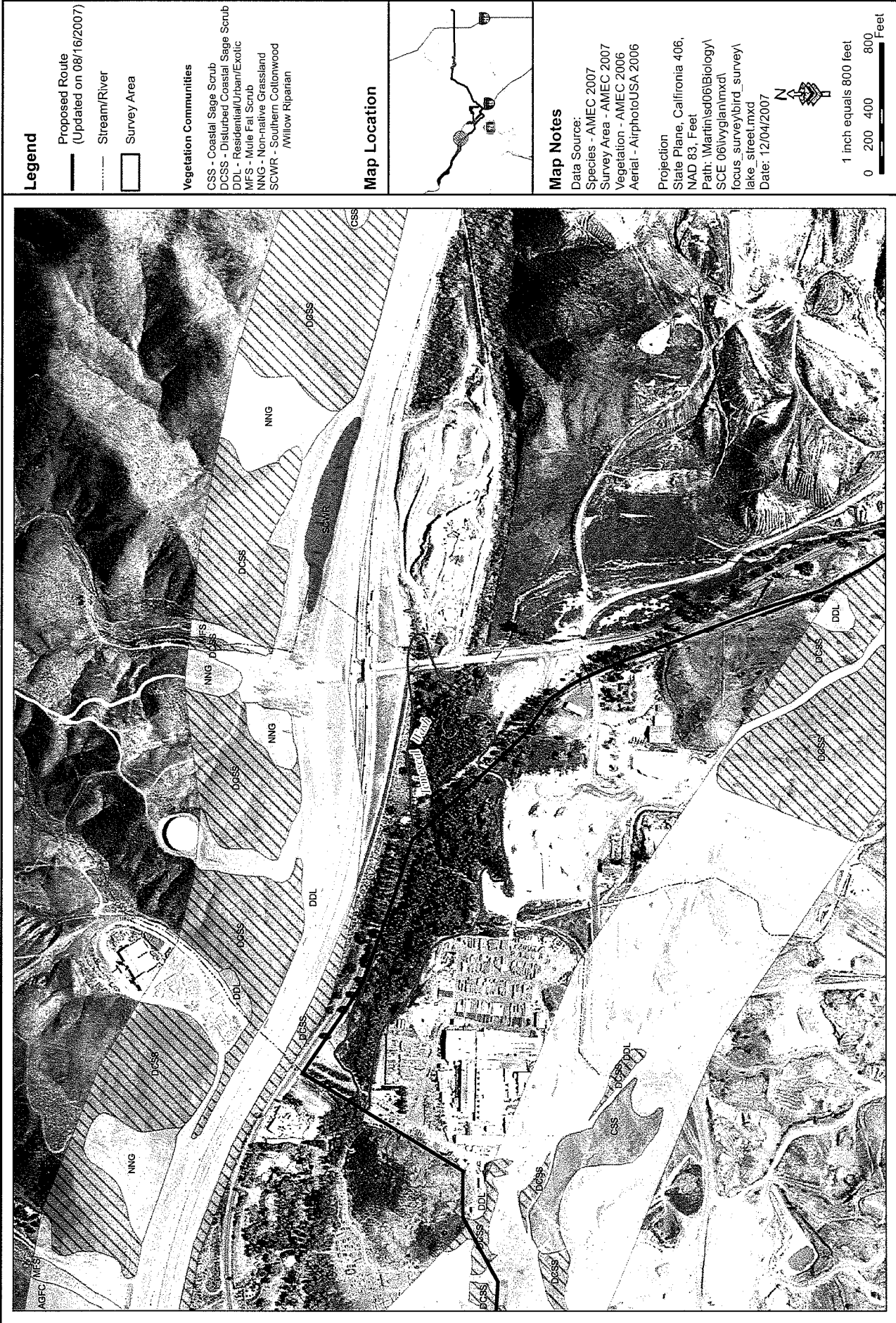
**3**



Valley-Ivyglen Transmission Line Project  
 Least Bell's Vireo, Southwestern Willow Flycatcher, and Western Yellow-billed Cuckoo Surveys  
 Lake Street Survey Area

FIGURE

4





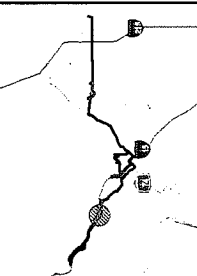


**Legend**

- ★ Least Bell's Vireo (LBV)
- Proposed Route (Updated on 08/16/2007)
- Stream/River
- Survey Area

