2017 Focused Survey Results

Los Angeles County Flood Control District
Soft-Bottom Channels Maintenance Clearing

Prepared for

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EXECUTIVE SUMMARY

Focused surveys for Threatened and Endangered species are conducted on a regular basis at selected soft-bottom channel reaches maintained by the Los Angeles County Flood Control District (LACFCD). Annual biological monitoring and periodic habitat assessments of all LACFCD channel reaches provides a means by which to update and revise, when necessary, the particular channel reaches and species for which surveys are recommended. The following summary is of three federally and/or State-listed Endangered animal species for which focused surveys were conducted at 24 channel reaches in 2017 and includes a maintenance overview with respect to these species. The 2017 survey results are also summarized below in Table ES-1.

AMPHIBIANS

ARROYO TOAD

Focused surveys for the arroyo toad (*Anaxyrus californicus*) were conducted at 11 channel reaches in 2017: Castaic Creek Reaches 86, 87, 97, and 104; San Francisquito Wash Reach 105; South Fork Santa Clara River Reaches 75 (but only the northern part of this channel reach from Magic Mountain Parkway upstream to the Via Princessa bridge) and 79; Reach 80 at the confluence of the Santa Clara and South Fork Santa Clara Rivers; and Santa Clara River Reaches 71, 82, and 109. These channel reaches may provide suitable breeding habitat during the spring season for the arroyo toad when water is present. Portions of these channel reaches also provide potentially suitable aestivating and foraging habitat. These surveys followed the U.S. Fish and Wildlife Service (USFWS) 1999 protocol for this species. Since the protocol does not require handling of the species, a Section 10(a)(1)(A) Recovery permit for “take” under the Endangered Species Act is not necessary for performance of these surveys. Although not detected during the 2017 surveys, previous focused surveys have detected the arroyo toad at Reaches 71 and 82 (BonTerra 2003) and these two channel reaches are considered to be occupied (USFWS 2004). No arroyo toads were observed during the 2017 focused surveys.

The arroyo toad is not typically active during the time period when the soft-bottom channel maintenance occurs (September to November), except for a limited number of juveniles that stay near the active channel and for increased activity of some adults after storms (Ramirez 2003). Since maintenance activities avoid the active channel and do not occur during storms, impacts on arroyo toads would not be expected even in the unlikely event of their occurrence during the fall season (September to November). The arroyo toad would not be expected to aestivate in the maintenance area because the area that is maintained has compacted soil; therefore, the maintenance activities would not be expected to affect aestivation of this species.

BIRDS

LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER

Focused surveys for the least Bell’s vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) were conducted in 2017 at 23 channel reaches where they have potential to occur: 3 channel reaches in the Los Angeles River Watershed (Reaches 7, 12, and 14); 1 channel reach in the Dominguez Channel Watershed (Reach 27); 1 channel reach in the Malibu Creek Watershed (Reach 28); 4 channel reaches in the San Gabriel River (Reaches 39, 40b, 43a, and 43b); and 15 channel reaches in the Santa Clara River Watershed (Reaches 69, 71, 75, 79, 80, 82, 86, 87, 97, 103, 104, 105, 106, 109, and 110). Surveys were conducted at Bouquet Canyon (Reach 69) for the first time in 2017 because a juvenile least Bell’s vireo was detected here on Sept 9, 2016, during monitoring of annual clearing activities. This juvenile least Bell’s vireo moved on shortly after detection and assumed to be a wandering or migrating bird; however, Reach 69 was added to the list of channel reaches to be surveyed in 2017 to better

understand avian use of this channel reach during the breeding season. The USFWS survey protocol for both species was fully implemented during these surveys of the LACFCD's soft-bottom channels. The southwestern willow flycatcher was not present during the 2017 focused surveys or during previous surveys in 2015, 2013, 2011, 2009, 2007, 2005, 2003, and 2002. The least Bell's vireo was present during the 2017 surveys with a total of 13 territories at 5 channel reaches. Table ES-1 below presents a summary of the 2017 survey results for southwestern willow flycatcher and least Bell's vireo.

TABLE ES-1
SUMMARY OF 2017 RESULTS OF FOCUSED SURVEYS FOR THE LOS ANGELES COUNTY SOFT-BOTTOM CHANNELS

Reach Number	Reach Name	Focused Surveys for Arroyo Toad	Focused Surveys for Least Bell's Vireo	Focused Surveys for Southwestern Willow Flycatcher
Los Angeles River Watershed				
7	Bull Creek	N/A	3 territories (at least 2 pairs)	Negative
12	Haines Canyon Main Channel Outlet	N/A	Negative	Negative
14	May Channel (Main Channel Outlet into Pacoima Canyon)	N/A	1 territory (1 pair)	Negative
Dominguez Channel Watershed				
27	Wilmington Drain	N/A	Negative	Negative
Malibu Creek Watershed				
28	Triunfo Creek (PD T2200)	N/A	Negative	Negative
San Gabriel River Watershed				
39	Beatty Channel Outlet at San Gabriel River 25+99.00+50'	N/A	Negative	Negative
40b	San Gabriel River – Interstate 10 (Monica) Freeway to Thienes Ave	N/A	5 territories (# pairs not determined; at least 1 transient male)	Negative
43a	San Gabriel River – Upper	N/A	3 territories (# pairs not determined; 1 transient male)	Negative
43b	San Gabriel River – Lower	N/A	Negative	Negative
Santa Clara River Watershed				
69	Bouquet Canyon Middle (PDs 722, 773, 1365, 1065 and 451)	N/A	Negative	Negative
71	Santa Clara River Main Channel (PD 1946)	Negative	Negative	Negative
75	South Fork – Santa Clara River (PDs 725, 916, 1041, 1300)	Negative	Negative	Negative
79	South Fork – Santa Clara River (Valencia Blvd Bridge Stabilizer)	Negative	Negative	Negative
80	South Fork – Santa Clara River (PDs 1947 and 1946)	Negative	Negative	Negative

TABLE ES-1
SUMMARY OF 2017 RESULTS OF FOCUSED SURVEYS FOR THE LOS ANGELES COUNTY SOFT-BOTTOM CHANNELS

Reach Number	Reach Name	Focused Surveys for Arroyo Toad	Focused Surveys for Least Bell's Vireo	Focused Surveys for Southwestern Willow Flycatcher
82	Santa Clara River Main Channel (PD 2278)	Negative	Negative	Negative
86	Violin Canyon Main Channel Outlet	Negative	Negative	Negative
87	Castaic – Old Road Drain (CDR 525.021D) Outlet	Negative	Negative	Negative
97	Castaic Creek – The Old Road (PD 1982)	Negative	Negative	Negative
103	Bouquet Canyon Channel (PD 2225)	N/A	1 territory (1 pair and at least 2 fledglings; 1 transient male)	Negative
104	Castaic Creek (PD 2441 Units 1 and 2)	Negative	Negative	Negative
105	San Francisquito Canyon Channel (PD 2456)	Negative	Negative	Negative
106	Castaic Drain Outlet (RMD Channel)	N/A	Negative	Negative
109	Santa Clara River – South Bank West of McBean Pkwy (MTD 1510)	Negative	Negative	N/A
110	Hasley Canyon Channel (PD 2262)	N/A	Negative	Negative

N/A: Not applicable (i.e., no survey conducted at the request of USFWS or because there is no potential habitat for the species).

The 2017 survey results for least Bell's vireo are shown below in Table ES-2 with the previous survey results for this species under the LACFCD soft-bottom channel maintenance program. Although migrant or transitory least Bell's vireos have been detected at other channel reaches in these focused surveys, only these eight channel reaches listed in Table ES-2 have supported least Bell's vireo territories in focused surveys conducted since 2002:

Both the least Bell's vireo and southwestern willow flycatcher are migratory species that are only present in Southern California from about March through mid-September. As required by the permits (see U.S. Army Corps of Engineers Nationwide Permit 31 dated November 23, 2015), in order to avoid and/or minimize impacts on these species, all channel maintenance clearing work occurs outside this time period (i.e., after September 15); additionally, seasonally occupied habitat is identified and protected by flagging and clearing activities that are monitored by qualified Biologists.

TABLE ES-2
SUMMARY OF LEAST BELL'S VIREO SURVEY RESULTS SINCE 2002 FOR THE SOFT-BOTTOM CHANNEL MAINTENANCE PROGRAM

Rch No.	Reach Name	2017	2015	2013	2011	2009	2007	2005	2003	2002
7	Bull Creek	3 territories (at least 2 pairs)	3 territories (2 pair/1 unpaired male)	No Survey*	No Survey*	No Survey*	Negative	Negative	Negative	Negative
14	May Channel (Main Channel Outlet into Pacoima Canyon)	1 territory (1 pair)	2 territories (1 pair/1 unpaired male)	2 territories (1 pair/1 unpaired male)	3 territories (3 pairs)	2 territories (2 unpaired males)	Negative	1 territory (1 pair)	Negative	Negative
27	Wilmington Drain	Negative	1 transient male	1 territory (1 unpaired male)	1 territory (1 unpaired male)	Negative	1 territory (1 unpaired male)	Negative	Negative	Negative
39	Beatty Channel Outlet	Negative	1 territory (1 pair)	2 territories (2 pairs)	3 territories (3 pairs)	4 territories (3 pairs/1 unpaired male)	2 territories (2 pairs)	1 territory (1 pair)	Negative	No survey
40b	San Gabriel River – Interstate10 (Santa Monica) Freeway to Thienes Ave	5 territories (# pairs not determined; at least 1 transient male)	6 territories (6 pairs)	5 territories (4 pairs/1 unpaired male)	4 territories (4 pairs)	2 territories (1 pair/1 unpaired male)	3 territories (3 unpaired males)	Negative	Negative	2 territories (1 pair/1 unpaired male)
43a	San Gabriel River – Upper	3 territories (# pairs not determined; 1 transient male)	4 territories (1 pair/3 unpaired males)	3 territories (2 pairs/1 unpaired male)	4 territories (2 pairs/2 unpaired males)	4 territories (3 pairs/1 unpaired male)	1 territory (pair)	1 territory (1 pair)	1 territory (1 unpaired male)	1 territory (1 pair)
43b	San Gabriel River – Lower	Negative	Negative	Negative	Negative	1 territory (unpaired male)	Negative	Negative	Negative	1 territory (1 pair)
103	Bouquet Canyon Channel (PD 2225)	1 territory (pair fledged at least 2 young; 1 transient male)	1 territory (1 unpaired male)	Negative	Negative	Negative	Negative	Negative	No Survey**	No Survey**
Total Territories		**13**	**17**	**13**	**15**	**13**	**7**	**3**	**1**	**4**

No Survey*: In 2008, the vegetation in Bull Creek in the Sepulveda Basin, which included Reach 7, was temporarily removed for the Bull Creek restoration project managed by the City of Los Angeles in conjunction with the U.S. Army Corps of Engineers.

No Survey**: Not under LACFCD's ownership at the time.

Sources: BonTerra 2002, 2003, 2005, 2007, 2009, 2011, 2013, 2015.

1.0 INTRODUCTION

In 2002, focused surveys and habitat assessments were conducted at 54 soft-bottom channel reaches that included 53 of the original channel reaches plus 1 new channel reach identified as Reach 101 (Violin Canyon – PD 2312). All 53 original channel reaches have continued to be maintained by the LACFCD under the required regulatory permits, but Reach 101 and other new channel reaches have yet to be permitted. The purpose of the 2002 surveys was to provide baseline information on the occurrence or potential occurrence of Threatened or Endangered plant and wildlife species for permitted and non-permitted channel reaches. This information is updated annually during the pre- and post-clearing surveys of all permitted and non-permitted soft-bottom channel reaches managed by the LACFCD.

1.1 ENVIRONMENTAL SETTING

1.1.1 Regional Setting

The topography in Los Angeles County is diverse, containing coastline, flatlands, mountains, and desert within approximately 4,000 square miles. Elevations in the County range from sea level to over 10,000 feet above mean sea level (msl). The climate ranges from mild near the coast to severe in the high mountains and in the desert. This variation in environments has created a unique and diverse collection of biological resources (England and Nelson 1976).

The San Gabriel Mountains are a prominent topographic feature that include a portion of the headwaters of the Santa Clara, Los Angeles, Rio Hondo, and San Gabriel Rivers, and are the source of streams that drain into the Antelope and Fremont Valleys. The San Gabriel Mountains rise 7,000 feet above msl from the Antelope and Santa Clarita Valleys, and exert considerable influence on the climate, hydrology, and ecology of the lands around them. The San Andreas and other numerous faults have fractured the mountains so that they erode at a rapid rate. Hence, the stream basins along the northern slope are generally characterized by steep headwaters and sloping alluvial beds on the adjacent flatlands (CRA et al. 2001).

The Santa Monica Mountains are also a prominent topographic feature and include the headwaters of Malibu Creek and Topanga Creek; these are the source of streams that drain the Malibu Coast. The Santa Monica Mountains are up to 10 miles wide and reach an elevation of 3,100 feet above msl at Sandstone Peak. The Santa Monica Mountains have a complex structure because they have been uplifted and then eroded several times over the past 200 million years (Dale 1986; England and Nelson 1976).

There are 4 major rivers in Los Angeles County: the Los Angeles River is approximately 51 miles long (main stem) and drains 830 square miles; the Rio Hondo River is approximately 20 miles long (main stem) and drains 125 square miles; the San Gabriel River is approximately 59 miles long (main stem) and drains 350 square miles; and the Santa Clara River is approximately 75 miles long (main stem) and drains 1,616 square miles (LACDPW 2007). Numerous other streams also occur in Los Angeles County. Surface water in streams and rivers is generally only present during the winter and spring, in particular after storm events. Many storms do not generate sufficient runoff to sustain surface flow in all streams. In some areas, flows are supplemented with reclaimed water and agricultural and urban runoff. Particularly intense storms can result in flash floods or debris flows which can carry large amounts of sediment, rocks, and debris to be deposited in the valley below (CRA et al. 2001).

The Los Angeles River system has been extensively channelized to provide flood protection as it passes through several cities on its way to the Pacific Ocean. The Los Angeles River tributaries include Bell Creek, Calabasas Creek, Burbank Western Channel, Pacoima Wash, Tujunga Wash,

Verdugo Wash, Arroyo Seco, Compton Creek, and the Rio Hondo River (LACDPW 2007). There are now over 400 miles of concrete-lined tributaries that feed into the main channel. Approximately 47.9 miles of the 51.0-mile river is concrete-lined. The two stretches where the river is not lined (i.e., soft or earthen bottom channels) include the Sepulveda Flood Control Basin through the Glendale Narrows and south of Willow Street in Long Beach (LACDPW 2007). Reclaimed water enters the Los Angeles River at the Sepulveda Basin where the Department of Water and Power releases as much as 75 million gallons of reclaimed water daily from the Donald C. Tillman Water Reclamation Plant.

The San Gabriel River begins in the Angeles National Forest and also flows through several cities on its way to the Pacific Ocean. The San Gabriel River tributaries include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains (LACDPW 2007). The headwaters of the San Gabriel River begin just north of Pasadena and northwest of Mount Wilson, where they flow through a steep canyon to Cogswell Reservoir. The west fork of the river then merges with the east fork and flows into the San Gabriel Reservoir. Below the reservoir, the east fork converges with the main stem of the San Gabriel River and flows through San Gabriel Canyon to Morris Reservoir. Below Morris Reservoir, the river flows through cities from Azusa to Seal Beach and empties into Long Beach Harbor.

The Santa Clara River is unique because it is the only major unchannelized river that drains the San Gabriel Mountains. The Santa Clara River is fed by five major tributaries: Sand Canyon, Mint Canyon, Bouquet Canyon, South Fork, and San Francisquito Canyon (LACDPW 2007). Further west, Castaic, Piru, Sespe, and Santa Paula Creeks join the river (CRA et al. 2001). The headwaters of the Santa Clara River are located near Acton, and the river runs approximately 100 miles to its outlet in the City of Ventura in Ventura County. Most development adjacent to the river is located in or near the City of Santa Clarita (LACDPW 2007).

The Malibu Creek Watershed is a system of independent streams that drains approximately 109 square miles in northwest Los Angeles County from the Santa Monica Mountains to the Pacific Ocean. These include Las Virgenes, Triunfo, and Cold Creeks, as well as other small streams that flow from the Santa Monica Mountains to Santa Monica Bay. These creeks flow through the cities of Agoura Hills, Calabasas, Malibu, Thousand Oaks, Westlake Village, unincorporated Los Angeles County, and Ventura County (LACDPW 2007).

The Ballona Creek Watershed is a ten-mile-long flood-control channel that drains the Los Angeles basin from the Santa Monica Mountains to the north, the Harbor Freeway (I-110) to the east, and the Baldwin Hills to the south. All together, the Ballona Creek Watershed drains approximately 130 square miles of the Los Angeles Basin. Creeks or drainages of this watershed include Centinela Creek, Sepulveda Channel, and Benedict Canyon Channel. These drainages pass through the communities of Beverly Hills, Culver City, Inglewood, Los Angeles, and West Hollywood (LACDPW 2007).

The Dominguez Watershed is situated in south Los Angeles County and drains approximately 133 square miles of the Los Angeles Basin into the Los Angeles Harbor. Parts of the communities of Hawthorne, Torrance, Gardena, Carson, and Wilmington drain into the Dominguez Channel. Over 40 percent of this watershed consists of industrial, commercial, and transportation land uses (CRA et al. 2001; LACDPW 2007).

The Antelope Valley Watershed is a system of independent streams that drains approximately 1,200 square miles in north Los Angeles County from the San Gabriel Mountains and Kern County into the valley floor. These include Little Rock, Big Rock, and Mill Creeks, as well as other small streams that flow from the San Gabriel Mountains into the Antelope Valley. Due to the surrounding topography, these streams do not drain into the sea, but into dry lakebeds on the valley floor, with most surface flows infiltrating into groundwater basins or evaporating (CRA et al. 2001; LACDPW

2007). Because the valley lacks defined natural channels outside the foothills, it is subject to unpredictable sheet flow patterns. The portion of the Antelope Valley Watershed in Los Angeles County includes the cities of Lancaster and Palmdale, with scattered clusters of sparse development outside these cities (LACDPW 2007). None of the channel reaches discussed in this report are located in the Antelope Valley Watershed.

1.1.2 Local Setting

In 2002, the LACFCD maintained 95 soft-bottom channel reaches located within its district boundaries, consisting of 885.58 acres that require management. Since 2002, several soft-bottom channel reaches have been lost due to development or ownership change, but several more have been added to the list. In addition, some soft-bottom channel reaches have been divided into two reaches (e.g. Reaches 40a and 40b) while others have been combined to form one rather than two reaches (e.g. Reaches 61 and 62 joined to form a larger Reach 61). As of 2017, the LACFCD manages 109 channel reaches (1 thru 121[1]) that are located in 9 identified watersheds or regions of Los Angeles County:

- Los Angeles River Watershed: 26 channel reaches
- Dominguez Channel Watershed: 3 channel reaches
- Malibu Creek Watershed: 8 channel reaches
- San Gabriel River Watershed: 10 channel reaches
- Santa Clara River Watershed: 56 channel reaches
- Ballona Creek Watershed: 2 channel reaches
- Santa Monica Bay: 2 channel reaches
- Antelope Valley: 1 channel reach
- Cerritos Channel: 1 channel reach

In 1997, the 95 soft-bottom flood-control channel reaches encompassed 885.58 acres that included 205.27 acres of vegetation. Based on vegetation categories developed at the time, the 205.27 acres of vegetation included an estimated 105.32 acres of riparian vegetation, 63.40 acres of mule fat vegetation, and 36.55 acres of scrub vegetation (BonTerra 1999). The acreages noted above have not been updated since that time and are presented to indicate the large amount of habitat under LACFCD jurisdiction.

Survey Areas

Of the 121 channel reaches managed by the LACFCD, 23 reaches have been determined to contain potential habitat for federally and/or State-listed Threatened or Endangered amphibian (arroyo toad) and/or bird (southwestern willow flycatcher and least Bell's vireo) species. An additional channel reach (Bouquet Canyon) was added this year for the first time. Bouquet Canyon (Reach 69) was added to the list because a juvenile least Bell's vireo was detected here on Sept 9, 2016, during monitoring of annual clearing activities. This juvenile least Bell's vireo moved on shortly after detection and assumed to be a wandering or migrating bird; however, Reach 69 was added to the list of channel reaches to be surveyed in 2017 to better understand avian use of this channel reach during the breeding season. These channel reaches are the subject of the focused survey effort and are described below.

[1] Numbers of channel reaches that have been developed or had their ownership transferred are no longer in use.

Los Angeles River Watershed

Reach 7, Bull Creek Main Channel Outlet, is located in the Los Angeles River Watershed, approximately 0.25 mile southeast of the Victory Boulevard and Balboa Boulevard intersection in the Sepulveda Dam Recreation Area in the City of Los Angeles (Exhibit 1a). The limits of Reach 7 are approximately 165 feet downstream of Victory Boulevard to the confluence with the Los Angeles River. Reach 7 is 2,602 feet in total length. The reach is found on the U.S. Geological Survey's (USGS') Van Nuys 7.5 x 15-minute quadrangle map.

Reach 12, Haines Canyon Main Channel Outlet, is located in Tujunga Wash approximately one mile northwest of the Mount Gleason Avenue and Foothill Boulevard intersection, in the community of Sunland in the City of Los Angeles (Exhibit 1b). Reach 12 is 437 feet in total length, extending 791 to 1,228 feet downstream of Wentworth Street. It is found on the USGS Sunland 7.5-minute quadrangle map.

Reach 14, May Channel (Main Channel Outlet into Pacoima Canyon), is located in Pacoima Wash. approximately 1.25 miles east of the Interstate 210 (Foothill Freeway) and Hubbard Street intersection in the City of Los Angeles (Exhibit 1c). The limits of Reach 14 are 3,038 feet downstream of Hubbard Street to approximately 3,728 feet downstream of the confluence of Hubbard Street with Pacoima Canyon. Reach 14 is 690 feet in total length. The reach is found on the USGS San Fernando 7.5 x 15-minute quadrangle map.

Dominguez Channel Watershed

Reach 27, Wilmington Drain, is located in the Dominguez Channel Watershed in unincorporated Los Angeles County and in the Wilmington community of the City of Los Angeles (Exhibit 1d). The limits of Reach 27 are I-110 to Pacific Coast Highway. Reach 27 is approximately 3,584 feet in total length. The reach is found on the USGS Torrance 7.5 x 15-minute quadrangle map.

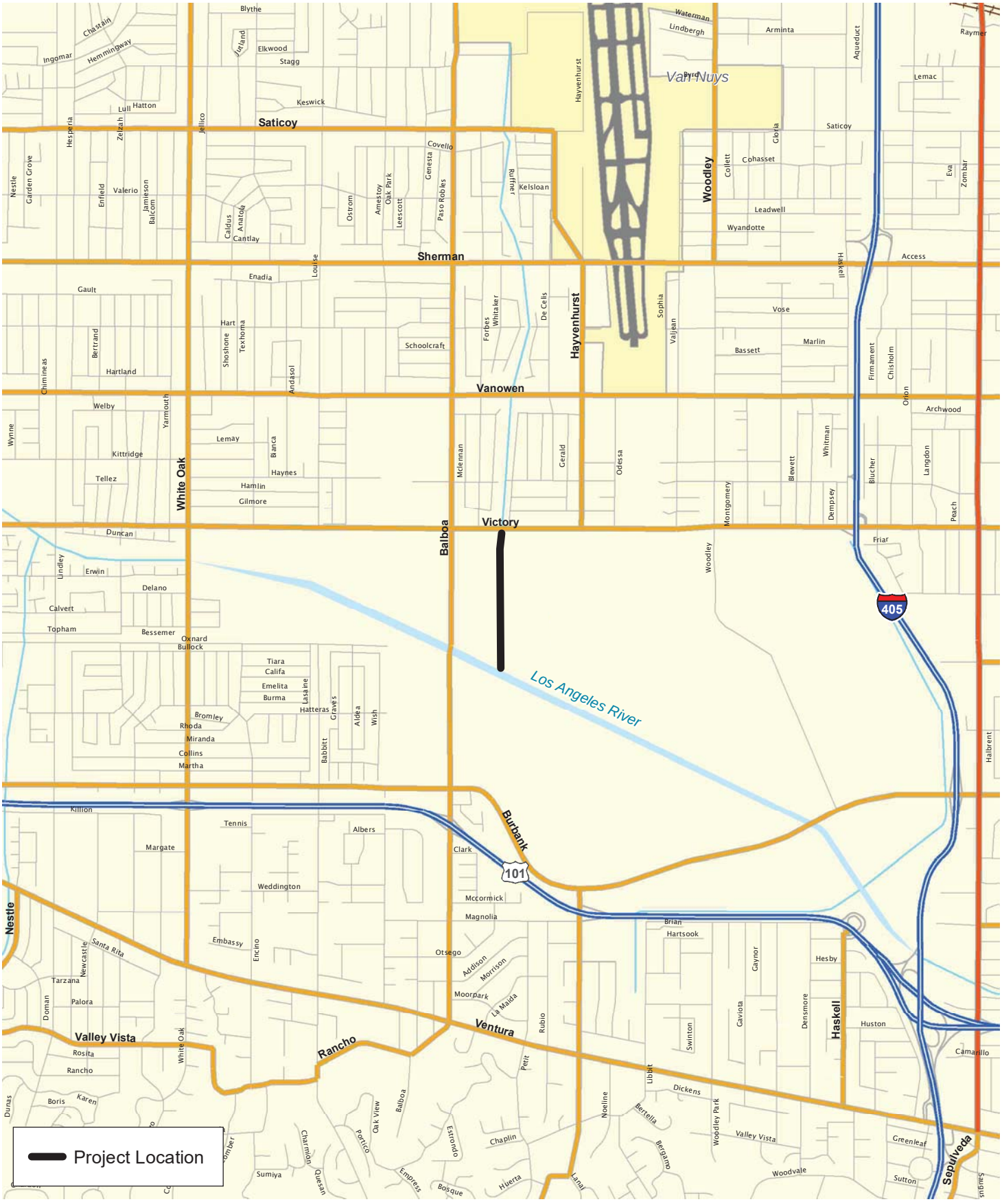
Malibu Creek Watershed

Reach 28, Triunfo Creek (PD T2200), is located in the Malibu Creek Watershed in unincorporated Los Angeles County, approximately 0.1 mile east of the Mulholland Highway and Troutdale Drive intersection (Exhibit 1e). The limits of Reach 28 are approximately 384 feet upstream of Mulholland Highway to the downstream edge of Mulholland Highway. Reach 28 is approximately 474 feet in total length. The reach is found on the Point Dume USGS 7.5 x 15-minute quadrangle map.

San Gabriel River Watershed

Reach 39, Beatty Channel Outlet at San Gabriel River 25+99.00±50', is located in the San Gabriel River Watershed, approximately 0.8 mile north of the Foothill Boulevard and Irwindale Avenue intersection in the City of Azusa (Exhibit 1f). The limits of Reach 39 are approximately 2,323 feet downstream of Todd Avenue to approximately 2,415 feet downstream of Todd Avenue. Reach 39 is 145 feet in total length. The reach is found on the USGS Azusa 7.5 x 15-minute quadrangle map.

Reach 40b, San Gabriel River – I-10 (Santa Monica) Freeway to Thienes Avenue, is located in the San Gabriel River Watershed in the San Gabriel Valley area (Exhibit 1g). The limits of Reach 40b are I-10 (upstream) and Thienes Avenue (downstream). Reach 40b has a total length of approximately 10,800 feet. The reach is found on the USGS Baldwin Park 7.5 x 15-minute quadrangle map.



