2015 Southwestern Willow Flycatcher, Yellow-billed Cuckoo, and Least Bell's Vireo Surveys for the High Desert Corridor Project Los Angeles and San Bernardino Counties, California

(Agreement No. 07A3145, Task Order No. 18, EA 07-116720)

Submitted to:

California Department of Transportation, Environmental Planning

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August 2015

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2015 Southwestern Willow Flycatcher, Yellow-billed Cuckoo, and Least Bell's Vireo Surveys

High Desert Corridor Project

Los Angeles and San Bernardino Counties, California

Agreement No.: 07A3145, Task Order: 018

EA: 07-116720

August 2015

STATE OF CALIFORNIA
Department of Transportation

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1.0 INTRODUCTION

1.1 Project Description and Survey Purpose

The California Department of Transportation (Caltrans), in cooperation with the Los Angeles County Metropolitan Transportation Authority (Metro), proposes construction of the High Desert Corridor (HDC) as a new transportation facility in the High Desert region of Los Angeles and San Bernardino counties. The proposed 63 mile (mi) (101-kilometer [km]) long west-east facility would provide route continuity and relieve traffic congestion between State Route (SR-) 14 in Los Angeles County and SR-18 and Interstate (I-) 15 in San Bernardino County. The HDC was identified in SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, signed into law on August 10, 2005) and is officially designated as a high-priority corridor on the National Highway System. As currently planned, the project would be implemented in three segments: the Antelope Valley segment, the High Desert segment, and the Victor Valley segment.

The 10-mi (16-km)-long Antelope Valley segment would start from a new freeway-to freeway SR-14/HDC interchange and extend east parallel with and near Avenue P-8 to 100th Street East in Palmdale.

The 26-mi (42 km)-long High Desert segment would extend from Palmdale to Adelanto, running in a west-east direction parallel and south of Palmdale Boulevard.

The 27-mi (43-km) long Victor Valley segment would generally follow the alignment of Air Expressway Boulevard, between Caughlin Road in Adelanto and Dale Evans Parkway east of I-15 in Apple Valley, and continuing southeasterly as an expressway to join SR-18 just east of Joshua Street.

The project proposes to cross the Mojave River north of the City of Victorville within habitat that is potentially suitable for least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). The flycatcher and vireo are both federally- and state-listed as endangered and the cuckoo is federally-listed threatened and state-listed as endangered. Surveys were conducted within and adjacent to the portion of the proposed project containing potentially suitable habitat for these three species in 2015 to determine their presence or absence and to assist project planners in avoiding or minimizing adverse project effects to listed birds. This 2015 survey effort was be the fourth consecutive year that surveys have been conducted for vireo and flycatcher (ECORP 2012, 2013, 2014).

1.2 Study area Location

The study area is located in Sections 29, 31, 32, and 33 of Township 6 North, Range 4 West, San Bernardino Base and Meridian, as depicted on the United States Geological Survey (USGS) 7.5-minute Victorville quadrangle. The study area is north of the City of Victorville, San Bernardino County, approximately 1.3 mi (2.1 km) northwest of the I-15 and D Street junction, (Figures 1 and 2). The study area is approximately 110 acres (ac) (44.5 hectare [ha]) and consists of three polygons associated with one proposed crossing location of the Mojave River (Appendix A: Photographs 1 and 2). The Mojave River flows year round and the width of the flood plain within the study area ranges from a minimum of approximately 150 feet (ft) (45.7 meters [m]) at the northwestern end to a maximum of approximately 1,300 ft (396.2 m) near the southeastern end. Two areas away from the river, an area containing two small riparian vegetation patches approximately 0.5 mile (0.8 km) southwest of the National Trails Highway Bridge over the Mojave River (Appendix A: Photograph 3) and a low-lying area situated between the river and National Trails Highway and north of a railroad yard and cement plant (Appendix A: Photograph 4) are also included in the study area. Elevations within the study area range from approximately 2,660 ft (810.8 m) above mean sea level (msl) at the northwestern end to 2,700 ft (823 m) above msl at the southeastern end.

Location: N:\2012\2012-061 HDC SWWFL and LBV Surveys\MAPS\Site_Vicinity\HDC_SWWF_2015_Region.mxd *(MAG/JDS)-JSwager 8/13/2015*

Map Date: 8/13/2015

Service Layer Credits: Sources: Esri, USGS, NOAA

Figure 1. Regional Map

2012-061 HDC SWWF and LBVI Surveys

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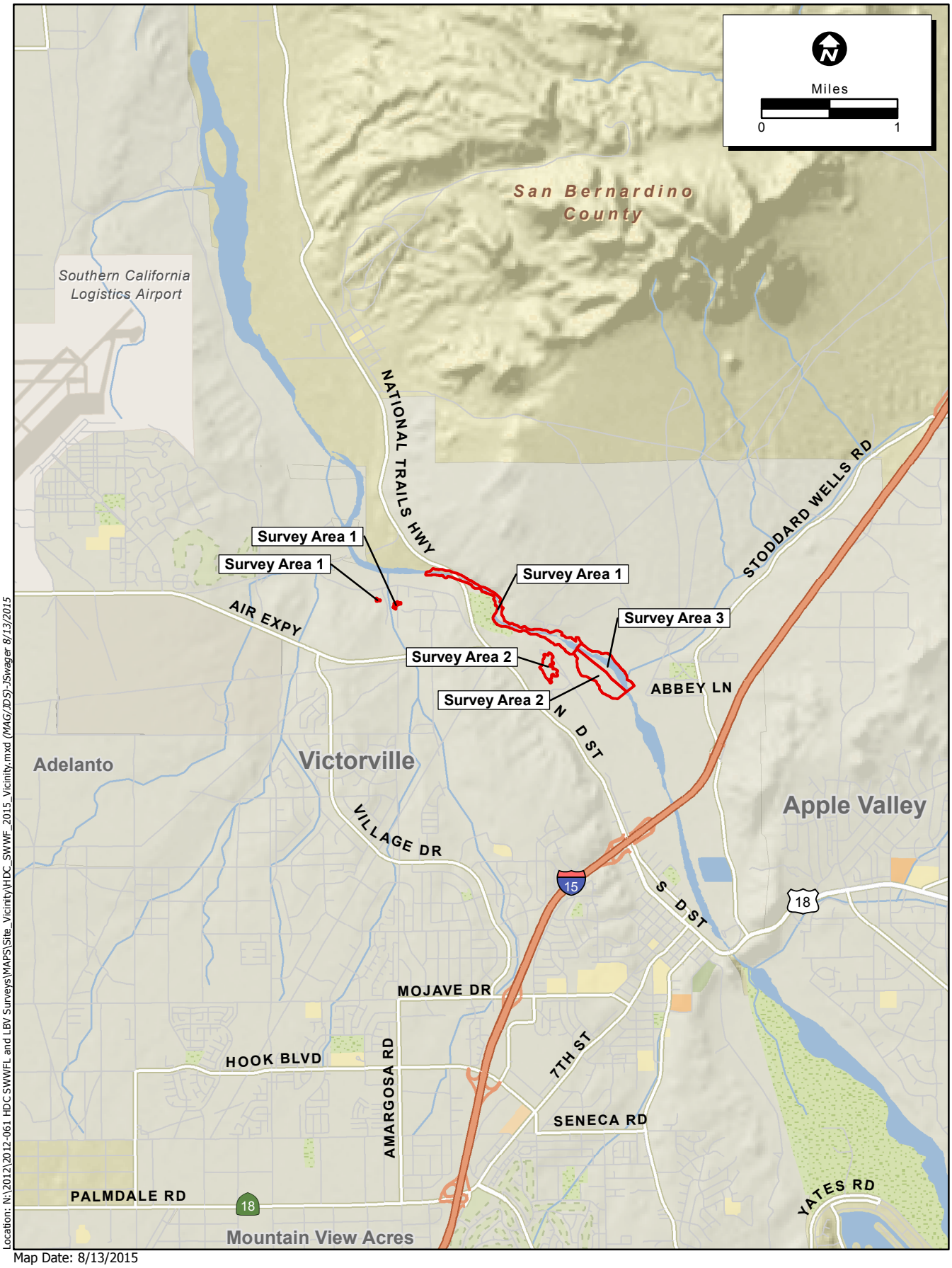

Location: N:\2012\2012-061 HDC SWWFL and LBV Surveys\MAPS\Site_Vicinity\HDC_SWWF_2015_Vicinity.mxd *(MAG/JDS)-JSwager 8/13/2015*

Map Date: 8/13/2015
Source: ESRI

Figure 2. Vicinity Map

2012-061 HDC SWWF and LBVI Surveys

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2.0 VEGETATION AND HABITAT

Vegetation communities within the study area were classified according to *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, and Evens 2009). Dominant vegetation communities within the study area consisted of riparian forest and riparian thicket communities including Fremont cottonwood forest (*Populus fremontii* Alliance), red willow thickets (*Salix laevigata* Alliance), sandbar willow thickets (*Salix exigua* Alliance), and freshwater marsh communities including California bulrush-American bulrush marsh (*Schoenoplectus californicus-Schoenoplectus americanus* Association) and southern cattail marsh (*Typha domingensis* Alliance). Creosote bush scrub (*Larrea tridentata* Alliance) and desert saltbush scrub (*Atriplex polycarpa* Alliance) were found in the upland habitat adjacent to the study area. Habitat photographs are included in Appendix A.