**Vegetation Communities**

- AG - Dairy and Livestock Field Yards
- CSS - Coastal Sage Scrub
- DCSS - Disturbed Coastal Sage Scrub
- DDL - Residential/Urban/Exotic
- MFS - Mule Fat Scrub
- NNG - Non-native Grassland
- RS - Riparian Scrub
- SCWR - Southern Cottonwood /Willow Riparian
- SWS - Southern Willow Scrub



**Map Notes**

Data Source:  
 Species - AMEC 2007  
 Survey Area - AMEC 2007  
 Vegetation - AMEC 2006  
 Aerial - AirphotoUSA 2006

Projection  
 State Plane, California 406,  
 NAD 83, Feet  
 Path: \\Martin\sd06\Biology\  
 SCE\06ivw\glan\mxd\  
 focus\_survey\bird\_survey\  
 hostettler\_rd.mxd  
 Date: 12/04/2007

1 inch equals 800 feet  
 0 200 400 800 Feet

**FIGURE**  
**5**

**Valley-Ivyglen Transmission Line Project**  
**Least Bell's Vireo, Southwestern Willow Flycatcher, and Western Yellow-billed Cuckoo Surveys**  
**Hostettler Road Survey Area**



## 1.2 Background on the Least Bell's Vireo

Least Bell's Vireo (LBV) is a small, migratory, insectivorous bird which occurs in willow-dominated riparian habitats. Although this bird is drab in plumage and can be secretive within its densely vegetated habitat, males are nonetheless easy to detect on the breeding grounds due to their conspicuous and diagnostic song. Nesting habitat of this species is restricted to willow and/or mulefat dominated riparian scrub along permanent or nearly permanent streams (Grinnell and Miller 1944, Goldwasser 1978, Franzreb 1987, Garrett and Dunn 1981).

Least Bell's Vireos were formerly widespread and common throughout low-lying riparian habitats of central and southern California, but are now restricted to a limited number of locations in southern California. Habitat reduction has contributed to this species' significant population declines. Nest parasitism by Brown-headed Cowbirds (*Molothrus ater*) has also seriously impacted reproductive success by Least Bell's Vireo, as well as many other species which build cup nests (Goldwasser 1978). Least Bell's Vireo is listed as Endangered by the California Department of Fish and Game (CDFG) and by the U.S. Fish and Wildlife Service (USFWS).

## 1.3 Background on Southwestern Willow Flycatcher

The Southwestern Willow Flycatcher (SWFL) is a small, brownish-olive flycatcher that was formerly considered a common summer resident in southern California's lowland willow thickets and in mountain canyons (Garrett and Dunn 1981). Following the large-scale invasion of southern California by Brown-headed Cowbirds in the 1920s, along with loss of willow riparian habitat, this subspecies was nearly extirpated from southern California. The Willow Flycatcher was listed by the State of California as endangered in 1990. The subspecies *E. t. extimus* (Southwestern Willow Flycatcher) is listed as endangered by the U.S. Fish and Wildlife Service (USFWS). A final determination of critical habitat was made in October 2005 (USFWS 2005).

Recent surveys have revealed populations along the Santa Margarita and San Luis Rey rivers in San Diego County, in the San Bernardino Mountains and along the Mojave River in San Bernardino County, the Santa Ynez River in Santa Barbara County, the Santa Clara River in Los Angeles and Ventura counties, and the South Fork of the Kern River in Kern County (Unitt 1987, Marshall 2000). This subspecies also persists in the Lower Colorado River Valley (Marshall 2000, R. McKernan, San Bernardino County Museum, pers. comm.).

The Southwestern Willow Flycatcher breeds in dense riparian habitats near surface water or saturated soil. Plant composition and habitat structure can vary greatly depending on the site, but willows often make up much of the understory. Populations along the Colorado River are known to use thickets dominated by both native and nonnative plants (especially Salt-Cedar [*Tamarix* spp.]). Dense patches of understory vegetation are a critical component of occupied habitat (Sogge et al. 1997).

## 1.4 Western Yellow-billed Cuckoo

The Western Yellow-billed Cuckoo (WYBC) is an extremely rare bird in California, with less than 50 pairs found during a statewide survey in 1986-1987, and no indication of more recent population increases. Most of California's Yellow-billed Cuckoos are found in two areas: along

the Sacramento River between Red Bluff and Colusa, and along the South Fork Kern River near Weldon (Laymon 1998). Western Yellow-billed Cuckoo was listed as Endangered by the State of California in 1988.