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Reach 7: Bull Creek

Exhibit 1a

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 12: Haines Canyon Main Channel Outlet

Exhibit 1b

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

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Reach 14: May Channel (Main Channel Outlet into Pacoima Canyon)

Exhibit 1c

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

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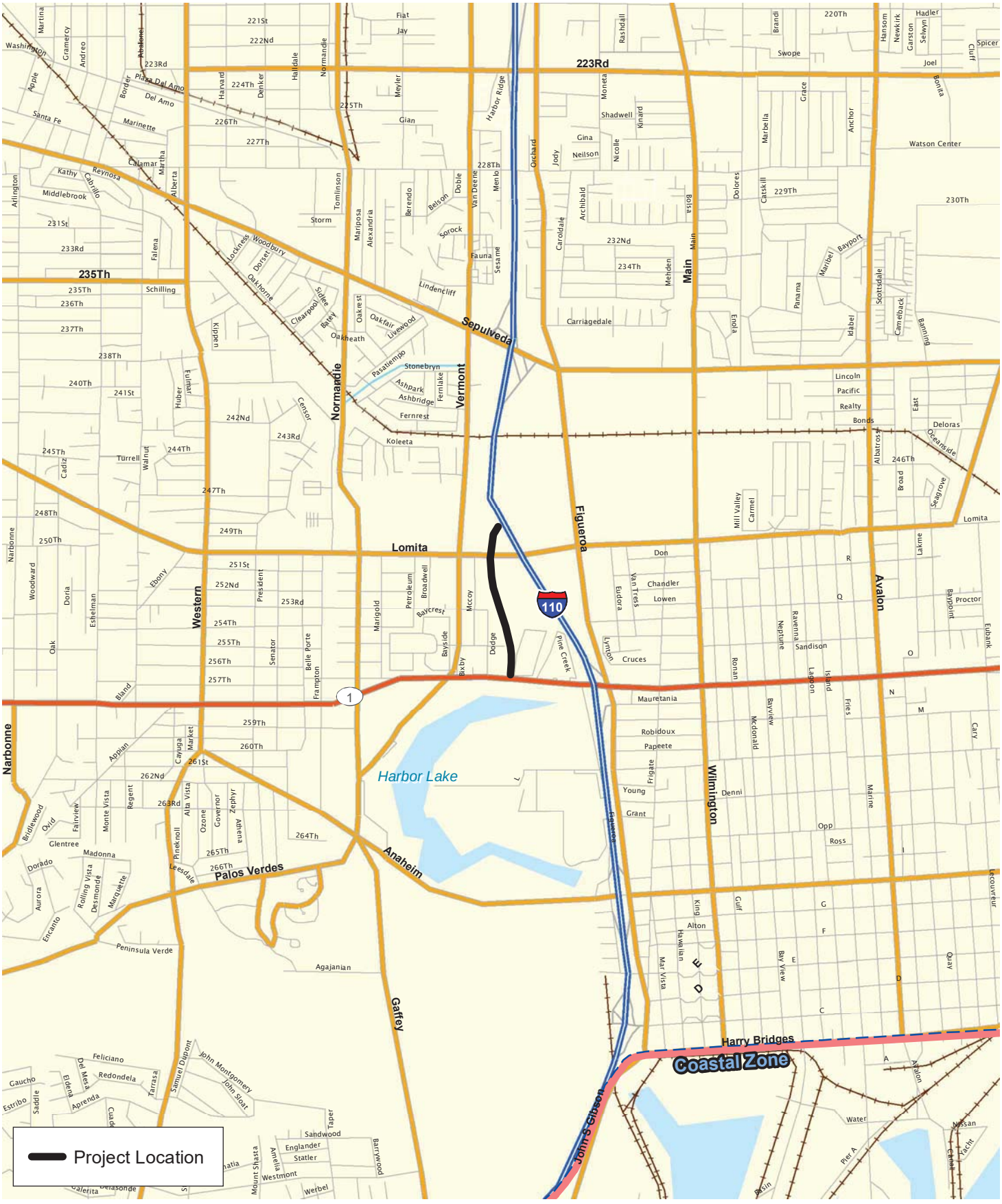

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Reach 27: Wilmington Drain

Exhibit 1d

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

PSOMAS

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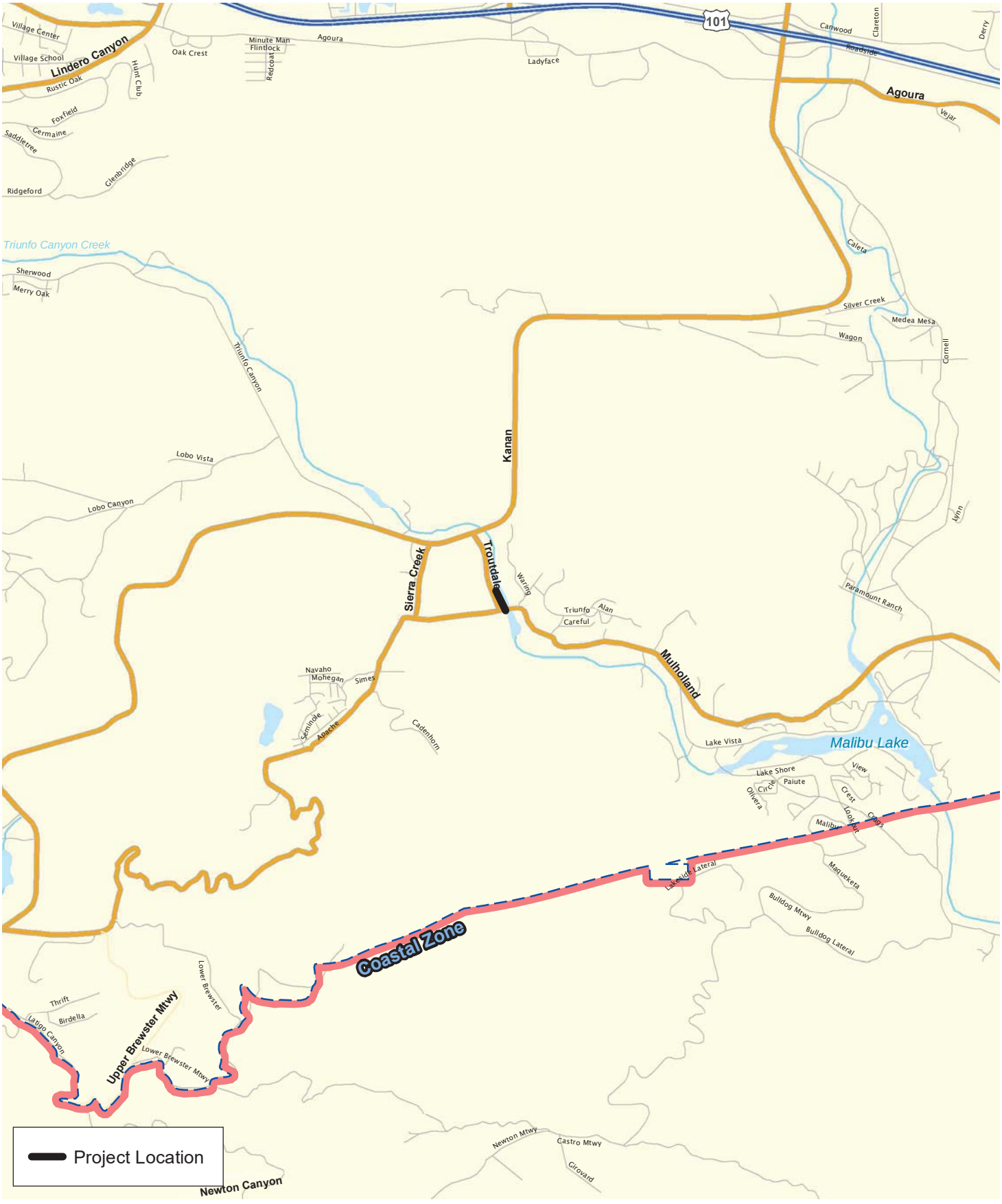

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Reach 28: Triunfo Creek (PD T2200)

Exhibit 1e

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

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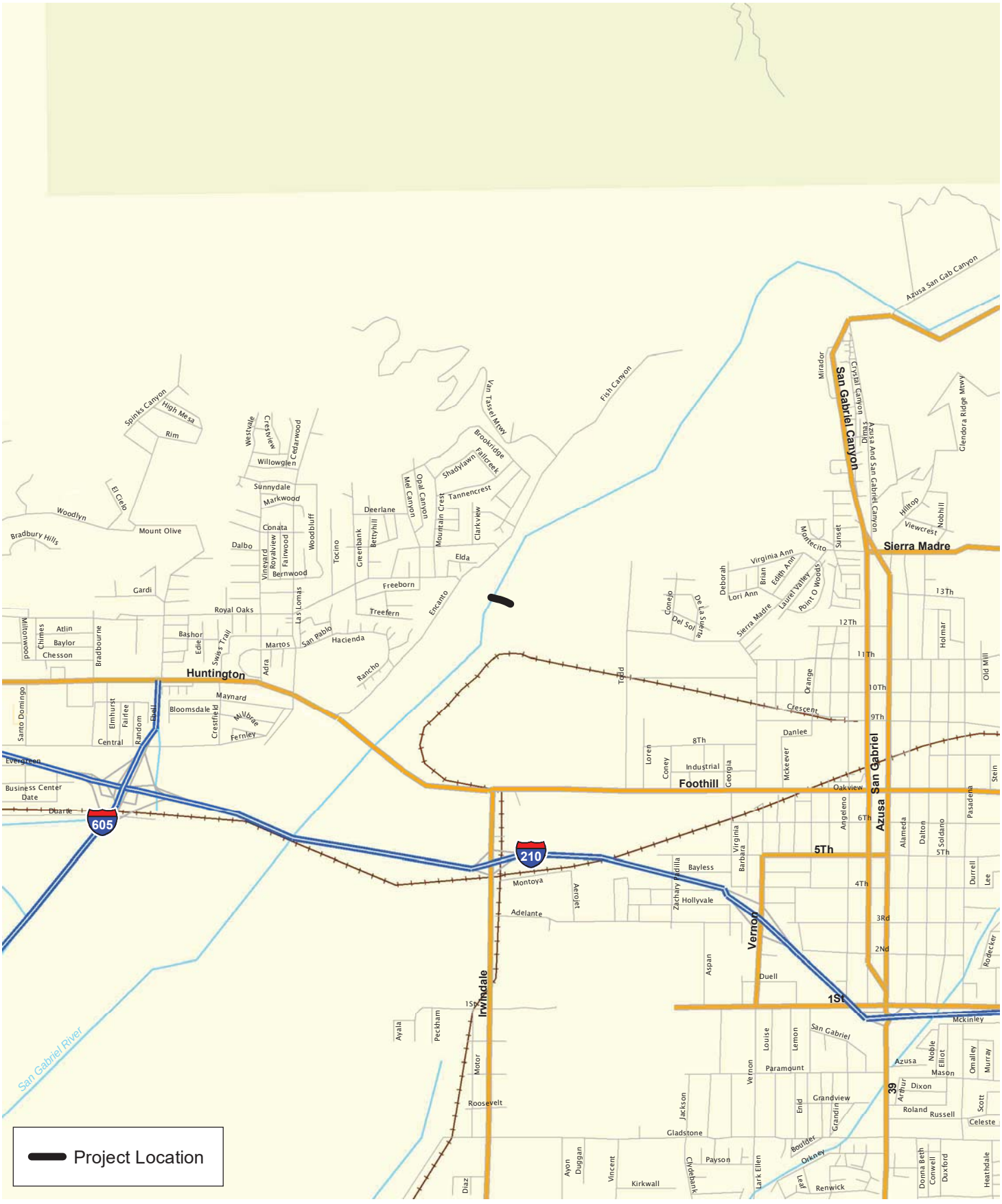

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Reach 39: Beatty Channel Outlet at San Gabriel River (25+99.00+50')

Exhibit 1f

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

PSOMAS

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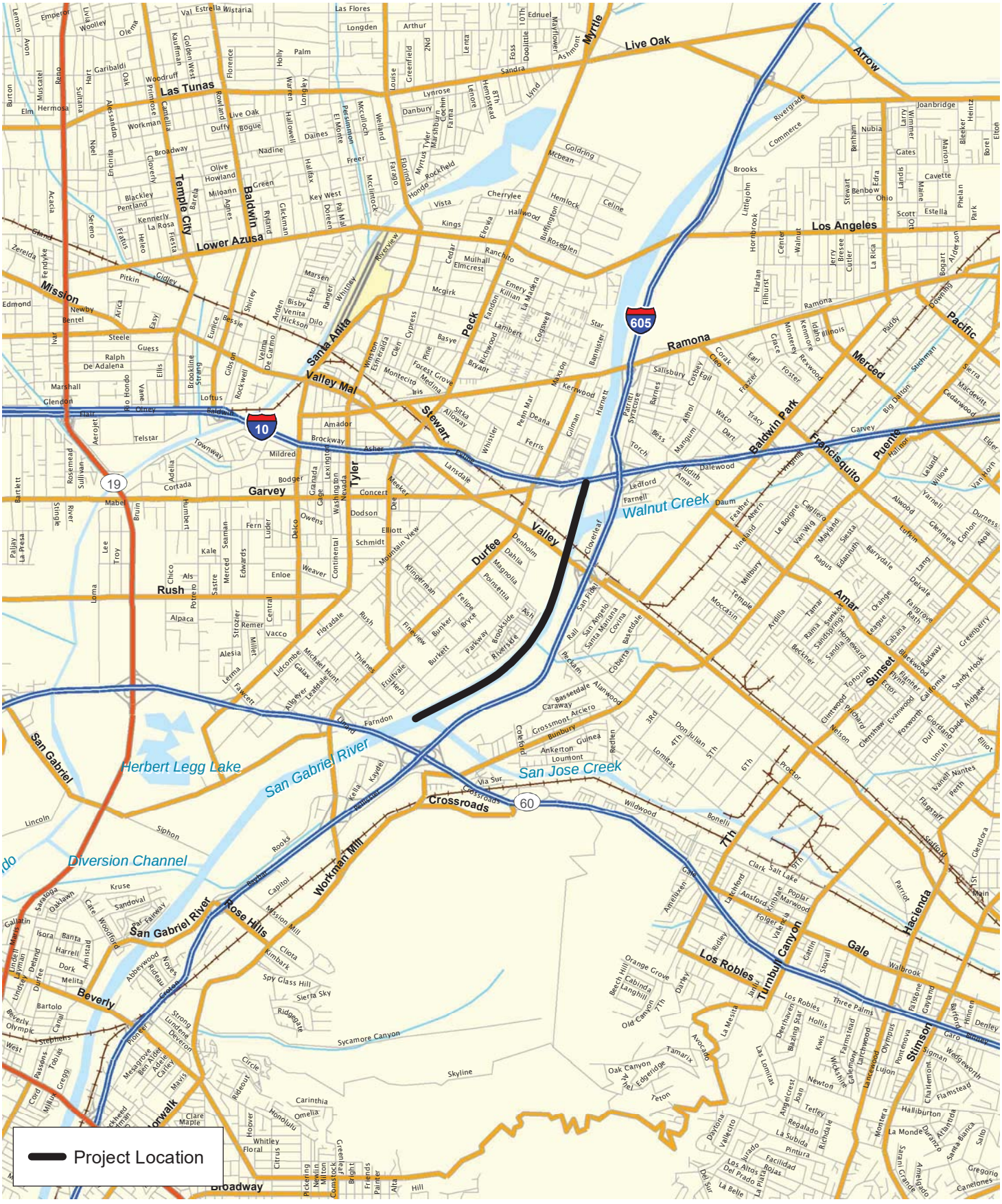

Reach 40b: San Gabriel River – I-10 Freeway to Thienes Avenue

Exhibit 1g

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

PSOMAS

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Reach 43a, San Gabriel River – Upper, is located in the San Gabriel River Watershed in the San Gabriel Valley area (Exhibit 1h). The limits of Reach 43a are between Whittier Narrows Dam and San Gabriel River Parkway. Reach 43a has a total length of approximately 3,450 feet. The reach is found on the USGS Whittier 7.5 x 15-minute quadrangle map.

Reach 43b, San Gabriel River – Lower, is located in the San Gabriel River Watershed in the San Gabriel Valley area (Exhibit 1i). The limits of Reach 43b are San Gabriel River Parkway (upstream) and Beverly Boulevard (downstream). Reach 43b has a total length of approximately 3,050 feet. The reach is found on the USGS Whittier 7.5 x 15-minute quadrangle map.

Santa Clara River Watershed

Reach 69, Bouquet Canyon Middle (PDs 722, 773, 1365, 1065, & 45), is located in the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1j). The limits of Reach 69 are approximately 122 feet downstream of Urbandale Avenue to approximately 54 feet downstream of the middle crossing of Bouquet Canyon Road. Reach 69 is 6,812 feet in total length. The reach is found on the Newhall USGS 7.5 x 15-minute quadrangle map.

Reach 71, Santa Clara River Main Channel (PD 1946), is located in the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1k). The limits of Reach 71 are approximately 276 feet upstream of McBean Parkway (at the confluence with the South Fork of the Santa Clara River) to the downstream edge of McBean Parkway. Reach 71 is 346 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 75, South Fork – Santa Clara River (PDs 725, 916, 1041, 1300), is located in the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1l). The limits of Reach 75 are approximately 255 feet downstream of Lyons Avenue to the downstream edge of Magic Mountain Parkway. Reach 75 is 13,965 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 79, South Fork – Santa Clara River (Valencia Boulevard Bridge Stabilizer), is located in the Santa Clara River Watershed (Exhibit 1m). The limits of Reach 79 are the downstream edge of Valencia Boulevard to approximately 167 feet downstream of Valencia Boulevard. Reach 79 is 167 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 80, South Fork – Santa Clara River (PDs 1947 and 1946), is located in the Santa Clara River Watershed (Exhibit 1n). The limits of Reach 80 are approximately 3,080 feet upstream of McBean Parkway to approximately 276 feet upstream of McBean Parkway and the confluence with Santa Clara River. Reach 80 is 2,804 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 82, Santa Clara River Main Channel (PD 2278), is located in the Santa Clara River Watershed approximately 0.75 mile east of the I-5 and Magic Mountain Parkway intersection in the City of Santa Clarita (Exhibit 1o). The upstream limits of Reach 82 are approximately 740 feet southeast of the intersection of Hopkins Avenue and Rockefeller Avenue to just south of the intersection of Hopkins Avenue and Rockefeller Avenue. Reach 82 is 865 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 86, Violin Canyon Main Channel Outlet, is located in the Santa Clara River Watershed approximately 0.5 miles southeast of the I-5 and Lake Hughes intersection in the community of Castaic in unincorporated Los Angeles County (Exhibit 1o). The upstream limits of Reach 86 are approximately 1,021 feet downstream of Ridge Route Road to the confluence with Castaic Creek.



Reach 43a: San Gabriel River – Upper

Exhibit 1h

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 43b: San Gabriel River – Lower

Exhibit 1i

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 69: Bouquet Canyon Middle (PDs 722, 773, 1365, 1065, & 45)

Exhibit 1j

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

PSOMAS

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Reach 71: Santa Clara River Main Channel (PD 1946)

Exhibit 1k

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W
E
S

0.5 0.25 0 0.5 Miles

PSOMAS

(Rev: 12-12-2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\



Reach 75: South Fork – Santa Clara River (PDs 725, 916, 1041, 1300)

Exhibit 1I

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 79: South Fork – Santa Clara River (Valencia Boulevard Bridge Stabilizer)

Exhibit 1m

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

PSOMAS

(Rev: 12-12-2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\

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Reach 80: South Fork – Santa Clara River (PDs 1947 and 1946)

Exhibit 1n

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 82: Santa Clara River Main Channel (PD 2278)

Exhibit 1o

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

0.5 0.25 0 0.5 Miles

PSOMAS

(Rev: 12-12-2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\

Reach 86 is 946 feet in total length. The reach is found on the USGS Newhall USGS 7.5 x 15-minute quadrangle map.

Reach 87, Castaic – Old Road Drain (CDR 525.021D) Outlet, is located in Castaic Creek in the Santa Clara River Watershed, approximately one mile northwest of the I-5 and Henry Mayo Drive (State Route [SR] 126) in the Castaic Junction community of unincorporated Los Angeles County (Exhibit 1q). The limits of Reach 87 are approximately 610 feet downstream of the intersection of Hasley Canyon Road and The Old Road to the confluence with Castaic Creek. Reach 87 is 240 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 97, Castaic Creek – The Old Road (PD 1982), is located in Castaic Creek in the Santa Clara River Watershed in the Castaic Junction community of unincorporated Los Angeles County (Exhibit 1r). The limits of Reach 97 are approximately 300 feet downstream to 2,300 feet downstream of The Old Road. Reach 97 is 2,000 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle maps.

Reach 103, Bouquet Canyon Channel (PD 2225), is located in the Santa Clara River Watershed (Exhibit 1s). The limits of Reach 103 are approximately 173 feet downstream of the centerline of Newhall Ranch Road (beginning of Grouted Stone Toe) to the Metropolitan Water District's (MWD) Fee Right-of-Way on the right bank and the embankment turn at the Santa Clara River on the left bank. Reach 103 is 1,824 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 104, Castaic Creek (PD 2441 Unit 2), is located in Castaic Creek in the Santa Clara River Watershed. The limits of Reach 104 are approximately 669 feet upstream of the Muirfield Lane centerline to 478 feet downstream of the Turnberry Lane centerline (Exhibit 1t). Reach 104 is 2,186 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 105, San Francisquito Canyon Channel (PD 2456), is located in the Santa Clara River Watershed in unincorporated Los Angeles County (Exhibit 1u). The limits of Reach 105 are approximately 417 feet upstream of the Decoro Drive centerline to 416 feet downstream of the Decoro Drive centerline. Reach 105 is 833 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 106, Castaic Drain Outlet (RMD Channel), is located in the Santa Clara River Watershed. The limits of Reach 106 are approximately the toe of grouted riprap apron to approximately 147 feet downstream of grouted riprap apron (Exhibit 1v). Reach 106 is 147 feet in total length. The reach is found on the USGS Newhall 7.5 x 15-minute quadrangle map.

Reach 109, Santa Clara River – South Bank West of McBean Parkway (MTD 1510), is an outlet located on the south bank (concrete levee) just west or downstream of McBean Parkway (Exhibit 1w). Reach 109 extends 371 feet from approximately 185 feet to 556 feet downstream of the McBean Parkway centerline. Reach 109 is found the USGS Newhall 7.5-minute quadrangle map.

Reach 110, Hasley Canyon Channel (PD 2262), is located in the Santa Clara River Watershed (Exhibit 1x). It is a narrow channel of about ½ mile long with a relatively steep gradient. The reach is found on the USGS Val Verde (and close to the edge of Newhall) 7.5-minute quadrangle map.



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Reach 86: Violin Canyon Main Channel Outlet

Exhibit 1p

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
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0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 87: Castaic – The Old Road Drain (CDR 525.021D) Outlet

Exhibit 1q

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 97: Castaic (PD 1982)

Exhibit 1r

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 103: Bouquet Canyon Channel (PD 2225)

Exhibit 1s

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

PSOMAS

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Reach 104 – Castaic (PD 2441 Units 1 and 2)

Exhibit 1t

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W
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S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 105: San Francisquito Canyon Channel (PD 2456)

Exhibit 1u

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 106: Castaic Drain Outlet (RMD Channel)

Exhibit 1v

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

0.5 0.25 0 0.5 Miles

PSOMAS

(Rev: 12-12-2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\



Reach 109: Santa Clara River – South Bank West of McBean Pkwy (MTD 1510)

Exhibit 1w

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

0.5 0.25 0 0.5 Miles

PSOMAS

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Reach 110: Hasley Canyon Channel (PD 2262)

Exhibit 1x

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

0.5 0.25 0 0.5 Miles

PSOMAS

(Rev: 12-12-2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\

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1.2 PROPOSED PROJECT

1.2.1 Background

To effectively control flood waters from the mountainous watersheds surrounding the Los Angeles Basin, the U.S. Army Corps of Engineers (USACE) and the LACFCD constructed concrete-bottom and earth-bottom channels leading from dams and debris basins located along the frontal slopes of the San Gabriel, Santa Monica, Verdugo, and Santa Susanna Mountains. Construction began in the 1930s.These channels, as a system, provide flood protection for Los Angeles County.

Channel maintenance activities have been performed regularly in Flood Control District channels for over 50 years. Originally constructed by the USACE, upon completion, most of the channel facilities were transferred to the LACFCD for cyclic maintenance. The USACE's maintenance guidelines require that "debris, objectionable growth, shoals, and waste materials must not encroach on the invert. Excess materials that will not move readily with low flows must be removed. Measures must be taken to control objectionable growth by approved chemical or mechanical means" (USACE 1996).

The County formerly maintained channels clear of any vegetation, as required under the *Code of Federal Regulations* (CFR, specifically Title 33, Section 208.10), until the California Department of Fish and Wildlife (CDFW) began requiring the County to clear vegetation on alternating sides of the channels each year. The USACE allowed limited clearing to occur between 1993 and 1995. Anticipated heavy rains during the 1997/1998 storm season caused by El Niño conditions resulted in a statewide need to remove vegetation and sediment from soft-bottom channels to restore their flood-carrying capacity. The LACFCD obtained all necessary permits to conduct this work in the 1997/1998 storm season and has continued the ongoing maintenance as approved by the permits.

1.2.2 Project Description

Vegetative growth in a channel system reduces channel capacity. All soft-bottom channels were designed and constructed as relatively clean, unvegetated channels. As vegetation grows more densely, the roughness of the channel increases and the velocity of flows decrease, which corresponds to a loss in the channel's carrying capacity. The vegetation also traps some of the sediments being transported by flood flows which, when deposited, further reduce channel capacity. Studies have shown that increased vegetation and sediments in the channels result in reduced flow area with a concomitant decrease in flow velocity. A loss of carrying capacity in the channels could cause flood flows to escape the channel systems and impact adjacent properties (LACDPW 1996).

Vegetation can also affect the structural integrity of bridges during a major storm event. Vegetation slows flood flows, which creates a backwater effect and increases water surface elevations upstream. Bridges are not normally designed to withstand the forces that result from significantly increased flood water elevations. Additionally, increased flood depths upstream can result in flooding of adjacent properties and erosion of channel banks.

The LACFCD performs minor grading and annual vegetation clearing in channels to retrain channel flows consistent with the clearing limits established by the permitted maintenance plan (BonTerra 1999). This ongoing program is necessary to maintain the design capacities of the channels and to ensure the proper functioning of these facilities located within the LACFCD boundaries.

Within each reach, the LACFCD proposes to clear the same areas (and acreage) that have been cleared annually since 1997. Biological impacts to these channel reaches associated with the initial clearing of vegetation for maintenance activities were previously mitigated through maintaining and enhancing 62.7 acres of riparian habitats at the Big Tujunga Wash Mitigation Bank site (BonTerra 1999).

Channel clearing activities are performed primarily by mechanical means, using heavy equipment (such as trucks, bulldozers, dump trucks, and loaders), as well as other specialized equipment designed for this type of work. Hand clearing is conducted in areas where mechanical equipment cannot be used or where important biological resources exist nearby. Herbicides approved by regulatory agencies are applied, as necessary, to eradicate invasive and/or non-native vegetation including, but not limited to, giant reed (*Arundo donax*) and castor bean (*Ricinus communis*).

The channel clearing activities are performed under an existing Maintenance Plan approved by the Los Angeles Regional Water Quality Control Board (RWQCB) and USACE and modified by the CDFW under the existing Streambed Alteration Agreement between CDFW and the LACFCD. Psomas has reviewed the Maintenance Plan and has extensive knowledge of channel clearing activities in all channel reaches, having worked with the LACFCD since 1997 to provide biological monitoring of flood-control channel maintenance work. Pre-clearing and post-clearing photos have been taken every year to document the biological resources in these channel reaches in compliance with the mitigation requirements of existing permits from the USACE, RWQCB, and CDFW.

1.3 SPECIAL STATUS SPECIES BACKGROUND

In order to comply fully with the regulatory permits issued to the LACFCD, surveys are performed for a variety of special status species at soft-bottom channel reaches where suitable or potentially suitable habitat has been identified. For example, the permits require annual pre-clearing surveys for the federally and State-listed Endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) and federally listed Threatened Santa Ana sucker (*Catostomus santaanae*). Results of these fish surveys were included with previous survey efforts (BonTerra 2002, 2003), but have since been reported separately to the LACFCD. This report provides the results of surveys for the arroyo toad (*Anaxyrus californicus*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*). Table 1 below shows the federal and State status of these three species.

TABLE 1
STATUS OF SPECIES ADDRESSED

Species	Status	
	USFWS	CDFW
Amphibians		
Anaxyrus californicus arroyo toad	FE	SSC
Birds		
Vireo bellii pusillus least Bell's vireo	FE	SE
Empidonax traillii extimus southwestern willow flycatcher	FE	SE*

USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Game

USFWS
FE Federally Endangered

CDFW
SE State Endangered
SSC State Species of Special Concern

* The State listing included all subspecies of willow flycatcher that breed in California.

1.3.1 Arroyo Toad

The arroyo toad was listed as a federally Endangered species by the USFWS on January 17, 1995 (CDFW 2017a) and is a California Species of Special Concern (CDFW 2017b). At the time of listing, the arroyo toad was one of two subspecies of the southwestern toad (*Bufo microscaphus*), but subsequent genetic studies resulted in the separation of arroyo toad (*B. californicus*) from the Arizona toad (*B. microscaphus*) (Gergus 1998). Recent research placed both species in the genus *Anaxyrus* (Frost et al. 2006).

This is a rather uniformly warty and stocky toad with a light-colored stripe across the head that includes the eyelids. The parotoid glands are oval-shaped, widely separated, and pale toward the front. The underside of the arroyo toad is usually buff-colored and unspotted, and the cranial crests are absent or weak. The typical size (snout to vent) range of reproductive adult toads is 2 to 2.6 inches for males and 2.6 to 3.1 inches for females (Sweet 1992, 1993). Tadpoles reach an average maximum length of 1.3 inches (maximum of 1.6 inches) and are black at hatching. Soon after hatching, the tadpoles develop a tan-colored dorsum with crossbars on the tail and an opaque, white abdomen (venter) before metamorphosing (Sweet 1992).

Early descriptions of the habitat requirements for the arroyo toad are based on detailed life history studies conducted over a period of years by Sweet (1992, 1993). Much of that work was conducted in the Los Padres National Forest in Santa Barbara County. Subsequent to this work, additional studies of populations in other portions of the range have resulted in a somewhat broader habitat description (e.g., Griffin et al. 1999; Ramirez 1999, 2000, 2001, 2002a, 2002b, 2002c). It can generally be said that the arroyo toad frequents third order washes, streams, and arroyos in semiarid parts of the southwest. Stream substrates range from sands to small cobble, with sandy banks supporting mule fat (*Baccharis salicifolia*), willows (*Salix* spp.), cottonwoods (*Populus* spp.), and/or sycamores (*Platanus racemosa*). The arroyo toad breeds both within streams and in small backwater pools that form along the stream margins, usually in relatively shallow water (about four inches) with sand or gravel substrate.

Arroyo toads are primarily nocturnal, except during the breeding season when they are sometimes active during daylight hours. These toads will move extensively in upland habitats, at least seasonally. Adult males will sometimes travel 1.2 to 1.9 miles along a stream course, often becoming more sedentary once reaching a large size. Females are more sedentary, typically maintaining an area of movement less than 330 feet in diameter. Adults mostly feed on ants, particularly nocturnal ants such as the trail-forming tree ants (*Liometopum occidentale*), but will also consume other invertebrates. Tadpoles are substrate gleaners, feeding on detritus and microbial mats from just beneath the surface layer of fine sediments or within the interstices of gravel deposits (Sweet 1992).

During the breeding season, typically from February to July, males will make advertisement vocalizations above water from shallow areas along the creek margins. The advertisement call is a whistling trill that lasts from 4 to 9 seconds in duration and is audible up to 300 meters under ideal conditions (Gergus et al. 1997). Egg strings of 2,000 to 10,000 eggs are deposited in shallow water (less than 4 inches in depth) on fine sediment with very low current and hatch 4 to 6 days later. Larval stage length ranges from 65 to 80 days post-hatching (Sweet 1992).

On February 7, 2001, the USFWS published a final rule designating 182,360 acres of land in California including parts of Monterey, Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties as critical habitat for the arroyo toad (USFWS 2005a). Following the designation of critical habitat, several lawsuits were filed challenging various aspects of the designation. In response to these lawsuits, the critical habitat designation was vacated and the USFWS was instructed by the court to re-evaluate its previous position.