2.1 Fremont Cottonwood Forest (*Populus fremontii* Alliance)

Fremont cottonwood forest within the study area consisted of stands of mature Fremont cottonwoods along the banks of the river and upper-river terraces as well as an area of young cottonwoods recently established on the south side of the river in the eastern side of the study area (Appendix A: Photographs 1, 2, 3, 4, 5, 6, and 11). The understory was sparse in upper elevations and was dominated by red willow, sandbar willow, and sweet clover (*Melilotus albus*) as the Fremont cottonwood forest community transitioned into willow thickets and disturbed areas lower in the river channel. Fremont cottonwood forest formed a more or less linear row along each river bank of the Mojave River and formed a semi-open woodland association with black willows (*Salix gooddingii*) in a low area south of the river in the southeastern polygon of the Area 2.

2.2 Red Willow Thickets (*Salix laevigata* Alliance)

Red willow thickets within the study area consisted of mixed stands of willows dominated by red willows that included sandbar willows, occasional black willows and arroyo willows (*Salix lasiolepis*), as well as young Fremont cottonwoods (Appendix A: Photographs 7 and 8). Dominant species in the understory included sandbar willow, cocklebur (*Xanthium strumarium*), hoary nettle (*Urtica dioica*), and sweet clover. Red willow thickets were predominantly found on the eastern end of the study area.

2.3 Sandbar Willow Thickets (*Salix exigua* Alliance)

Sandbar willow thickets within the study area consisted of dense, nearly monotypic stands of sandbar willow ranging in height from approximately seven ft (2 m) for younger stands to approximately 25 ft 7.6 m) for mature stands (Appendix A: Photographs 9, 10, 11, 12, and 13). Sandbar willow thickets were found throughout the study area.

2.4 California Bulrush-American Bulrush Marsh (*Schoenoplectus californicus-Schoenoplectus americanus* Association)

California bulrush-American bulrush association within the study area consisted of stands of freshwater marsh vegetation where California bulrush and American bulrush were co-dominant (Appendix A: Photograph 14). This vegetation community was found on the margins of the flowing river throughout the study area.

2.5 Southern Cattail Marsh (*Typha domingensis* Alliance)

Southern cattail marsh within the study area consisted of stands of freshwater marsh vegetation dominated by southern cattail (Appendix A: Photograph 15). Southern cattail marsh was distributed along the margins of the flowing river throughout the study area.

2.6 Creosote Bush Scrub (*Larrea tridentata* Alliance)

Creosote bush scrub consisted of upland desert vegetation dominated by creosote bush. Creosote bush scrub was found in the upland areas adjacent to the study area and outside the riparian zone.

2.7 Desert Saltbush Scrub (*Atriplex polycarpa* Alliance)

Desert saltbush scrub consisted of nearly monotypic cover by allscale. Desert saltbush scrub surrounded the two small stands of sandbar willow thickets found in the northwestern polygon of Area 1 (Appendix A: Photograph 10).

2.8 Southwestern Willow Flycatcher Breeding Habitat

The southwestern willow flycatcher typically breeds within dense tree or shrubby riparian vegetation that is equal to or greater than 10 ft (3 m) tall (Allison et al. 2003). Suitable southwestern willow flycatcher breeding habitat was concentrated in the eastern portion of the study area, consisting of a mosaic of Fremont cottonwood forest, red willow thickets, sandbar willow thickets, and freshwater marsh communities. Several beaver (*Castor canadensis*) dams were found in this area, which can increase southwestern willow flycatcher habitat by extending the riparian zone. Native plant species were generally dominant within this area; however, invasive species including purple loosestrife (*Lythrum salicaria*), giant reed (*Arundo donax*), and tamarisk (*Tamarix ramosissima*) were infrequently observed.

Although the entire study area was designated as Southwestern willow flycatcher critical habitat, breeding habitat within western portion of the study area that included the location of the proposed crossing was marginal at best and occurred in fragmented patches consisting of sandbar willow thickets and red willow thickets bordered by Fremont cottonwoods higher on the river bank and bulrush and/or cattail marsh closer to the water. According to Sogge et al. (2010), southwestern willow flycatchers rarely nest within isolated patches less than 33 ft (10 m) wide. Most of the patches of appropriate vegetation type within the western portion of the

study area were less than or only slightly greater than 33 ft (10 m) in width and therefore had a low probability of supporting breeding southwestern willow flycatchers.

Southwestern Willow Flycatcher Critical Habitat

Critical Habitat for the SWFL was designated by the USFWS in October 2005 (USFWS 2005) and revised in January 2013 (USFWS 2013). The project crosses the Mojave River within the Basin and Mojave Management Unit of designated Critical Habitat for SWFL. This Critical Habitat unit comprises a 22.2-mi (35.7 km) section of the Mojave River, a 6.9-mi (11.1 m) section of the West Fork Mojave River, a 12.2-mi (19.6 km) portion of Holcomb Creek, and a 12.5-mi (20.1 km) section of Deep Creek in San Bernardino County (USFWS 2013). Not all of these sections of waterways are known to be occupied by SWFLs but were designated as Critical Habitat for the purposes of species recovery. These four segments were identified for SWFL conservation because they have the potential to provide protection against habitat loss, provide areas for population growth with the potential for colonization, habitat for metapopulation stability, and protection of genetic connectivity (USFWS 2013).

Primary Constituent Elements

Primary Constituent Elements (PCEs) described for SWFL Critical Habitat are based on the biological and ecological needs of the species. They are considered to be essential for the conservation of a species and are described in detail within a species Critical Habitat designation. The USFWS identified two PCEs for SWFL Critical Habitat (USFWS 2013). These include riparian habitat and insect prey populations; the following descriptions are from the final rule (USFWS 2013).

Riparian Habitat

Riparian habitat located in "dynamic successional riverine environments" is imperative to the survival of SWFL because the flycatcher uses riparian habitat during all life stages, including foraging, migration, nesting, shelter, and dispersal. Several factors contribute to this PCE for flycatcher Critical Habitat. Trees and shrubs are an important factor and usually include several willow species, tamarisk, and cottonwoods and must be dense and ranging in height from 6 to 98 ft (2 to 30 m). Researchers have found that SWFLs do not appear to have a preference between native and non-native tree and shrub species; however, the density of these stands is a limiting factor. Shorter stands of dense riparian habitat are used at higher elevations, while taller stands are occupied in lower elevations. Dense areas of vegetation interspersed with smaller openings of sparser vegetation and/or open water or marsh are used by SWFLs from ground level to approximately 13 ft (4 m) above the ground. A dense tree or shrub canopy is imperative for breeding sites (areas with 50 to 100 percent coverage).

Insect Prey Populations

Floodplain-specific invertebrate prey comprises the majority of the SWFL's diet. Therefore, an insect population associated with the aforementioned riparian vegetation features is considered a PCE of SWFL Critical Habitat. An insect generalist, the flycatcher consumes several different types of species, ranging from beetles (Coleoptera), to butterflies and moths (Lepidoptera), wasps and bees (Heteroptera), and dragonflies (Anisoptera). Prey availability can be influenced by quality of vegetation present in the habitat, presence of and proximity to water, and microclimate features such as humidity and temperature.

