

December 3, 2010

6575-3D

U.S. Fish and Wildlife Service
Attn: Recovery Permit Coordinator
6010 Hidden Valley Road, Suite 100
Carlsbad, California 92011

Subject: Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Salton Sea Species Conservation Habitat Project, Imperial County, California

Dear Recovery Permit Coordinator:

This report documents the results of eight protocol-level presence/absence surveys for the state- and federally listed endangered least Bell's vireo (*Vireo bellii pusillus*), and the state- and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*). These focused surveys included approximately 248 acres of suitable habitat within the Salton Sea Species Conservation Habitat project site and adjacent upstream and downstream areas. The surveys were conducted in all areas of suitable least Bell's vireo and southwestern willow flycatcher habitat.

The southwestern willow flycatcher and least Bell's vireo are closely associated with riparian habitats, especially densely vegetated willow scrub and riparian forest vegetation. These species are threatened primarily by loss, degradation, and fragmentation of riparian habitats. They also are impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

LOCATION AND EXISTING CONDITIONS

The approximately 248-acre survey area is situated within Imperial County, California (Figure 1) and lies within the U.S. Geological Survey (USGS) 7.5-minute map, Niland and Westmorland West Quadrangles: Section 5, Township 12 South, Range 13 East; Principal Meridian: San Bernardino; latitude 33°9'14.8" N; and longitude 115°38'24.0" W (Figure 2). The project site is slightly sloped with gradients from the southeast to the northwest. For the Alamo River portion of the survey, the elevation ranges from a high of -221 feet above mean sea level (AMSL) near the southeast portion to approximately -231 feet AMSL near the northwest portion. For the New River portion of the survey, the elevation ranges from a high of -216 feet AMSL near the southeast portion to approximately -228 feet AMSL near the northwest portion.

VEGETATION COMMUNITIES

Tamarisk riparian habitat was the only vegetation community identified in the study area that was considered potentially suitable habitat for least Bell's vireo and southwestern willow flycatcher. This vegetation community is described below and shown as the survey area on Figure 3.

Tamarisk Riparian Habitat (248 acres)

According to Holland (1986), tamarisk habitat is a weedy, monoculture of any of several *Tamarix* species, usually supplanting native vegetation following a major disturbance. This habitat is usually found in sandy or gravelly braided washes or intermittent streams. Common species include narrowleaf willow (*Salix exigua*), big salt bush (*Atriplex lentiformis*), salt grass (*Distichlis spicata*), tamarisk (*Tamarix* sp.), and arrowweed (*Pluchea sericea*). Tamarisk often occupies jurisdictional wetlands.

Tamarisk habitat occurs throughout the survey area. Within the survey area, this community is characterized by monotypic stands of tamarisk interspersed with patches of fresh and brackish water marsh and stands of common reed (*Phragmites* sp.). The tamarisk habitat occurs in association with the two main rivers that empty into the Salton Sea: New River and Alamo River. The habitat occurs along the edges of the rivers often as a very narrow band of vegetation. In some areas the tamarisk scrub widens out and forms more of a patch of habitat versus a linear strip of vegetation. The narrow linear strips of tamarisk average 30 to 50 feet wide and patches of habitat range from 2 to 4 acres with an approximately 50-acre patch south of the New River.

METHODS

Focused surveys for the least Bell's vireo and southwestern willow flycatcher were conducted for the project on May 20, 21, 27, June 2, 3, 4, 10, 11, 18, 28, 29, and July 8, 9, 19, 20, 28, 29, and 30, 2010, by Paul M. Lemons, Brock A. Ortega, Jeffrey D. Priest, Stuart F. Fraser, Patricia Schuyler, Kamarul J. Muri, and Anita M. Hayworth, Ph.D (Table 1).