On April 28, 2004, the USFWS published a final rule designating 11,695 acres of critical habitat for the arroyo toad in portions of Santa Barbara, Ventura, Los Angeles, San Bernardino, and Riverside Counties (USFWS 2005a). Further lawsuits were filed that successfully challenged this final rule and resulted in another proposed rule for revised critical habitat that was published in the *Federal Register* on October 13, 2009 (USFWS 2009). The revised critical habitat final rule was released on February 9, 2011, and included 98,366 acres in Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties, California (USFWS 2011).

Reaches 87, 97, and 104 are located within Subunit 6b of critical habitat. Unit 6b encompasses approximately 2.6 miles (4.2 kilometers) of Castaic Creek from the downstream edge of The Old Road right-of-way (adjacent to I-5) down to the confluence with the Santa Clara River and 4 miles of the Santa Clara River from the confluence with San Francisquito Creek down to the confluence with Castaic Creek. The closest known population for this species occurs in Subunit 6a in Castaic Creek upstream of the reservoir approximately 7.5 miles north of Reach 86, Violin Canyon Main Channel Outlet.

In December 2011, USFWS received a petition to reclassify the arroyo toad from Endangered to Threatened based on analysis and recommendations contained in the August 2009 5-year status review of the species. After review, USFWS found the petitioned action was warranted, and proposed to reclassify the arroyo toad from an Endangered species to a Threatened species on the Federal List of Endangered and Threatened Wildlife on March 27, 2014 (USFWS 2014b). The comment period on the petition closed on November 17, 2014 and a determination was expected by March 27, 2015 (USFWS 2014a); however, a final determination has not yet been announced.

1.3.2 Least Bell's Vireo

The least Bell's vireo was formerly a common, even locally abundant summer resident of Southern California's lowland riparian woodlands (Grinnell and Miller 1986). The substantial population decline of this avian species over the latter half of the twentieth century is attributable to the loss and degradation of riparian habitats and, perhaps more importantly, brood parasitism by the brown-headed cowbird (*Molothrus ater*). The least Bell's vireo was listed by the CDFW as State Endangered on October 2, 1980, and by the USFWS as federally Endangered on May 2, 1986 (CDFW 2017a).

The Bell's vireo is a neotropical migrant that breeds in central and southwestern North America from northern Mexico to Southern California, Nevada, and Utah, east to Louisiana, and north to North Dakota, Wisconsin, and Indiana in the central U.S. (AOU 1998). The winter range of this vireo, although not well known, is believed to be the west coast of Central America from southern Sonora south to northwest Nicaragua, including the cape region of Baja California, Mexico (Brown 1993). Of the four Bell's vireo subspecies, only two breed in California: the least Bell's vireo and the Arizona Bell's vireo (*V. b. arizonae*), which occurs in the Colorado River Valley (Garrett and Dunn 1981; Rosenberg et al. 1991). Though the least Bell's vireo was formerly considered a common breeder in riparian habitats throughout the Central Valley and other low elevation river systems in California and Baja California, Mexico, it had been eliminated from much of its historical range by the time of its listing in 1986 (Franzreb 1989; Brown 1993). Recovery efforts since its listing have included habitat protection, removal of exotic species (particularly giant reed), and brown-headed cowbird trapping programs. The least Bell's vireo population has increased tenfold from 291 territories in the early 1980s to an estimated 2,968 territories 20 years later (USFWS 2006). After a decade or more of absence in Los Angeles County, the least Bell's vireo returned by the mid-1980s with a pair reported from Whittier Narrows in 1985 and 1986 (Long 1993). Numbers of least Bell's vireo have continued to increase since that time, and it is now known to occur at several other locations in Los Angeles County such as the San Fernando (Van Norman) Dam; the San Gabriel River at Fish Canyon and Van Tassel Canyon; the Sepulveda Basin Wildlife Area; and the Castaic Lagoon Recreation Area (CDFW 2017c). The two largest populations in the county are at Hansen Dam in the northeastern corner of the San Fernando Valley where 44 least Bell's vireo territories were present in 2009 (Griffith Wildlife Biology 2009) and on the Santa Clara River from I-5 downstream to the Las Brisas Bridge where 56 least Bell's vireo territories were present in 2007 (Bloom Biological, Inc. 2007).

Least Bell's vireo breeding habitat is primarily riparian habitats dominated by willows with dense understory vegetation. Shrubs such as mule fat and California rose (*Rosa californica*) are often a component of the understory (Goldwasser 1981). The least Bell's vireo is often found in areas that include trees such as willow, sycamore, or cottonwood, particularly where the canopy is within or immediately adjacent to an understory layer of vegetation (Salata 1983). The least Bell's vireo generally nests in early successional stages of riparian habitats, with vireo nest sites frequently located in willows that are between four and ten years of age (RECON 1988; Franzreb 1989). The most critical factor in habitat structure is the presence of a dense understory shrub layer from approximately two feet to ten feet above ground (Goldwasser 1981; Salata 1983; Franzreb 1989).

On February 2, 1994, the USFWS published a final critical habitat for the least Bell's vireo designating approximately 37,560 acres of land in Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego Counties, California (USFWS 1994b). Designated critical habitat in Los Angeles County is located only in the Santa Clara River from the I-5 (Golden State) Freeway west to the Ventura County line. The surveyed soft-bottom channel reaches are all located outside the critical habitat for this species.

1.3.3 Southwestern Willow Flycatcher

The southwestern willow flycatcher was formerly a common summer resident of Southern California's lowland riparian woodlands and up into mountain canyons (Garrett and Dunn 1981). By the 1970s, the southwestern willow flycatcher was considered to be absent as a breeder in Southern California (McCaskie 1975). The virtual extirpation of this species as a breeder in Southern California has been attributed to the loss and degradation of riparian habitats and brood parasitism by the brown-headed cowbird. All willow flycatchers breeding in California—which include the subspecies *E*. *t*. *brewsteri* and *E*. *t*. *adastus* in addition to the southwestern willow flycatcher—were listed by the CDFW as State Endangered on January 2, 1991 (CDFW 2017a). The USFWS listed the southwestern willow flycatcher as federally Endangered on February 7, 1995 (USFWS 1993b).

The willow flycatcher is a neotropical migrant that breeds in the west from northern Baja California, Mexico to central British Columbia, Canada and generally east through the northern half of the United States to the Atlantic coast (AOU 1998). The willow flycatcher winters in Central America from Nayarit, Mexico (Pacific coast) and Honduras (Gulf of Mexico coast) to Panama and also to northern Colombia and northwest Venezuela. Depending on the authority, there are four or five recognized subspecies of willow flycatcher (Sedgwick 2000). The breeding range of the southwestern willow flycatcher includes Southern California, Arizona, New Mexico, western Texas, and extreme southern parts of Nevada and Utah (USFWS 1993b).

The California population of southwestern willow flycatchers breeds along the coast north of Baja California to the Santa Ynez River, Santa Barbara County, and north in the interior to about Independence, Inyo County (Unitt 1987). Besides the Colorado River, there are five drainages in California that support major breeding populations of southwestern willow flycatcher: the South Fork of the Kern River in Kern County; the Santa Margarita River on Camp Pendleton and the San Luis Rey River in San Diego County; the Santa Ana River in Riverside and San Bernardino Counties; and the Owen's River in Inyo and Mono Counties (Durst et al. 2007). In the 1970s, the southwestern willow flycatcher was believed to have been extirpated from coastal Southern California (Remsen 1978), but small numbers were found during the late 1970s and early 1980s in San Diego County (Unitt 1984). An early population estimate for the southwestern willow flycatcher in California was 70 pairs (USFWS 1993b). More recent population estimates are higher, such as 200 territories in 2004 and 190 territories in 2006, and are more likely the result of increased survey effort rather than a population increase (Durst et al. 2005; Durst et al. 2007).

The southwestern willow flycatcher breeds in willow-dominated riparian habitats that are similar to least Bell's vireo nesting habitats. The southwestern willow flycatcher differs from least Bell's vireo in that it shows a stronger dependency on willow thickets for all its requirements (Grinnell and Miller 1986). In addition, the southwestern willow flycatcher appears to have a preference for sites with surface water in the vicinity, such as along streams, on the margins of a pond or lake, and at wet mountain meadows (Grinnell and Miller 1986; Flett and Sanders 1987; Harris et al. 1987); in Arizona, the southwestern willow flycatcher invariably nests near surface water (Phillips et al. 1964). Recently, the southwestern willow flycatcher has adapted to introduced vegetation present in riparian vegetation types, such as tamarisk (*Tamarix* sp.) and Russian olive (*Elaeagnus angustifolia*) (USFWS 1993b).

The willow flycatcher is a common migrant in the interior of California and a rare to uncommon migrant along the coastal slope, with most birds moving through Southern California between May 15 and June 20 during the spring season (Garrett and Dunn 1981; Unitt 1987). The spring migration of southwestern willow flycatcher is earlier than that of the northern subspecies (Unitt 1987; USFWS 1993b). As a result, surveys for nesting southwestern willow flycatchers are complicated by the presence of more abundant subspecies migrating through its range during its breeding season.

On October 19, 2005, the USFWS published a final rule designating critical habitat for the southwestern willow flycatcher (USFWS 2013). This final rule designated 120,824 acres in Arizona, California, Nevada, New Mexico, and Utah as critical habitat. Following lawsuits, the USFWS recently issued a revised final rule on January 3, 2013. This final rule designates critical habitat that covers 2,090 stream miles in California, Nevada, Utah, Colorado, Arizona, and New Mexico. This final rule uses a slightly different methodology to designate critical habitat. For example, it includes areas that are considered essential for the recovery of the species even if they were not occupied at the time of the species' listing. These new stream segments include Castaic Creek (3.0 miles), Little Tujunga (1.4 miles), Big Tujunga (3.0 miles), and the San Gabriel River (8.8 miles) (USFWS 2013). Three Castaic Creek channel reaches (Reaches 71, 80, 82, and 109), and one San Gabriel River channel reach (Reach 39) are located within this revised critical habitat.

2.0 SURVEY METHODS

Psomas has worked with the LACFCD since 1997 to provide biological monitoring of flood-control channel maintenance work in soft-bottom channel reaches. In addition to the biological monitoring of the maintenance work, pre-clearing and post-clearing photos have been taken every year to document the biological resources in these channel reaches in compliance with the mitigation requirements of existing permits from the USACE, RWQCB, and CDFW. Psomas has assisted the LACFCD in preparing their maintenance plan for the channels, which follows permit conditions from the USACE, RWQCB, and CDFW. These permit conditions require surveys for arroyo toad, least Bell's vireo, and southwestern willow flycatcher where there is suitable habitat for these species; these conditions have been incorporated into the LACFCD's *Maintenance Plan for the Annual Clearing of Soft-bottom Flood Control Channels.*

For each species surveyed, the surveys were conducted according to USFWS protocols. The biologists conducted the surveys at the most appropriate time of day to ensure maximum opportunity to observe the species.

2.1 SPECIAL STATUS AMPHIBIAN SPECIES

2.1.1 Arroyo Toad

The initial studies conducted in 2002 included a background literature review and habitat assessment for each of the soft-bottom channel reaches that represented suitable arroyo toad breeding and/or upland habitat. The literature review included the reviewing relevant literature on the presence of the arroyo toad within and/or adjacent to each reach including areas both upstream and downstream. This included review of *Federal Register* listings, protocols, and species data provided by the USFWS; review of the CDFW's California Natural Diversity Database (CNDDB); consultation with qualified experts familiar with the distribution and natural history of the arroyo toad; and review of unpublished biological resource letter reports and assessments conducted in the region.

Focused surveys for the arroyo toad were conducted in 2015 at 11 channel reaches: Castaic Creek Reaches 86, 87, and 97, and Reach 104; San Francisquito Wash Reach 105; South Fork Santa Clara River Reaches 75 (but only the northern part of Reach 75 from Magic Mountain Parkway upstream to the Via Princessa bridge) and 79; Reach 80 at the confluence of the Santa Clara and South Fork Santa Clara Rivers; and Santa Clara River Reaches 71, 82, and 109. During 2017 focused surveys, only Reaches 86, 97, and 109 contained water. Reaches 75, 82, 87, 104, and 105 had small ponded areas caused by run-off water from concrete culverts which did not provide potentially suitable habitat for arroyo toad. The remaning channel reaches did not contain any water during the surveys. Only Reaches 86 and 97 contained potentially suitable habitat for the arroyo toad during the 2017 surveys.

The USFWS' 1999 Arroyo Toad Protocol requires that a minimum of six surveys be performed during the breeding season (March 15 to July 1), with at least one survey conducted in April, one in May, and one in June. The surveys included diurnal and nocturnal searches to determine the presence of eggs, tadpoles, and adults. During the diurnal surveys, water was examined for the presence of arroyo toad egg masses and tadpoles. Nocturnal surveys began one hour after dusk during weather conditions conducive to toad activity. Nocturnal search methods included walking along the creek banks and stopping periodically to listen for the breeding calls of adult males. Headlamps and flashlights were used to visually identify toads when a breeding call was heard. If any arroyo toads were found, the individual or population was documented, recorded with a Global Positioning System (GPS) unit, and mapped on an aerial photograph. The number of

individuals were noted on each subsequent visit, and data were collected on general habitat characteristics for any arroyo toads observed.

Diurnal surveys were conducted from approximately 3:00 PM until dusk, and nocturnal surveys were conducted from one hour after dusk until approximately 11:00 PM. Surveys focused on detecting toads by visual identification; listening for the advertising call of adult males; and checking potentially suitable breeding habitat for tadpoles and/or eggs. Biologists scanned pools for eggs, larvae, metamorphs, juveniles, and breeding and/or calling adults in potentially suitable breeding locations along the creek, and for foraging individuals in the adjacent riparian and upland areas. Surveyors moved in an upstream direction during the surveys. Headlamps, flashlights, and binoculars were used to visually identify toads, frogs, and their larvae detected at night. Nocturnal surveys were conducted during appropriate environmental conditions conducive to the activity patterns of the arroyo toad. Generally, these conditions are nighttime temperatures greater than 50 degrees Fahrenheit (°F) at dusk, with low winds (less than 10 miles per hour); nights with a full or nearly full moon were avoided.

Psomas Senior Biologist Marc Blain, and Biologists Jonathan Aguayo, Sarah Thomas, and Steve Norton conducted arroyo toad focused surveys in all potentially suitable habitat in the survey area according to the USFWS-established survey methodology described above. Survey data is presented in Table 2. A list of wildlife species recorded by Reach during these surveys is included as Attachment B to this report.

TABLE 2
SUMMARY OF 2017 ARROYO TOAD SURVEY CONDITIONS

Survey	Reaches Surveyed	Surveying Biologists	Survey Date (2017)	Survey Conditions			
				Wind (mph)	Temperature (°F)	Relative Humidity (%)	Lunar Phase (% illuminated)
1	71, 75, 79, 80, 82, 86, 87, 97, 104,105, 109	M. Blain	4/28*	15–23	79–81	8–10	6
1	71, 75, 79, 80, 82, 86, 87, 97, 104,105, 109	M. Blain	5/1*	4–6	68–82	20–31	33
2	71, 75, 79, 80, 82, 86, 105, 109	J. Aguayo, S. Norton	5/22	0–9	72–93	24–38	16
2	87, 97, 104	J. Aguayo, S. Thomas	5/26	3–9	60–70	48–72	1
3	71, 75, 79, 80, 82, 86, 87, 97, 104,105, 109	J. Aguayo, S. Thomas	6/9	5–9	65–81	26–39	85
4	71, 75, 79, 80, 82, 86, 87, 97, 104,105, 109	J. Aguayo, S. Norton	6/21	3–9	81–99	20–34	11
5	71, 75, 79, 80, 82, 86, 87, 97, 104,105, 109	J. Aguayo, S. Norton	6/27	3–9	74–95	16–22	16
6	71, 75, 79, 80, 82, 86, 87, 97, 104,105, 109	J. Aguayo, S. Thomas	6/30	5–8	70–83	11–19	45

mph = miles per hour; °F = degrees Fahrenheit
* After completing the day-time portion of the first survey on 4/28, the survey was suspended due to high winds making it too difficult to hear potential toads. The nighttime portion was completed on 5/1 when winds were acceptable for surveying.

2.2 SPECIAL STATUS BIRD SPECIES

The initial literature review in 2002 included all relevant and available documentation on the presence of the least Bell's vireo and southwestern willow flycatcher in Los Angeles County. This included review of *Federal Register* listings, protocols, and species data provided by the USFWS; the CDFW's CNDDB; consultation with qualified experts familiar with the distribution and natural history of the least Bell's vireo and southwestern willow flycatcher; and review of unpublished biological resource letter reports and assessments.

Based on the results of prior Psomas surveys of the channel reaches, the 2017 focused surveys for the least Bell's vireo and southwestern willow flycatcher were scheduled to be conducted at 23 channel reaches where they have potential to occur: 3 channel reaches in the Los Angeles River Watershed (Reaches 7, 12, and 14); 1 channel reach in the Dominguez Channel Watershed (Reach 27); 1 channel reach in the Malibu Creek Watershed (Reach 28); 4 channel reaches in the San Gabriel River (Reaches 39, 40b, 43a, and 43b); and 14 channel reaches in the Santa Clara River and Castaic Creek drainages (Reaches 71, 75, 79, 80, 82, 86, 87, 97, 103, 104, 105, 106, 109, and 110). An additional channel reach (Bouquet Canyon) was added this year for the first time. Bouquet Canyon (Reach 69) was added to the list because a juvenile least Bell's vireo was detected here on Sept 9, 2016, during monitoring of annual clearing activities. This juvenile least Bell's vireo moved on shortly after detection and assumed to be a wandering or migrating bird; however, Reach 69 was added to the list of channel reaches to be surveyed in 2017 to better understand avian use of this channel reach during the breeding season. These surveys were conducted by Psomas Biologists Brian Daniels (Recovery Permit No. 821401-5), Lindsay Messett (Recovery Permit No. 067064-3), Marc Blain (Recovery Permit No. 001075-3), Sarah Thomas, and Steve Morris.

The USFWS survey protocol for southwestern willow flycatcher was updated in June 2010 (Sogge et al. 2010). The changes affected the timing of surveys, not the number or method of conducting each survey. A minimum of five surveys must still be performed to determine absence from a project site. As previously, the five surveys must be performed within three specified time periods at least five days apart. As before, the first survey must still be conducted between May 15 and May 31, but now two surveys are required in the second survey window which has been increased in length by three days from June 1 to June 24. The third survey window is now three days shorter, but only two surveys need to be conducted between June 25 and July 17. The survey protocol for least Bell's vireo remains the same with a minimum of eight surveys being conducted at least ten days apart between April 10 and July 31. Surveys for the least Bell's vireo and southwestern willow flycatcher can be performed simultaneously because of their similar habitat requirements.

The survey area consisted of all riparian habitats in each reach. The riparian habitat was systematically surveyed by walking slowly and methodically along two transects (downstream then upstream or the reverse) with some variance depending on streambed width. Recorded vocalizations of southwestern willow flycatcher were used to elicit a response from any potentially territorial southwestern willow flycatcher; recorded vocalizations of least Bell's vireo were not used according to the protocol for this species. If no southwestern willow flycatchers were detected after the initial playing of the vocalization, the recording was usually replayed at least once. Any observations of willow flycatcher (all subspecies) and least Bell's vireo, including any pertinent behavior, were recorded and their locations mapped in the field. It should be noted that all subspecies of breeding willow flycatcher in California are listed as State Endangered species; however, only breeding locations are protected.

The surveys were conducted under optimal weather conditions and during the early morning hours when bird activity is at its peak. Numbers were recorded for all bird species detected during the surveys, including notable observations of any special status species or other birds such as the brown-headed cowbird. Survey data are presented in Table 3. Daily tallies of all bird species recorded during these surveys are included in Attachment A.

TABLE 3
SPECIAL STATUS BIRD SURVEY DATA

Reaches Surveyed	Survey Dates (2017)	Time (Start/End)	Weather Conditions			Surveying Biologist
			Temp. (°F) (Start/End)	Wind (mph) (Start/End)	Cloud Cover (%) (Start/End)	
7, 27, 28	5/7	0600/1230	49/65	1-3/3-5	Clear/80	S. Morris
	5/17	0615/1130	61/66	1-2/3-5	100/75	B. Daniels
	5/29	0630/1110	61/72	0/3-5	100/10	
	6/8	0630/1140	63/65	3-5/3-5	100/100	
	6/19	0605/1145	63/88	1-2/0	100/Clear	
	6/29	0620/1100	66/80	0/2-3	Clear/Clear	
	7/10	0610/1100	70/89	1-3/2-4	Clear/20	
	7/20	0615/1130	67/82	2-3/2-3	100/Clear	
12, 14, 39	5/01 – Rch 12	0715/0815	65	0/1-2	Clear/Clear	M. Blain
	5/09 – Rch 39	0845/1000	64/65	0/1	Clear/Clear	S. Thomas
	5/12 – Rch 14	0720/0830	67/68	1-2/1-2	50/Clear	M. Blain
	5/16 – Rch 12	0730/0830	52	1-3/1-3	Clear/Clear	B. Daniels
	5/22 – Rch 39	0600/0645	60/61	0/1	Clear/Clear	M. Blain
	5/22 – Rch 14	0720/0830	64/66	1-2/1-2	Clear/Clear	M. Blain
	6/1 – Rch 12	0705/0805	64/65	0/1	Clear/Clear	M. Blain
	6/1 – Rch 14	0830/0915	67/68	1-2/1-2	Clear/Clear	M. Blain
	6/2 – Rch 39	0705/0810	60/61	0/1	Clear/Clear	M. Blain
	6/12 – Rch 12	0715/0755	60/61	0/0	Clear/Clear	M. Blain
	6/12 – Rch 14	0820/0855	64/66	0/1-2	80/Clear	M. Blain
	6/13 – Rch 39	0645/0805	67/69	1-2/1-2	100/Clear	M. Blain
	6/23 – Rch 14	0900/0930	74/75	1-2/1-2	Clear/Clear	M. Blain
	6/23 – Rch 12	0705/0800	65/66	0/1-2	Clear/Clear	M. Blain
	6/23 – Rch 39	0600/0645	62/63	0/1-2	Clear/Clear	M. Blain
	7/3 – Rch 12	0610/0650	65/66	0/0	Clear/Clear	M. Blain
	7/3 – Rch 14	0910/0950	71/72	0/0	Clear/Clear	M. Blain
	7/5 – Rch 39	0730/0845	69/71	0/1-2	Clear/Clear	M. Blain
	7/13 – Rch 12	0730/0830	71/72	0/0	50/50	M. Blain/S. Thomas
	7/13 – Rch 14	1000/1045	74/75	0/0	50/50	M. Blain/S. Thomas
	7/17 – Rch 39	0600/0710	63/65	0-1/1-2	75/25	M. Blain
	7/25 – Rch 12	0725/0820	69/70	0/1-2	Clear/Clear	M. Blain
	7/25 – Rch 14	0900/0930	71/71	1-2/1-2	Clear/Clear	M. Blain
	7/27 – Rch 39	0830/0925	72/74	1-2/1-2	Clear/Clear	M. Blain

TABLE 3
SPECIAL STATUS BIRD SURVEY DATA

Reaches Surveyed	Survey Dates (2017)	Time (Start/End)	Weather Conditions			Surveying Biologist
			Temp. (°F) (Start/End)	Wind (mph) (Start/End)	Cloud Cover (%) (Start/End)	
40b, 43a, 43b	5/8	0600/1230	49/63	1-3/3-5	Clear/Clear	S. Morris
	5/19	0600/1130	57/80	0/1-2	Clear/Clear	B. Daniels
	6/1	0600/1200	63/74	4-6/4-6	100/80	
	6/12	0610/1145	59/73	0/6-10	Clear/20	
	6/22	0615/1130	64/68	0/4-10	100/100	
	7/3	0630/1130	63/77	2-3/4-6	100/60	
	7/13	0600/1100	66/79	0/2-3	15/30	
	7/24	0600/1110	69/79	0/3-5	15/80	
69, 86, 106	5/9	0805/1130	59/68	0/10	Clear/Clear	B. Daniels
	5/22	0630/0945	61/75	0/0	Clear/Clear	
	6/2	0630/0940	57/74	1-2/2-4	Clear/Clear	
	6/13	0645/1040	55/77	0/6-10	Clear/Clear	
	6/26	0700/1030	70/84	0/2-3	Clear/Clear	
	7/6	0630/0930	68/81	0/0	Clear/Clear	
	7/17	0640/1015	68/81	0/2-3	5/1	
	7/27	0700/0930	67/77	0/0	5/5	
71, 75, 79, 80, 103	5/8	0610/1130	43/72	0/1-3	Clear/Clear	B. Daniels
	5/18	0615/1100	50/74	1-2/5-10	Clear/Clear	
	5/30	0615/1110	57/74	1-2/6-10	80/25	
	6/9	0610/1100	57/72	0/10-15	Clear/Clear	
	6/20	0620/1045	70/84	0/1-3	Clear/Clear	
	6/30	0615/1030	63/78	0/2-3	Clear/Clear	
	7/12	0620/1030	66/80	0/2-3	Clear/Clear	
	7/25	0630/1115	66/80	2-3/3-5	70/60	
82, 105, 109	5/9	0655/1145	56/72	1-3/7-10	Clear/Clear	S. Morris
	5/23	0615/1030	61/78	0/0	Clear/Clear	B. Daniels
	6/3	0630/1010	63/76	0/3-5	Clear/Clear	
	6/14	0630/1100	60/85	1-2/2-4	Clear/Clear	
	6/27	0630/1015	66/83	1-3/2-4	Clear/Clear	
	7/7	0630/0930	75/85	0/3-5	Clear/Clear	
	7/18	0620/0930	66/79	0/1-2	Clear/Clear	
	7/28	0630/0915	67/74	0/1-2	Clear/Clear	
87, 97, 104, 110	5/9	0700/1100	61/70	0-1/0-3	Clear/Clear	L. Messett
	5/22	0645/1110	66/72	0-1/0-2	Clear/Clear	
	6/8	0640/1055	64/75	0-1/0-3	100/Clear	
	6/19	0615/1100	66/91	0-2/0-1	Clear/Clear	
	6/30	0620/1050	59/82	0-3/0-3	100/Clear	
	7/11	0600/1055	66/85	0-1/0-1	Clear/Clear	
	7/21	0710/1100	67/82	0-1/0-1	Clear/Clear	
	7/31	0730/1045	61/80	0-1/0-2	10/Clear	

3.0 SURVEY RESULTS

The following section presents the results of the 2017 focused surveys conducted in the surveys areas described above in Section 1.1.2. No arroyo toads were observed during these surveys. A total of 13 least Bell's vireo territories were established in Reaches 7, 14, 40b, 43a, and 103 during the 2017 surveys (see Tables ES-1 and ES-2). At least three transient male least Bell's vireos were observed during these surveys with one in Reach 40b, one in Reach 43a, and one in Reach 103 (see below for result discussions by Reach for details). Migrant willow flycatchers were observed in three channel reaches (Reaches 12, 75 and 86), but no southwestern willow flycatcher territories were established during the 2017 surveys. These results are discussed below by Reach. Reach 69 is not discussed below as no territorial or transient least Bell's vireo, or migrant willow flycatchers were observed at this channel reach during the 2017 surveys. Appendix A presents the bird species identified using Reach 69 during the 2017 surveys. Based on these survey results and the habitats observed during the surveys, this channel reach does not provide suitable breeding habitat for the southwestern willow flycatcher and least Bell's vireo. At this time, no further surveys for southwestern willow flycatcher and least Bell's vireo are recommended for Reach 69. Table ES-1 above summarizes the survey results for 2017.

3.1 LOS ANGELES RIVER WATERSHED

3.1.1 Reach 7: Bull Creek

Least Bell's Vireo

Three least Bell's vireo territories were established in or adjacent to Reach 7 during these surveys from May 7 through at least June 29, 2017 (Exhibits 2a and 3a[2]). The main Bull Creek channel supported two of the three territories (shown as LBV 1 and LBV 3 on Exhibits 2a and 3a). Both territories consisted of males that paired with females. The third least Bell's vireo territory consisted of a singing male that occupied the side channel that forms a "U" shaped-loop west of the main Bull Creek Channel (shown as LBV 2 on Exhibits 2a and 3a). This side channel was created during the Bull Creek restoration project managed by the City of Los Angeles in conjunction with the USACE. This male (LBV 2) behaved in a manner that suggested he was paired, but this was never confirmed by visual observation of a female during the surveys.

3.1.1 Reach 12: Haines Canyon Main Channel Outlet

Southwestern Willow Flycatcher

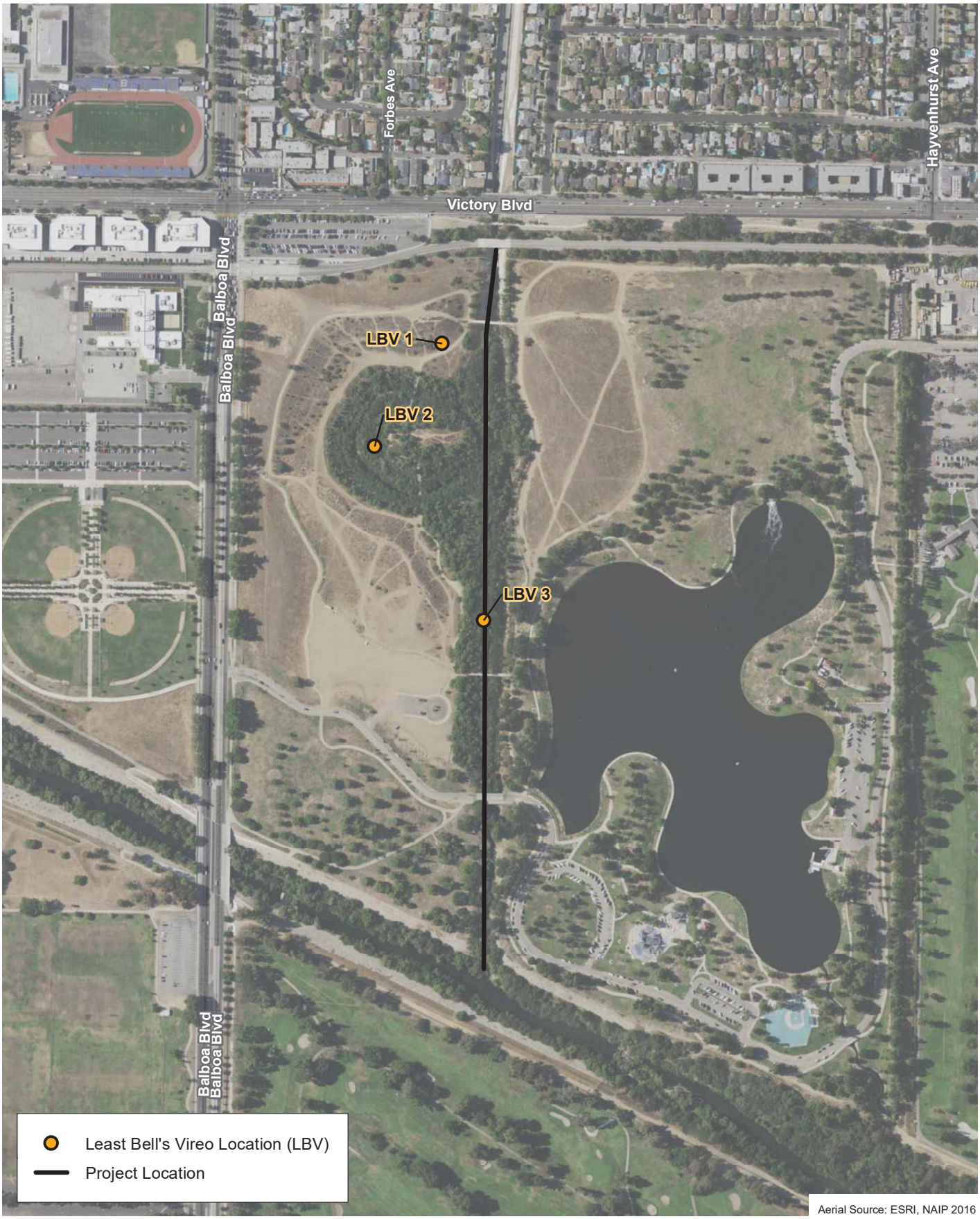
A migrant willow flycatcher of undetermined subspecies was present in Reach 12 on June 1 (see Reach 12 Bird Compendia Table in Attachment A).