2.9 Least Bell's Vireo Breeding Habitat

The least Bell's vireo breeds in dense, shrubby riparian vegetation, often dominated by willows (Franzreb 1989). Suitable breeding habitat was concentrated in the eastern end of the study area where the Mojave River floodplain is widest and supports large stands of red willow thickets and sandbar willow thickets. Least Bell's vireos are known to nest in smaller riparian patches and with less overstory than southwestern willow flycatchers and yellow-billed cuckoos (personal observation) and some suitable least Bell's vireo habitat was also found in portions of western end of the study area, consisting of isolated patches of red willow and sandbar willow thickets.

Critical habitat for the species was designated in 1994 (USFWS 1994). However, none occurs within the study area.

2.10 Western Yellow-billed Cuckoo Breeding Habitat

The western yellow-billed cuckoo typically breeds in large blocks of riparian habitat that are generally 50 acres (20.2 ha) or larger, greater than 33-66 ft (10-20 m) in width, and frequently have cottonwood-willow dominant cover (Halterman et al. 2015). Suitable breeding habitat was located on the eastern side of the study area, beginning approximately 2,500 ft (762 m) upstream from the location of the proposed crossing, where the riparian habitat spreads out to a width of up to 1,300 ft (396.2 m) and transitions from freshwater marsh, small patches of sandbar willows, and a linear gallery of Fremont cottonwoods to a dense canopy of willows and cottonwoods.

The western portion of the study area that included the location of the proposed crossing was unlikely to support nesting Yellow-billed Cuckoos because suitable riparian habitat was lacking.

The USFWS has proposed Critical Habitat for this species; no proposed Critical Habitat occurs in the study area.

2.11 Disturbances

Disturbances observed within the study area included a recent proliferation of homeless camps with associated trails, loose dogs, cats, piles of garbage, toilets, laundry sites, and campfires (Appendix A: Photographs 16, 17, 18, and 19). Additionally, evidence of four-wheel drive vehicle activity was seen in the river (Appendix A: Photograph 20).

Moderate numbers of brown-headed cowbirds (*Molothrus ater*), including fledglings, were observed throughout the study area. The San Bernardino County Flood Control cowbird traps that were present during 2012 surveys of the site were not observed during 2015 surveys.

3.0 METHODS

3.1 Southwestern Willow Flycatcher

Surveys for the southwestern willow flycatcher followed the protocol outlined by Sogge et al. (2010). The 2010 protocol recommends five surveys during three survey periods, with two surveys occurring within each of the last two survey periods. These three survey periods are May 15 to 31 (Period 1), June 1 to 24 (Period 2), and June 25 to July 17 (Period 3).

Surveys were conducted within all areas of suitable habitat along northeast/southwest transects spaced approximately 100 ft (30.5 m) apart. Southwestern willow flycatcher vocalizations were played at approximately 100-ft intervals along each transect using an MP3 player and portable speaker system. The vocalization was played following an initial approximate one-minute period of listening. The period of listening followed by audio playback was repeated with another period of listening at the end before moving to the next 100-ft interval. The locations of willow flycatcher detections were recorded using a handheld Global Positioning Unit (GPS) unit capable of three- to ten-foot accuracy. Survey data were recorded in the field and copied onto willow flycatcher Survey and Detection Forms. Completed survey forms are included in Appendix B.

The study area was divided into Survey Areas 1, 2, and 3 (Figures 3 and 4) based on current engineering plans, which had been revised from previous years. Southwestern willow flycatcher surveys one through five were each conducted over three-day periods, and Areas 1, 2, and 3 were surveyed on consecutive days (Table 1). Area 1 measured approximately 42 acres (17 ha) in size (approximately 42 acres surveyed per biologist per day) and included two small patches of sandbar willow thickets approximately 0.5 mile (0.8 km) southwest of the National Trails Highway Bridge over the Mojave River as well as the western approximately 1.2 mi (1.9 km) portion of the study area along the Mojave River.

Area 2 consisted of a Fremont cottonwood woodland area south of the river plus the southern half of willow-cottonwood habitat along the river on the southeastern end of the study area. Area 2 contained approximately 40 acres (16 ha) of potentially suitable southwestern willow flycatcher habitat (approximately 40 acres surveyed per biologist per day).

Area 3 consisted of the northern half of willow-cottonwood habitat along the river on the southeastern end of the study area. Area 3 contained approximately 27 acres (11 ha) of potentially suitable southwestern willow flycatcher habitat (approximately 27 acres surveyed per biologist per day).

3.2 Least Bell's Vireo

U.S. Fish and Wildlife Service (USFWS) protocol for least Bell's vireo surveys specifies eight surveys spaced at least ten days apart (USFWS 2001). Surveys for least Bell's vireo were conducted concurrently with southwestern willow flycatcher surveys. All areas of suitable least Bell's vireo habitat within the study area were traversed on foot with frequent stops to look and listen for least Bell's vireos. The locations of least Bell's vireo observations were recorded using a handheld GPS unit capable of three- to ten-ft (1-3 m) accuracy.

3.3 Western Yellow-billed Cuckoo

The western population of the YBCU was federally-listed (threatened) on October 3, 2014 and was state-listed (threatened) in 1971, then state-listed (endangered) in 1988 (CDFW 2015). A protocol for conducting focused surveys for this species had not been developed prior to the 2015 riparian bird survey season. The USFWS approved an interim survey protocol for YBCU for this project on March 11, 2015 so that surveys could be done while an official protocol was still being developed (Appendix C). Surveys for western yellow-billed cuckoo were conducted concurrently with least Bell's vireo surveys using similar methods. Although limited suitable habitat for this species had been identified previously in the BSA, it was not until the species became federally listed that surveys were conducted. Surveys were conducted six times during the breeding season, between May 15 and July 31, with a minimum of ten days between each survey. A final draft of the western yellow-billed cuckoo protocol was developed on April 22, 2015; however, it was not released to the public until June 2015. As such, the modified protocol was followed through the completion of the 2015 study to remain consistent. A potentially suitable habitat patch consisted of "an area of riparian habitat 12 acres (5 ha) or greater in extent that is separated by at least 984 ft (300 m) from an adjacent patch of apparently suitable cuckoo habitat", as defined by Halterman et al. (2011). Potentially suitable habitat patches were traversed on foot along transects spaced approximately 98.4 ft (30 m) apart, with frequent stops to look and listen for cuckoos. Surveys began at daylight and ended by 11 a.m. Surveys were not conducted during abnormal or excessive cold, heat, wind, rain, or other inclement weather.

3.4 Survey Dates, Personnel, and Conditions

All surveys were performed by ECORP Consulting, Inc. biologist Ben Smith, authorized to conduct protocol surveys for southwestern willow flycatcher under Federal Recovery Permit TE-67390A-0 and California Department of Fish and Wildlife (CDFW) Scientific Collecting Permit SCP-10933. Table 1 lists the times, dates, survey area, weather conditions, and additional personnel assisting with the surveys.

Table 1. Survey Dates, Personnel, and Conditions

Date	Surveyors	Survey	Survey Area	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
				start	end	start	end	start	end	start	end
4/14/15	Ben Smith Greg Hampton	LBVI 1	Western half	0637	1047	58	70	1-3	5-10	0	0
4/15/15	Ben Smith Kevin Cornell	LBVI 1	Eastern half	0620	1100	42	74	0-2	5-10	0	0
4/27/15	Ben Smith Wendy Turner	LBVI 2	Western half	0607	1052	52	80	2	0	0	10-15
4/28/15	Ben Smith Wendy Turner	LBVI 2	Eastern half	0605	1047	39	80	0	0	0	1-3
5/27/15	Ben Smith Wendy Turner	LBVI 3 SWIFL 1 YBCU 1	Area 1	0530	1045	55	81	10	10	0-1	0
5/28/15	Ben Smith	LBVI 3	Area 2	0530	1027	50	82	0	15	0	0-2