Western Yellow-billed Cuckoos are long distance migrants and return to California from their South American wintering areas in late May and June. Occupied riparian forests are usually larger than 25 acres. Detection of Western Yellow-billed Cuckoos is difficult as they have large home ranges in dense willow and cottonwood forests and call infrequently. Recorded playback of the species' calls is the recommended method for conducting surveys.

## **2.0 METHODS**

In accordance with the currently accepted survey protocol for the Least Bell's Vireo (USFWS 2001), the sites were surveyed at least eight times by AMEC Earth and Environmental (AMEC) ornithologists. The SWFL protocol requires five surveys, and that the first survey be performed between 15 May and 31 May, the second between 1 June and 21 June, and that three visits be conducted between 22 June and 17 July (Sogge et al. 1997). The LBV protocol requires at least eight surveys between 10 April and 31 July.

Three of the sites (Nichols Road area, Lake Street area, and Hostettler Road area) contained habitat suitable for the Western Yellow-billed Cuckoo, and were surveyed for that species. The survey methodology for the cuckoo requires a minimum of four visits at each site, with the surveys at least 12 days apart. The methodology specifies that one visit be conducted during each of these four periods: 10 to 30 June, 1 to 21 July, 22 July to 11 August, and 12 August to 2 September.

The surveys consisted of slowly moving through the habitat while listening for the songs and calls of the three target species. During the surveys performed for the SWFL, taped recordings of their vocalizations were broadcast, a method consistent with the protocol, and likewise for the Western Yellow-billed Cuckoo. The SWFL protocol requires that vocalizations be played every 20 to 30 meters through the habitat, and the WYBC protocol requires intervals of 100 meters. All bird species detected during the surveys were recorded in field notes.

Initially, it was determined that two biologist/mornings were required to cover the suitable habitat patches at Hostettler Road. However, during the first two surveys some unsuitable patches within the habitat were identified, and logistics were refined; thereafter, the area was covered in a single morning. SWFL surveys were performed by Chet McGaugh (federal Endangered Species Permit TE836517-5), Stephen J. Myers (TE804203-7), John F. Green (TE785148-7), and Mike San Miguel (TE831910-1). Tables 1 through 4 summarize the surveys.

**Table 1. Survey Data for San Jacinto River Area**

Date	Observer	Time	Temp. (°F)	Wind (mph)	Sky (% cover)
18 April 2007	Stephen J. Myers	0705-1135	52-65	1-5	20-70
3 May 2007	Chet McGaugh	0625-1100	55-76	-	-
14 May 2007	Stephen J. Myers	0715-1135	60-78	0-3	0
24 May 2007†	Chet McGaugh	0620-1055	50-77	-	-
5 June 2007†	Chet McGaugh	0625-1110	66-74	-	-
22 June 2007†	Chet McGaugh	0635-1015	64-80	-	0
3 July 2007†	John F. Green	0550-0815	61-75	0-3	0
17 July 2007†	Stephen J. Myers	0700-1100	68-86	0-3	0

† SWF and LBV surveys conducted concurrently. Other surveys were for LBV only.

**Table 2. Survey Data for Nichols Road Area**

Date	Observer	Time	Temp. (°F)	Wind (mph)	Sky (% cover)
19 April 2007	Stephen J. Myers	0730-1120	52-70	0-3	0-10
1 May 2007	Stephen J. Myers	0705-1110	60-72	0-2	100
11 May 2007	John F. Green	0705-1045	60-79	0-3	0
22 May 2007†	Chet McGaugh	0550-0900	58-62	0-4	100
1 June 2007†	Chet McGaugh	0620-0920	54-?	-	100
22 June 2007†‡	Stephen J. Myers	0700-1000	69-84	0	0
2 July 2007†	Chet McGaugh	0640-1050	54-80	0	0
13 July 2007†‡	Chet McGaugh	0555-1030	52-78	0	0
25 July 2007‡	Stephen J. Myers	0700-1015	74-88	0	0
21 Aug 2007‡	Chet McGaugh	0645-1005	75-87	0-3	0

† SWF and LBV surveys conducted concurrently. ‡Western Yellow-billed Cuckoo surveys also conducted on these days. Other surveys were for LBV only.