3.1.2 Reach 14: May Channel (Main Channel Outlet into Pacoima Canyon)

Least Bell's Vireo

One least Bell's vireo territory was established in Reach 14 during these surveys (Exhibits 2b and 3b). A pair established a territory in the May Channel which was observed on July 3 (shown as LBV1 on Exhibits 2b and 3b), but was not detected thereafter. No nesting success was detected during these surveys for this least Bell's vireo pair. On May 12, 22, Jun 1, 12, 22 the male of this pair was singing from the northern portion of the May Channel, and no female was detected. On

[2] Least Bell's vireo locations shown on maps typically depict either where the vireo was first detected or its most representative location observed during the surveys. For LBV 1 on Exhibit 2a, the location shown is a mule fat patch next to the trail where the adult female was first detected with the male on May 17, 2017.



Aerial Source: ESRI, NAIP 2016

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Reach 7: Bull Creek

Exhibit 2a

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

500 250 0 500

Feet

PSOMAS

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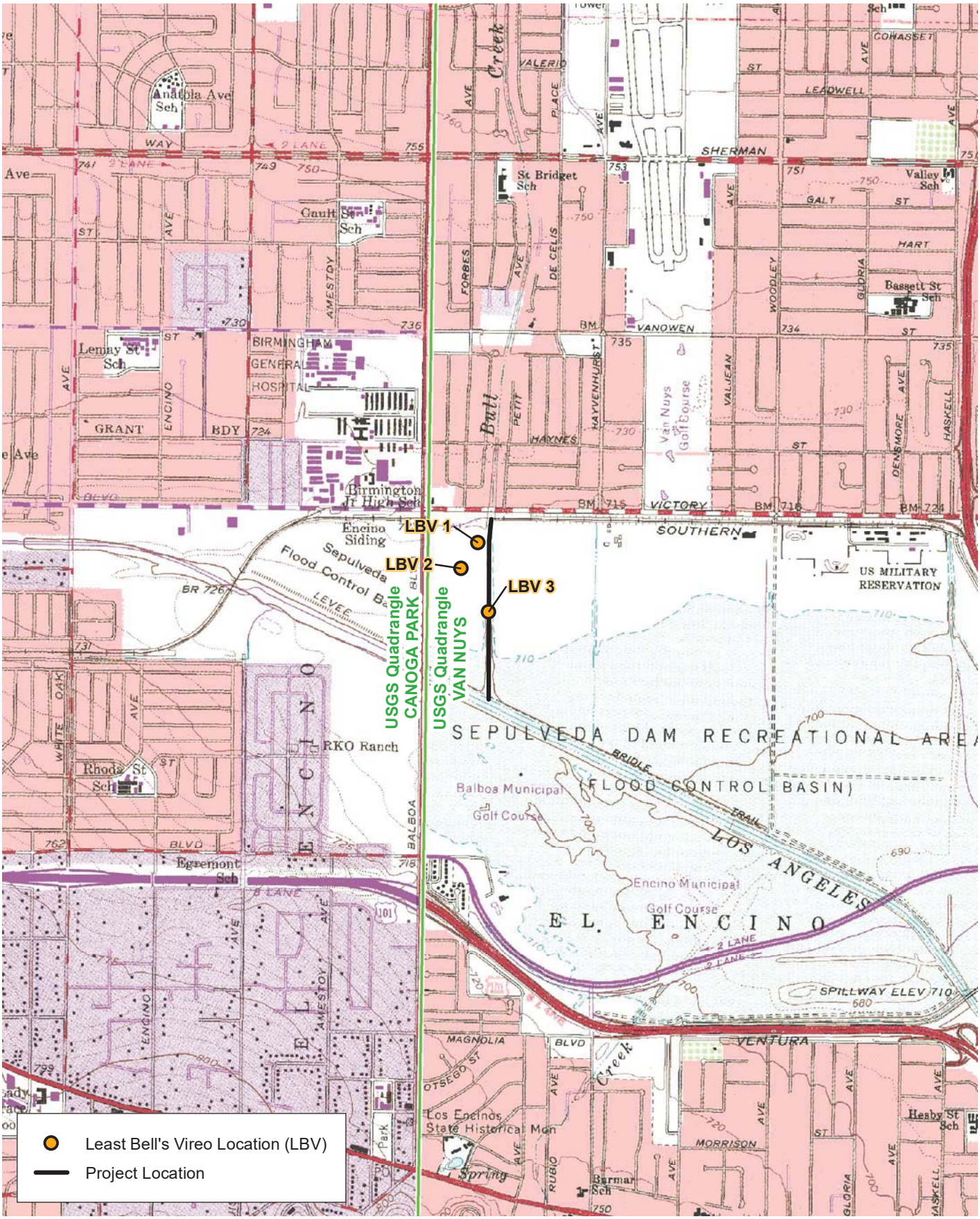

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Reach 7: Bull Creek

Exhibit 3a

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

PSOMAS

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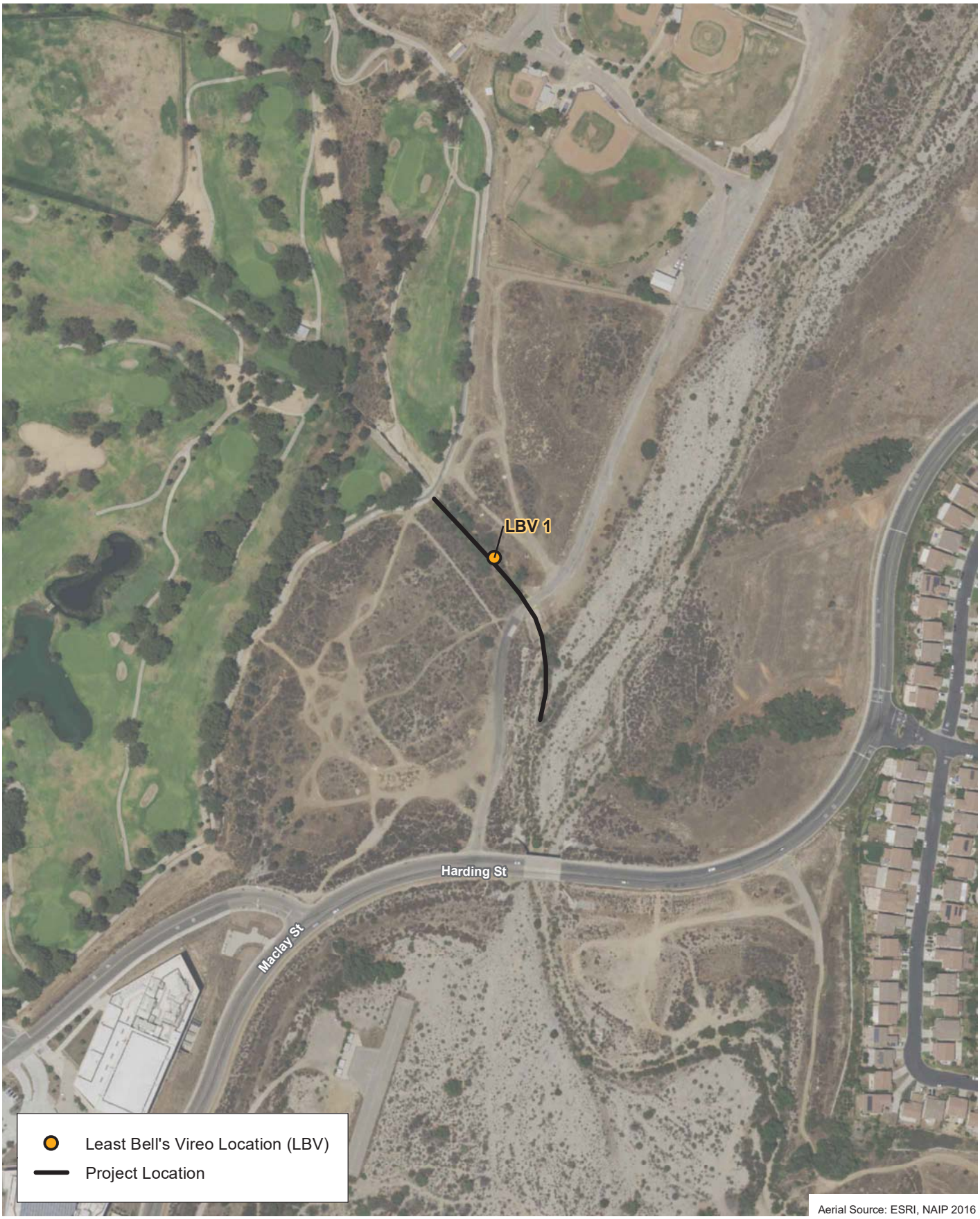

Aerial Source: ESRI, NAIP 2016

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Reach 14: May Channel (Main Channel Outlet into Pacoima Canyon)

Exhibit 2b

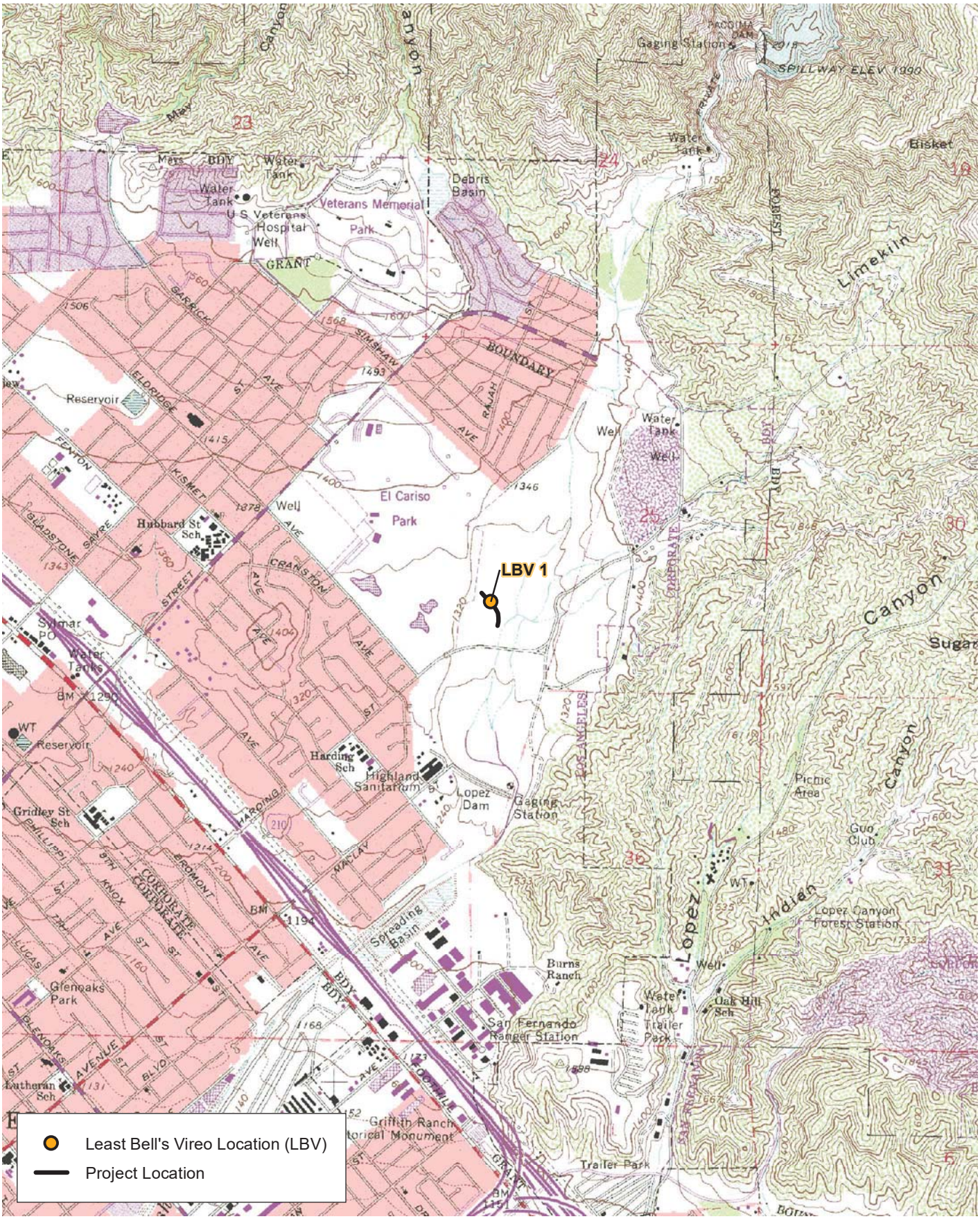
2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

300 150 0 300 Feet

PSOMAS

(Rev: 12/14/2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\ex_LBV_Aerial.pdf



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Reach 14: May Channel (Main Channel Outlet into Pacoima Canyon)

Exhibit 3b

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

PSOMAS

(Rev: 12/14/2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\ex_LBV_USGS.pdf

July 3 the male and female were detected foraging together in May Channel. On July 13 and 25th, neither the male nor the female were detected.

3.2 SAN GABRIEL RIVER WATERSHED

3.2.1 Reach 40b: San Gabriel River – Interstate 10 (Santa Monica) Freeway to Thienes Avenue

Least Bell's Vireo

Five least Bell's vireo territories were established at Reach 40b during these surveys (Exhibits 2c and 3c). A singng male (LBV 1) established a territory just downstream of the confluence of San Jose Creek and the San Gabriel River from at least May 19 to June 22, 2017; the breeding status of this male was not determined. As in previous survey years, the scrubby area dominated by narrow-leaved willows (*S. exigua*) on the west bank downstream of Rubber Dam 3 supported multiple least Bell's vireo territories, in close proximity to eachother, from May 8 to at least July 24, 2017 (BonTerra 2015, 2013, 2011). Although four singing least Bell's vireos were present on two survey dates (May 19 and June 1) in this scrubby willow area, only three of these males were determined to have established territories this year (shown as LBV 2, LBV 3, and LBV 4 on Exhibits 2c and 3c). The breeding status of these three males were not determined during these surveys. The narrow-leaved thicket[3] just downstream of Rubber Dam No. 2 supported the fifth least Bell's vireo territory, which was established on the late date of June 12, and stayed active through at least July 13, 2017 (shown as LBV 5 on Exhibits 2c and 3c). The breeding status of the LBV 5 male was also not established, although the behavior suggested it was paired. One or two transient least Bell's vireo males were also present in Reach 40b from May 19 to June 22, 2017.

3.2.2 Reach 43a: San Gabriel River – Upper

Least Bell's Vireo

Three least Bell's vireo territories were established in Reach 43a during these surveys (Exhibits 2d and 3d). The southernmost male was just upstream of San Gabriel River Parkway from May 8 to at least July 3, 2017; its breeding status was not determined (shown as LBV 1 on Exhibits 2d and 3d). The second male least Bell's vireo occupied the paint ball "war" area in the central part of the survey area from May 8 to at least June 22, 2017; this male's behavior suggested it was paired, but no young were detected. The third male established a territory in the northwest corner of the survey area on the late date of June 12 and remained until at least June 22, 2017. Its behavior on the two survey dates in which it was observed, suggested it was unpaired.

3.4 SANTA CLARA RIVER WATERSHED

3.4.1 Reach 75: South Fork - Santa Clara River (PDs 725, 916, 1041, 1300)

Southwestern Willow Flycatcher

A single migrant willow flycatcher of undetermined subspecies was present in Reach 75 on May 18 (see Reach 75 and 86 Bird Compendia Table in Attachment A).

[3] This area is described as a thicket because the narrow-leaved willows are taller and denser than they are in the dryer area downstream described as scrubby. It is unknown why the dryer scrubby and dryer area is favored



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Reach 40b: San Gabriel River – I-10 Freeway to Thienes Avenue

Exhibit 2c

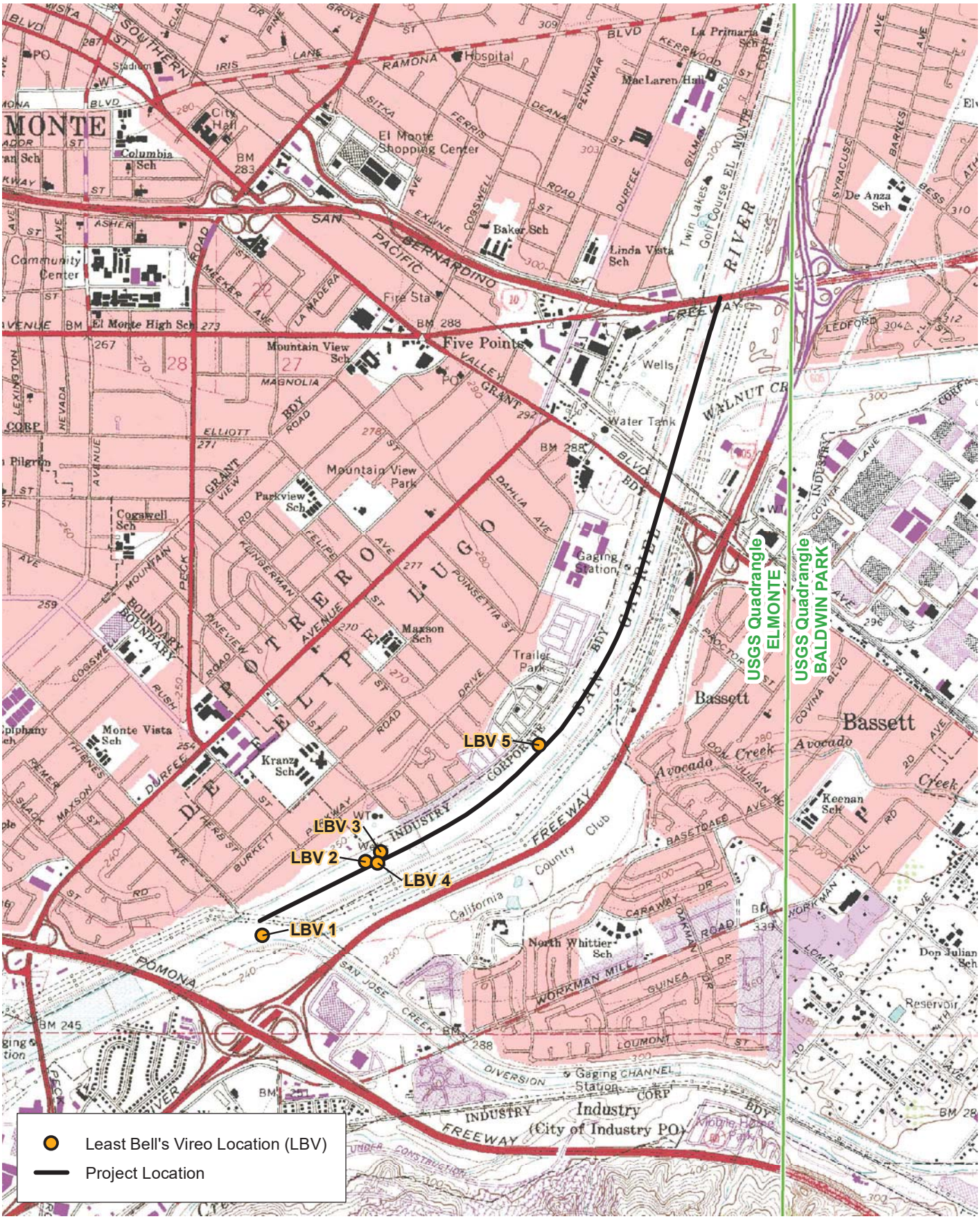
2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

1,400 700 0 1,400 Feet

PSOMAS

(Rev: 12/14/2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\ex_LBV_Aerial.pdf



Reach 40b: San Gabriel River – I-10 Freeway to Thienes Avenue

Exhibit 3c

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

2,000 1,000 0 2,000 Feet

PSOMAS

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Reach 43a: San Gabriel River – Upper

Exhibit 2d

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

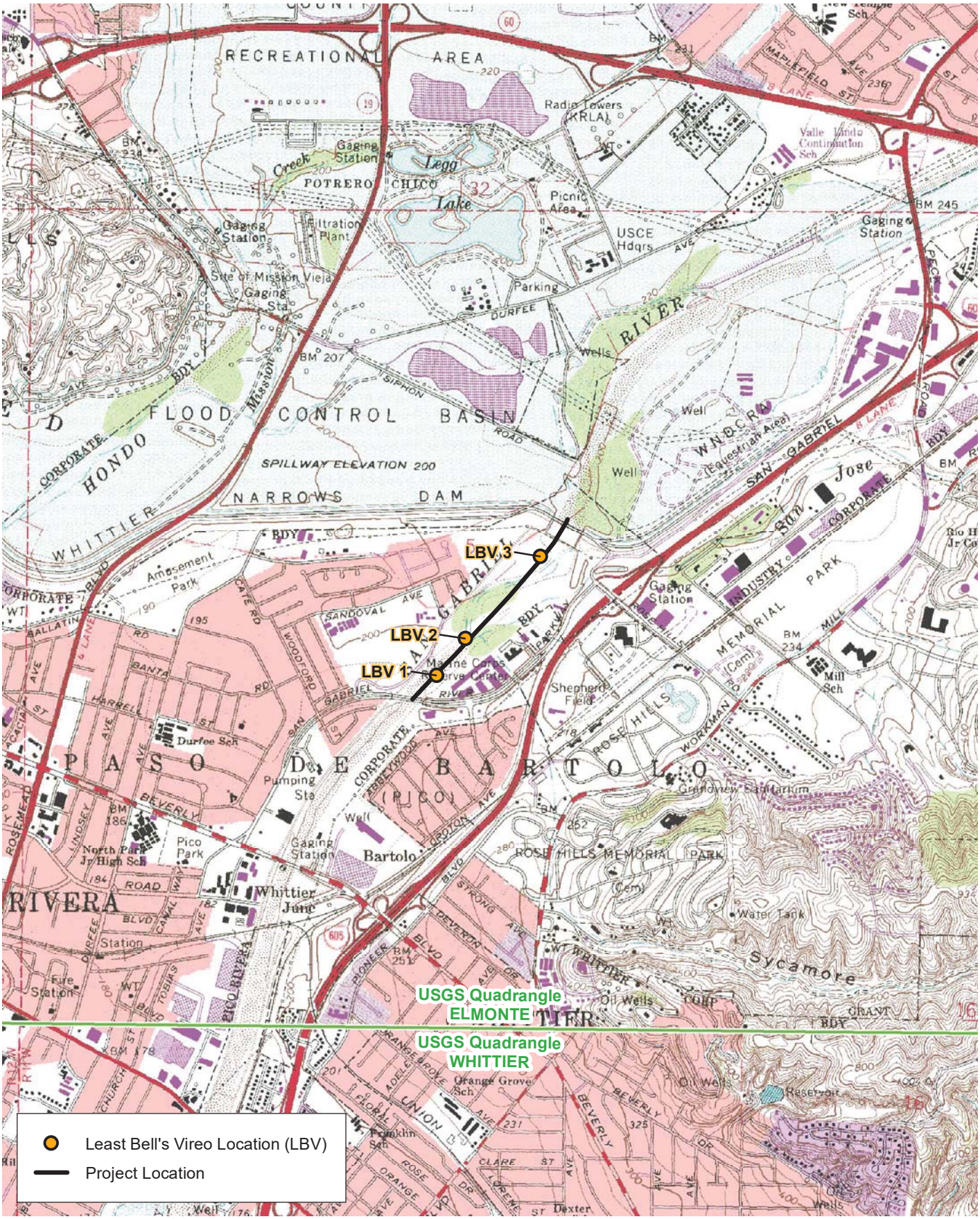
N
W E
S

500 250 0 500

Feet

PSOMAS

(Rev: 12/14/2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\ex_LBV_Aerial.pdf



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Reach 43a: San Gabriel River - Upper

Exhibit 3d

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N W E S

2,000 1,000 0 2,000 Feet

PSOMAS

(Rev: 12/14/2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\ex_LBV_USGS.pdf

3.4.2 Reach 86: Violin Canyon Main Channel Outlet

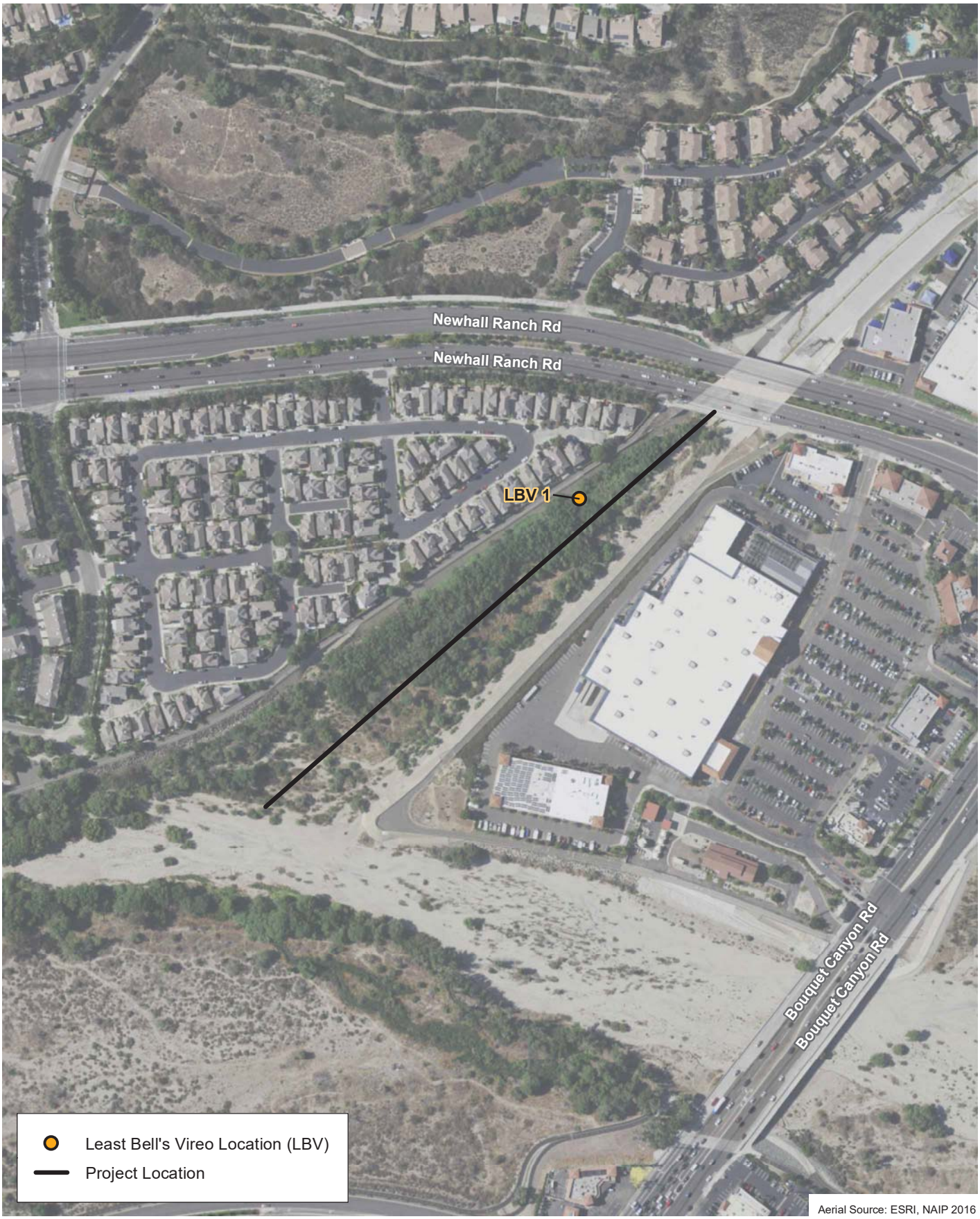
Southwestern Willow Flycatcher

A single migrant willow flycatcher of undetermined subspecies was present in Reach 86 on June 13, 2017 (see Reach 75 and 86 Bird Compendia Table in Attachment A).

3.4.3 Reach 103: Bouquet Canyon Channel (PD 2225)

Least Bell's Vireo

Although no least Bell's vireo were detected during the first three surveys, a least Bell's vireo pair was present on June 9, 2017 (shown as LBV 1 on Exhibits 2e and 3e). The pair's behavior on this date suggested they were searching for a suitable nest site. Subsequent behaviors observed on June 20 and 30, 2017, indicated an active nest was present on the west side of the channel about 300 feet downstream of Newhall Ranch Road. There were no least Bell's vireo dectections on July 12, 2017, but the adult female was observed foraging and feeding at least two begging least Bell's vireo fledglings on July 25, 2017. This family group was in the mule fat and willow scrub on the east side of the channel near its confluence with the Santa Clara River. One apparent transient male least Bell's vireo was present in the Santa Clara River channel at the confluence with Bouquet Canyon Channel on June 9, 2017.