Date	Surveyors	Survey	Survey Area	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
				start	end	start	end	start	end	start	end
	Wendy Turner	SWIFL 1 YBCU 1									
5/29/15	Ben Smith Wendy Turner	LBVI 3 SWIFL 1 YBCU 1	Area 3	0530	1030	54	85	0	0	0	0
6/10/15	Ben Smith Wendy Turner	LBVI 4 SWIFL 2 YBCU 2	Area 1	0520	1030	64	79	10	20	0	3-5
6/11/15	Ben Smith Wendy Turner	LBVI 4 SWIFL 2 YBCU 2	Area 2	0530	1038	58	79	0	0	0	1-3
6/12/15	Ben Smith Wendy Turner	LBVI 4 SWIFL 2 YBCU 2	Area 3	0530	1015	63	88	0	10	0	0
6/21/15	Ben Smith Wendy Turner	LBVI 5 SWIFL 3 YBCU 3	Area 1	0515	1030	65	89	0	0	1-3	3-5
6/22/15	Ben Smith Wendy Turner	LBVI 5 SWIFL 3 YBCU 3	Area 2	0520	1023	67	90	0	0	3-5	5-7
6/23/15	Ben Smith Wendy Turner	LBVI 5 SWIFL 3 YBCU 3	Area 3	0525	1023	56	86	5	0	0	0
7/1/15	Ben Smith Kevin Cornell	LBVI 6 SWIFL 4 YBCU 4	Area 1	0525	1030	80	80	100	100	0-1	0-1
7/2/15	Ben Smith Kevin Cornell	LBVI 6 SWIFL 4 YBCU 4	Area 2	0530	1026	70	85	15	0	0	0
7/3/15	Ben Smith Carley Lancaster	LBVI 6 SWIFL 4 YBCU 4	Area 3	0530	1013	67	85	5	5	1-3	0
7/13/15	Ben Smith Kevin Cornell	LBVI 7 SWIFL 5 YBCU 5	Area 1	0526	1016	57	78	0	0	0	0
7/14/15	Ben Smith Kevin Cornell	LBVI 7 SWIFL 5 YBCU 5	Area 2	0525	1032	58	84	5	0	0-2	0
7/15/15	Ben Smith Kevin Cornell	LBVI 7 SWIFL 5 YBCU 5	Area 3	0554	1026	50	85	0	0	0	0-2
7/27/15	Ben Smith Kevin Cornell	LBVI 8 YBCU 6	Area 1	0540	1100	70	88	0	0	3-5	5-7
7/28/15	Ben Smith Kevin Cornell	LBVI 8 YBCU 6	Area 2	0545	1100	60	87	0	0	0	3-5
7/29/15	Ben Smith Kevin Cornell	LBVI 8 YBCU 6	Area 3	0555	1100	60	90	60	20	1-3	3-5

4.0 RESULTS

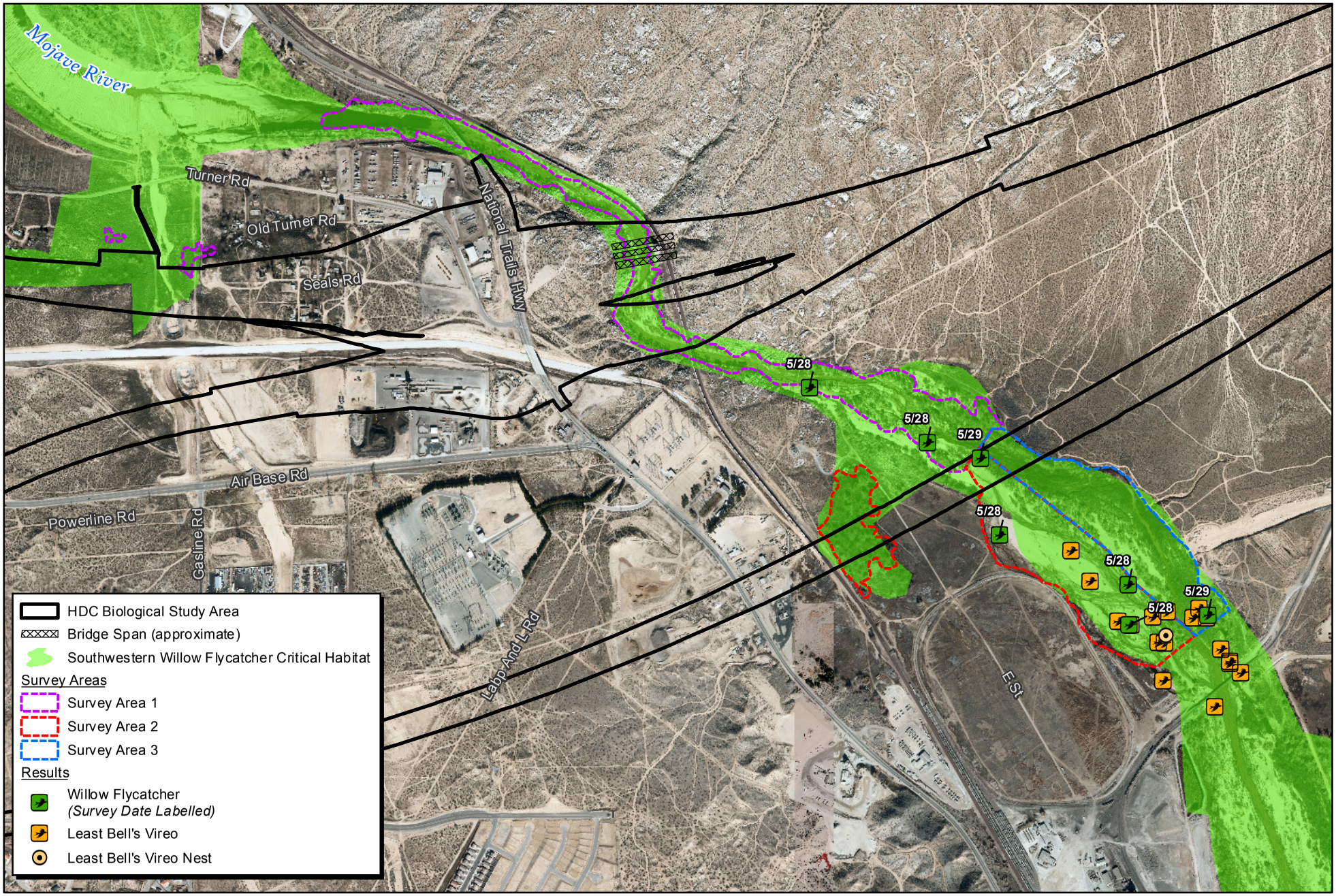
4.1 Southwestern Willow Flycatcher

Seven willow flycatcher detections were made during survey Period 1 on May 28 and 29, 2015 (Table 2, Figures 3 and 4). Six of the observations were of individual willow flycatchers that responded to audio playback of willow flycatcher recordings and one was a visual observation of willow flycatcher that was not vocal. Willow flycatcher pairs were not detected and evidence of nesting or breeding was not observed.

Willow flycatchers were not detected within the survey areas during survey Periods 2 and 3. The area where a pair of southwestern willow flycatchers nested in 2012 (ECORP 2012) was thoroughly examined and evidence of nesting southwestern willow flycatchers was not observed. Willow flycatchers were also not observed during focused surveys in this area in 2013 or 2014 (ECORP 2013, 2014).

Table 2. Southwestern Willow Flycatcher Survey Results

Survey Period	Date	11N UTM Coordinates	Detection/Habitat Notes
Period 1	5/28/15	471373mE 3825127mN	One willow flycatcher gave a "whitt" response to vocalization playback from sandbar willow/Fremont cottonwood habitat.
	5/28/15	471694mE 3824978mN	One willow flycatcher sang "fitz-bew" song from dense red willow habitat in response to vocalization playback.
	5/28/15	471887mE 3824721mN	One willow flycatcher seen quietly moving about in young Fremont cottonwood/red willow habitat.
	5/28/15	472241mE 3824475mN	One willow flycatcher sang "fitz-bew" song from a young stand of sandbar willow habitat in response to vocalization playback.
	5/28/15	472237mE 3824586mN	One willow flycatcher sang "fitz-bew" song from dense red willow/sandbar willow/arroyo willow/Fremont cottonwood habitat in response to vocalization playback.
	5/29/15	471849mE 3824909mN	One willow flycatcher responded with "whitt" and "fitz-bew" from red willow/mature Fremont cottonwood habitat in response to vocalization playback.
	5/29/15	471839mE 3824931mN	One willow flycatcher flew in and landed near the biologists in dense red willow habitat, gave several "whitt" calls, and flew off in response to vocalization playback.