Dr. Hayworth, Mr. Ortega, Mr. Priest, and Mr. Lemons hold federal permits to conduct surveys for the southwestern willow flycatcher under TE-781084, TE-813545, TE-840619, and TE-051248, respectively. A federal recovery permit is not required to conduct surveys for the least Bell's vireo. All surveys conducted by Mr. Fraser, Mr. Muri, and Ms. Schuyler, as well as any surveys conducted after the survey period for southwestern willow flycatcher, were focused on the detection of least Bell's vireo; For the surveys when both species could be present, the

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permitted biologist simultaneously focused survey efforts on the southwestern willow flycatcher and least Bell's vireo.

For the least Bell's vireo, eight site visits were conducted with at least 10-day intervals between visits except for two of the visits as described below, following the currently accepted U.S. Fish and Wildlife Service (USFWS) protocol (USFWS 2001). For the second and third visits, due to time delays with the authorization from California Department of Fish and Game to conduct the surveys, the interval was seven or eight days; the interval for the balance of the surveys was 10 days per the protocol. The site visits are generally conducted 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Surveys were conducted between dawn and approximately noon and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather. Typically, per the protocol, the survey should be ended at 11 a.m.; however, if birds continued to vocalize and winds remained mild, the survey was continued to its completion. Surveys were conducted between April 10 and July 31, as dictated in the protocol.

For the southwestern willow flycatcher, five surveys are required per *A Natural History Summary and survey protocol for the Southwestern Willow Flycatcher* issued by the USGS and U.S. Department of the Interior and approved by the USFWS (Sogge et al. 2010). For the 2010 protocol, five survey visits are required with one visit between May 15 and May 31, two visits between June 1 and June 24, and two visits between June 25 and July 17 (Sogge et al. 2010). Each survey visit was separated by at least five days. Because the habitat requirements for the two species overlap, surveys conducted between May 15 and July 17 include surveys for both species. A tape of recorded southwestern willow flycatcher vocalizations was used as described in the protocol. The biologist paused quietly for one to two minutes listening for flycatcher calls and songs. The tape of the vocalizations was then played for 10 to 15 seconds followed by a one to two minute listening period. This was repeated approximately every 50 to 100 feet within suitable habitat to induce southwestern willow flycatcher responses. When a southwestern willow flycatcher was detected, playing of the tape ceased to avoid harassment and the biologist did not start playing the tape again until approximately 120 feet away from the detected flycatcher. Various subspecies of this species are not easily differentiated visually or by call or song in the field, and any resident willow flycatchers observed in the final survey period would be assumed to be the "southwestern" subspecies. Non-resident willow flycatchers (those not observed during the third survey period) were assumed to be migrant willow flycatchers. Surveys for the southwestern flycatcher were conducted under Section 10(a), Permit Numbers TE-781084, TE-813545, TE-840619, and TE-051248.

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The survey method consisted of slowly walking a systematic, meandering transect within and adjacent to all suitable habitat (i.e., tamarisk scrub) in the study area. This route was arranged to cover all suitable habitat on site. The vegetation along the New and Alamo rivers is composed of a combination of a narrow stringer of trees to larger patches or polygons of trees with a relatively dense understory. Where the vegetation was composed of the narrow open line of tamarisk, the observer moved through relatively quickly since the vegetation was generally composed of the open channel of the river with no overstory or shading, a strip of emergent vegetation, a narrow strip of medium height tamarisk and then the levee or berm. Hence the vegetation is less suitable for either of the riparian bird species. Where the habitat widened out or became dense, the observed spent time listening and searching for vocalizations or activity of least Bell's vireo or willow flycatcher. The survey area was split into three regions and eight full visits were made to each region. The three regions were determined based on the acreage covered with the survey and the access needed to cover the survey area in the time needed. Thus the acreage covered was approximately 77 acres for the Alamo River "A", 92 acres for the New River "A", and 79 acres for the New River "B"/Alamo River "B" survey areas. The total length cover for each area was as follows: 3.2 km for the Alamo River "A", 3.4 km for the New River "A" and 3.2 km for the New River "B"/Alamo River "B" with some areas of narrow or unsuitable habitat interspersed with areas of suitable habitat as described above. A vegetation map (scale 1 inch=200 feet) of the survey area was available to record any detected southwestern willow flycatcher or least Bell's vireo. Binoculars (10×40, 8×42) were used to aid in detecting and identifying wildlife species.