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Reach 103: Bouquet Canyon Channel (PD 2225)

Exhibit 2e

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

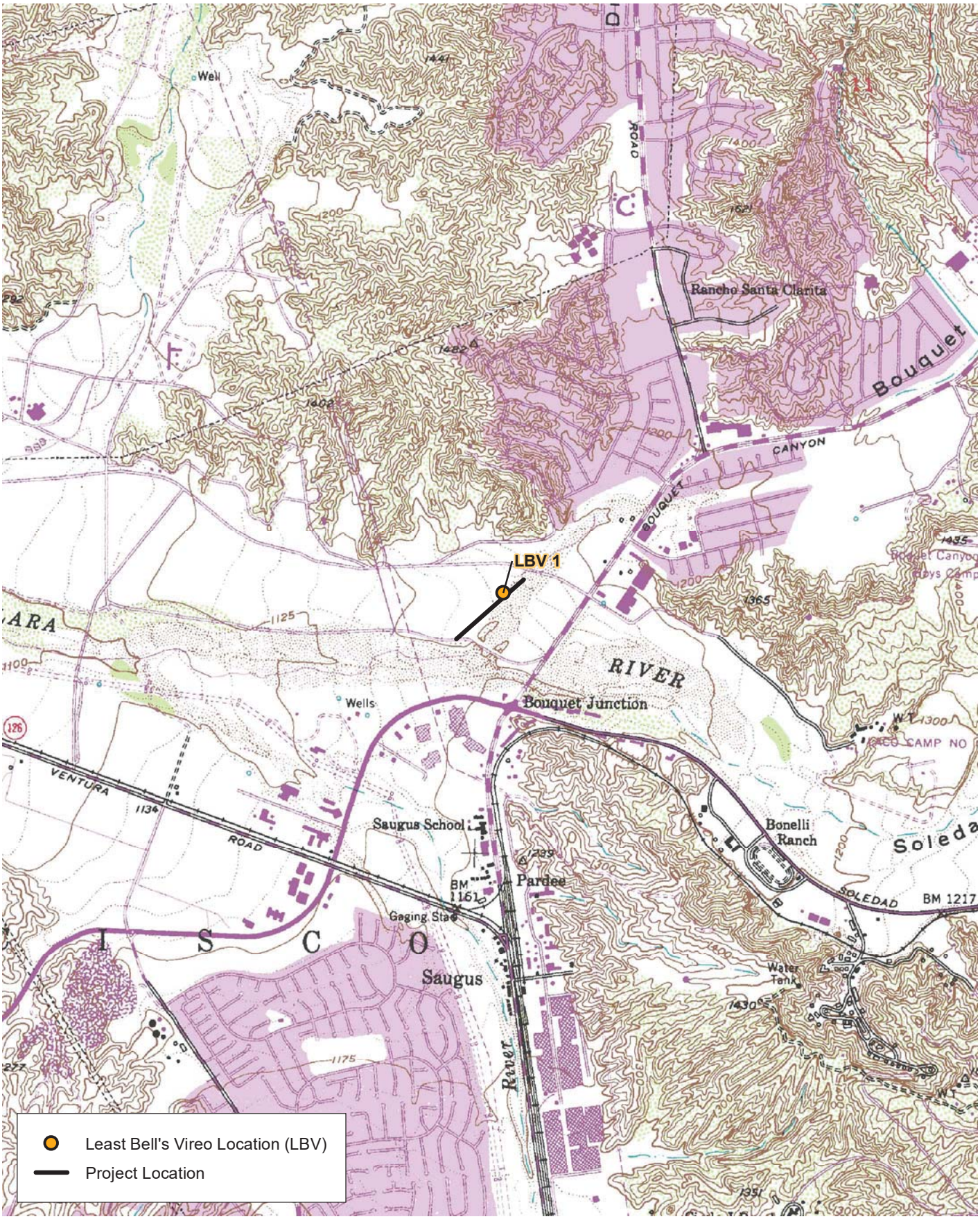
N
W E
S

300 150 0 300

Feet

PSOMAS

(Rev: 12/14/2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\ex_LBV_Aerial.pdf



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Reach 103: Bouquet Canyon Channel (PD 2225)

Exhibit 3e

2017 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

N
W E
S

2,000 1,000 0 2,000

Feet

PSOMAS

(Rev: 12/14/2017 CJS) R:\Projects\DPW\3DPW030900\Graphics\2017_Focused_Survey\ex_LBV_USGS.pdf

4.0 REFERENCES

American Ornithologists' Union. *Check-list of North American Birds* (7th ed). Shipman, VA: Buteo Books.

Bloom Biological, Inc. 2007 (June). *Report on Interim Late Winter and Spring Survey of Raptors and Special-Status Bird Species on Portions of Newhall Land and Farming Company Property.* (Prepared for Newhall Land & Farming Company).

Bloom Biological, Inc. 2015 (August). Santa Clara River Riparian Bird Surveys 2015 Final Report (prepared for Newhall Land). Santa Ana, CA: Bloom Biological.

BonTerra Psomas. 2015. 2015 Focused Survey Results, Los Angeles County Soft-Bottom Channels (an unpublished Report prepared for the Los Angeles County Department of Public Works). Pasadena, CA: BonTerra Psomas.

BonTerra Consulting. 2013. 2013 Focused Survey Results, Los Angeles County Soft-Bottom Channels (an unpublished Report prepared for the Los Angeles County Department of Public Works). Pasadena, CA: BonTerra.

———. 2011. 2011 Focused Survey Results, Los Angeles County Soft-Bottom Channels (an unpublished Report prepared for Los Angeles County Department of Public Works). Pasadena, CA: BonTerra.

———. 2009. 2009 Focused Survey Results, Los Angeles County Soft-Bottom Channels (an unpublished Report prepared for Los Angeles County Department of Public Works). Pasadena, CA: BonTerra.

———. 2007. Los Angeles County Soft-Bottom Channels 2007 Focused Survey Results (an unpublished Report prepared for Los Angeles County Department of Public Works). Pasadena, CA: BonTerra.

———. 2005. Los Angeles County Soft-Bottom Channels 2005 Focused Survey Results (an unpublished Report prepared for Los Angeles County Department of Public Works). Pasadena, CA: BonTerra.

———. 2003. Los Angeles County Soft-Bottom Channels 2003 Focused Survey Results (an unpublished report prepared for Los Angeles County Department of Public Works). Pasadena, CA: BonTerra.

———. 2002. Los Angeles County Channels Focused Survey Results (an unpublished report prepared for Los Angeles County Department of Public Works). Pasadena, CA: BonTerra.

———. 1999 (August). *Los Angeles County Channel Maintenance Project Initial Study.* Costa Mesa, CA: BonTerra Consulting.

Brown, B.T. 1993. Bell's Vireo (*Vireo bellii*). *The Birds of North America, No. 35* (A. Poole, P. Stettenheim and F. Gill, Eds.). Philadelphia, PA and Washington, D.C.: The Academy of Natural Sciences and the AOU (respectively).

California Department of Fish and Wildlife (CDFW). 2017a (October). *State & Federally Listed Endangered & Threatened Animals of California*. Sacramento, CA: California Natural

Diversity Database. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline.

———. 2017b (October). *Special Animals List*. Sacramento, Sacramento, CA: CDFW, Natural Heritage Division.

———. 2017c. California Natural Diversity Database. Records of Occurrence for the USGS Sunland, San Fernando, Torrance, Point Dume, Azusa, Baldwin Park, Whittier, Newhall, and Val Verde 7.5-minute quadrangles. Sacramento, CA: CDFG, Natural Heritage Division.

California Resources Agency, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, and Santa Monica Mountains Conservancy (CRA et al.). 2001 (October). *Common Ground from the Mountains to the Sea: Watershed and Open Space Plan San Gabriel and Los Angeles Rivers*. Alhambra, CA: Rivers and Mountains Conservancy. http://www.rmc.ca.gov/plans/common_ground/Common%20Ground.pdf.

Dale, N. 1986. *Flowering Plants: The Santa Monica Mountains Coastal & Chaparral Regions of Southern California*. Santa Barbara, CA: Carpa Press.

Durst, S.L., M.K. Sogge, S.D. Stump, S.O. Williams, B.E. Kus and S.J. Sferra. 2007. *Southwestern Willow Flycatcher Breeding Site and Territory Summary – 2006* (Open File Report 2007-1391). Reston, VA: USGS. http://pubs.usgs.gov/of/2007/1391/.

Durst, S.L., M.K. Sogge, H.C. English, S.O. Williams, B.E. Kus, and S.J. Sferra. 2005. *Southwestern Willow Flycatcher Breeding Site and Territory Summary – 2004* (Report to the U.S. Bureau of Reclamation). Flagstaff, AZ: USGS Southwest Biological Science Center, Colorado Plateau Research Station.

England and Nelson Environmental Consultants. 1976. *Los Angeles County Significant Ecological Area Study* (Prepared for Los Angeles County, Department of Regional Planning and Environmental Systems Research Institute). Riverside, CA: England and Nelson Environmental Consultants.

Flett, M.A. and S.D. Sanders. 1987. Ecology of a Sierra Nevada Population of Willow Flycatchers. *Western Birds* 18(1):37–42. San Diego, CA: Western Field Ornithologists.

Franzreb, K.E. 1989. *Ecology and Conservation of the Endangered Least Bell's Vireo* (Biological Report 89[1]. Washington, D.C.: USFWS, Endangered Species Office.

Frost, D.R. et al. 2006. The Amphibian Tree of Life. *Bulletin of the American Museum of Natural History* 297:1–291. New York: NY: American Museum of Natural History.

Garrett, K.L., and J.L. Dunn. 1981. *Birds of Southern California: Status and Distribution.* Los Angeles, CA: Audubon Press.

Gergus, E.W.A. 1998. Systematics of the *Bufo microscaphus* complex: allozyme evidence. *Herpetologica* 54:317–325. Salt Lake City, UT: Society for the Study of Amphibians and Reptiles.

Gergus, E.W.A., B.K. Sullivan, and K.B. Malmos. 1997. Call Variation in the Bufo microscaphus Complex: Implications for Species Boundaries and the Evolution of Mate Recognition. *Ethology* 103:979–989. Maldon, MA: John Wiley & Sons, Inc.

Goldwasser, S. 1981. *Habitat Requirements of the Least Bell's Vireo* (Final Report, Job IV-38.1). Sacramento, CA: CDFG.

Griffin, P.C., T.J. Case, and R.N. Fisher. 1999. Radio Telemetry Study of *Bufo californicus*, Arroyo Toad Movement Patterns and Habitat Preferences (Contract Report to the California Department of Transportation Southern Biology Pool).

Griffith Wildlife Biology. 2009. The Status of the Least Bell's Vireo and Southwestern Willow Flycatcher at Los Angeles County Drainage Area Sites in 2009 (Unpublished report prepared for U.S. Army Corps of Engineers, Los Angeles District Operations Branch).

Grinnell, J., and A.H. Miller. 1986 (April). *The Distribution of the Birds of California* (reprint from Cooper Ornithological Club's December 30, 1944, *Pacific Coast Avifauna No. 27*). Lee Vining, CA: Artemesia Press

Harris, J.H., S.D. Sanders, M. A. Flett. 1987. Willow Flycatcher Surveys in the Sierra Nevada. *Western Birds* 18(1):27–36. San Diego, CA: Western Field Ornithologists.

Los Angeles County Department of Public Works (LACDPW). 2007 (August). Los Angeles River Watershed. Los Angeles, CA: LACDPW. http://ladpw.org/wmd/watershed/LA/docs/lariver_wtrshed.pdf.

———. 1999. *Memorandum of Understanding Between Los Angeles County, Department of Public Works and California Department of Fish and Game Regarding Routine Maintenance Activities in Earthen-Bottom Improved Channels 5-076-99.*

———. 1996. *Effects of Vegetation on Capacity of Soft Bottom Channels*. Los Angeles, CA: LACDPW.

Los Angeles Regional Water Quality Control Board (RWQCB) File No. 99-011. 1999. *Conditional Certification Under Clean Water Act (CWA) Section 401: Maintenance Clearing for 100 Reaches of Engineered Earth-Bottom Flood Control Channels, Various Watersheds Within Los Angeles County*. Los Angeles, CA: RWQCB.

Long, M.C. 1993. *Birds of the Whittier Narrows Recreation Area; Los Angeles County, California*. South El Monte, CA: Whittier Narrows Nature Center Associates.

McCaskie, G. 1975. The Nesting Season: June 1 through July 31, 1975; Southern Pacific Coast Region. *American Birds* 29(5):1029–1036. New York, NY: National Audubon Society.

Phillips, A.R., J. Marshall, and G. Monson. 1964. *The Birds of Arizona*. Tucson, AZ: University of Arizona Press.

Ramirez, Jr., R.S. 2003. Personal communication. Phone call between R.S. Ramirez, Jr., Biologist, and Brian Daniels, Senior Biologist (BonTerra Consulting) regarding the arroyo toad.

———. 2002a. Arroyo Toad (*Bufo californicus*) Radio Telemetry Study, Little Rock Creek, Los Angeles County, California (Final Unpublished report). Arcadia, CA: USDA Forest Service, Angeles National Forest.

———. 2002b. Arroyo Toad (*Bufo californicus*) Radio Telemetry, San Juan Creek, Orange/Riverside Counties, California (Interim Unpublished report). Rancho Bernardo, CA: USDA Forest Service, Cleveland National Forest.

———. 2002c. Arroyo Toad (*Bufo californicus*) Radio Telemetry & Pitfall Trapping Studies, Little Horsethief Canyon, Summit Valley Ranch, San Bernardino County, California (Final Unpublished Report). San Bernardino, CA: California Department of Transportation, District 8.

———. 2001. Arroyo Toad (*Bufo californicus*) Radio Telemetry Study, Little Rock Creek, Los Angeles County, California (Interim Unpublished Report 2). Arcadia, CA: USDA Forest Service, Angeles National Forest.

———. 2000. Arroyo Toad (*Bufo californicus*) Radio Telemetry Study, Little Rock Creek, Los Angeles County, California (Interim Unpublished Report). Arcadia, CA: USDA Forest Service, Angeles National Forest.

———. 1999. *Results of Focused California Red-legged Frog Surveys at Ahmanson Ranch, Ventura County, California*.

RECON Regional Environmental Consultants (RECON). 1988. *Draft Comprehensive Species Management Plan for the Least Bell's Vireo* (Prepared for the San Diego Association of Governments). San Diego, CA: RECON.

Remsen, J.V., Jr. 1978. *Bird Species of Special Concern in California: An Annotated List of Declining or Vulnerable Bird Species* (Administrative Report No. 78-1). Sacramento, CA: CDFG, Wildlife Management Branch.

Rosenberg, K.V., R.D. Ohmart, W.C. Hunter, and B. W. Anderson. 1991. *Birds of the Lower Colorado Valley.* Tucson, AZ: University of Arizona Press.

Salata, L.R. 1983. *Status of the Least Bell's Vireo on Camp Pendleton, California: Report on Research Done in 1983.* Laguna Niguel, CA: USFWS Publication.

Sedgwick, J.A. 2000. Willow Flycatcher (*Empidonax traillii*). *The Birds of North America, No. 533* (A. Poole and F. Gill, eds.). Philadelphia, PA: The Birds of North America, Inc.

Sogge, M.K., D. Ahlers, and S.J. Sferra. 2010. A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher: U.S. Geological Survey Techniques and Methods (prepared in cooperation with the Bureau of Reclamation and the U.S. Fish and Wildlife Service). Menlo Park, CA: USGS, Western Region.

Sweet, S.S. 1993. *Second Report on the Biology and Status of the Arroyo Toad (Bufo microscaphus californicus) on the Los Padres National Forest of Southern California* (Report to United States Department of Agriculture, Forest Service, Los Padres National Forest). Goleta, CA: USDA.

———. 1992. *Ecology and Status of the Arroyo Toad (Bufo microscaphus californicus), on the Los Padres National Forest of Southern California, with Management Recommendations* (Report to United States Department of Agriculture, Forest Service, Los Padres National Forest). Goleta, CA: USDA.

Unitt, P. 1987. *Empidonax traillii extimus:* An Endangered Subspecies. *Western Birds* 18(3):137–162. San Diego, CA: Western Field Ornithologists.

———. 1984. *The Birds of San Diego County* (Memoir 13). San Diego, CA: San Diego Society of Natural History.

U.S. Army Corps of Engineers (USACE) 1996 (November). *Navigation and Dredging Operations and Maintenance Guidance and Procedures* (Pamphlet No. 1130-2-520). Washington, D.C.: USACE. http://www.tpub.com/content/ USACEengineeringpamplets2/EP-1120-2-520/EP-1120-2-5200002.htm.

U.S. Fish and Wildlife Service (USFWS). 2014a (December 31). Endangered and Threatened Wildlife and Plants; 90-Day Findings on Two Petitions. *Federal Register* 79(250): 78775–78778. Washington, D.C.: USFWS. http://www.gpo.gov/fdsys/pkg/FR-2014-12-31/pdf/2014-30574.pdf.

———. 2014b (October 17). Reopening of Comment Period: 12-Month Finding on a Petition To Downlist the Arroyo Toad, and a Proposed Rule To Reclassify the Arroyo Toad as Threatened. *Federal Register* 79(2): 62408–62409.Washington, D.C.: USFWS.

———. 2013 (January 3). Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Southwestern Willow Flycatcher; Final Rule. *Federal Register* 78 (2): 343–534. Washington, D.C.: USFWS.

———. 2011 (February 9). Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for the Arroyo Toad; Final Rule. *Federal Register* 76(27): 7245–7467. Washington, D.C.: USFWS.

———. 2009 (October 13). Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for the Arroyo Toad (*Anaxyrus californicus*); Proposed Rule. *Federal Register* 74(196): 52611–52664. Washington, D.C.: USFWS.

———. 2006 (September). *Least Bell's Vireo (Vireo bellii pusillus): 5-Year Review, Summary and Evaluation.* Carlsbad, CA: U.S. Fish and Wildlife Service.

———. 2005a (April 13). Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad (*Bufo californicus*); Final Rule. *Federal Register* 70(70): 19561–19633. Washington, D.C.: USFWS.

———. 2005b. *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog*. Washington, D.C.: USFWS.

———. 2004 (October). Biological Opinion for Santa Clara River Reaches 71 and 82, Los Angeles County, California (File No. 98-0002701-AoA) (1-8-04-F-4).

———. 2001 (January 19). *Least Bell's Vireo Survey Guidelines*. Carlsbad, CA: USFWS Carlsbad Field Office.

———. 2000. *Southwestern Willow Flycatcher Protocol Revision 2000*. Washington, D.C.: USFWS.

———. 1999. *Survey Protocol for the Arroyo Toad.* Ventura, CA: USFWS.

———. 1996. *The Arroyo Toad (Bufo microscaphus californicus), Ecology, Threats, and Research Needs* (Technical Report NBS/CSC-96-01). Ventura, CA: USFWS.

———. 1994a (December 16). Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Arroyo Southwestern Toad. *Federal Register* 59(241): 64859–64867. Washington, D.C.: USFWS.

———. 1994b (February 2). Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Least Bell's Vireo. *Federal Register* 59(22): 4845–4867. Washington, D.C.: USFWS.

———. 1993a. Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Arroyo Southwestern Toad. *Federal Register* 58(147): 41231–41236. Washington, D.C.: USFWS.

———. 1993b (July 23). Endangered and Threatened Wildlife and Plants; Proposed Rule to List the Southwestern Willow Flycatcher as Endangered with Critical Habitat. *Federal Register* 58(140): 39495–39522. Washington, D.C.: USFWS.

ATTACHMENT A

BIRD COMPENDIA

Bird Compendia

REACH 7
BULL CREEK

Species	Survey Dates (2017)							
	5/7	5/17	5/29	6/8	6/19	6/29	7/10	7/20
mallard (*Anas platyrhynchos*)			1	3	6			
rock pigeon – l (*Columba livia*)		1						
mourning dove (*Zenaida macroura*)	12	2	3	2	1		6	3
Vaux's swift (*Chaetura vauxi*)		4						
white-throated swift (*Aeronautes saxatalis*)		4						
Anna's hummingbird (*Calypte anna*)	1		1					
Allen's hummingbird (*Selasphorus sasin*)	1	2	1					
Allen's/rufous hummingbird (*S. sasin* or *rufus*)					1		1	
American coot (*Fulica americana*)			1	1	1			
Killdeer (*Charadrius vociferus*)						1		
double-crested cormorant (*Phalacrocorax auritus*)		1						
great blue heron (*Ardea herodias*)	1	1						
green heron (*Butorides virescens*)		1						
turkey vulture (*Cathartes aura*)		1						
Cooper's hawk (*Accipiter cooperii*)					1			
Nuttall's woodpecker (*Picoides nuttallii*)			1				1	
downy woodpecker (*Picoides pubescens*)						1		
black phoebe (*Sayornis nigricans*)	6	1	3	2	2	3	1	
western kingbird (*Tyrannus verticalis*)					1	5		
Bell's vireo (*Vireo bellii*)	3	4	3	3	1	3	1	1
warbling vireo (*Vireo gilvus*)			1					
common raven (*Corvus corax*)	1					2		
tree swallow (*Tachycineta bicolor*)		2						
Northern rough-winged swallow (*Stelgidopteryx serripennis*)		2	2					

REACH 7
BULL CREEK

Species	Survey Dates (2017)							
	5/7	5/17	5/29	6/8	6/19	6/29	7/10	7/20
cliff swallow (*Petrochelidon pyrrhonota*)		15	3	25	6	2	4	
barn swallow (*Hirundo rustica*)			2		1			
bushtit (*Psaltriparus minimus*)	15	2			10		10	
Bewick's wren (*Thryomanes bewickii*)					1		1	
Swainson's thrush (*Catharus ustulatus*)	1							
American robin (*Turdus migratorius*)							1	
northern mockingbird (*Mimus polyglottos*)		1	1	1				
European starling – I (*Sturnus vulgaris*)	1							
cedar waxwing (*Bombycilla cedrorum*)	1							
house finch (*Haemorhous mexicanus*)	1	5	5	2	10	2	5	2
lesser goldfinch (*Spinus psaltria*)	5	1	2		3	2	2	
American goldfinch (*Spinus tristis*)				1				
spotted towhee (*Pipilo maculatus*)	2	1	2			1	2	1
California towhee (*Melozone crissalis*)	2	1	2	2	1	2	4	1
song sparrow (*Melospiza melodia*)	5	1	8	6	5	2		
hooded oriole (*Icterus cucullatus*)							1	
Bullock's oriole (*Icterus bullockii*)	1					1		
red-winged blackbird (*Agelaius phoeniceus*)	1							
brown-headed cowbird (*Molothrus ater*)	1	1	1	1	2	1		
great-tailed grackle (*Quiscalus mexicanus*)	2							
common yellowthroat (*Geothlypis trichas*)		2	3	1				
yellow warbler (*Setophaga petechia*)	4	4	5	2	3	2	2	
yellow-rumped warbler (*Setophaga coronata*)	1							
black-throated gray warbler (*Setophaga nigrescens*)	1							
Wilson's warbler (*Cardellina pusilla*)	1							

REACH 7
BULL CREEK

Species	Survey Dates (2017)							
	5/7	5/17	5/29	6/8	6/19	6/29	7/10	7/20
black-headed grosbeak (*Pheucticus melanocephalus*)	1	1	1	1	1	1		
blue grosbeak (*Passerina caerulea*)			1			1		1

REACH 12
HAINES CANYON MAIN CHANNEL OUTLET

Species	Survey Dates (2017)							
	5/1	5/16	6/1	6/12	6/23	7/3	7/13	7/25
mallard (*Anas platyrhynchos*)	2	3	2	1				
California quail (*Callipepla californica*)		2		2				3
Eurasian collared-dove – I (*Streptopelia decaocto*)		1						
mourning dove (*Zenaida macroura*)	4	3	2	3	1	2	2	3
Anna's hummingbird (*Calypte anna*)	1	1		1		1	5	1
Allen's hummingbird (*Selasphorus sasin*)			1				4	
Allen's/rufous hummingbird (*S. sasin* or *rufus*)		1						
green heron (*Butorides virescens*)				1				
turkey vulture (*Cathartes aura*)								
Cooper's hawk (*Accipiter cooperii*)				2		1	4	
red-tailed hawk (*Buteo jamaicensis*)					1			
Nuttall's woodpecker (*Picoides nuttallii*)			1		2			
Pacific-slope flycatcher (*Empidonax difficilis*)		1		1		1		
black phoebe (*Sayornis nigricans*)		2	2	2	1	4	1	
Ash-throated flycatcher (*Myiarchus cinerascens*)				1			3	
Willow flycatcher (*Empidonax traillii*)			1					
Cassin's kingbird (*Tyrannus vociferans*)						1		
California scrub-jay (*Aphelocoma californica*)	2		2	1	1	2		2
American crow (*Corvus brachyrhynchos*)		6		4		1	3	

REACH 12
HAINES CANYON MAIN CHANNEL OUTLET

Species	Survey Dates (2017)							
	5/1	5/16	6/1	6/12	6/23	7/3	7/13	7/25
common raven (*Corvus corax*)			3		2	2		
northern rough-winged swallow (*Stelgidopteryx serripennis*)	1			1				
bushtit (*Psaltriparus minimus*)	7	1	7	3			5	4
house wren (*Troglodytes aedon*)			1					
Bewick's wren (*Thryomanes bewickii*)		1				2	2	
northern mockingbird (*Mimus polyglottos*)		4	2	1			2	2
European starling – I (*Sturnus vulgaris*)	2							
cedar waxwing (*Bombycilla cedrorum*)					10			
phainopepla (*Phainopepla nitens*)								2
house finch (*Haemorhous mexicanus*)		4	4	11	1	1	6	
lesser goldfinch (*Spinus psaltria*)					4		4	
California towhee (*Melozone crissalis*)		1			1	1		1
song sparrow (*Melospiza melodia*)	2	3		1		2		
hooded oriole (*Icterus cucullatus*)		3					2	1
Bullock's oriole (*Icterus bullockii*)		1						
common yellowthroat (*Geothlypis trichas*)				2			1	
yellow warbler (*Setophaga petechia*)	1	4	3	2		1	1	1
Western tanager (*Piranga ludoviciana*)		1						
black-headed grosbeak (*Pheucticus melanocephalus*)		1						

REACH 14
MAY CHANNEL (MAIN CHANNEL OUTLET INTO PACOIMA CANYON)

Species	Survey Dates (2017)							
	5/12	5/22	6/1	6/12	6/23	7/3	7/13	7/25
California quail (*Callipepla californica*)							1	
rock pigeon – I (*Columba livia*)			1					
mourning dove (*Zenaida macroura*)	1	2		1	2		1	
band-tailed pigeon (*Patagioenas fasciata*)					2			
white-throated swift (*Aeronautes saxatalis*)		1					5	
Anna's hummingbird (*Calypte anna*)					1		1	2
Cooper's hawk (*Accipiter cooperii*)	1		1					
red-tailed hawk (*Buteo jamaicensis*)		2		1			1	1
Nuttall's woodpecker (*Picoides nuttallii*)				1		1	1	
northern flicker (*Colaptes auratus*)				1				
black phoebe (*Sayornis nigricans*)	1			2	2	1	2	
Western kingbird (*Tyrannus verticalis*)	2	1					1	
Bell's vireo (*Vireo bellii*)	1	1	1	1	1	2		
California scrub-jay (*Aphelocoma californica*)				1	2	1	1	
American crow (*Corvus brachyrhynchos*)				3			4	
common raven (*Corvus corax*)	2	3						
northern rough-winged swallow (*Stelgidopteryx serripennis*)		6	1		5		2	
bushtit (*Psaltriparus minimus*)	12	12						5
white-breasted nuthatch (*Sitta carolinensis*)						1		
wrentit (*Chamaea fasciata*)					1			
western bluebird (*Sialia mexicana*)						1		
house wren (*Troglodytes aedon*)		1						
Bewick's wren (*Thryomanes bewickii*)					1	2	2	
northern mockingbird (*Mimus polyglottos*)		5			2			1
house sparrow – I (*Passer domesticus*)				2				

REACH 14
MAY CHANNEL (MAIN CHANNEL OUTLET INTO PACOIMA CANYON)

Species	Survey Dates (2017)							
	5/12	5/22	6/1	6/12	6/23	7/3	7/13	7/25
phainopepla (*Phainopepla nitens*)	1	1	2					
house finch (*Haemorhous mexicanus*)	3	3	8		4	8	3	2
lesser goldfinch (*Spinus psaltria*)	1	12	5		5	3	3	2
spotted towhee (*Pipilo maculatus*)	1	2	2	1	1			
California towhee (*Melozone crissalis*)		7	1		1			1
rufous-crowned sparrow (*Aimophila ruficeps*)		1						
song sparrow (*Melospiza melodia*)		4				3		
Bullock's oriole (*Icterus bullockii*)						1		
brown-headed cowbird (*Molothrus ater*)					1			
Brewer's blackbird (*Euphagus cyanocephalus*)				2			2	
Yellow-rumped warbler (*Dendroica coronata*)				2				

REACH 27
WILMINGTON DRAIN

Species	Survey Dates (2017)							
	5/7	5/17	5/29	6/8	6/19	6/29	7/10	7/20
mallard (*Anas platyrhynchos*)	14	5	5	2	1	15	9	
rock pigeon – I (*Columba livia*)		2	10	2		5	1	1
Eurasian collared-dove – I (*Streptopelia decaocto*)		2	8	3				2
mourning dove (*Zenaida macroura*)	11	12	6	2	5	4	5	5
white-throated swift (*Aeronautes saxatalis*)				1				
Anna's hummingbird (*Calypte anna*)	5	5	2	3	3	1	2	2
Allen's hummingbird (*Selasphorus sasin*)	1	3	3	3	3	1	1	
Allen's/rufous hummingbird (*S. sasin* or *rufus*)	3	2	10	8	8	3	8	10
killdeer (*Charadrius vociferans*)		1				1		
western gull (*Larus occidentalis*)			1		1		1	2
Caspian tern (*Hydroprogne caspia*)		1						
great blue heron (*Ardea herodias*)	1							
Great egret (*Ardea alba*)			1					
snowy egret (*Egretta thula*)	3				1	2		2
green heron (*Butorides virescens*)					1			
downy woodpecker (*Picoides pubescens*)								1
black phoebe (*Sayornis nigricans*)	4	2	1	1	4	1	2	4
American crow (*Corvus brachyrhynchos*)	2	1						
common raven (*Corvus corax*)	2						2	
northern rough-winged swallow (*Stelgidopteryx serripennis*)	7		3	2	5	1		
cliff swallow (*Petrochelidon pyrrhonota*)	1		1					
barn swallow (*Hirundo rustica*)		5	8	2	2	3	6	8
bushtit (*Psaltriparus minimus*)	25	15	15	15	12	25	10	10
western bluebird (*Sialia mexicana*)								1
northern mockingbird (*Mimus polyglottos*)	3		2	2	2			