Map Date: 8/17/2015
Photo Source: USGS 2011

Location: \\rocklin\mapping data\2012\2012-061 HDC SWWFL and LBV Surveys\MAPS\SSS_Survey_and_Mapping\WIFL_LBV_2015\HDC_RiparianBird_Results_20150813_aerial.mxd *(MAG/JDS, 8/17/2015)* - mguidry

Scale in Feet
0 500 1,000

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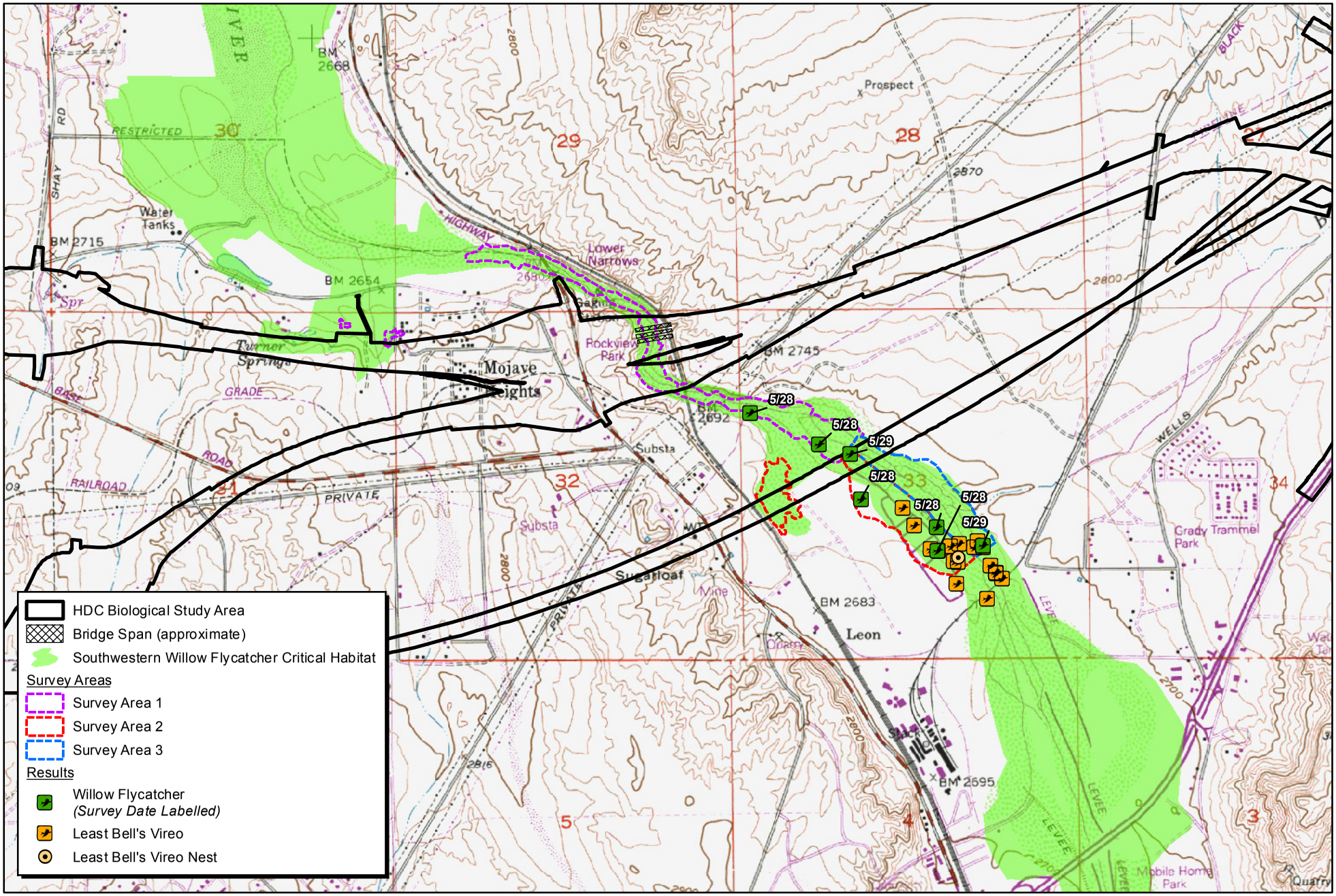
Figure 3. Results Map

2012-061 HDC SWWF and LBVI Surveys



Map Date: 8/17/2015
Victorville CA 7.5-minute Topographic Quadrangle

Location: \\rocklin\mapping data\2012\2012-061 HDC SWWFL and LBV Surveys\MAPS\SSS_Survey_and_Mapping\WIFL_LBV_2015\HDC_RiparianBird_Results_20150813_topo.mxd *(MAG/JDS, 8/17/2015)* - mguidry

Scale in Feet
0 2,000

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Figure 4. USGS Topographic Map

2012-061 HDC SWWF and LBVI Surveys

4.2 Least Bell's Vireo

Least Bell's vireos were regularly detected in the far southeastern end of the study area (Table 3, Figures 3 and 4). An adult male was observed singing in this area on May 14, 15, 28, 29, June 11, 12, 23, July 2, 14, and 29, 2015. This male was also observed exchanging incubation duties with a female on May 28 at a nest approximately 160 ft (48.8 m) west of the southeast end of the study area and 5,600 ft (1,706.9 m) southeast of the location of the proposed crossing. The male was observed tending two dependent fledglings on June 23 approximately 400 ft (121.9 m) northeast of the previously observed nest location. A second male was observed singing from habitat east of the southeastern end of the study area on April 14, June 12, 22, and 23. A juvenile was heard calling on July 3 from the location where fledglings had been observed on June 23. A female was observed tending two dependent fledglings on July 14 both in and outside of the study area on the far southeastern end. Two begging fledglings were detected again on July 15 approximately 1,100 ft (335.3 m) northwest of the southeastern end of the study area and one juvenile was briefly heard calling approximately 380 ft (115.8 m) southeast of the southeastern end of the study area on the same day. Two fledglings were observed in southeastern end of the study area on July 28.

Table 3. Least Bell's Vireo Survey Results

Date	11N UTM Coordinates	Observation Notes
4/14/15	472541mE 3824342mN	One adult male least Bell's vireo was detected singing intermittently from sandbar willow habitat east of the eastern end of the study area.
4/15/15	472305mE 3824436mN	One adult male least Bell's vireo was detected singing and scolding in sandbar and arroyo willow and Fremont cottonwood habitat within the eastern end of the study area.
4/27/15	472435mE 3824495mN	An adult least Bell's vireo was seen quietly moving through mature sandbar willow habitat with scattered black willows.
4/28/15	472323mE 3824446mN	A least Bell's vireo pair was observed incubating a nest in a stand of mulefat with surrounding red and sandbar willows and the male was observed singing throughout the eastern end of the study area while the female was incubating.
5/28/15	472342mE 3824509mN	An adult male least Bell's vireo was observed singing throughout the eastern end of the study area.
5/29/15	472323mE 3824446mN	An adult male least Bell's vireo was observed singing throughout the eastern end of the study area.
6/11/15	472414mE 3824492mN	An adult male least Bell's vireo was observed singing throughout the eastern end of the study area.
6/12/15	472425mE 3824515mN	An adult male least Bell's vireo was observed singing throughout the eastern end of the study area.
	472471mE 3824249mN	A second male was detected east of the southeastern end of the study area.
6/22/15	472471mE 3824249mN	A singing male was detected east of the southeastern end of the study area.

Date	11N UTM Coordinates	Observation Notes
6/23/15	472414mE 3824492mN	An adult male least Bell's vireo was observed singing throughout the eastern end of the study area and attending to two dependent fledglings.
	472471mE 3824249mN	A second male was detected east of the southeastern end of the study area.
7/2/15	472317mE 3824425mN	An adult male least Bell's vireo was observed singing throughout the eastern end of the study area.
	472471mE 3824249mN	A second male was detected east of the southeastern end of the study area.
7/3/15	472331mE 3824321mN	An adult male least Bell's vireo was observed singing near a calling fledgling on the north side of the southeast end and throughout the eastern end of the study area.
	472471mE 3824249mN	A second male was detected east of the southeastern end of the study area
7/14/15	472318mE 3824425mN	An adult male least Bell's vireo was observed singing throughout the eastern end of the study area.
	472471mE 3824249mN	A second male was detected east of the southeastern end of the study area.
	472330mE 3824321mN	Two dependent fledglings with attending female were observed crossing into the southeast end of the study area.
7/15/15	472133mE 3824595mN	Two begging fledglings were found 1,100 ft further northwest than on 7/14.
	472414mE 3824492mN	A juvenile briefly called from approximately 380 ft southeast of the southeastern end of the study area.
7/28/15	472317mE 3824425mN	A fledgling was observed calling in the southeastern end of the study area.
	472082mE 3824676mN	A fledgling was observed calling in the southeastern end of the study area.
7/29/15	472487mE 3824404mN	An adult male least Bell's vireo was observed singing throughout the eastern end of the study area.