**Table 3. Survey Data for Lake Street Area**

Date	Observer	Time	Temp. (°F)	Wind (mph)	Sky (% cover)
30 April 2007	Stephen J. Myers	0700-1120	59-74	0-3	100-60
10 May 2007	Chet McGaugh	0615-0915	50-78	0	0
21 May 2007†	Chet McGaugh	0635-0930	57-58	0	100
1 June 2007†	Stephen J. Myers	0640-1015	57-66	0	100-70
12 June 2007‡	Chet McGaugh	0610-0910	warm	0	0
25 June 2007‡†	Stephen J. Myers	0705-1020	64-74	0	0
5 July 2007†	Chet McGaugh	0640-1000	72-82	-	-
15 July 2007†	Mike San Miguel	0700-1000	67-82	0-2	0
24 July 2007‡	Chet McGaugh	0630-0915	66-78	0	0
23 Aug 2007	Chet McGaugh	0625-1000	69-82	0	0

† SWF and LBV surveys conducted concurrently. ‡Western Yellow-billed Cuckoo surveys also conducted on these days. Other surveys were for LBV only.

**Table 4. Survey Data for Hostettler Road Area**

Date	Observer	Time	Temp. (°F)	Wind (mph)	Sky (% cover)
17 May 2007	Stephen J. Myers	0700-1115	57-73	0-4	100-0
18 May 2007*	John F. Green	0705-0910	57-63	0-3	100-0
29 May 2007*†	John F. Green Chet McGaugh	0615-0830	55-60	3-5	100-0
8 June 2007†	John F. Green	0545-0950	52-65	0-5	0
19 June 2007‡	Stephen J. Myers	0600-1050	58-81	0	0
29 June 2007†	Chet McGaugh	0620-1000	60-74	0	0
10 July 2007†	Stephen J. Myers	0520-0910	66-73	0	100
17 July 2007†	John F. Green	0635-0955	63-72	3-8	70-0
20 July 2007‡	Chet McGaugh	0630-1020	-	-	-
30 July 2007‡	Chet McGaugh	0650-1025	64-78	-	-
27 Aug 2007‡	Stephen J. Myers	0645-0950	70-84	0-1	0
17 July 2007†	John F. Green	0635-0955	63-72	3-8	70-0
20 July 2007‡	Chet McGaugh	0630-1020	-	-	-

\* During the first two surveys the area was surveyed over two survey days, but as logistics and habitat suitability were refined, it became possible to survey the area during a single morning. † SWF and LBV surveys conducted concurrently. ‡Western Yellow-billed Cuckoo surveys also conducted on these days. Other surveys were for LBV only.

## **3.0 RESULTS**

### **3.1 Habitat Descriptions**

#### **3.1.1 San Jacinto River Area**

In this area the transmission line route roughly parallels the San Jacinto River. The river banks are lined with narrow strips of intermittent willows (*Salix* spp.), Mulefat (*Baccharis salicifolia*), and widely scattered Fremont Cottonwoods (*Populus fremontii*). The river contained surface water at the time of the surveys. In addition to the river, surveys were performed on a short tributary at the survey area's western end. This tributary is lined with fairly dense willow scrub and woodland, and contained surface water.

#### **3.1.2 Nichols Road Area**

Both north and south of Nichols Road, Temescal Wash contains willow dominated riparian woodland and scrub, along with alkaline marsh habitat. The stream flowed through this area during the entire survey period.

#### **3.1.3 Lake Street Area**

Temescal Wash in the area of Lake Street is lined with a mixture of native and nonnative vegetation. Gum trees (*Eucalyptus* spp.) are dominant, with intermittent thickets of willows and scattered Fremont Cottonwoods. Surface water appeared to be perennial in this area.

#### **3.1.4 Hostettler Road Area**

This area is along Temescal Wash, and is down stream and nearly contiguous with the Lake Street area. Some Eucalyptus occurs, but most of the vegetation is native willows, cottonwoods, and Coast Live Oaks (*Quercus agrifolia*). The creek was flowing throughout the survey period.