REACH 27
WILMINGTON DRAIN

Species	Survey Dates (2017)							
	5/7	**5/17**	**5/29**	**6/8**	**6/19**	**6/29**	**7/10**	**7/20**
European starling – I (*Sturnus vulgaris*)	2		2	1				
scaly-breasted munia – I (*Lonchura punctulata*)	8	1	4		3	3	6	75
house sparrow – I (*Passer domesticus*)		10	4	5		3	2	
house finch (*Haemorhous mexicanus*)	12	25	20	5	6	15	10	25
lesser goldfinch (*Spinus psaltria*)	4	1	1	1	1		3	10
American goldfinch (*Spinus tristis*)	6	6	2	1	1	4	3	1
California towhee (*Melozone crissalis*)	5	1	3	2	4	2	6	4
song sparrow (*Melospiza melodia*)	1	8	8	8	5	5	3	2
hooded oriole (*Icterus cucullatus*)	4	2	4	5	5	8		3
Bullock's oriole (*Icterus bullockii*)				2	1		1	2
red-winged blackbird (*Agelaius phoeniceus*)	1	2					5	40
brown-headed cowbird (*Molothrus ater*)	1							
orange-crowned warbler (*Oreothlypis celata*)	1			1				
common yellowthroat (*Geothlypis trichas*)	5	8	12	8	10	8	3	6
yellow warbler (*Setophaga petechia*)	6	8	10	3	5	5	5	2
black-headed grosbeak (*Pheucticus melanocephalus*)	1							
lazuli bunting (*Passerina amoena*)	1							

REACH 28
TRIUNFO CREEK (PD T2200)

Species	Survey Dates (2017)							
	5/7	5/17	5/29	6/8	6/19	6/29	7/10	7/20
mallard (*Anas platyrhynchos*)		4						
California quail (*Callipepla californica*)				1				
Indian Peafowl – I (*Pavo cristatus*)		2	1	3		1	1	1
band-tailed pigeon (*Patagioenas fasciata*)			1	1				
mourning dove (*Zenaida macroura*)	3	2	3	1	1	3	1	1
Anna's hummingbird (*Calypte anna*)	1			1				
great blue heron (*Ardea herodias*)						1		1
green heron (*Butorides virescens*)						1		
turkey vulture (*Cathartes aura*)			1					
red-shouldered hawk (*Buteo lineatus*)	1				1			
acorn woodpecker (*Melanerpes formicivorus*)	3	3	5	2	2	2	3	2
Nuttall's woodpecker (*Picoides nuttallii*)	3	1	2	2	1		1	1
northern flicker (*Colaptes auratus*)			1					
nanday parakeet – I *Aratinga nenday*	6	20	2	10	2	2	2	
lilac-crowned parrot – I (*Amazona finschi*)				3				
Pacific-slope flycatcher (*Empidonax difficilis*)	2							
black phoebe (*Sayornis nigricans*)		1	1		1	2	1	2
Ash-throated flycatcher (*Myiarchus cinerascens*)	1		1		1			
Cassin's kingbird (*Tyrannus vociferans*)			1					
California scrub-jay (*Aphelocoma californica*)	3	1	2		5	2	1	1
American crow (*Corvus brachyrhynchos*)	4	5	10	10	10	5	5	2
common raven (*Corvus corax*)					1			2
violet-green swallow (*Tachycineta thalassina*)		2		1				
northern rough-winged swallow (*Stelgidopteryx serripennis*)		2		2				
cliff swallow (*Petrochelidon pyrrhonota*)		3						

REACH 28
TRIUNFO CREEK (PD T2200)

Species	Survey Dates (2017)							
	5/7	5/17	5/29	6/8	6/19	6/29	7/10	7/20
oak titmouse (*Baeolophus inornatus*)	4	2	2		2	3	1	1
bushtit (*Psaltriparus minimus*)	6							
white-breasted nuthatch (*Sitta carolinensis*)			2	3	1			1
house wren (*Troglodytes aedon*)	7	2	4	2			1	1
Bewick's wren (*Thryomanes bewickii*)		1						
European starling – I (*Sturnus vulgaris*)	2		2					
house finch (*Haemorhous mexicanus*)	2	3	5	4	2	5	6	3
lesser goldfinch (*Spinus psaltria*)	2	1	2	2	2	2	3	3
American goldfinch (*Spinus tristis*)	1							
spotted towhee (*Pipilo maculatus*)	3	1	2		1			
California towhee (*Melozone crissalis*)	2	1	4	1	3	2		1
song sparrow (*Melospiza melodia*)	1	5	10	7	2	7	1	
Dark-eyed junco (*Junco hyemalis*)		1				1		2
hooded oriole (*Icterus cucullatus*)					1			
Bullock's oriole (*Icterus bullockii*)	1	1		3				
brown-headed cowbird (*Molothrus ater*)	2		1					
Orange-crowned warbler (*Oreothlypis celata*)	1							
yellow warbler (*Setophaga petechia*)	2		1	2				
black-headed grosbeak (*Pheucticus melanocephalus*)	1	1		2				

REACH 39
BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER

Species	Survey Dates (2017)							
	5/9	5/22	6/2	6/13	6/23	7/5	7/17	7/27
mallard (*Anas platyrhynchos*)							2	
California quail (*Callipepla californica*)		4						
mourning dove (*Zenaida macroura*)	5	2	3	1	4	2		
band-tailed pigeon (*Patagioenas fasciata*)					2			
white-throated swift (*Aeronautes saxatalis*)		4						
Anna's hummingbird (*Calypte anna*)	2	1	2	2	1	2		
Allen's/rufous hummingbird (*S. sasin* or *rufus*)	10							
killdeer (*Charadrius vociferus*)		1				2		
great blue heron (*Ardea herodias*)		1						1
great egret (*Ardea alba*)	1					1		
turkey vulture (*Cathartes aura*)				2				
Cooper's hawk (*Accipiter cooperii*)						1		
red-tailed hawk (*Buteo jamaicensis*)			1					1
Nuttall's woodpecker (*Picoides nuttallii*)								
black phoebe (*Sayornis nigricans*)	2	1	1		2	1	1	2
western kingbird (*Tyrannus verticalis*)							2	1
California scrub-jay (*Aphelocoma californica*)			2		2	2		
American crow (*Corvus brachyrhynchos*)							3	
common raven (*Corvus corax*)			3	2		4	1	
northern rough-winged swallow (Stelgidopteryx serripennis)	5	1	5	1	4			
oak titmouse (*Baeolophus inornatus*)							3	2
bushtit (*Psaltriparus minimus*)		6					3	5
wrentit (*Chamaea fasciata*)			1		1			1
house wren (*Troglodytes aedon*)						4		
Bewick's wren (*Thryomanes bewickii*)	5		1		1			

REACH 39
BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER

Species	Survey Dates (2017)							
	5/9	5/22	6/2	6/13	6/23	7/5	7/17	7/27
northern mockingbird (*Mimus polyglottos*)	1		1	1	1			2
European starling – I (*Sturnus vulgaris*)	1							
cedar waxwing (*Bombycilla cedrorum*)	11			7		5		
phainopepla (*Phainopepla nitens*)	2	1		2				
house finch (*Haemorhous mexicanus*)	20		2	3	4	4	1	5
lesser goldfinch (*Spinus psaltria*)	3	2	7	3	8	7	6	
spotted towhee (*Pipilo maculatus*)	1		1	1	1			2
California towhee (*Melozone crissalis*)	4	3	2		2	1		3
song sparrow (*Melospiza melodia*)	5	3					2	
yellow-breasted chat (*Icteria virens*)	1	1	1	1	1	1	2	1
Bullock's oriole (*Icterus bullockii*)		1					2	2
brown-headed cowbird (*Molothrus ater*)		1	2		2			
Orange-crowned warbler (*Oreothlypis celata*)	1							
common yellowthroat (*Geothlypis trichas*)	3	1	1		2	1		
yellow warbler (*Setophaga petechia*)	1						2	1
black-headed grosbeak (*Pheucticus melanocephalus*)						2	1	
red-winged blackbird (*Agelaius phoeniceus*)			2		4			

REACH 40B
SAN GABRIEL RIVER – INTERSTATE 10 (SANTA MONICA) FREEWAY TO THIENES AVENUE

Species	Survey Dates (2017)							
	5/8	5/19	6/1	6/12	6/22	7/3	7/13	7/24
Canada goose (*Branta canadensis*)	4							
mallard (*Anas platyrhynchos*)	14	15	10	15	1	5	1	4
pied-billed grebe (*Podilymbus podiceps*)		1		3	2	1	4	4
rock pigeon – I (*Columba livia*)	12							1
Eurasian collared-dove – I (*Streptopelia decaocto*)	5	5	8	5	6	7	12	8
mourning dove (*Zenaida macroura*)	2	6	3	2	2		4	10
white-throated swift (*Aeronautes saxatalis*)	2		1	2				
Anna's hummingbird (*Calypte anna*)	1		2					
Allen's/rufous hummingbird (*S. sasin* or *rufus*)						1		
common gallinule (*Gallinula galeata*)		1	5	3		4	2	4
American coot (*Fulica americana*)	3	2		2		2	3	3
Black-necked stilt (*Himantopus mexicanus*)	2	1	1					
killdeer (*Charadrius vociferus*)	4	6	5	3	1			
Spotted sandpiper (*Actitis macularius*)		2						
western gull (*Larus occidentalis*)	1							1
Caspian tern (*Hydroprogne caspia*)							1	
double-crested cormorant (*Phalacrocorax auritus*)			8	4	1	2	3	3
great blue heron (*Ardea herodias*)	2		1	1	1	3	1	2
great egret (*Ardea alba*)	1	1	1					2
snowy egret (*Egretta thula*)	3	1				1	18	3
green heron (*Butorides virescens*)				2	2	1	2	1
black-crowned night-heron (*Nycticorax nycticorax*)	1		2	3			7	
turkey vulture (*Cathartes aura*)	1							
Cooper's hawk (*Accipiter cooperii*)			1					1

REACH 40B
SAN GABRIEL RIVER – INTERSTATE 10 (SANTA MONICA) FREEWAY TO THIENES AVENUE

Species	Survey Dates (2017)							
	5/8	5/19	6/1	6/12	6/22	7/3	7/13	7/24
red-shouldered hawk (*Buteo lineatus*)								1
Nuttall's woodpecker (*Picoides nuttallii*)					1	1	1	
American kestrel (*Falco sparverius*)	1				1	1	2	
peregrine falcon (*Falco peregrinus*)							1	
mitred parakeet – I (*Psittacara mitratus*)				25				
yellow-chevroned parakeet – I (*Brotogeris chiriri*)					2			
Red-crowned parrot – I (*Amazona viridigenalis*)			2					
black phoebe (*Sayornis nigricans*)	3	3	4	5	3	3	2	4
Cassin's kingbird (*Tyrannus vociferans*)					2		1	1
western kingbird (*Tyrannus verticalis*)								3
Bell's vireo (*Vireo bellii*)	2	5	5	5	6	4	4	1
American crow (*Corvus brachyrhynchos*)				6	2	2		
common raven (*Corvus corax*)	3		2		1			3
northern rough-winged swallow (*Stelgidopteryx serripennis*)	5	2	8	15	2	10		
cliff swallow (*Petrochelidon pyrrhonota*)	7	5	10	1	5	3		
barn swallow (*Hirundo rustica*)	2	2	10	10	5	8	15	30
bushtit (*Psaltriparus minimus*)	5	10				10		10
house wren (*Troglodytes aedon*)								1
Red-whiskered Bulbul – I (*Pycnonotus jocosus*)		1	1					
American robin (*Turdus migratorius*)	2							
northern mockingbird (*Mimus polyglottos*)	9	1	8	7	6	6	5	5
European starling – I (*Sturnus vulgaris*)	3		25	90	5	25	20	10
cedar waxwing (*Bombycilla cedrorum*)	2							
northern red bishop – I (*Euplectes franciscanus*)							1	

REACH 40B
SAN GABRIEL RIVER – INTERSTATE 10 (SANTA MONICA) FREEWAY TO THIENES AVENUE

Species	Survey Dates (2017)							
	5/8	5/19	6/1	6/12	6/22	7/3	7/13	7/24
orange-cheeked waxbill – E (*Estrilda melpoda*)								1
scaly-breasted munia – I (*Lonchura punctulata*)				2	5			2
house sparrow – I (*Passer domesticus*)	20	25	10	15	10	25	10	15
house finch (*Haemorhous mexicanus*)	45	50	15	30	20	25	20	15
lesser goldfinch (*Spinus psaltria*)	2		2			2	12	8
American goldfinch (*Spinus tristis*)	4	5	1	7		3	6	15
spotted towhee (*Pipilo maculatus*)			2					
California towhee (*Melozone crissalis*)		3	5	5	5	7	6	4
song sparrow (*Melospiza melodia*)	11	15	25	30	12	8	5	5
yellow-breasted chat (*Icteria virens*)		2	2	2				
hooded oriole (*Icterus cucullatus*)	1		1	2		3	2	5
Bullock's oriole (*Icterus bullockii*)	4	3	4	3			1	1
Red-winged blackbird (*Agelaius phoeniceus*)	2		2		3		5	60
brown-headed cowbird (*Molothrus ater*)	6	1	1	7	1	5	4	1
great-tailed grackle (*Quiscalus mexicanus*)	8	6	8	15	20	25	25	20
common yellowthroat (*Geothlypis trichas*)	10	3	15	15	15	15	5	4
yellow warbler (*Setophaga petechia*)	9	4	7	4	4	4	3	1
northern cardinal – I (*Cardinalis cardinalis*)						1		
black-headed grosbeak (*Pheucticus melanocephalus*)	1	1				1	1	
blue grosbeak (*Passerina caerulea*)			2	2	1	1	2	1

REACH 43A
SAN GABRIEL RIVER – UPPER

Species	Survey Dates (2017)							
	5/8	5/19	6/1	6/12	6/22	7/3	7/13	7/24
mallard (*Anas platyrhynchos*)	2	5	9	2	2	2	6	2
rock pigeon – I (*Columba livia*)	3	8	10		30	5		3
Eurasian collared-dove – I (*Streptopelia decaocto*)		1	5	2	2	2	6	2
mourning dove (*Zenaida macroura*)	9	4	10	3	5	4	3	6
Anna's hummingbird (*Calypte anna*)		1			1	1	1	
Allen's hummingbird (*Selasphorus sasin*)							1	
Allen's/rufous hummingbird (*S. sasin* or *rufus*)		1		2	1			
American coot (*Fulica americana*)							4	1
killdeer (*Charadrius vociferus*)		1	1					
double-crested cormorant (*Phalacrocorax auritus*)	1				3	1		
California gull (*Larus californicus*)					1			
great blue heron (*Ardea herodias*)		1	2	2		2		2
great egret (*Ardea alba*)								5
snowy egret (*Egretta thula*)					1			7
green heron (*Butorides virescens*)					1	1		1
Black-crowned night-heron (*Nycticorax nycticorax*)		1						1
turkey vulture (*Cathartes aura*)							1	
Cooper's hawk (*Accipiter cooperii*)				1	1	1	1	
red-shouldered hawk (*Buteo lineatus*)			1					
red-tailed hawk (*Buteo jamaicensis*)	1			1	1			
Nuttall's woodpecker (*Picoides nuttallii*)	1			1	1	1	2	
Red-crowned parrot – I (*Amazona viridigenalis*)			4					
black phoebe (*Sayornis nigricans*)	5	1	3	4	2	1	5	2
Cassin's kingbird (*Tyrannus vociferans*)	1		2	1			2	3
Bell's vireo (*Vireo bellii*)	2	2	2	4	2	1		

REACH 43A
SAN GABRIEL RIVER – UPPER

Species	Survey Dates (2017)							
	5/8	5/19	6/1	6/12	6/22	7/3	7/13	7/24
Hutton's vireo (*Vireo huttoni*)			1					
American crow (*Corvus brachyrhynchos*)	1							
common raven (*Corvus corax*)	1				2			3
northern rough-winged swallow (*Stelgidopteryx serripennis*)		5		5				
cliff swallow (*Petrochelidon pyrrhonota*)	20	50	20	3	10	10	5	5
barn swallow (*Hirundo rustica*)		2	5	2				
bushtit (*Psaltriparus minimus*)	8	15	1	10	10	15		10
house wren (*Troglodytes aedon*)	1	2	2	2				
western bluebird (*Sialia mexicana*)							2	
American robin (*Turdus migratorius*)					1	1		
northern mockingbird (*Mimus polyglottos*)	3	1	3	3		1	2	6
European starling – I (*Sturnus vulgaris*)	1							
scaly-breasted munia – I (*Lonchura punctulata*)			1	5	2	15		1
house sparrow – I (*Passer domesticus*)	4							
house finch (*Haemorhous mexicanus*)	18	50	30	20	20	20	15	25
lesser goldfinch (*Spinus psaltria*)	5	25	5	2	4	6	10	10
American goldfinch (*Spinus tristis*)	1				1			2
spotted towhee (*Pipilo maculatus*)		5	1			1		1
California towhee (*Melozone crissalis*)	6	3	5	6	4	1	4	4
song sparrow (*Melospiza melodia*)	10	15	15	10	10	6	2	
yellow-breasted chat (*Icteria virens*)	3	2	1	2	2	1	1	
hooded oriole (*Icterus cucullatus*)	1	2	1	2			5	6
Bullock's oriole (*Icterus bullockii*)	2							
red-winged blackbird (*Agelaius phoeniceus*)						2		
brown-headed cowbird (*Molothrus ater*)	4	4			4	1		

REACH 43A
SAN GABRIEL RIVER – UPPER

Species	Survey Dates (2017)							
	5/8	**5/19**	**6/1**	**6/12**	**6/22**	**7/3**	**7/13**	**7/24**
Brewer's blackbird (*Euphagus cyanocephalus*)	3	1						
great-tailed grackle (*Quiscalus mexicanus*)	1	1						
common yellowthroat (*Geothlypis trichas*)	8	5	8	8	10	2	2	1
yellow warbler (*Setophaga petechia*)	10	8	3	5	5	3	4	
Wilson's warbler (*Cardellina pusilla*)	1							
black-headed grosbeak (*Pheucticus melanocephalus*)	1	2						
blue grosbeak (*Passerina caerulea*)	2		1	1				

REACH 43B
SAN GABRIEL RIVER – LOWER

Species	Survey Dates (2017)							
	5/8	5/19	6/1	6/12	6/22	7/3	7/10	7/24
Canada goose (*Branta canadensis*)	2		1		2			
mallard (*Anas platyrhynchos*)	5	3						
rock pigeon – I (*Columba livia*)			1		1		2	1
Eurasian collared-dove – I (*Streptopelia decaocto*)		1	8	2	12	10	8	4
mourning dove (*Zenaida macroura*)	2	8	2	2	3	4	1	3
white-throated swift (*Aeronautes saxatalis*)				1				
Anna's hummingbird (*Calypte anna*)		1						
Allen's/rufous hummingbird (*S. sasin* or *rufus*)		1	1			1		
common gallinule (*Gallinula galeata*)			1					
killdeer (*Charadrius vociferus*)		1						
double-crested cormorant (*Phalacrocorax auritus*)			1					
great blue heron (*Ardea herodias*)			1			1		
great egret (*Ardea alba*)						1	5	
snowy egret (*Egretta thula*)	1	1	10		8		2	
green heron (*Butorides virescens*)			2					
Black-crowned night-heron (*Nycticorax nycticorax*)		1				1	1	
turkey vulture (*Cathartes aura*)			1					
Cooper's hawk (*Accipiter cooperii*)				2		1		
red-tailed hawk (*Buteo jamaicensis*)			2	1				1
Nuttall's woodpecker (*Picoides nuttallii*)		1			1	1		
Downy woodpecker (*Picoides pubescens*)			1					
black phoebe (*Sayornis nigricans*)	1	3	3	3	4	2		
Cassin's kingbird (*Tyrannus vociferans*)		2	3		2	2		
common raven (*Corvus corax*)			1	2	1	2		1
northern rough-winged swallow (*Stelgidopteryx serripennis*)			1	5				

REACH 43B
SAN GABRIEL RIVER – LOWER

Species	Survey Dates (2017)							
	5/8	5/19	6/1	6/12	6/22	7/3	7/10	7/24
cliff swallow (*Petrochelidon pyrrhonota*)	4	20	20	8	20	25	15	5
bushtit (*Psaltriparus minimus*)	1		10	10		10		
northern mockingbird (*Mimus polyglottos*)	5	6	10	7	8	10	5	6
European starling – I (*Sturnus vulgaris*)	3	8	6		2	1		
scaly-breasted munia – I (*Lonchura punctulata*)			15	8	1		2	
house sparrow – I (*Passer domesticus*)		15	20	1	2	10		1
house finch (*Haemorhous mexicanus*)	10	15	15	20	10		5	12
lesser goldfinch (*Spinus psaltria*)	2	3	3	4	3		1	4
American goldfinch (*Spinus tristis*)				1				
California towhee (*Melozone crissalis*)	2	3	5	5	2	1	2	2
song sparrow (*Melospiza melodia*)	3	8	8	8	3	8	1	
hooded oriole (*Icterus cucullatus*)		4	2		1	5	4	5
red-winged blackbird (*Agelaius phoeniceus*)	1	15	3					
brown-headed cowbird (*Molothrus ater*)	1	2	3	1	1			
great-tailed grackle (*Quiscalus mexicanus*)							1	
common yellowthroat (*Geothlypis trichas*)	2	2		2	4	2		
yellow warbler (*Setophaga petechia*)	4	4	3	2	4	3	3	
blue grosbeak (*Passerina caerulea*)		1	1	2	2	1		

REACH 69
BOUQUET CANYON – MIDDLE

Species	Survey Dates (2017)							
	5/9	**5/22**	**6/2**	**6/13**	**6/26**	**7/6**	**7/17**	**7/27**
rock pigeon – I (*Columba livia*)					5			
mourning dove (*Zenaida macroura*)			1				2	1
Allen's hummingbird (*Selasphorus sasin*)				1				
Allen's/rufous hummingbird (*S. sasin* or *rufus*)			1					
black phoebe (*Sayornis nigricans*)					1	1	1	
American crow (*Corvus brachyrhynchos*)		2	2	1	3		1	
common raven (*Corvus corax*)	1	1						
cliff swallow (*Petrochelidon pyrrhonota*)			1					
bushtit (*Psaltriparus minimus*)		3	1	10				
northern mockingbird (*Mimus polyglottos*)					1			
house sparrow – I (*Passer domesticus*)		1						
house finch (*Haemorhous mexicanus*)	2	2	4	2	2	3	3	2
lesser goldfinch (*Spinus psaltria*)								1
song sparrow (*Melospiza melodia*)	3	3	7	3	2	4		
common yellowthroat (*Geothlypis trichas*)	3	1	3	2	1		1	

REACHES 71, 79, AND 80
SANTA CLARA RIVER MAIN CHANNEL (PD 1946)
SOUTH FORK – SANTA CLARA RIVER (VALENCIA BLVD. BRIDGE STABILIZER)
SOUTH FORK – SANTA CLARA RIVER (PDs 1947 AND 1946)

Species	Survey Dates (2017)							
	5/8	5/18	5/30	6/9	6/20	6/30	7/12	7/25
Canada goose (*Branta canadensis*)	2		3					
mallard (*Anas platyrhynchos*)	1							
California quail (*Callipepla californica*)	2	5	6	1	5	1	4	2
rock pigeon – I (*Columba livia*)				2				
mourning dove (*Zenaida macroura*)	3	4	2	2				3
Greater roadrunner (*Geococcyx californianus*)	1							
Anna's hummingbird (*Calypte anna*)		1		1				
Allen's/rufous hummingbird (*S. sasin* or *rufus*)						1		1
killdeer (*Charadrius vociferus*)	7	3	4		2	2	2	2
white-faced ibis (*Plegadis chihi*)	1							
turkey vulture (*Cathartes aura*)							1	
red-shouldered hawk (*Buteo lineatus*)	1					1		
red-tailed hawk (*Buteo jamaicensis*)	1		1					
Nuttall's woodpecker (*Picoides nuttallii*)	1	1		1	2	1	1	2
black phoebe (*Sayornis nigricans*)	1				1	1		
Say's phoebe (*Sayornis saya*)		1			1			
Ash-throated flycatcher (*Myiarchus cinerascens*)		1	2		1	1	1	2
Cassin's kingbird (*Tyrannus vociferans*)	1	3	6	3	2	2	2	5
western kingbird (*Tyrannus vociferans*)					2			2
California scrub-jay (*Aphelocoma californica*)	2	2	1		2	4	2	1
American crow (*Corvus brachyrhynchos*)	4	2	3	5	2		2	7
common raven (*Corvus corax*)	5	15	8	2	5	8	5	8
Northern rough-winged swallow (*Stelgidopteryx serripennis*)		2	3	2	1			
cliff swallow (*Petrochelidon pyrrhonota*)		1						

REACHES 71, 79, AND 80
SANTA CLARA RIVER MAIN CHANNEL (PD 1946)
SOUTH FORK – SANTA CLARA RIVER (VALENCIA BLVD. BRIDGE STABILIZER)
SOUTH FORK – SANTA CLARA RIVER (PDs 1947 AND 1946)

Species	Survey Dates (2017)							
	5/8	5/18	5/30	6/9	6/20	6/30	7/12	7/25
oak titmouse (*Baeolophus inornatus*)			2		3	2	2	
bushtit (*Psaltriparus minimus*)			15	10	8		10	
white-breasted nuthatch (*Sitta carolinensis*)			1		1			
Bewick's wren (*Thryomanes bewickii*)	7	4	5	4	7	5	5	2
western bluebird (*Sialia mexicana*)	1	3						
California thrasher (*Toxostoma redivivum*)	2	2	3	1	3	1	1	4
northern mockingbird (*Mimus polyglottos*)	5	1		1	2	1	2	
European starling – I (*Sturnus vulgaris*)	6	4	8	7	1	3	7	5
phainopepla (*Phainopepla nitens*)	2							
house finch (*Haemorhous mexicanus*)	12	15	6	5	20	10	15	20
lesser goldfinch (*Spinus psaltria*)	4			3		2	2	
California towhee (*Melozone crissalis*)	1		3	2	2	2	2	
song sparrow (*Melospiza melodia*)	1				1		1	
hooded oriole (*Icterus cucullatus*)	1	1						
brown-headed cowbird (*Molothrus ater*)			1					
Brewer's blackbird (*Euphagus cyanocephalus*)	2	2						
great-tailed grackle (*Quiscalus mexicanus*)						5	2	2
yellow warbler (*Setophaga petechia*)	1							
Wilson's warbler (*Cardellina pusilla*)	1							
black-headed grosbeak (*Pheucticus melanocephalus*)	1	2			1	1		

REACH 75
SOUTH FORK – SANTA CLARA RIVER (PDs 725, 916, 1041, AND 1300)

Species	Survey Dates (2017)							
	5/8	5/18	5/30	6/9	6/20	6/30	7/12	7/25
California quail (*Callipepla californica*)	1							
Eurasian collared-dove – I (*Streptopelia decaocto*)			1			2		
mourning dove (*Zenaida macroura*)	2	3	6	1	2	4	6	
white-throated swift (*Aeronautes saxatalis*)		5	2	2	8			
Anna's hummingbird (*Calypte anna*)	3	4		2	1	3		2
Allen's/rufous hummingbird (*S. sasin* or *rufus*)						2		
Cooper's hawk (*Accipiter cooperii*)			1	1				
red-shouldered hawk (*Buteo lineatus*)			1	1	1			1
red-tailed hawk (*Buteo jamaicensis*)							1	
Nuttall's woodpecker (*Picoides nuttallii*)	3	2	1	2	1	2	3	1
willow flycatcher (*Empidonax traillii*)		1						
black phoebe (*Sayornis nigricans*)	2	3	4	2	2	3	2	
Say's phoebe (*Sayornis saya*)	1	1						
Cassin's kingbird (*Tyrannus vociferans*)	1			1				
California scrub-jay (*Aphelocoma californica*)			1				1	
American crow (*Corvus brachyrhynchos*)		2		2	2	2		2
common raven (*Corvus corax*)	5	6	8	8	2	5	1	3
Northern rough-winged swallow (*Stelgidopteryx serripennis*)	2	2	2	1				
cliff swallow (*Petrochelidon pyrrhonota*)		1						
barn swallow (*Hirundo rustica*)		2	1					
oak titmouse (*Baeolophus inornatus*)	7	7		4	2	5	3	2
bushtit (*Psaltriparus minimus*)		1					10	
Bewick's wren (*Thryomanes bewickii*)	4	3	2	1	2	3	3	2
western bluebird (*Sialia mexicana*)	2	3		5	6	4		
Swainson's thrush (*Catharus ustulatus*)		1						

REACH 75
SOUTH FORK – SANTA CLARA RIVER (PDs 725, 916, 1041, AND 1300)