4.3 Western Yellow-billed Cuckoo

The western yellow-billed cuckoo was not detected in or near the study area during a total of 18 days of surveys for the species.

4.4 Incidental Special Status Species

Wildlife species included on the CDFW special animals list (CDFW 2015) were observed within the study area. Adult and juvenile yellow warblers (*Setophaga petechia*), a CDFW Species of Special Concern (SSC), were abundant throughout the study area, with greatest concentration on the southeastern end where the highest density breeding habitat for the species is located.

Adult and dependent young summer tanagers (*Piranga rubra*), an SSC, were observed throughout the study area, with breeding behavior detected in the eastern half. Yellow-breasted chats (*Icteria virens*), also an SSC, were observed singing within the eastern end of the study area and a family group with a dependent fledgling was seen on June 23. One Swainson's Hawk (*Buteo swainsoni*), California state-listed (threatened) was seen soaring over the study area and being harassed by a pair of common ravens (*Corvus corax*) on May 28. A list of wildlife species observed during the surveys is included as Appendix D.

One special status plant species was also observed in the study area. Booth's evening primrose (*Eremothera boothii* ssp. *boothii*), California Rare Plant Rank 2B.3 (rare, threatened, or endangered in California, but more common elsewhere), was observed at numerous locations in the eastern half of the study area.

5.0 CONCLUSIONS

Breeding status of the southwestern willow flycatcher was not confirmed within the study area during 2015. Breeding status of the western yellow-billed cuckoo was not confirmed within the study area during 2015. One pair of least Bell's vireos successfully nested within the study area during 2015 and a second pair outside the study area may have used the study area for post-fledging dispersal.

5.1 Southwestern Willow Flycatcher

Presence of the southwestern willow flycatcher, according to survey protocol, is determined by the observation of breeding willow flycatchers or by willow flycatcher detection during the third survey period (June 25 – July 17), at which point migrant willow flycatchers should no longer be present in the Southwest (Sogge et al. 2010). Evidence of breeding willow flycatchers, including nest building, recent nests, or fledglings, was not observed during surveys of the site, nor were willow flycatchers detected within the study area during Survey Periods 2 and 3. Therefore, it is assumed that southwestern willow flycatchers were not present as a breeding species within the study area during 2015 and that the individual willow flycatchers observed during Survey Period 1 were of undetermined sub-species passing through the study area on migration.

Although southwestern willow flycatchers show high site fidelity and often return to breed at the same site year after year, pairs may change locations within a site from year to year or may even move to a new site altogether (Sogge et al. 2010). Mortality, occupation of suitable habitat in the vicinity but outside the study area, or a move to a different breeding site all serve as possible explanations for the 2013 to 2015 absence of the breeding pair observed in 2012.

5.2 Least Bell's Vireo

One pair of least Bell's vireos successfully nested within the study area on the southeastern end. A territorial male was consistently observed singing in this area throughout surveys of the site and a pair was seen incubating a nest in this location on April 28. The male was seen tending to dependent fledglings on June 23, the timing of which suggests that the initially

observed nest attempt was not successful and a subsequent and successful nesting took place because the fledglings were first detected much later than would have been expected for the first nest.

A second territorial male was detected singing east of the southeastern end of the study area on various occasions and dependent fledglings with a female were found outside and crossing into the southeastern edge of the study area on July 14 and 15. These fledglings appeared to be younger than but too similar in age to the fledglings seen on June 23 to be from the pair that nested inside the study area and may have been the offspring of the territorial male outside and east of the study area, using the site for post-fledging dispersal.

5.3 Western Yellow-billed Cuckoo

Breeding status of the western yellow-billed cuckoo was not confirmed within the study area during 2015 based on the absence of cuckoo detections within the study area.

5.4 Recommendations

Breeding southwestern willow flycatchers and western yellow-billed cuckoos were not found within the study area. However, least Bell's vireos were found successfully nesting in the southeastern portion of the study area. The eastern half of the survey area, beginning approximately 2,500 ft (762 m) upstream from the proposed crossing contains high-quality habitat for southwestern willow flycatcher and least Bell's vireo and moderate-quality habitat for wester yellow-billed cuckoo. A breeding pair of southwestern willow flycatchers was detected in this area during 2012 surveys (ECORP 2012) and the area may possibly be reoccupied in subsequent years. Also, in addition to serving as a breeding site, the area appears to be important for post-natal/post-breeding dispersal from nearby least Bell's vireo territories. Avoidance of this area is recommended to preserve high-quality breeding habitat for the least Bell's vireo, southwestern willow flycatcher, and moderate-quality habitat for western yellow-billed cuckoo and to minimize potential project impacts to these species.

CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or the applicant's representative and that I have no financial interest in the project.

DATE: 8/27/15

SIGNED:

Benjamin Smith

7.0 LITERATURE CITED

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Appendix A

Survey Photographs

Photograph 1. Representative view Fremont cottonwood forest in the woodland area south of the river that was included in the study area.

Photograph 2. Representative view Fremont cottonwood forest in the woodland area south of the river that was included in the study area.

Photograph 3. Representative view of Fremont cottonwood forest on the upper river terrace.

Photograph 4. Representative view of Fremont cottonwood forest that transitions into red willow thickets on the eastern side of the study area.

Photograph 5. Representative view of Fremont cottonwood forest that transitions into red willow thickets on the eastern side of the study area.

Photograph 6. Representative interior view of Fremont cottonwood forest that transitions into red willow thickets on the eastern side of the study area.

Photograph 7. Representative interior view of red willow thickets in the eastern half of the study area.

Photograph 8. Representative interior view of red willow thickets in the eastern half of the study area.

Photograph 9. Representative view of sandbar willow thicket in the additional area northwest of the river.

Photograph 10. Representative view of sandbar willow thicket in the additional area northwest of the river with desert saltbush scrub in the foreground.

Photograph 11. Representative view of sandbar willow thickets and Fremont cottonwood forest at the location of the proposed crossing.

Photograph 12. Representative view of sandbar willow thickets just east of the location of the proposed crossing.

Photograph 13. Representative view of sandbar willow thickets in the eastern half of the study area.

Photograph 14. Representative view of California bulrush-American bulrush marsh in the western half of the study area.

Photograph 15. Representative view of southern cattail marsh in the western half of the study area.

Photograph 16. Representative view of homeless disturbance in the study area.

Photograph 17. Representative view of homeless disturbance in the study area.

Photograph 18. Representative view of homeless disturbance in the study area.

Photograph 19. Representative view of homeless disturbance in the study area.

Photograph 20. Four-wheel drive activity in the study area.

Appendix B

Completed Willow Flycatcher Survey and Detection Forms

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site (http://www.fws.gov/southwest/es/arizona/) for the most up-to-date version.

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

Site Name Mojave River High Desert Corridor West Area State CA County San Bernardino
USGS Quad Name Victorville Elevation 678 (meters)
Creek, River, Wetland, or Lake Name Mojave River
Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ___

Survey Coordinates: Start: E 469707 N 3875512 UTM Datum WGS84 (See instructions)
Stop: E 471824 N 3824942 UTM Zone 11
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) B. Smith W. Turner	Date 5/27/15 Start 0530 Stop 1045 Total hrs 5.25	0	0	0	N					
Survey # 2 Observer(s) B. Smith W. Turner	Date 6/10/15 Start 0520 Stop 1030 Total hrs 5.25	0	0	0	N					
Survey # 3 Observer(s) B. Smith W. Turner	Date 6/21/15 Start 0515 Stop 1030 Total hrs 5.25	0	0	0	N					
Survey # 4 Observer(s) B. Smith K. Cornell	Date 7/1/15 Start 0525 Stop 1030 Total hrs 5	0	0	0	N					
Survey # 5 Observer(s) B. Smith K. Cornell	Date 7/13/15 Start 0528 Stop 1016 Total hrs 4.75	0	0	0	N					
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		Total Adult Residents 0	Total Pairs 0	Total Territories 0	Total Nests 0	Were any Willow Flycatchers color-banded? Yes___ No ___ If yes, report color combination(s) in the comments section on back of form and report to USFWS.				