Weather conditions, time of day and season were appropriate for the detection of southwestern willow flycatcher and least Bell's vireo (Table 1).

Table 1
Schedule of Surveys

Date	Location*	Hours	Focus	Personnel	Conditions
5/20/10	Alamo River A	0530–1100	WIFL/LBVI	AMH	clear skies; 3–5 mph winds; 68°F–88°F
5/21/10	New River A	0515–1100	WIFL/LBVI	BAO	Clear skies; 5mph wind; 67°F–95°F
5/27/10	New River B/Alamo River B	0550–1100	WIFL/LBVI	PML	10%–10% cc; 0–2 to 5–8 mph winds; 10+ mph gusts; 63°F–93°F
6/2/10	Alamo River A	0500–1105	WIFL/LBVI	AMH	Clear skies; 0–3 mph winds; 61°F–92°F
6/3/10	New River A	0530–1030	LBVI	PCS	Clear skies; 0–5 mph winds; 65°F–85°F
6/4/10	New River B/Alamo River B	0545–1100	WIFL/LBVI	PML	15%–10% cc; 0–4 mph winds; 71°F–101°F
6/10/10	Alamo River A	0505–1115	WIFL/LBVI	AMH	70% cc–clear skies; 8–10 to 5–8 mph winds; 70°F–86°F
6/10/10	New River A	0500–1115	WIFL/LBVI	BAO	40%–10% cc; 1–5 mph winds; 73°F–100°F

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Table 1 (Continued)

Date	Location*	Hours	Focus	Personnel	Conditions
6/11/10	New River B/Alamo River B	0600–1100	WIFL/LBVI	PML	70% cc–clear skies; 1–4 to 1–5 mph winds, 6–10 mph gusts; 75°F–92°F
6/18/10	New River A	0430–1100	WIFL/LBVI	BAO	20% cc–clear skies; 5 to 5 mph winds; 100°F–73°F
6/18/10	Alamo River A	0535–1015	LBVI	SFF	Clear skies; 0 to 3–5 mph winds; 62°F–86°F
6/18/10	New River B/Alamo River B	0545–1100	LBVI	KJM	Clear skies; 0–2 to 2–5 mph winds; 64°F–87°F
6/28/10	Alamo River A	0515–1105	WIFL/LBVI	AMH	Clear skies; 3–5 mph winds; 65°F–92°F
6/28/10	New River B/Alamo River B	0445–1100	WIFL/LBVI	JDP	Clear skies; <1 mph to 1–8 mph winds; 72°F–101°F
6/29/10	New River A	0450–1100	WIFL/LBVI	BAO	Clear skies; 0–1 mph winds; 60°F–99°F
7/8/10	Alamo River A	0500–1100	WIFL/LBVI	JDP	Clear skies; <1 mph to 3 mph winds; 62°F–100°F
7/9/10	New River A	0515–1105	WIFL/LBVI	AMH	30% cc–clear skies; 1–3 mph winds; 68°F–98°F
7/9/10	New River B/Alamo River B	0600–1100	WIFL/LBVI	PML	80%–20% cc; 0–2 to 2–6 mph winds; 83°F–101°F
7/19/10	New River A	0635–1100	LBVI	PML	10%–5% cc; 0–1 mph winds; 85°F–107°F
7/19/10	Alamo River A	0530–1100	LBVI	JDP	10% cc–clear skies; 1 to 2 mph winds; 76°F–103°F
7/20/10	New River B/Alamo River B	0530–1050	LBVI	AMH	30%–10% cc; 0–1 to 3–5 mph winds; 75°F–93°F
7/28/10	Alamo River A	0530–1100	LBVI	SFF	10% cc; 0–2 to 5–8 mph winds ; 80°F–107°F
7/29/10	New River A	0610–1100	LBVI	PML	30%–10% cc; 0–3 to 0–4 mph winds; 85°F–105°F
7/30/10	New River B/Alamo River B	0600–1100	LBVI	KJM	10%–60% cc; 0–2 to 5–10 mph winds; 84°F–98°F