Species	Survey Dates (2017)							
	5/8	5/18	5/30	6/9	6/20	6/30	7/12	7/25
California thrasher (*Toxostoma redivivum*)	1							
northern mockingbird (*Mimus polyglottos*)	2		3	1	1	4	1	2
European starling – I (*Sturnus vulgaris*)					1		2	
house finch (*Haemorhous mexicanus*)	20	10	15	8	10	6	10	5
lesser goldfinch (*Spinus psaltria*)	16	8	4	6	8	5	2	
spotted towhee (*Pipilo maculatus*)	2							
California towhee (*Melozone crissalis*)	2	3	6	3		2	5	2
lark sparrow (*Chondestes grammacus*)		1						
song sparrow (*Melospiza melodia*)	4	9	5	3	7	4	3	1
hooded oriole (*Icterus cucullatus*)	2							
yellow warbler (*Setophaga petechia*)	2	2	1	1	2	3	3	
Wilson's warbler (*Cardellina pusilla*)	1	1						
western tanager (*Piranga ludoviciana*)	2							
black-headed grosbeak (*Pheucticus melanocephalus*)		1		1				1

REACHES 82 AND 109
SANTA CLARA RIVER MAIN CHANNEL (PD 2278)
SANTA CLARA RIVER – SOUTH BANK WEST OF MCBEAN PKWY (MTD 1510)

Species	Survey Dates (2017)							
	5/9	5/23	6/3	6/14	6/27	7/7	7/18	7/28
California quail (*Callipepla californica*)	6	8	5	2			1	2
Eurasian collared-dove – I (*Streptopelia decaocto*)			2			1		
mourning dove (*Zenaida macroura*)	5	2	1	1		2	1	3
Anna's hummingbird (*Calypte anna*)	5	2			1		1	2
Allen's hummingbird (*Selasphorus sasin*)					1			
Allen's/rufous hummingbird (*S. sasin* or *rufus*)								1
Cooper's hawk (*Accipiter cooperii*)	1			1				
red-shouldered hawk (*Buteo lineatus*)	2	2		1		1	1	1
red-tailed hawk (*Buteo jamaicensis*)	1							
Nuttall's woodpecker (*Picoides nuttallii*)	3	4	1	3	2	1		2
downy woodpecker (*Picoides pubescens*)	1							
hairy woodpecker (*Picoides villosus*)	1		1		1			
Pacific-slope flycatcher (*Empidonax difficilis*)	1							
black phoebe (*Sayornis nigricans*)	3	1	2	1	1	1	1	1
Say's phoebe (*Sayornis saya*)	2							
ash-throated flycatcher (*Myiarchus cinerascens*)	6	2	2	1	2	6	4	4
California scrub-jay (*Aphelocoma californica*)	5	10	8	4	6	4	2	5
American crow (*Corvus brachyrhynchos*)			2	8	10	8	3	6
common raven (*Corvus corax*)	15	8	6	3	6	8	5	20
Northern rough-winged swallow (*Stelgidopteryx serripennis*)	2	4	2			2		
cliff swallow (*Petrochelidon pyrrhonota*)	10	1				1		
oak titmouse (*Baeolophus inornatus*)		4	3	1		5	2	2
bushtit (*Psaltriparus minimus*)	25				10	15		10
White-breasted nuthatch (*Sitta carolinensis*)	1			1		2		2

REACHES 82 AND 109
SANTA CLARA RIVER MAIN CHANNEL (PD 2278)
SANTA CLARA RIVER – SOUTH BANK WEST OF MCBEAN PKWY (MTD 1510)

Species	Survey Dates (2017)							
	5/9	5/23	6/3	6/14	6/27	7/7	7/18	7/28
house wren (*Troglodytes aedon*)						1		
Bewick's wren (*Thryomanes bewickii*)	7	8	6	8	7	4	5	3
western bluebird (*Sialia mexicana*)		3		2		8	4	
Swainson's thrush (*Catharus ustulatus*)	1							
American robin (*Turdus migratorius*)		1						
California thrasher (*Toxostoma redivivum*)	4	4	3	4	2	2	1	
northern mockingbird (*Mimus polyglottos*)	1			1		1		1
European starling – I (*Sturnus vulgaris*)	2	3	2					
Cedar waxwing (*Bombycilla cedrorum*)	5							
house finch (*Haemorhous mexicanus*)	30	15	12	15	20	20	15	35
lesser goldfinch (*Spinus psaltria*)	15	6	4	4	6	6	1	7
Lawrence's goldfinch (*Spinus lawrencei*)	1					1		
spotted towhee (*Pipilo maculatus*)	6	4	3	3	4	2		
California towhee (*Melozone crissalis*)	8	3	6	2	3	3	1	4
song sparrow (*Melospiza melodia*)	6	4	4	1				
Bullock's oriole (*Icterus bullockii*)								2
great-tailed grackle (*Quiscalus mexicanus*)			1					
Orange-crowned warbler (*Oreothlypis celata*)	1							
common yellowthroat (*Geothlypis trichas*)	5	1	1	1				
yellow warbler (*Setophaga petechia*)	3	1	2	1	1			1
Wilson's warbler (*Cardellina pusilla*)	16							
western tanager (*Piranga ludoviciana*)	1							
black-headed grosbeak (*Pheucticus melanocephalus*)	4	1	1	1	2	3	1	

REACHES 82 AND 109
SANTA CLARA RIVER MAIN CHANNEL (PD 2278)
SANTA CLARA RIVER – SOUTH BANK WEST OF MCBEAN PKWY (MTD 1510)

Species	Survey Dates (2017)							
	5/9	5/23	6/3	6/14	6/27	7/7	7/18	7/28
blue grosbeak (*Passerina caerulea*)	1							
Lazuli bunting (*Passerina amoena*)	1							

REACH 86
VIOLIN CANYON MAIN CHANNEL OUTLET

Species	Survey Dates (2017)							
	5/9	5/22	6/2	6/13	6/26	7/6	7/17	7/27
Canada goose (*Branta canadensis*)		3						
California quail (*Callipepla californica*)	1			1				
rock pigeon – I (*Columba livia*)	1		7				1	4
Eurasian collared-dove – I (*Streptopelia decaocto*)		3			3	1	5	3
mourning dove (*Zenaida macroura*)			1	1			4	12
Black-chinned hummingbird (*Archilochus alexandri*)								1
Anna's hummingbird (*Calypte anna*)				1			1	
Costa's hummingbird (*Calypte costae*)			1					
Killdeer (*Charadrius vociferus*)	8	4	3	3		2	4	4
Spotted sandpiper (*Actitis macularius*)								1
green heron (*Butorides virescens*)								1
turkey vulture (*Cathartes aura*)						1		1
red-tailed hawk (*Buteo jamaicensis*)				1			1	1
willow flycatcher (*Empidonax traillii*)				1				
black phoebe (*Sayornis nigricans*)		1	2	1		1	1	3
Say's phoebe (*Sayornis saya*)		1	1					
ash-throated flycatcher (*Myiarchus cinerascens*)		1						
western kingbird (*Tyrannus verticalis*)			2					

REACH 86
VIOLIN CANYON MAIN CHANNEL OUTLET

Species	Survey Dates (2017)							
	5/9	5/22	6/2	6/13	6/26	7/6	7/17	7/27
American crow (*Corvus brachyrhynchos*)			1	2	2		1	2
common raven (*Corvus corax*)	3		2	2	2	3	2	3
horned lark (*Eremophila alpestris*)		1	3		2	2		
Northern rough-winged swallow (*Stelgidopteryx serripennis*)		2		2				
cliff swallow (*Petrochelidon pyrrhonota*)		2					12	
barn swallow (*Hirundo rustica*)	4	2						
bushtit (*Psaltriparus minimus*)							2	
Bewick's wren (*Thryomanes bewickii*)	1	2	1	1	1		1	
European starling – I (*Sturnus vulgaris*)		1						
house finch (*Haemorhous mexicanus*)	1	1	3	3		2		
lesser goldfinch (*Spinus psaltria*)			1		3		1	
spotted towhee (*Pipilo maculatus*)	1		1			1		
California towhee (*Melozone crissalis*)	1	2	1	1		1		
lark sparrow (*Chondestes grammacus*)								10
song sparrow (*Melospiza melodia*)	1	3	2	2	1		1	1
hooded oriole (*Icterus cucullatus*)								7
Bullock's oriole (*Icterus bullockii*)		1	5					
brown-headed cowbird (*Molothrus ater*)								1
red-winged blackbird (*Agelaius phoeniceus*)		1	3					7
common yellowthroat (*Geothlypis trichas*)		1						
blue grosbeak (*Passerina caerulea*)			1				1	

REACH 103
BOUQUET CANYON CHANNEL (PD 2225)

Species	Survey Dates (2017)							
	5/8	5/18	5/30	6/9	6/20	6/30	7/12	7/25
mallard (*Anas platyrhynchos*)	1							
Eurasian collared-dove – I (*Streptopelia decaocto*)			1					
mourning dove (*Zenaida macroura*)	1		6	1	3	3	2	5
white-throated swift (*Aeronautes saxatalis*)			2					
Anna's hummingbird (*Calypte anna*)	4	1		2	1		1	1
Costa's hummingbird (*Calypte costae*)		1						
Allen's hummingbird (*Selasphorus sasin*)							1	
Allen's/rufous hummingbird (*S. sasin* or *rufus*)		1		2	1		1	1
green heron (*Butorides virescens*)								1
Cooper's hawk (*Accipiter cooperii*)			1	1				
red-shouldered hawk (*Buteo lineatus*)			1		1			
Nuttall's woodpecker (*Picoides nuttallii*)	1	1	1	2		2	1	2
downy woodpecker (*Picoides pubescens*)		1						
black phoebe (*Sayornis nigricans*)	1		4	3	2	1	3	2
Ash-throated flycatcher (*Myiarchus cinerascens*)								1
Bell's vireo (*Vireo bellii*)				3	1			3
California scrub-jay (*Aphelocoma californica*)	2	1	1	1	5	1	1	1
American crow (*Corvus brachyrhynchos*)					2		2	
common raven (*Corvus corax*)	12	5	8	3	20	15	5	10
Northern rough-winged swallow (*Stelgidopteryx serripennis*)			2	1				
cliff swallow (*Petrochelidon pyrrhonota*)		2	5					
barn swallow (*Hirundo rustica*)		1						
Oak titmouse (*Baeolophus inornatus*)		1	5	1		2	2	1
bushtit (*Psaltriparus minimus*)	2	1	1	10	10		10	
Bewick's wren (*Thryomanes bewickii*)	1	2		2	1	1	4	

REACH 103
BOUQUET CANYON CHANNEL (PD 2225)

Species	Survey Dates (2017)							
	5/8	5/18	5/30	6/9	6/20	6/30	7/12	7/25
California thrasher (*Toxostoma redivivum*)	1	2			1	3	1	
scaly-breasted munia – I (*Lonchura punctulata*)								1
house finch (*Haemorhous mexicanus*)	10	5	8	2	10	5	7	15
lesser goldfinch (*Spinus psaltria*)	1		2	1	2	1		2
American goldfinch (*Spinus tristis*)							1	
spotted towhee (*Pipilo maculatus*)	2	1		2	2	1	1	
California towhee (*Melozone crissalis*)	2	2	1	1				2
song sparrow (*Melospiza melodia*)	12	5	7	5	4	7	1	3
hooded oriole (*Icterus cucullatus*)							1	
Red-winged blackbird (*Agelaius phoeniceus*)	1							
brown-headed cowbird (*Molothrus ater*)				2				
common yellowthroat (*Geothlypis trichas*)	1	1	1		1			
yellow warbler (*Setophaga petechia*)	5	2	4	1	3		3	
western tanager (*Piranga ludoviciana*)	1							
black-headed grosbeak (*Pheucticus melanocephalus*)	2	2	1	1	5	2	1	1

REACH 105
SAN FRANCISQUITO CANYON CHANNEL (PD 2456)

Species	Survey Dates (2017)							
	5/9	5/23	6/3	6/14	6/27	7/7	7/18	7/28
California quail (*Callipepla californica*)		1		1	1	2		4
mourning dove (*Zenaida macroura*)	2		3		1		1	
Anna's hummingbird (*Calypte anna*)	1	1	1		1	1		
Allen's/rufous hummingbird (*S. sasin* or *rufus*)			1					
Cooper's hawk (*Accipiter cooperii*)	1							
red-shouldered hawk (*Buteo lineatus*)								1
Nuttall's woodpecker (*Picoides nuttallii*)		1	1	1				
Downy woodpecker (*Picoides pubescens*)	1							
black phoebe (*Sayornis nigricans*)	1	1	1	2	1	1		
Say's phoebe (*Sayornis saya*)	1							
Ash-throated flycatcher (*Myiarchus cinerascens*)	2				2			
Cassin's kingbird (*Tyrannus vociferans*)					1			
California scrub-jay (*Aphelocoma californica*)	1			1	1		2	1
American crow (*Corvus brachyrhynchos*)	1	2			2		2	2
common raven (*Corvus corax*)	5	1	3		1			3
Northern rough-winged swallow (*Stelgidopteryx serripennis*)			1					
cliff swallow (*Petrochelidon pyrrhonota*)	6		2	2			2	
bushtit (*Psaltriparus minimus*)	10							
white-breasted nuthatch (*Sitta carolinensis*)						2		
Bewick's wren (*Thryomanes bewickii*)	2	2	2	1	1		2	1
western bluebird (*Sialia mexicana*)		1						
California thrasher (*Toxostoma redivivum*)		1	1		1			1
northern mockingbird (*Mimus polyglottos*)			1	1		2		
European starling – I (*Sturnus vulgaris*)			1					
house finch (*Haemorhous mexicanus*)	12	5	2	8	5	1	5	6

REACH 105
SAN FRANCISQUITO CANYON CHANNEL (PD 2456)

Species	Survey Dates (2017)							
	5/9	5/23	6/3	6/14	6/27	7/7	7/18	7/28
lesser goldfinch (*Spinus psaltria*)	5	1	3		2			
spotted towhee (*Pipilo maculatus*)	2			1	1			
California towhee (*Melozone crissalis*)	3		2	1	1		1	2
song sparrow (*Melospiza melodia*)	1	1		1				
common yellowthroat (*Geothlypis trichas*)	1							
yellow warbler (*Setophaga petechia*)	1							
Wilson's warbler (*Cardellina pusilla*)	3							
black-headed grosbeak (*Pheucticus melanocephalus*)	1			1				

REACH 106
CASTAIC DRAIN OUTLET (RMD CHANNEL)

Species	Survey Dates (2017)							
	5/9	5/22	6/2	6/13	6/26	7/6	7/17	7/27
rock pigeon – I (*Columba livia*)	1		11	1				
Eurasian collared-dove – I (*Streptopelia decaocto*)	2	1	2	4		1		1
mourning dove (*Zenaida macroura*)							1	
Anna's hummingbird (*Calypte anna*)	2	1	1	1				
turkey vulture (*Cathartes aura*)					1		1	
Cooper's hawk (*Accipiter cooperii*)								1
black phoebe (*Sayornis nigricans*)	3	2	1	1			1	
Cassin's kingbird (*Tyrannus vociferans*)	2							
Western kingbird (*Tyrannus verticalis*)					1	1	1	
California scrub-jay (*Aphelocoma californica*)	1	1	1					
American crow (*Corvus brachyrhynchos*)		3			2		2	1
common raven (*Corvus corax*)			2	1	2	1		2
cliff swallow (*Petrochelidon pyrrhonota*)	1		2					

REACH 106
CASTAIC DRAIN OUTLET (RMD CHANNEL)

Species	Survey Dates (2017)							
	5/9	**5/22**	**6/2**	**6/13**	**6/26**	**7/6**	**7/17**	**7/27**
barn swallow (*Hirundo rustica*)	2	1	2	1	2	2		
bushtit (*Psaltriparus minimus*)	1	10	8	10	8			
Bewick's wren (*Thryomanes bewickii*)				1	2	1	1	1
house finch (*Haemorhous mexicanus*)			2	2	2		2	
lesser goldfinch (*Spinus psaltria*)	2	3		2	2	2		
Lawrence's goldfinch (*Spinus lawrencei*)			2					
California towhee (*Melozone crissalis*)		2	2	1			2	
lark sparrow (*Chondestes grammacus*)							4	
song sparrow (*Melospiza melodia*)	1	1	1					
common yellowthroat (*Geothlypis trichas*)				1				
blue grosbeak (*Passerina caerulea*)						1	1	1

ATTACHMENT B

WILDLIFE COMPENDIUM

WILDLIFE SPECIES RECORDED BY REACH DURING ARROYO TOAD SURVEYS

Scientific Name	Common Name	Reach Number
FISH		
POECILIDAE – LIVEBEARERS		
*Gambusia affinis**	western mosquitofish	97
AMPHIBIANS		
BUFONIDAE – TRUE TOADS		
Anaxyrus boreas	western toad	75, 86, 87, 97
HYLIDAE - TREEFROGS		
Pseudacris hypochondriaca	Baja California treefrog	75, 82, 86, 87, 97, 109
PIPIDAE – TONGUELESS FROGS		
*Xenopus laevis**	African clawed frog	82
* = Non-native species		

ATTACHMENT C

SURVEYOR CERTIFICATE STATEMENT

APPENDIX C

SURVEYOR CERTIFICATION STATEMENT

We certify that the information in this survey report and enclosed exhibits fully and accurately present our work.



Marc Blain
(Recovery Permit No. TE001075-3)



Brian Daniels
(Recovery Permit No. TE821401-4)



Lindsay Messett
(Recovery Permit No. TE067064-3)

ATTACHMENT D

WILLOW FLYCATCHER SURVEY AND DETECTION FORMS

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 7 State: CA County: Los Angeles

USGS Quad Name: Van Nuys Elevation: 215 (meters)

Creek, River, or Lake Name: Bull Creek

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 362452 N 3783773 UTM Datum: WGS84 (See instructions)

Stop: E 361970 N 3783177 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1 Observer(s): Brian Daniels	Date: 5/17/2017 Start: 9:05 Stop: 10:05 Total hrs: 1.0	0	0	0	N		# Birds	Sex	UTM E	UTM N
							0			
Survey # 2 Observer(s): Brian Daniels	Date: 6/8/2017 Start: 9:25 Stop: 10:15 Total hrs: 0.8	0	0	0	N		# Birds	Sex	UTM E	UTM N
							0			
Survey # 3 Observer(s): Brian Daniels	Date: 6/19/2017 Start: 9:00 Stop: 10:10 Total hrs: 1.2	0	0	0	N		# Birds	Sex	UTM E	UTM N
							0			
Survey # 4 Observer(s): Brian Daniels	Date: 6/29/2017 Start: 9:10 Stop: 9:50 Total hrs: 0.7	0	0	0	N		# Birds	Sex	UTM E	UTM N
							0			
Survey # 5 Observer(s): Brian Daniels	Date: 7/10/2017 Start: 9:00 Stop: 9:40 Total hrs: 0.7	0	0	0	N		# Birds	Sex	UTM E	UTM N
							0			

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0
Total survey hrs: 4.4				

Were any WIFLs color-banded? Yes ____ No X

If yes, report color combination(s) in the comments section on back of form and report to USFWS.

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels Phone #: 626-351-2000

Affiliation: Psomas E-mail: brian.daniels@psomas.com

Site Name: Soft-bottom Channel Reach 7 Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes X No ____ Unknown ____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____

If name is different, what name(s) was used in the past? ____

If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest) ____

Length of area surveyed: 0.63 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia

Average height of canopy (Do not include a range): 4.5 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The survey area is a soft-bottom flood control channel reach (No. 7) that is managed by the Los Angeles County Flood Control District (LACFCD). Reach 7 is a segment of Bull Creek in the Sepulveda Flood Basin that is primarily managed by the U.S. Army Corps of Engineers (USACE). In 2008, Bull Creek including Reach 7 was rehabilitated as part of the Bull Creek Restoration Project managed by the City of Los Angeles and the USACE. Besides the main Bull Creek channel, the project included construction of a side channel that forms a loop with the main channel. The channel invert contained water through the end of these surveys. The area has been degraded by homeless activities.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 12 State: CA County: Los Angeles

USGS Quad Name: Sunland Elevation: 353 (meters)

Creek, River, or Lake Name: Haines Canyon Main Channel Outlet in Tujunga Wash

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 378432 N 3792715 UTM Datum: WGS84 (See instructions)

Stop: E 378233 N 3792737 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	5/16/2017						0			
Brian Daniels	Start: 7:30	0	0	0	N					
	Stop: 8:30									
	Total hrs: 1.0									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/1/2017						0			
Marc Blain	Start: 7:05	0	0	0	N					
	Stop: 8:05									
	Total hrs: 1.0									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/23/2017						0			
Marc Blain	Start: 7:05	0	0	0	N					
	Stop: 8:00									
	Total hrs: 0.9									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/3/2017						0			
Marc Blain	Start: 6:10	0	0	0	N					
	Stop: 6:50									
	Total hrs: 0.7									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/13/2017						0			
Marc Blain	Start: 7:30	0	0	0	N					
	Stop: 8:30									
	Total hrs: 1.0									
Overall Site Summary		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X				
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.		0	0	0	0	If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs:	4.6									

Reporting Individual: Brian E. Daniels/Marc Blain Date Report Completed: 12/15/2017

US Fish & Wildlife Service Permit #: 821401-5/0010975-3 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels/Marc Blain Phone #: 626-351-2000
Affiliation: Psomas E-mail: marc.blain@psomas.com
Site Name: Soft-bottom Channel Reach 12 Date report Completed: 12/15/2017
Was this site surveyed in a previous year? Yes X No ____ Unknown ____
Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____
If name is different, what name(s) was used in the past? ____
If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.
Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____
Name of Management Entity or Owner (e.g., Tonto National Forest) Los Angeles County Flood Control District

Length of area surveyed: 0.2 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix spp, Populus fremontii.

Average height of canopy (Do not include a range): 6 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.
The survey area for this channel reach is a dense strip of willows and cottonwoods at the outlet of the concrete Haines Canyon flood control channel on the south side of Tujunga Wash adjacent to residential Sunland. Water pools at the outlet. Downstream the channel passes through the Angeles National Golf Club (constructed in Tujunga Wash).

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 14 State: CA County: Los Angeles

USGS Quad Name: Sunland Elevation: 400 (meters)

Creek, River, or Lake Name: May Channel Outlet into Pacoima Wash

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 370215 N 3797657 UTM Datum: WGS84 (See instructions)

Stop: E 370286 N 3797496 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	5/22/2017						0			
Marc Blain	Start: 7:20	0	0	0	N					
	Stop: 8:30									
	Total hrs: 1.1									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/12/2017						0			
Marc Blain	Start: 8:20	0	0	0	N					
	Stop: 8:55									
	Total hrs: 0.6									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/22/2017						0			
Marc Blain	Start: 9:00	0	0	0	N					
	Stop: 9:30									
	Total hrs: 0.5									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/3/2017						0			
Marc Blain	Start: 9:10	0	0	0	N					
	Stop: 9:50									
	Total hrs: 0.7									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/13/2017						0			
Marc Blain	Start: 10:00	0	0	0	N					
	Stop: 10:45									
	Total hrs: 0.8									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0	If yes, report color combination(s) in the comments section on back of form and report to USFWS.
Total survey hrs: 3.7					

Reporting Individual: Marc Blain Date Report Completed: 12/15/2017

US Fish & Wildlife Service Permit #: 0010975-3 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Marc Blain | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: marc.blain@psomas.com

Site Name: Soft-bottom Channel Reach 14 | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes X No ____ Unknown ____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____

If name is different, what name(s) was used in the past? ____

If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest): Los Angeles County Flood Control District

Length of area surveyed: 0.2 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

____ Native broadleaf plants (entirely or almost entirely, > 90% native)

X Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia

Average height of canopy (Do not include a range): 5 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The survey area for this channel reach is a dense strip of willows and cottonwoods at the outlet of the concrete Haines Canyon flood control channel on the south side of Tujunga Wash adjacent to residential Sunland. Water pools at the outlet. Downstream the channel passes through the Angeles National Golf Club (constructed in Tujunga Wash).

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 27 State: CA County: Los Angeles

USGS Quad Name: Torrance Elevation: 8 (meters)

Creek, River, or Lake Name: Wilmington Drain

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 380800 N 3739755 UTM Datum: WGS84 (See instructions)

Stop: E 380667 N 3740748 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date: 5/17/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:15						0			
	Stop: 7:25									
	Total hrs: 1.2									
Survey # 2	Date: 6/8/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:30						0			
	Stop: 7:45									
	Total hrs: 1.3									
Survey # 3	Date: 6/19/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:05						0			
	Stop: 7:20									
	Total hrs: 1.3									
Survey # 4	Date: 6/29/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:20						0			
	Stop: 7:30									
	Total hrs: 1.2									
Survey # 5	Date: 7/10/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:10						0			
	Stop: 7:20									
	Total hrs: 1.2									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0	If yes, report color combination(s) in the comments section on back of form and report to USFWS.
Total survey hrs: 6.2					

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: brian.daniels@psomas.com

Site Name: Soft-bottom Channel Reach 27 | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes X No ____ Unknown ____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____

If name is different, what name(s) was used in the past? ____

If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest) ____

Length of area surveyed: 1.00 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia, and Populus fremontii

Average height of canopy (Do not include a range): 6 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The survey area is a well-nown birding location (Wilmington Drain) across the street (Pacific Coast Highway) from the "north-end willows" of Ken Malloy Regional Park (previously known as Harbor Lake). The City of Los Angeles's Proposition "O" Clean Water Project was implmenented in 2013 for Wilmington Drian and completed in 2015. At Wilmington Drain, this project primarily consisted of habitat restoration that removed and replaced non-native vegetation with native vegetation. The homeless were largely absent during the restoration process, but quickly reoccupied the habitat upstream (north) of Lomita Blvd. So far the degradation of habitat that has occurred north of Lomita Blvd has been very limited between Lomita Blvd. and P.C.H.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 28 State: CA County: Los Angeles

USGS Quad Name: Point Dume Elevation: 353 (meters)

Creek, River, or Lake Name: Triunfo Creek

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 335965 N 3776074 UTM Datum: WGS84 (See instructions)

Stop: E 335802 N 3776450 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date: 5/17/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 10:40						0			
	Stop: 11:30									
	Total hrs: 0.9									
Survey # 2	Date: 6/8/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 10:40						0			
	Stop: 11:40									
	Total hrs: 1.0									
Survey # 3	Date: 6/19/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 10:45						0			
	Stop: 11:45									
	Total hrs: 1.0									
Survey # 4	Date: 6/29/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 10:15						0			
	Stop: 11:00									
	Total hrs: 0.8									
Survey # 5	Date: 7/10/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 10:10						0			
	Stop: 11:00									
	Total hrs: 0.9									
Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. 4.6		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
		0	0	0	0					

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: brian.daniels@psomas.com

Site Name: Soft-bottom Channel Reach 28 | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes X No ____ Unknown ____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____

If name is different, what name(s) was used in the past? ____

If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest) ____

Length of area surveyed: 0.40 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia

Average height of canopy (Do not include a range): 4 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The survey area for this channel reach includes a dense strip of willows upstream of Mulholland Highway and more scattered, scrubby willows with mule fat downstream of the bridge. Oaks, sycamore, and eucalyptus are on the banks downstream of the highway. Heavy run-off from 2016-17 winter storms impacted much of the riparian habitat in this survey area.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 39 State: CA County: Los Angeles

USGS Quad Name: Azusa Elevation: 195 (meters)

Creek, River, or Lake Name: Beatty Chnl Outlet - San Gabriel River

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 413530 N 3778309 UTM Datum: WGS84 (See instructions)

Stop: E 414168 N 3778620 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	5/22/2017						0			
Marc Blain	Start: 6:00	0	0	0	N					
	Stop: 6:45									
	Total hrs: 0.8									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/2/2017						0			
Marc Blain	Start: 7:05	0	0	0	N					
	Stop: 8:10									
	Total hrs: 1.1									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/23/2017						0			
Marc Blain	Start: 9:05	0	0	0	N					
	Stop: 9:55									
	Total hrs: 0.9									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/5/2017						0			
Marc Blain	Start: 7:30	0	0	0	N					
	Stop: 8:45									
	Total hrs: 1.3									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/17/2017						0			
Marc Blain	Start: 6:00	0	0	0	N					
	Stop: 7:10									
	Total hrs: 1.1									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0	If yes, report color combination(s) in the comments section on back of form and report to USFWS.
Total survey hrs: 5.2					

Reporting Individual: Marc Blain Date Report Completed: 12/15/2017

US Fish & Wildlife Service Permit #: 0010975-3 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Marc Blain | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: marc.blain@psomas.com

Site Name: Soft-bottom Channel Reach 39 | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes____ No____ Unknown____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____

If name is different, what name(s) was used in the past? _____

If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____

Name of Management Entity or Owner (e.g., Tonto National Forest) Los Angeles County Flood Control District

Length of area surveyed: 0.7 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

_____ Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia.

Average height of canopy (Do not include a range): 2 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The survey area for this side channel outlet into the San Gabriel River is mostly alluvial sage scrub dominated by mule fat scrub but there are scattereed willows (one of the best willow patches was lost to wildfire). The habitat in this part of the San Gabriel River has been adversely affected by the drought, homeless, and multiple fires. This outlet is used for conveying "purchased" water downstream to recharge water basins, etc., for various government entities. Wildfires have become a regular event in the river upstream of Foothill Blvd. Most appear to have been caused by homeless activities in the river.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 40b State: CA County: Los Angeles

USGS Quad Name: El Monte Elevation: 77 (meters)

Creek, River, or Lake Name: San Gabriel River - I-10 to Thienes Ave

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 405175 N 3767001 UTM Datum: WGS84 (See instructions)

Stop: E 406545 N 3767865 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date: 5/19/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 9:00						0			
	Stop: 11:30									
	Total hrs: 2.5									
Survey # 2	Date: 6/12/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:10						0			
	Stop: 8:45									
	Total hrs: 2.6									
Survey # 3	Date: 6/22/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:15						0			
	Stop: 8:30									
	Total hrs: 2.3									
Survey # 4	Date: 7/3/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:30						0			
	Stop: 8:40									
	Total hrs: 2.2									
Survey # 5	Date: 7/13/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 6:00						0			
	Stop: 8:15									
	Total hrs: 2.3									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0	If yes, report color combination(s) in the comments section on back of form and report to USFWS.
Total survey hrs: 11.9					

Reporting Individual: Brian Daniels Date Report Completed: 12/15/2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian Daniels | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: brian.daniels@psomas.com

Site Name: Soft-bottom Channel Reach 40b | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes X No ____ Unknown ____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____

If name is different, what name(s) was used in the past? ____

If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest): Los Angeles County Flood Control District

Length of area surveyed: 1.8 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia.