Reporting Individual Benjamin Smith Date Report Completed ___
US Fish and Wildlife Service Permit # TE 67390A State Wildlife Agency Permit # SCP-10933
***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 Benjamin Smith Phone # 714-651-3031
Affiliation ECORP Consulting, Inc. E-mail bsmith@ecorpconsulting.com
Site Name Mojave River High Desert Corridor West Area Date Report Completed _____
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 years? Yes ___ No X Not Applicable ___
If site name is different, what name(s) was used in the past? Area 1 Mojave River High Desert Corridor Area 1
If site was surveyed last year, did you survey the same general area this year? Yes ___ No X 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.
Area A larger area was covered than in 2014
Management Authority for Survey Area: Federal___ Municipal/County X State ___ Tribal ___ Private ___
Name of Management Entity or Owner (e.g., Tonto National Forest) San Bernardino

Length of area surveyed: 1.975 (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 names.
Salix exigua, Salix laevigata, Populus fremontii

Average height of canopy (Do not include a range): 15 (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.

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

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site (http://www.fws.gov/southwest/es/arizona/) for the most up-to-date version.

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

Site Name Mojave River High Desert Corridor South Area State CA County San Bernardino
USGS Quad Name Victorville Elevation 817 (meters)
Creek, River, Wetland, or Lake Name Mojave River
Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ___

Survey Coordinates: Start: E 471532 N 3824575 UTM Datum WGS84 (See instructions)
Stop: E 471824 N 3824942 UTM Zone 11
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) B. Smith W. Turner	Date 5/28/15 Start 0530 Stop 1027 Total hrs 5	5	ϕ	ϕ	N	offset 150' west →	1		471373	3825127
							1		471694	3824978
							1		471887	3824882
							1		472281	3824977
							1		472237	3824586
Survey # 2 Observer(s) B. Smith W. Turner	Date 6/11/15 Start 0530 Stop 1038 Total hrs 5	ϕ	ϕ	ϕ	N		# Birds	Sex	UTM E	UTM N
Survey # 3 Observer(s) B. Smith W. Turner	Date 6/22/15 Start 0520 Stop 1023 Total hrs 5	ϕ	ϕ	ϕ	N		# Birds	Sex	UTM E	UTM N
Survey # 4 Observer(s) B. Smith K. Cornell	Date 7/2/15 Start 0530 Stop 1026 Total hrs 5	ϕ	ϕ	ϕ	N		# Birds	Sex	UTM E	UTM N
Survey # 5 Observer(s) B. Smith K. Cornell	Date 7/14/15 Start 0525 Stop 1032 Total hrs 5	ϕ	ϕ	ϕ	N		# Birds	Sex	UTM E	UTM N

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	Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any Willow Flycatchers color-banded? Yes___ No ___ If yes, report color combination(s) in the comments section on back of form and report to USFWS.
	ϕ	ϕ	ϕ	ϕ	

Reporting Individual Benjamin Smith Date Report Completed ___
US Fish and Wildlife Service Permit # TE67390A State Wildlife Agency Permit # SCP-10933
***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 Benjamin Smith Phone # 714-651-3021
Affiliation ECORP Consulting, Inc. E-mail bsmith@ecorpconsulting.com
Site Name Mojave River High Desert Corridor South Area Date Report Completed
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 years? Yes ___ No X Not Applicable ___
If site name is different, what name(s) was used in the past? Mojave River High Desert Corridor Area 2
If site was surveyed last year, did you survey the same general area this year? Yes ___ No X 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.
A larger area was covered than in 2014.
Management Authority for Survey Area: Federal___ Municipal/County X State ___ Tribal ___ Private ___
Name of Management Entity or Owner (e.g., Tonto National Forest) San Bernardino

Length of area surveyed: 1.2 (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 names.
Salix laevigata, Salix exigua, Populus fremontii

Average height of canopy (Do not include a range): 10 (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.

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

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site (http://www.fws.gov/southwest/es/arizona/) for the most up-to-date version.

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

Site Name Mojave River High Desert Corridor ~~South~~ North Area State CA County San Bernardino
USGS Quad Name Victorville Elevation 817 (meters)
Creek, River, Wetland, or Lake Name Mojave River
Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? *Yes* X *No* ___

Survey Coordinates: Start: E 472424 N 3824490 UTM Datum WGS84 (See instructions)
Stop: E 471862 N 3824955 UTM Zone 11
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) B. Smith W. Turner	Date 5/29/15 Start 0530 Stop 1030 Total hrs 5	2	0	0	N	flew in close after playback & whitted excitedly	1		471839	3824931
							1		472437	3824519 NAD 83/SE
Survey # 2 Observer(s) B. Smith W. Turner	Date 6/12/15 Start 0530 Stop 1015 Total hrs 4.75	0	0	0	N		# Birds	Sex	UTM E	UTM N
Survey # 3 Observer(s) B. Smith W. Turner	Date 6/23/15 Start 0505 Stop 1023 Total hrs 5	0	0	0	N		# Birds	Sex	UTM E	UTM N
Survey # 4 Observer(s) B. Smith C. Lancaster	Date 7/3/15 Start 0530 Stop 1013 Total hrs 4.75	0	0	0	N		# Birds	Sex	UTM E	UTM N
Survey # 5 Observer(s) B. Smith K. Cornell	Date 7/15/15 Start 0554 Stop 1026 Total hrs 4.5	0	0	0	N		# Birds	Sex	UTM E	UTM N

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	Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any Willow Flycatchers color-banded? Yes___ No ___ If yes, report color combination(s) in the comments section on back of form and report to USFWS.
	0	0	0	0	

Reporting Individual Benjamin Smith Date Report Completed ___
US Fish and Wildlife Service Permit # TE-67390A State Wildlife Agency Permit # SCP-10933
***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 Benjamin Smith Phone # 714-651-3021
Affiliation ECORP Consulting, Inc. E-mail bsmith@ecorpconsulting.com
Site Name Mojave River High Desert Corridor North Area Date Report Completed _____
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 years? Yes ___ No X Not Applicable ___
If site name is different, what name(s) was used in the past? Mojave River High Desert Corridor Area 2
If site was surveyed last year, did you survey the same general area this year? Yes ___ No X 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.
A larger area was covered than in 2014
Management Authority for Survey Area: Federal___ Municipal/County X State ___ Tribal ___ Private ___
Name of Management Entity or Owner (e.g., Tonto National Forest) San Bernardino

Length of area surveyed: .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 names.
Populus fremontii, Salix laevigata, Salix exigua

Average height of canopy (Do not include a range): 10 (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.

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

Appendix C

Interim Western Yellow-billed Cuckoo Survey Protocol and USFWS Approval

Surveys for the western population of the Yellow-billed Cuckoo (*Coccyzus americanus*) will be performed according the following methods. All potentially suitable cuckoo habitat patches within the study area will be surveyed six times during the breeding season, between May 15 and July 31, with a minimum of ten days between each survey. A potentially suitable habitat patch will consist of "an area of riparian habitat five ha or greater in extent that is separated by at least 300m from an adjacent patch of apparently suitable cuckoo habitat", as defined by Halterman et al. (2011), *A Natural History Summary and Survey Protocol for the Western Yellow-billed Cuckoo Population.* Potentially suitable habitat patches will be traversed on foot along transects spaced approximately 30 meters apart, with frequent stops to look and listen for cuckoos. Surveys will begin at daylight and will end by 11 am. Surveys will not be conducted during abnormal or excessive cold, heat, wind, rain, or other inclement weather. The locations of all cuckoo detections will be recorded and reported to the Carlsbad Fish and Wildlife Office.

Begin forwarded message:

From: "Johnson, Jeff W@DOT" <jeff.johnson@dot.ca.gov>
Date: March 11, 2015 at 11:10:53 AM PDT
To: Don Mitchell <DMitchell@ecorpconsulting.com>
Subject: FW: Yellow-billed Cuckoo Proposed Interim Protocol

Don:

Lets proceed with proposed protocol.