Survey Designations: LBVI: Least Bell's vireo; WIFL: willow flycatcher

Personnel Key: AMH: Anita Hayworth; BAO: Brock Ortega; JDP: Jeffrey Priest; KJM: Kamarul Muri; PCS: Patricia Schuyler; PML: Paul Lemons; SFF: Stuart Fraser

*In the field notes recorded by Dudek biologists, the New River B/Alamo River B survey area is listed as "New River B". The biologist covered the required survey area for New River B/Alamo River B during each survey regardless of how it was listed in the field notes.

RESULTS

The surveys for the state- and federally listed endangered least Bell's vireo were negative. Based on the migratory route of the species and the breeding locations, it is unlikely that the species occurs in this region; however there is some habitat that is suitable for them for both breeding and migratory stopover.

The state-listed endangered willow flycatcher was identified in riparian vegetation in the survey area during the 2010 focused surveys. A total of 27 observations were made of willow flycatcher within the survey areas adjacent to the Salton Sea (Figures 3–5; Table 2).

Table 2
Survey Results

Survey Pass	Date	Survey Area	Number of willow flycatcher individuals observed
1	5/20/2010	Alamo A	1
	5/21/2010	New River A	4
	5/27/2010	New River B/Alamo River B	1
2	6/2/2010	Alamo A	4
	6/4/10	New River B/Alamo River B	0
	6/10/2010	New River A	9
3	6/10/2010	Alamo A	5
	6/11/2010	New River B/Alamo River B	3
	6/18/10	New River A	0
4	6/28/10	Alamo River A	0
	6/28/10	New River B/Alamo River B	0
	6/29/10	New River A	0
5	7/8/10	Alamo River A	0
	7/9/10	New River A	0
	7/9/10	New River B/Alamo River B	0
Total			27

They were generally observed within patches of tamarisk where it was more than just a linear string of trees. They were observed along the New and Alamo rivers within the survey area of each river as well as in a patch of habitat located south of the New River. No southwestern willow flycatchers were observed during the third survey period. Thus it was concluded that southwestern willow flycatcher is not breeding within the study area. The willow flycatcher that was observed during this focused survey could be either one of the other subspecies of willow flycatcher that breed elsewhere or it could be a southwestern willow flycatcher that was migrating through the region and did not remain on site to breed. Based on the discussion of the occurrence of the various subspecies of willow flycatcher in *Birds of Salton Sea* and the dark plumage of the individuals that were detected, the subspecies occurring in this region is likely the little willow flycatcher (*E. t. brewsteri*) (Patten et al. 2002).

A total of 115 wildlife species were detected in the study area during general and focused surveys of the site (Appendix A). Common bird species observed include song sparrow (*Melospiza melodia*), Abert's towhee (*Melozone aberti*), verdin (*Auriparus flaviceps*), house finch

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(*Carpodacus mexicanus*), seabirds/shorebirds including a variety of gulls and terns, aquatic birds including pelicans and cormorants, and wading birds including herons and egrets, the names of which are provided in a list in Appendix A.

The Willow Flycatcher Survey and Detection Form (Sogge et al. 2010) was filled out for each visit and is included in Appendix B. Site photographs are included in Appendix C.

Please feel free to contact me at 760.479.4239 with questions or if you require additional information.

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

Sincerely,


Anita Hayworth, PhD
Senior Biologist


Paul M. Lemons
Biologist


Brock Ortega
Senior Wildlife Biologist


Jeff Priest
Wildlife Biologist

Att: *Figures 1–5*
Appendices A–C

cc: *Sarah Lozano, Dudek*
Cliff Feldheim, Department of Water Resources
Kim Nichols, California Department of Fish and Game
Anita Hayworth, PhD, Dudek
Brock Ortega, Dudek
Jeffrey Priest, Dudek
Paul Lemons, Dudek

REFERENCE LIST

Holland, R.F. 1986. *Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish and Game.* 156 pp.