Average height of canopy (Do not include a range): 4 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The survey area in this reach of the San Gabriel River consists of polygons of "protected" riparian vegetation surrounded by areas that are seasonally cleared by mowing. The result is areas of low dense vegetation (mostly non-native ruderal species) combined with areas of mature native riparian vegetation. The protected polygons of riparian vegetation have been occupied and degraded for years by homeless, but this year there has been a prolonged effort to keep the homeless out of the river.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 43 State: CA County: Los Angeles

USGS Quad Name: El Monte Elevation: 56 (meters)

Creek, River, or Lake Name: San Gabriel River - Whittier Narrows Dam to Beverly Blvd

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 401295 N 3763507 UTM Datum: WGS84 (See instructions)

Stop: E 402465 N 3764939 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1	Date: 5/19/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 6:00									
	Stop: 8:45									
	Total hrs: 2.8									
Survey # 2	Date: 6/12/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 9:00									
	Stop: 11:45									
	Total hrs: 2.8									
Survey # 3	Date: 6/22/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 8:45									
	Stop: 11:30									
	Total hrs: 2.8									
Survey # 4	Date: 7/3/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 8:55									
	Stop: 11:30									
	Total hrs: 2.6									
Survey # 5	Date: 7/13/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 8:40									
	Stop: 11:00									
	Total hrs: 2.3									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0
Total survey hrs: 13.3				

Were any WIFLs color-banded? Yes ____ No X

If yes, report color combination(s) in the comments section on back of form and report to USFWS.

Reporting Individual: Brian Daniels Date Report Completed: 12/15/2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian Daniels | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: brian.daniels@psomas.com

Site Name: Soft-bottom Channel Reach 43 (43a and 43b) | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes____ No____ Unknown____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____

If name is different, what name(s) was used in the past? _____

If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____

Name of Management Entity or Owner (e.g., Tonto National Forest) Los Angeles County Flood Control District

Length of area surveyed: 2.0 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

_____ Native broadleaf plants (entirely or almost entirely, > 90% native)

X Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia, .

Average height of canopy (Do not include a range): 8 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The survey area consists of two discreet areas: 1) Reach 43a is an irregularly shaped area immediately below the dam to San Gabriel River Pkwy. This area contains polygons of "protected" riparian vegetation that are surrounded by areas that are seasonally cleared by mowing. The protected riparian vegetation contains relatively large amounts of non-native vegetation, especially common ash trees (Fraxinus uhdei). 2) Reach 43b is a typically shaped channel (rectangle) that contains protected willows next to the low flow channel that are seasonally maintained (lollipopped - trimmed to more or less head height), but no low scrubby vegetation that is protected (i.e. no nesting habitat for LBV). Homeless have not been a problem in Reach 43, but illegal activities, particularly paint ball "wars" in Reach 43a have adversely affected the habitat.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 69 State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 385 (meters)

Creek, River, or Lake Name: Bouquet Canyon Channel - Middle

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 360849 N 3812364 UTM Datum: WGS84 (See instructions)

Stop: E 361031 N 3812538 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

*****Fill in additional site information on back of this page*****

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	5/22/2017						0			
Brian Daniels	Start: 9:10	0	0	0	N					
	Stop: 9:45									
	Total hrs: 0.6									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/2/2017						0			
Brian Daniels	Start: 6:30	0	0	0	N					
	Stop: 7:10									
	Total hrs: 0.7									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/13/2017						0			
Brian Daniels	Start: 6:45	0	0	0	N					
	Stop: 7:20									
	Total hrs: 0.6									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/26/2017						0			
Brian Daniels	Start: 7:00	0	0	0	N					
	Stop: 7:40									
	Total hrs: 0.7									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/6/2017						0			
Brian Daniels	Start: 6:30	0	0	0	N					
	Stop: 7:15									
	Total hrs: 0.8									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests	
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0	Were any WIFLs color-banded? Yes ____ No X
Total survey hrs: 3.4					If yes, report color combination(s) in the comments section on back of form and report to USFWS.

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

*Fill in the following information completely. **Submit** form by September 1st. Retain a copy for your records.*

Reporting Individual: Brian E. Daniels | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: brian.daniels@psomas.com

Site Name: Soft-bottom Channel Reach 69 | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes____ No X Unknown____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____

If name is different, what name(s) was used in the past? _____

If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: 0.20 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

_____ Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Populus fremontii, Baccharis salicifolia

Average height of canopy (Do not include a range): 6 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The survey area is a wet area within a larger reach. Due to biological constraints (permit conditions) on clearing activities in this channel reach, this area has not been cleared for couple years and now supports a substantial amount of riparian vegetation. During monitoring activities conducted in September 2016, a least Bell's vireo was detected in this riparian vegetation. Although considered to be a dispersing bird, it was decided that this area should be included in the 2017 focused surveys. It is narrow (60 ft wide) with no adjacent upland habitat (concrete levee), so it is not expected to support breeding least Bell's vireo. The results were negative and showed little use of area by breeding birds.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reaches 71, 79, 80 State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 335 (meters)

Creek, River, or Lake Name: Santa Clara River Main Channel and South Fork Santa Clara River

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 356471 N 3810343 UTM Datum: WGS84 (See instructions)

Stop: E 357711 N 3809664 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1	Date:						0			
Observer(s):	5/18/2017									
Brian Daniels	Start:									
	6:15	0	0	0	N					
	Stop:									
	7:50									
	Total hrs:									
	1.6									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/9/2017						0			
Brian Daniels	Start:									
	6:10	0	0	0	N					
	Stop:									
	7:30									
	Total hrs:									
	1.3									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/20/2017						0			
Brian Daniels	Start:									
	6:20	0	0	0	N					
	Stop:									
	7:55									
	Total hrs:									
	1.6									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/30/2017						0			
Brian Daniels	Start:									
	6:15	0	0	0	N					
	Stop:									
	7:40									
	Total hrs:									
	1.4									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/12/2017						0			
Brian Daniels	Start:									
	8:15	0	0	0	N					
	Stop:									
	9:20									
	Total hrs:									
	1.1									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests	
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0	Were any WIFLs color-banded? Yes ____ No X
Total survey hrs: 7.0					If yes, report color combination(s) in the comments section on back of form and report to USFWS.

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: brian.daniels@psomas.com

Site Name: Soft-bottom Channel Reaches 71, 79, 80 | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes____ No X Unknown____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____

If name is different, what name(s) was used in the past? _____

If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: 1.40 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

_____ Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia, Populus fremontii

Average height of canopy (Do not include a range): 3 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;

2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;

3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

This survey area consists of three contiguous channel reaches that extend from McBean Pkwy bridge over the Santa Clara River upstream to the Valencia Blvd bridge over the South Fork Santa Clara River. Clearing activities are confined to 20 ft wide area at base of concrete levee on south side of river - north of that is natural open space areas of the river. The riparian habitats largely consist of scrubby areas with scattered clumps of larger trees dominated by willows, but with some cottonwoods. Except for areas in vicinity of low flow channel, these habitats are relatively xeric.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 75 State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 358 (meters)

Creek, River, or Lake Name: South Fork Santa Clara River - Magic Mtn Pkwy

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 358147 N 3809014 UTM Datum: WGS84 (See instructions)

Stop: E 358246 N 3808027 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1	Date: 5/18/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 9:25									
	Stop: 11:00									
	Total hrs: 1.6									
Survey # 2	Date: 6/9/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 9:30									
	Stop: 11:00									
	Total hrs: 1.5									
Survey # 3	Date: 6/20/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 9:40									
	Stop: 9:45									
	Total hrs: 1.1									
Survey # 4	Date: 6/30/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 9:15									
	Stop: 10:30									
	Total hrs: 1.3									
Survey # 5	Date: 7/12/2017	0	0	0	N		0			
Observer(s): Brian Daniels	Start: 9:30									
	Stop: 10:30									
	Total hrs: 1.0									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0
Total survey hrs: 6.5				

Were any WIFLs color-banded? Yes ____ No X

If yes, report color combination(s) in the comments section on back of form and report to USFWS.

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels | Phone #: 626-351-2000

Affiliation: Psomas | E-mail: brian.daniels@psomas.com

Site Name: Soft-bottom Channel Reach 75 | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes X No ____ Unknown ____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____

If name is different, what name(s) was used in the past? ____

If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest) ____

Length of area surveyed: 1.00 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix spp, Baccharis salicifolia, Populus fremontii

Average height of canopy (Do not include a range): 6 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

This survey area consists of the South Fork Santa Clara River channel upstream of the McBean Pkwy bridge to just downstream of the confluence with Newhall Channel. The survey area contains patches of large trees, especially near the left (or west) bank, that are surrounded by scrubby riparian vegetation. Alluvial sage scrub vegetation is also present in the survey area. Except for areas along the left bank in the vicinity of "wet" side outlets, these habitats are relatively xeric.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reaches 82, 109 State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 334 (meters)

Creek, River, or Lake Name: Santa Clara River - McBean Pkwy to San Francisquito Confluence

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 358147 N 3809014 UTM Datum: WGS84 (See instructions)

Stop: E 355488 N 3810820 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1	Date:									
Observer(s):	5/23/2017						0			
Brian Daniels	Start: 6:15	0	0	0	N					
	Stop: 9:30									
	Total hrs: 3.3									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/14/2017						0			
Brian Daniels	Start: 6:30	0	0	0	N					
	Stop: 10:10									
	Total hrs: 3,7									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/27/2017						0			
Brian Daniels	Start: 6:30	0	0	0	N					
	Stop: 9:20									
	Total hrs: 2.8									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/7/2017						0			
Brian Daniels	Start: 6:30	0	0	0	N					
	Stop: 8:50									
	Total hrs: 2.3									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/18/2017						0			
Brian Daniels	Start: 6:20	0	0	0	N					
	Stop: 8:40									
	Total hrs: 2.3									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0
Total survey hrs: 14.4				

Were any WIFLs color-banded? Yes ____ No X

If yes, report color combination(s) in the comments section on back of form and report to USFWS.

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels Phone #: 626-351-2000
Affiliation: Psomas E-mail: brian.daniels@psomas.com
Site Name: Soft-bottom Channel Reaches 82, 109 Date report Completed: 12/15/2017
Was this site surveyed in a previous year? Yes____ No____ Unknown____
Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____
If name is different, what name(s) was used in the past? _____
If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.
Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____
Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: 1.00 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

_____ Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix spp, Baccharis salicifolia, Populus fremontii

Average height of canopy (Do not include a range): 7 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.
This survey area consists of the Santa Clara River channel downstream of the McBean Pkwy bridge to just downstream of the confluence with the San Francisquito Wash Channel. The survey area contains some of the older large trees found in the Santa Clarita area. The larger trees tend to be on the periphery of the channel. The center contains lots of scrubby riparian growth, although this growth has been severely impacted in recent years by the on-going drought. There has also been a die-back of older cottonwoods in this survey area.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 86 State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 344 (meters)

Creek, River, or Lake Name: Violin Canyon Main Channel Outlet into Castaic Creek

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 351852 N 3817867 UTM Datum: WGS84 (See instructions)

Stop: E 352081 N 3817733 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	5/22/2017						0			
Brian Daniels	Start: 7:40	0	0	0	N					
	Stop: 8:40									
	Total hrs: 1.0									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/2/2017						0			
Brian Daniels	Start: 8:40	0	0	0	N					
	Stop: 9:40									
	Total hrs: 1.0									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/13/2017						0			
Brian Daniels	Start: 9:10	0	0	0	N					
	Stop: 10:40									
	Total hrs: 1.5									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/26/2017						0			
Brian Daniels	Start: 9:30	0	0	0	N					
	Stop: 10:30									
	Total hrs: 1.0									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/6/2017						0			
Brian Daniels	Start: 8:45	0	0	0	N					
	Stop: 9:30									
	Total hrs: 0.8									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0
Total survey hrs: 5.3				

Were any WIFLs color-banded? Yes ____ No X

If yes, report color combination(s) in the comments section on back of form and report to USFWS.

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels Phone #: 626-351-2000
Affiliation: Psomas E-mail: brian.daniels@psomas.com
Site Name: Soft-bottom Channel Reach 7 Date report Completed: 12/15/2017
Was this site surveyed in a previous year? Yes____ No____ Unknown____
Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____
If name is different, what name(s) was used in the past? _____
If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.
Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____
Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: 0.25 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

_____ Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix spp, Baccharis salicifolia, Populus fremontii

Average height of canopy (Do not include a range): 4.5 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.
The survey area includes the confluence of Violin Canyon with Castaic Creek. The Violin Canyon outlet is maintained free of vegetation, but Castaic Creek is well vegetated at the confluence. Storm flows during winter 2016-17 impacted some of the riparian vegetation in Castaic Creek. In addition, water releases from Castaic Lake were substantial and continued through the date of the 7th survey (July 17, 2017), but had ceased by the date of the last survey (July 27, 2017).

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Reaches 87(Old Rd Drain), 97, and 104 (Castaic Creek) State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 300-345 (meters)

Creek, River, or Lake Name: Castaic Creek

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 0351576 N 3813440 UTM Datum: NAD83 (See instructions)

Stop: E 0351780 N 3812370 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

*****Fill in additional site information on back of this page*****

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1 Observer(s): L. Messett	Date: 5/22/2017 Start: 0905 Stop: 1110 Total hrs: 2.05	0	0	0	0	N/A	# Birds	Sex	UTM E	UTM N
							N/A	N/A	N/A	N/A
Survey # 2 Observer(s): L. Messett	Date: 6/8/2017 Start: 0900 Stop: 1055 Total hrs: 1.55	0	0	0	0	N/A	# Birds	Sex	UTM E	UTM N
							N/A	N/A	N/A	N/A
Survey # 3 Observer(s):	Date: 6/19/2017 Start: 0900 Stop: 1100 Total hrs: 2.00	0	0	0	0	N/A	# Birds	Sex	UTM E	UTM N
							N/A	N/A	N/A	N/A
Survey # 4 Observer(s): L. Messett	Date: 6/30/2017 Start: 0845 Stop: 1050 Total hrs: 2.05	0	0	0	0	N/A	# Birds	Sex	UTM E	UTM N
							N/A	N/A	N/A	N/A
Survey # 5 Observer(s): L. Messett	Date: 7/11/2017 Start: 0825 Stop: 1055 Total hrs: 2.30	0	0	0	0	N/A	# Birds	Sex	UTM E	UTM N
							N/A	N/A	N/A	N/A

Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total survey hrs: 10.35	Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X If yes, report color combination(s) in the comments section on back of form and report to USFWS.
	0		0	0	

Reporting Individual: Lindsay Messett Date Report Completed: 12/15/2017

US Fish & Wildlife Service Permit #: 067064-3 State Wildlife Agency Permit #: 004535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Lindsay Messett | Phone #: 714 751-7373

Affiliation: Psomas | E-mail: lindsay.messett@psomas.com

Site Name: Reaches 87(Old Rd Drain), 97, and 104 (Castaic Creek) | Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes x No ____ Unknown ____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____

If name is different, what name(s) was used in the past? N/A

If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest) Los Angeles County Flood Control District

Length of area surveyed: 1.8 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

____ Native broadleaf plants (entirely or almost entirely, > 90% native)

X Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Populus fremontii, Baccharis salicifolia, Salix sp.

Average height of canopy (Do not include a range): 12 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

These three reaches have a good amount of native vegetation but there is also some non-natives mixed in. There is also evidence of drought seen in a moderate amount of dead willows throughout this portion of Castaic Creek.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 103 State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 353 (meters)

Creek, River, or Lake Name: Bouquet Cyn Channel - Newhall Ranch Rd t0 Santa Clara River

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 358455 N 3810693 UTM Datum: WGS84 (See instructions)

Stop: E 357974 N 3810420 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

Fill in additional site information on back of this page

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	5/18/2017						0			
Brian Daniels	Start: 8:00	0	0	0	N					
	Stop: 9:15									
	Total hrs: 1.3									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/9/2017						0			
Brian Daniels	Start: 7:40	0	0	0	N					
	Stop: 9:15									
	Total hrs: 1.6									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/20/2017						0			
Brian Daniels	Start: 8:10	0	0	0	N					
	Stop: 9:30									
	Total hrs: 1.3									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/30/2017						0			
Brian Daniels	Start: 8:00	0	0	0	N					
	Stop: 9:00									
	Total hrs: 1.0									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/12/2017						0			
Brian Daniels	Start: 6:20	0	0	0	N					
	Stop: 8:00									
	Total hrs: 1.7									

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0	If yes, report color combination(s) in the comments section on back of form and report to USFWS.
Total survey hrs: 6.9					

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels Phone #: 626-351-2000
Affiliation: Psomas E-mail: brian.daniels@psomas.com
Site Name: Soft-bottom Channel Reach 103 Date report Completed: 12/15/2017
Was this site surveyed in a previous year? Yes____ No____ Unknown____
Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____
If name is different, what name(s) was used in the past? _____
If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.
Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____
Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: 0.60 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

_____ Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix spp, Populus fremontii, Baccharis salicifolia

Average height of canopy (Do not include a range): 8 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.
This survey area consists of Bouquet Canyon Channel from the Newhall Ranch Road bridge downstream to its confluence with the Santa Clara River. The survey area contains an almost continuous strip of large trees along the right bank. Scrubby willows and mule fat are present at the confluece with the Santa Clara River. The east side of the reach contains a mix of taller trees with scrubby vegetation. The low flow channel has been primarily along the toe of the right levee bank.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 105 State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 351 (meters)

Creek, River, or Lake Name: San Francisquito Channel - Decoro Dr. Bridge

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 356871 N 3812673 UTM Datum: WGS84 (See instructions)

Stop: E 356844 N 3812332 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

*****Fill in additional site information on back of this page*****

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date: 5/23/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 9:40						0			
	Stop: 10:30									
	Total hrs: 0.8									
Survey # 2	Date: 6/14/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 10:20						0			
	Stop: 11:00									
	Total hrs: 0.7									
Survey # 3	Date: 6/27/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 9:30						0			
	Stop: 10:15									
	Total hrs: 0.8									
Survey # 4	Date: 7/7/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 9:00						0			
	Stop: 9:30									
	Total hrs: 0.5									
Survey # 5	Date: 7/18/2017	0	0	0	N		# Birds	Sex	UTM E	UTM N
Observer(s): Brian Daniels	Start: 8:50						0			
	Stop: 9:30									
	Total hrs: 0.7									
Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total survey hrs: 3.5		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No X If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
		0	0	0	0					

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels Phone #: 626-351-2000
Affiliation: Psomas E-mail: brian.daniels@psomas.com
Site Name: Soft-bottom Channel Reach 105 Date report Completed: 12/15/2017
Was this site surveyed in a previous year? Yes____ No____ Unknown____
Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____
If name is different, what name(s) was used in the past? _____
If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.
Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____
Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: 0.40 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

_____ Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Baccharis salicifolia, Salix spp, Populus fremontii

Average height of canopy (Do not include a range): 2 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.
This survey area is dominated by mule fat scrub that is relatively sparse (easy to walk thru) and contains other scrub species indicating alluvial sage scrub. The willow clumps, with few cottonwoods, are very scattered in this part of the wash. At this location, two side outlets provide source of "nuisance" water that has produced two willow clumps on either side of the Decoro Drive bridge.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Soft-bottom Channel Reach 106 State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 343 (meters)

Creek, River, or Lake Name: Castaic Drain Outlet

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 351678 N 3817159 UTM Datum: WGS84 (See instructions)

Stop: E 351785 N 3816796 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

*****Fill in additional site information on back of this page*****

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1 Observer(s): Brian Daniels	Date: 5/22/2017 Start: 6:30 Stop: 7:30 Total hrs: 1.0	0	0	0	N		0			
Survey # 2 Observer(s): Brian Daniels	Date: 6/2/2017 Start: 7:40 Stop: 8:30 Total hrs: 0.9	0	0	0	N		0			
Survey # 3 Observer(s): Brian Daniels	Date: 6/13/2017 Start: 7:40 Stop: 8:40 Total hrs: 1.0	0	0	0	N		0			
Survey # 4 Observer(s): Brian Daniels	Date: 6/26/2017 Start: 8:10 Stop: 9:20 Total hrs: 1.2	0	0	0	N		0			
Survey # 5 Observer(s): Brian Daniels	Date: 7/6/2017 Start: 7:35 Stop: 8:30 Total hrs: 0.9	0	0	0	N		0			

Overall Site Summary	Total Adult Residents	Total Pairs	Total Territories	Total Nests
Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.	0	0	0	0

Total survey hrs: 5.0

Were any WIFLs color-banded? Yes ____ No X

If yes, report color combination(s) in the comments section on back of form and report to USFWS.

Reporting Individual: Brian E. Daniels Date Report Completed: Decenber 15, 2017

US Fish & Wildlife Service Permit #: 821401-5 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Brian E. Daniels Phone #: 626-351-2000
Affiliation: Psomas E-mail: brian.daniels@psomas.com
Site Name: Soft-bottom Channel Reach 106 Date report Completed: 12/15/2017
Was this site surveyed in a previous year? Yes____ No____ Unknown____
Did you verify that this site name is consistent with that used in previous yrs? Yes X No _____ Not Applicable _____
If name is different, what name(s) was used in the past? _____
If site was surveyed last year, did you survey the same general area this year? Yes X No _____ If no, summarize below.
Did you survey the same general area during each visit to this site this year? Yes X No _____ If no, summarize below.

Management Authority for Survey Area: Federal _____ Municipal/County X State _____ Tribal _____ Private _____
Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: 0.40 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

_____ Native broadleaf plants (entirely or almost entirely, > 90% native)

X Mixed native and exotic plants (mostly native, 50 - 90% native)

_____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

_____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix spp, Baccharis salicifolia, Tamarix ramosissima

Average height of canopy (Do not include a range): 3 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.
The survey area consists of a riparian strip at the mouth of a storm drain outlet for the Community of Castaic. This riparian vegetation is on the west side of a field at the south and west end of the Castaic Sports Complex Park in south Castaic. This riparian strip is not connected hydraulically with Castaic Creek that is located about 0.2 km to the east. It is next to the I-5 Fwy.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: Reach 110 (Hasley Canyon Channel) State: CA County: Los Angeles

USGS Quad Name: Newhall and Val Verde Elevation: 330-345 (meters)

Creek, River, or Lake Name: Hasley Canyon Channel

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ____

Survey Coordinates: Start: E 0350780 N 3812725 UTM Datum: NAD83 (See instructions)

Stop: E 0349385 N 3813930 UTM Zone: 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

*****Fill in additional site information on back of this page*****

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1 Observer(s): L. Messett	Date: 5/22/2017 Start: 0645 Stop: 0855 Total hrs: 2.10	0	0	0	0		# Birds N/A	Sex N/A	UTM E N/A	UTM N N/A
Survey # 2 Observer(s): L. Messett	Date: 6/8/2017 Start: 0640 Stop: 0845 Total hrs: 2.05	0	0	0	0		# Birds N/A	Sex N/A	UTM E N/A	UTM N N/A
Survey # 3 Observer(s):	Date: 6/19/2017 Start: 0615 Stop: 0835 Total hrs: 2.20	0	0	0	0		# Birds N/A	Sex N/A	UTM E N/A	UTM N N/A
Survey # 4 Observer(s): L. Messett	Date: 3/30/2017 Start: 0620 Stop: 0815 Total hrs: 1.55	0	0	0	0		# Birds N/A	Sex N/A	UTM E N/A	UTM N N/A
Survey # 5 Observer(s): L. Messett	Date: 7/11/2017 Start: 0600 Stop: 0815 Total hrs: 2.15	0	0	0	0		# Birds N/A	Sex N/A	UTM E N/A	UTM N N/A
Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total survey hrs: 10.05		Total Adult Residents: 0	Total Pairs:	Total Territories: 0	Total Nests: 0		Were any WIFLs color-banded? Yes ____ No X If yes, report color combination(s) in the comments section on back of form and report to USFWS.			

Reporting Individual: Lindsay Messett Date Report Completed: 12/15/2017

US Fish & Wildlife Service Permit #: 067064-3 State Wildlife Agency Permit #: 004535

***Submit** form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.*

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual: Lindsay Messett Phone #: 714 751-7373

Affiliation: Psomas E-mail: lindsay.messett@psomas.com

Site Name: Reach 110 (Hasley Canyon Channel) Date report Completed: 12/15/2017

Was this site surveyed in a previous year? Yes x No ____ Unknown ____

Did you verify that this site name is consistent with that used in previous yrs? Yes X No ____ Not Applicable ____

If name is different, what name(s) was used in the past? N/A

If site was surveyed last year, did you survey the same general area this year? Yes X No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes X No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County X State ____ Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest) Los Angeles County Flood Control District

Length of area surveyed: 1.75 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

X Native broadleaf plants (entirely or almost entirely, > 90% native)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Populus fremontii, Baccharis salicifolia, Salix sp.

Average height of canopy (Do not include a range): 6 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

The channel is narrow and has no flowing water. There only a few areas of ponded water throughout the entire length of the channel. The vegetation transitions from dense riparian in the southern portion to more open, scrub vegetation in the northern portion. The industrial area to the east of the channel is a source of significant noise pollution.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

ATTACHMENT E

LEAST BELL'S VIREO SURVEY DATA SUMMARY SHEETS

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 7 (Bull Creek)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Steve Morris and Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3783773	Northing:	3783177	WGS84
Easting:	362452	Easting:	361970	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.63	8	7.8

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	2	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	1	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	3	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)
LBV 1	3783705	361919	Paired
LBV 2	3783587	361842	Undetermined
LBV 3	3783388	361967	Paired

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 12 (Haines Cyn Main Chnl Outlet in Tujunga Wash)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Sarah Thomas, Brian Daniels and Marc Blain	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3783773	Northing:	3783177	WGS84
Easting:	362452	Easting:	361970	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.2	8	7.2

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 14 (May Chnl Outlet into Pacoima Wash)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Sarah Thomas and Marc Blain	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3797657	Northing:	3797496	WGS84
Easting:	370215	Easting:	370286	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.63	8	6.3

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	1	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	1	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)
LBV 1	3797605	370253	Paired

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 27 (Wilmington Drain)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Steve Morris and Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3739755	Northing:	3740748	WGS84
Easting:	380800	Easting:	380667	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
1.0	8	11.4

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 28 (Triunfo Creek)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Steve Morris and Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3776074	Northing:	3776450	WGS84
Easting:	335965	Easting:	335802	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.4	8	7.2

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 39 (Beatty Chnl Outlet - San Gabriel River)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Sarah Thomas and Marc Blain	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3778309	Northing:	3778620	WGS84
Easting:	413530	Easting:	414168	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.7	8	8.7

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 40b (San Gabriel River - I-10 Fwy to Thienes Ave)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Steve Morris and Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3767001	Northing:	3767865	WGS84
Easting:	405175	Easting:	406545	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
1.8	8	20.1

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	5	The total number of resident males not confirmed as paired.
Transient:	1	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	6	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)
LBV 1	3766843	405215	Undetermined
LBV 2	3767181	405690	Undetermined
LBV 3	3767225	405759	Undetermined
LBV 4	3767174	405744	Undetermined
LBV 5	3767715	406483	Undetermined

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 43 (San Gabriel River - Whittier Narrows Dam to Beverly Blvd)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Steve Morris and Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3763507	Northing:	3764939	WGS84
Easting:	401295	Easting:	402465	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
2.0	8	22.0

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	3	The total number of resident males not confirmed as paired.
Transient:	1	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	4	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)
LBV 1	3764276	402001	Undetermined
LBV 2	3764445	402134	Undetermined
LBV 3	3764822	402476	Undetermined

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 69 (Bouquet Canyon Channel - Middle)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3812364	Northing:	3812538	WGS84
Easting:	360849	Easting:	361031	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.2	8	6.0

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reaches 71, 79, 80 (Santa Clara - South Fork Santa Clara River Reaches)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3812364	Northing:	3812538	WGS84
Easting:	360849	Easting:	361031	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
1.4	8	11.9

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 75 (South Fork Santa Clara River - Magic Mtn Pkwy)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3809014	Northing:	3808027	WGS84
Easting:	358147	Easting:	358246	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
1.0	8	10.7

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reaches 82, 109 (Santa Clara River - McBean Pkwy downstream)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3809014	Northing:	3810820	WGS84
Easting:	358147	Easting:	355488	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
1.0	8	22.1

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 86 (Violin Canyon Main Channel Outlet - Castaic Creek)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3817867	Northing:	3817733	WGS84
Easting:	351852	Easting:	352081	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.25	8	8.0

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Reaches 87 (Old Rd. Drain), 97 and 104 (Castaic Creek)
Landowner:	Los Angeles Flood Control District

Survey Information			
Surveyors:	Lindsay Messett	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	0351576	Northing:	0351780	NAD83
Easting:	3813440	Easting:	3812370	

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
1.8	8	19.15

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 103 (Bouquet Cyn Chnl - Newhall Ranch Rd to Santa Clara River)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3817867	Northing:	3817733	WGS84
Easting:	351852	Easting:	352081	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.6	8	11.6

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	1	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	1	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	2	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)
LBV 1	3810632	358371	Paired - 2 fledglings

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 105 (San Francisquito Wash - Decoro Dr.)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3812673	Northing:	3812332	WGS84
Easting:	356871	Easting:	356844	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.4	8	7.0

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Soft-Bottom Channel Reach 106 (Castaic Drain Outlet)
Landowner:	Los Angeles County

Survey Information			
Surveyors:	Brian Daniels	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	3817159	Northing:	3816796	WGS84
Easting:	351678	Easting:	351785	WGS84

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
0.4	8	7.6

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)

LEAST BELL'S VIREO SURVEY DATA SUMMARY

Site Information	
Project Title:	Reach 110 (Hasley Canyon Channel)
Landowner:	Los Angeles Flood Control District

Survey Information			
Surveyors:	Lindsay Messett	Year:	2017

Survey Begin Coordinates		Survey End Coordinates		Datum
Northing:	0350780	Northing:	3812725	NAD83
Easting:	0349385	Easting:	3813930	

Survey Length (Km)	Total Number of Surveys	Total Number of Survey Hours
1.75	8	19.30

Least Bell's Vireo Detection Information

Number of males that were:

Paired:	0	Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying).
Undetermined Status:	0	The total number of resident males not confirmed as paired.
Transient:	0	Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks.
Total number of males:	0	The sum of the three categories above.

Coordinates for LBVI Territories (continue on second sheet if necessary)

Territory ID	Northing	Easting	Status/Comments (e.g. paired)