### **3.2 Survey Results**

At all sites combined, 125 bird species were detected. Among the most frequently detected species were the following birds that are typical of lowland riparian habitats in southern California: Mourning Dove (*Zenaida macroura*), Black-chinned Hummingbird (*Archilochus alexandri*), Nuttall's Woodpecker (*Picoides nuttallii*), Black Phoebe (*Sayornis nigricans*), Bushtit (*Psaltriparus minimus*), House Wren (*Troglodytes aedon*), Yellow Warbler (*Dendroica petechia*), Common Yellowthroat (*Geothlypis trichas*), Song Sparrow (*Melospiza melodia*), and Lesser Goldfinch (*Carduelis psaltria*). A few, non-sensitive species of interest were found, including several nesting pairs of Purple Finches (*Carpodacus purpurascens*, uncommon in lowland riparian habitats), one pair of Mountain Chickadees (*Poecile gambeli*, uncommon away from coniferous forests), and a singing male Summer Tanager (*Piranga rubra*, uncommon in summer in cismontane southern California).

#### **3.2.1 Southwestern Willow Flycatcher**

No Southwestern Willow Flycatchers were detected at any of the survey areas. On 17 and 18 May, four Willow Flycatchers were observed and heard in the Hostettler Road survey area.

On 14 May, a Willow Flycatcher was found at the San Jacinto River survey area. These dates coincide with the peak period of spring migration of the species in southern California, and the birds were not found on subsequent surveys. Therefore, AMEC concludes that these birds were migrants of a more northerly subspecies, and not Southwestern Willow Flycatchers.

### **3.2.2 Least Bell's Vireo**

A singing Least Bell's Vireo was detected at the San Jacinto River survey area on 3 May, and remained throughout the survey period. A female was not observed, and it may have been a territorial, unmated male. The territory was along the tributary at the west end of the survey area (refer to Figure 2).

At Hostettler Road, a singing Least Bell's Vireo was found on 17 July, but was not present before or after that date (refer to Figure 5). Two observations were made during the morning's survey, most likely of the same bird. Presumably, this bird dispersed from either up stream or down stream, and may have been an unmated male.

No Least Bell's Vireos were detected at Nichols Road or Lake Street.

### **3.2.3 Western Yellow-billed Cuckoo**

No Western Yellow-billed Cuckoos were detected at any of the survey areas.

### **3.2.4 Critical Habitat**

The project area is not within designated Critical Habitat for either the Least Bell's Vireo or Southwestern Willow Flycatcher.

#### 4.0 LITERATURE CITED

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# **Appendix A Bird Species List**

## Appendix A Bird Species List

This list includes all species of birds detected during focused surveys conducted in spring-summer 2007. Nomenclature and taxonomy follows the American Ornithologists' Union (1998), and supplements through 2006.

Family	Common Name	Scientific Name
Anatidae - Ducks, Geese, and Swans	Wood Duck	<i>(Aix sponsa)</i>
	Gadwall	<i>(Anas strepera)</i>
	Mallard	<i>(Anas platyrhynchos)</i>
	Cinnamon Teal	<i>(Anas cyanoptera)</i>
	Green-winged Teal	<i>(Anas crecca)</i>
Odontophoridae – New World Quail	California Quail	<i>(Callipepla californica)</i>
Podicipedidae – Grebes	Pied-billed Grebe	<i>(Podilymbus podiceps)</i>
Phalacrocoracidae - Cormorants	Double-crested Cormorant	<i>(Phalacrocorax auritus)</i>
Ardeidae - Herons and Bitterns	Great Blue Heron	<i>(Ardea herodias)</i>
	Great Egret	<i>(Ardea alba)</i>
	Snowy Egret	<i>(Egretta thula)</i>
	Green Heron	<i>(Butorides virescens)</i>
	Black-crowned Night-Heron	<i>(Nycticorax nycticorax)</i>
Cathartidae - Vultures	Turkey Vulture	<i>(Cathartes aura)</i>
Acciptridae - Hawks, Kites, and allies	Sharp-shinned Hawk	<i>(Accipiter striatus)</i>
	Cooper's Hawk	<i>(Accipiter cooperii)</i>
	Red-shouldered Hawk	<i>(Buteo lineatus)</i>
	Red-tailed Hawk	<i>(Buteo jamaicensis)</i>
Falconidae - Falcons and Caracaras	American Kestrel	<i>(Falco sparverius)</i>
Rallidae – Rails, Gallinules, and Coots	Virginia Rail	<i>(Rallus limicola)</i>
	Sora	<i>(Porzana carolina)</i>
	American Coot	<i>(Fulica americana)</i>
Charadriidae - Plovers and allies	Killdeer	<i>(Charadrius vociferous)</i>
Recurvirostridae – Stilts and Avocets	Black-necked Stilt	<i>(Himantopus mexicanus)</i>
	American Avocet	<i>(Recurvirostra americana)</i>
Scolopacidae – Sandpipers and Phalaropes	Solitary Sandpiper	<i>(Tringa solitaria)</i>
	Least Sandpiper	<i>(Calidris minutilla)</i>
	Long-billed Dowitcher	<i>(Limnodromus scolopaceus)</i>
	Wilson's Snipe	<i>(Gallinago delicata)</i>
Laridae - Gulls and Terns	Caspian Tern	<i>(Sterna caspia)</i>