Patten, M. A., G. McCaskie, and P. Unitt. 2002. *Birds of Salton Sea. Status, Biogeography, and Ecology.* University of California Press, Berkeley, California.

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Sogge, M.K., Ahlers, Darrell, and S.J. Sferra. 2010. *A natural history summary and survey protocol for the southwestern willow flycatcher*. U.S. Geological Survey Techniques and Methods 2A-10. 38 p.

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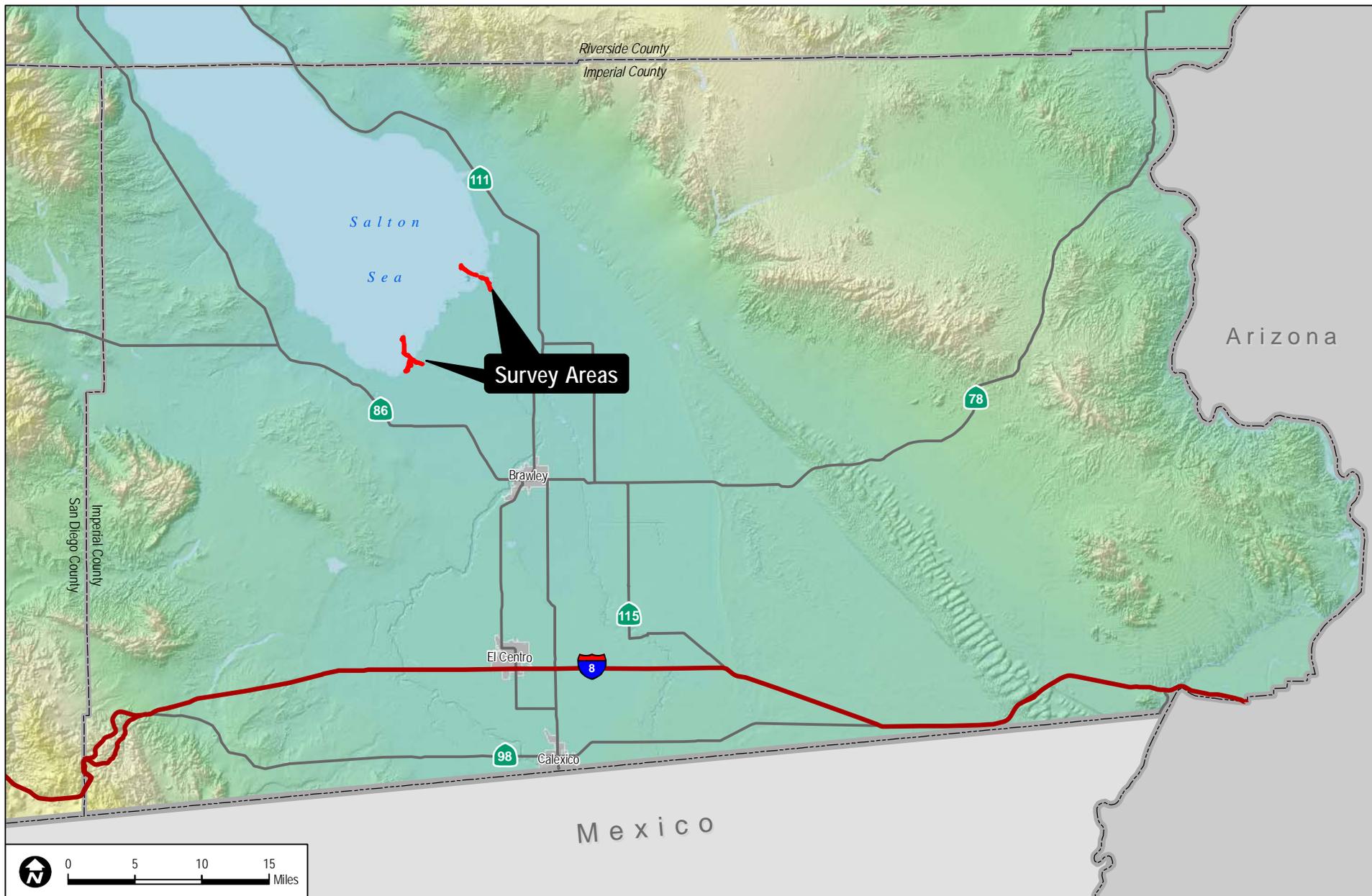