Jeff

From: Ray Bransfield [ray_bransfield@fws.gov]
Sent: Wednesday, March 11, 2015 10:57 AM
To: Johnson, Jeff W@DOT
Subject: RE: Yellow-billed Cuckoo Proposed Interim Protocol

Jeff,
Looks good to me.
Ray

From: Johnson, Jeff W@DOT [mailto:jeff.johnson@dot.ca.gov]
Sent: Wednesday, March 11, 2015 9:46 AM
To: ray_bransfield@fws.gov
Subject: Yellow-billed Cuckoo Proposed Interim Protocol

Ray:

Attached is a proposed interim survey protocol for Yellow-billed cuckoo. Caltrans has an immediate need to proceed with presence/absence surveys for the project known as the High Desert Corridor this spring. With your agreement we will proceed with the method described. We will include any of your changes.

Jeff Johnson

Appendix D

Wildlife Compendium

SCIENTIFIC NAME	COMMON NAME
Amphibians	
Bufonidae	**Toads**
Anaxyrus boreas	western toad
Ranidae	**True Frogs**
*Lithobates catesbeianus**	American bullfrog*
Hylidae	**New World Treefrogs**
Pseudacris regilla	Pacific chorus frog
Reptiles	
Anguidae	**Alligator Lizards and Allies**
Elgaria multicarinata	alligator lizard
Colubridae	**Colubrids**
Lampropeltis californiae	California kingsnake
Phrynosomatidae	**Zebra-tailed, Side-blotched, and Spiny Lizards**
Callisaurus draconoides	zebra-tailed lizard
Sceloporus occidentalis	western fence lizard
Uta stansburiana	common side-blotched lizard
Teiidae	**Whiptails**
Aspidoscelis tigris	western whiptail
Birds	
Accipitridae	**Hawks, Kites, Eagles, Allies**
Accipiter cooperii	Cooper's Hawk
Buteo jamaicensis	Red-tailed Hawk
Buteo lineatus	Red-shouldered Hawk
Buteo swainsoni	Swainson's Hawk**
Aegithalidae	**Long-tailed Tits, Bushtits**
Psaltriparus minimus	Bushtit
Alcedinidae	**Kingfishers**
Megaceryle alcyon	Belted Kingfisher
Anatidae	**Ducks, Geese, and Swans**
Anas platyrhynchos	Mallard
Apodidae	**Swifts**
Aeronautes saxatalis	White-throated Swift
Ardeidae	**Herons, Bitterns, Allies**
Ardea herodias	Great Blue Heron
Butorides virescens	Green Heron
Nycticorax nycticorax	Black-crowned Night Heron
Caprimulgidae	**Nighthawks and Nightjars**
Chordeiles acutipennis	Lesser Nighthawk
Cardinalidae	**Cardinals, Saltators, Allies**
Passerina amoena	Lazuli Bunting
Passerina caerulea	Blue Grosbeak
Pheucticus melanocephalus	Black-headed Grosbeak

SCIENTIFIC NAME	COMMON NAME
Cathartidae	**Vultures**
Cathartes aura	Turkey Vulture
Charadriidae	**Lapwings, Plovers**
Charadrius vociferus	Killdeer
Columbidae	**Pigeons, Doves**
*Columba livia**	Rock Pigeon*
*Streptopelia decaocto**	Eurasian Collared-dove*
Zenaida macroura	Mourning Dove
Corvidae	**Crows, Jays**
Corvus corax	Common Raven
Cuculidae	**Cuckoos and Roadrunners**
Geococcyx californianus	Greater Roadrunner
Emberizidae	**Emberizids**
Artemisiospiza belli	Bell's Sparrow
Amphispiza bilineata	Black-throated Sparrow
Melospiza melodia	Song Sparrow
Zonotrichia leucophrys	White-crowned Sparrow
Falconidae	**Falcons**
Falco sparverius	American Kestrel
Fringillidae	**Fringilline and Cardueline Finches, Allies**
Haemorhous mexicanus	House Finch
Spinus lawrencei	Lawrence's Goldfinch
Spinus pinus	Pine Siskin
Spinus psaltria	Lesser Goldfinch
Hirundinidae	**Swallows**
Petrochelidon pyrrhonota	Cliff Swallow
Stelgidopteryx serripennis	Northern Rough-winged Swallow
Icteridae	**Blackbirds**
Agelaius phoeniceus	Red-winged Blackbird
Euphagus cyanocephalus	Brewer's Blackbird
Icterus bullockii	Bullock's Oriole
Molothrus ater	Brown-headed Cowbird
Quiscalus mexicanus	Great-tailed Grackle
Mimidae	**Mockingbirds, Thrashers**
Mimus polyglottos	Northern Mockingbird
Toxostoma redivivum	California Thrasher
Odontophoridae	**New World Quail**
Callipepla californica	California Quail
Paridae	**Titmice and Chickadees**
Poecile gambeli	Mountain Chickadee
Parulidae	**Wood Warblers**
Geothlypis trichas	Common Yellowthroat
Icteria virens**	Yellow-breasted Chat**
Oreothlypis celata	Orange-crowned Warbler
Oreothlypis ruficapilla	Nashville Warbler
Setophaga coronata	Yellow-rumped Warbler
Setophaga nigrescens	Black-throated Gray Warbler

SCIENTIFIC NAME	COMMON NAME
*Setophaga petechia***	Yellow Warbler**
Setophaga townsendi	Townsend's Warbler
Wilsonia pusilla	Wilson's Warbler
Passeridae	**Old World Sparrows**
Passer domesticus	House Sparrow
Picidae	**Woodpeckers**
Colaptes auratus	Northern Flicker
Picoides pubescens	Downy Woodpecker
Picoides nuttallii	Nuttall's Woodpecker
Polioptilidae	**Gnatcatchers**
Polioptila caerulea	Blue-gray Gnatcatcher
Rallidae	**Rails and Moorhens**
Rallus limicola	Virginia Rail
Regulidae	**Kinglets**
Regulus calendula	Ruby-crowned Kinglet
Remizidae	**Verdins**
Auriparus flaviceps	Verdin
Sittidae	**Nuthatches**
Sitta carolinensis	White-breasted Nuthatch
Sturnidae	**Starlings**
*Sturnus vulgaris**	European Starling*
Thraupidae	**Tanagers**
Piranga ludoviciana	Western Tanager
*Piranga rubra***	Summer Tanager**
Trochilidae	**Hummingbirds**
Archilochus alexandri	Black-chinned Hummingbird
Calypte anna	Anna's Hummingbird
Troglodytidae	**Wrens**
Cistothorus palustris	Marsh Wren
Salpinctes obsoletus	Rock Wren
Thryomanes bewickii	Bewick's Wren
Turdidae	**Thrushes**
Sialia mexicana	Western Bluebird
Tyrannidae	**Tyrant Flycatchers**
Contopus sordidulus	Western Wood-pewee
Empidonax difficilis	Pacific-Slope Flycatcher
*Empidonax traillii***	Willow Flycatcher**
Myiarchus cinerascens	Ash-Throated Flycatcher
Sayornis phoebe	Black Phoebe
Sayornis saya	Say's Phoebe
Tyrannus verticalis	Western Kingbird
Tytonidae	**Barn Owls**
Tyto alba	Barn Owl
Vireonidae	**Vireos**
*Vireo bellii pusillus***	Least Bell's Vireo**
Vireo cassinii	Cassin's Vireo
Vireo gilvus	Warbling Vireo

SCIENTIFIC NAME	COMMON NAME
Mammals	
Canidae	**Dogs, Foxes, and Coyotes**
Canis latrans	coyote
Canis lupus familiaris	domestic dog
Castoridae	**Beaver**
Castor canadensis	American beaver
Chiroptera	**Bats**
Unknown bat species	Unknown bat species
Felidae	**Cats**
Felis catus	domestic cat
Leporidae	**Pika, Rabbits, and Hares**
Sylvilagus audubonii	desert cottontail
Mephitidae	**Skunks**
Mephitidae mephitis	striped skunk
Muridae	**Rats, Mice, Voles, Allies**
Neotoma sp.	Woodrat
Procyonidae	**Raccoons**
Procyon lotor	raccoon
Sciuridea	**Squirrels**
Spermophilus beecheyi	California ground squirrel

* nonnative species

** special status species