Family	Common Name	Scientific Name
Columbidae - Pigeons and Doves	Rock Pigeon	<i>(Columba livia)</i> – Nonnative
	Eurasian Collared-Dove	<i>(Streptopelia decaocto)</i> - Nonnative
	Mourning Dove	<i>(Zenaida macroura)</i>
	Common Ground-Dove	<i>(Columbina passerine)</i>
Cuculidae – Cuckoos	Greater Roadrunner	<i>(Geococcyx californianus)</i>
Apodidae - Swifts	White-throated Swift	<i>(Aeronautes saxatalis)</i>
	Vaux's Swift	<i>(Chaetura vauxi)</i>
Trochilidae - Hummingbirds	Black-chinned Hummingbird	<i>(Archilochus alexandri)</i>
	Anna's Hummingbird	<i>(Calypte anna)</i>
	Costa's Hummingbird	<i>(Calypte costae)</i>
	Allen's Hummingbird	<i>(Selasphorus sasin)</i>
Alcedinadae – Kingfishers	Belted Kingfisher	<i>(Ceryle alcyon)</i>
Picidae - Woodpeckers	Nuttall's Woodpecker	<i>(Picoides nuttallii)</i>
	Downy Woodpecker	<i>(Picoides pubescens)</i>
	Northern Flicker	<i>(Colaptes auratus)</i>
Tyrannidae - Tyrant Flycatchers	Western Wood-Pewee	<i>(Contopus sordidulus)</i>
	Willow Flycatcher	<i>(Empidonax traillii)</i>
	Hammond's Flycatcher	<i>(Empidonax hammondii)</i>
	Pacific-slope Flycatcher	<i>(Empidonax difficilis)</i>
	Black Phoebe	<i>(Sayornis nigricans)</i>
	Say's Phoebe	<i>(Sayornis saya)</i>
	Ash-throated Flycatcher	<i>(Myiarchus cinerascens)</i>
	Cassin's Kingbird	<i>(Tyrannus vociferans)</i>
	Western Kingbird	<i>(Tyrannus verticalis)</i>
Laniidae – Shrikes	Loggerhead Shrike	<i>(Lanius ludovicianus)</i>
Vireonidae - Vireos	Least Bell's Vireo	<i>(Vireo bellii pusillus)</i>
	Cassin's Vireo	<i>(Vireo cassinii)</i>
	Warbling Vireo	<i>(Vireo gilvus)</i>
Corvidae - Jays, Crows, and allies	Western Scrub-Jay	<i>(Aphelocoma californica)</i>
	American Crow	<i>(Corvus brachyrhynchos)</i>
	Common Raven	<i>(Corvus corax)</i>
Hirundinidae - Swallows	Purple Martin	<i>(Progne subis)</i>
	Tree Swallow	<i>(Tachycineta bicolor)</i>
	Violet-green Swallow	<i>(Tachycineta thalassina)</i>
	Northern Rough-winged Swallow	<i>(Stelgidopteryx serripennis)</i>
	Cliff Swallow	<i>(Petrochelidon pyrrhonota)</i>