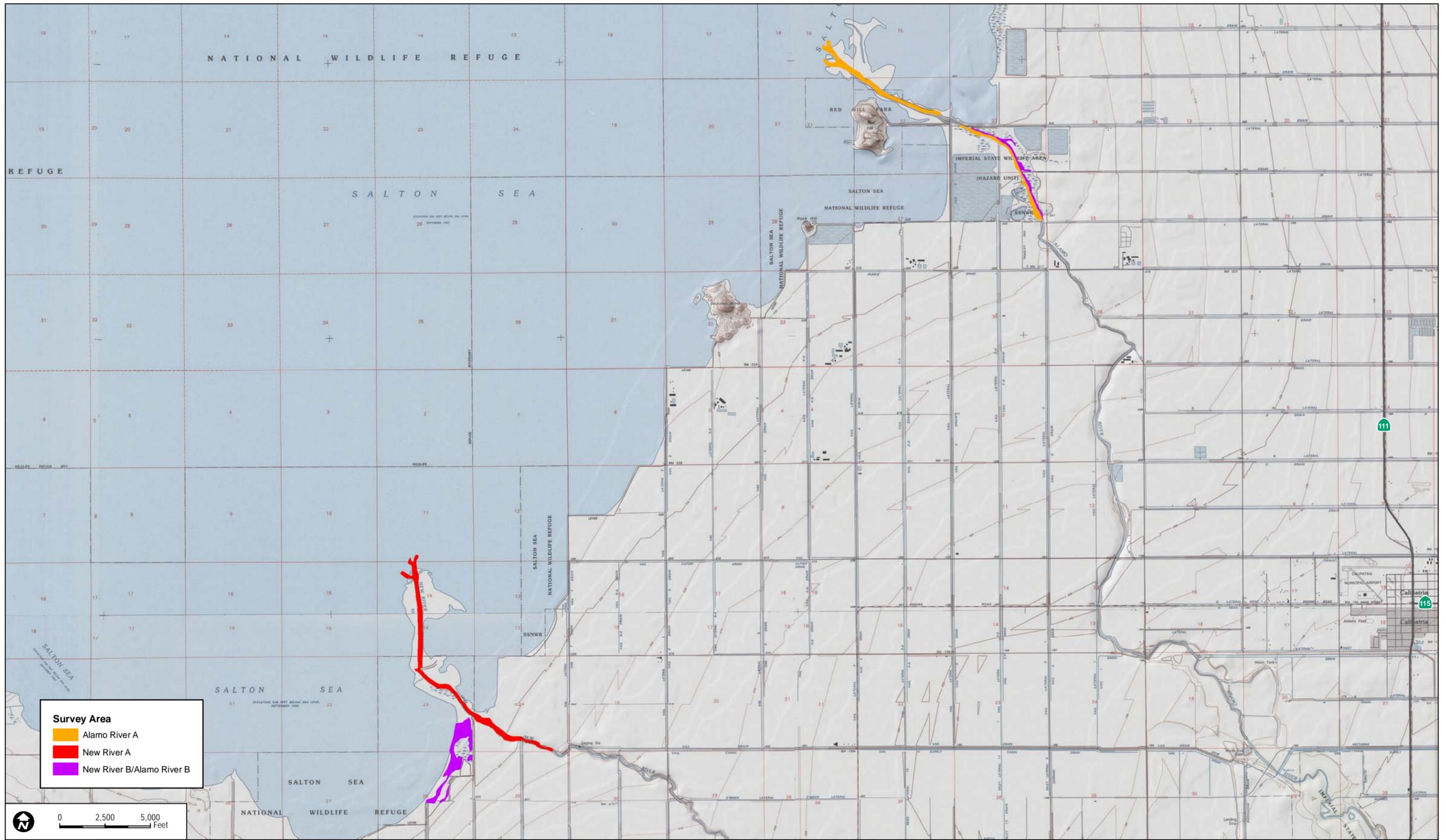
FIGURE 1
Regional Map

DUDEK

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SOURCE: USGS 7.5-Minute Series Obsidian Butte, Calipatria SW, and Niland Quadrangles.

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FIGURE 2
Vicinity Map



▲ Willow Flycatcher Locations
 ■ Tamarisk Woodland

0 875 1,750 Feet

New River Survey Area

Alamo Survey Area

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SOURCE: CDFG Imagery Service, Imperial County 2009

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FIGURE 3
Vegetation/Land Covers and WIFL points



0 625 1,250 Feet

DUDEK

SOURCE: CDFG Imagery Service, Imperial County 2009

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FIGURE 4
WIFL Locations - New River



APPENDIX A

Wildlife Species Observed on the Project Site

APPENDIX A
Wildlife Species Observed on the Project Site

WILDLIFE SPECIES – VERTEBRATES

BIRDS

***ACCIPITRIDAE* – HAWKS, KITES, EAGLES, AND ALLIES**

Buteo jamaicensis – red-tailed hawk
Circus cyaneus – northern harrier
Haliaeetus leucocephalus – bald eagle
Parabuteo unicinctus – Harris’s hawk

***AEGITHALIDAE* – LONG-TAILED TITS AND BUSHTITS**

Psaltriparus minimus – bushtit

***ANATIDAE* – DUCKS, GEESE, AND SWANS**

Anas acuta – northern pintail
Anas clypeata – northern shoveler
Anas cyanoptera – cinnamon teal
Anas platyrhynchos – mallard
Aythya affinis – lesser scaup