Family	Common Name	Scientific Name
	Barn Swallow	<i>(Hirundo rustica)</i>
Paridae – Titmice and Chickadees	Mountain Chickadee	<i>(Poecile gambeli)</i>
	Oak Titmouse	<i>(Baeolophus inornatus)</i>
Aegithalidae - Bushtits	Bushtit	<i>(Psaltriparus minimus)</i>
Sittidae – Nuthatches	White-breasted Nuthatch	<i>(Sitta carolinensis)</i>
Troglodytidae - Wrens	Bewick's Wren	<i>(Thryomanes bewickii)</i>
	House Wren	<i>(Troglodytes aedon)</i>
	Marsh Wren	<i>(Cistothorus palustris)</i>
Sylviidae – Old World Warblers and Gnatcatchers	Blue-gray Gnatcatcher	<i>(Poliophtila caerulea)</i>
	California Gnatcatcher	<i>(Poliophtila californica)</i>
Turdidae - Thrushes	Swainson's Thrush	<i>(Catharus ustulatus)</i>
	American Robin	<i>(Turdus migratorius)</i>
Timaliidae – Babblers	Wrentit	<i>(Chamaea fasciata)</i>
Mimidae – Mockingbirds and Thrashers	Northern Mockingbird	<i>(Mimus polyglottos)</i>
	California Thrasher	<i>(Toxostoma redivivum)</i>
Sturnidae - Starlings and Mynas	European Starling	<i>(Sturnus vulgaris)</i> - Nonnative
Motacillidae – Wagtails and Pipits	American Pipit	<i>(Anthus rubescens)</i>
Ptilogonatidae - Silky-Flycatchers	Phainopepla	<i>(Phainopepla nitens)</i>
Parulidae - Warblers	Orange-crowned Warbler	<i>(Vermivora celata)</i>
	Nashville Warbler	<i>(Vermivora ruficapilla)</i>
	Yellow Warbler	<i>(Dendroica petechia)</i>
	Black-throated Gray Warbler	<i>(Dendroica nigrescens)</i>
	Townsend's Warbler	<i>(Dendroica townsendi)</i>
	Hermit Warbler	<i>(Dendroica occidentalis)</i>
	MacGillivray's Warbler	<i>(Oporornis tolmiei)</i>
	Common Yellowthroat	<i>(Geothlypis trichas)</i>
	Wilson's Warbler	<i>(Wilsonia pusilla)</i>
	Yellow-breasted Chat	<i>(Icteria virens)</i>
	Summer Tanager	<i>(Piranga rubra)</i>
Thraupidae – Tanagers	Western Tanager	<i>(Piranga ludoviciana)</i>
Emberizidae - Towhees and Sparrows	Spotted Towhee	<i>(Pipilo maculatus)</i>
	California Towhee	<i>(Pipilo crissalis)</i>
	Southern California Rufous-crowned Sparrow	<i>(Aimophila ruficeps canescens)</i>
	Chipping Sparrow	<i>(Spizella passerine)</i>
	Brewer's Sparrow	<i>(Spizella breweri)</i>
	Vesper Sparrow	<i>(Pooecetes gramineus)</i>

<b>Family</b>	<b>Common Name</b>	<b>Scientific Name</b>
	Lark Sparrow	<i>(Chondestes grammacus)</i>
	Bell's Sage Sparrow	<i>(Amphispiza belli belli)</i>
	Savannah Sparrow	<i>(Passerculus sandwichensis)</i>
	Fox Sparrow	<i>(Passerella iliaca)</i>
	Song Sparrow	<i>(Melospiza melodia)</i>
	Lincoln's Sparrow	<i>(Melospiza lincolni)</i>
	White-crowned Sparrow	<i>(Zonotrichia leucophrys)</i>
	Golden-crowned Sparrow	<i>(Zonotrichia atricapilla)</i>
Cardinalidae - Cardinals, Grosbeaks, Buntings	Black-headed Grosbeak	<i>(Pheucticus melanocephalus)</i>
	Blue Grosbeak	<i>(Passerina caerulea)</i>
	Lazuli Bunting	<i>(Passerina amoena)</i>
Icteridae - Blackbirds, Cowbirds, Grackles, Orioles	Red-winged Blackbird	<i>(Agelaius phoeniceus)</i>
	Western Meadowlark	<i>(Sturnella neglecta)</i>
	Brewer's Blackbird	<i>(Euphagus cyanocephalus)</i>
	Great-tailed Grackle	<i>(Quiscalus mexicanus)</i>
	Brown-headed Cowbird	<i>(Molothrus ater)</i>
	Hooded Oriole	<i>(Icterus cucullatus)</i>
	Bullock's Oriole	<i>(Icterus bullockii)</i>
Fringillidae - Finches and allies	Purple Finch	<i>(Carpodacus purpurascens)</i>
	House Finch	<i>(Carpodacus mexicanus)</i>
	Lesser Goldfinch	<i>(Carduelis psaltria)</i>
	Lawrence's Goldfinch	<i>(Carduelis lawrencei)</i>
	American Goldfinch	<i>(Carduelis tristis)</i>
Passeridae - Old World Sparrows	House Sparrow	<i>(Passer domesticus)</i> – Nonnative

## **Appendix B SWF Survey Forms**

**To be provided.**