Aythya americana – redhead
Oxyura jamaicensis – ruddy duck

***ARDEIDAE* – HERONS, BITTERNs, AND ALLIES**

Ardea alba – great egret
Ardea herodias – great blue heron
Botaurus lentiginosus – American bittern
Bubulcus ibis – cattle egret
Butorides virescens – green heron
Egretta thula – snowy egret
Ixobrychus exilis – least bittern
Nycticorax nycticorax – black-crowned night-heron

***CAPRIMULGIDAE* – GOATSUCKERS**

Chordeiles acutipennis – lesser nighthawk

***CARDINALIDAE* – CARDINALS AND ALLIES**

Passerina caerulea – blue grosbeak

***CATHARTIDAE* – NEW WORLD VULTURES**

Cathartes aura – turkey vulture

APPENDIX A (Continued)

CHARADRIIDAE – LAPWINGS AND PLOVERS

- Charadrius alexandrinus* – snowy plover
- Charadrius semipalmatus* – semipalmated plover
- Charadrius vociferus* – killdeer

CICONIIDAE – STORKS

- Mycteria Americana* – wood stork

COLUMBIDAE – PIGEONS AND DOVES

- Columba livia* – rock pigeon
- Columbina passerina* – common ground-dove
- Streptopelia risoria* – ringed turtle dove
- Zenaida asiatica* – white-winged dove
- Streptopelia decaocto* – Eurasian collared-dove
- Zenaida macroura* – mourning dove

CORVIDAE – CROWS AND JAYS

- Corvus brachyrhynchos* – American crow
- Corvus corax* – common raven

CUCULIDAE – CUCKOOS, ROADRUNNERS, AND ANIS

- Geococcyx californianus* – greater roadrunner

EMBERIZIDAE – EMBERIZIDS

- Passerculus sandwichensis* – savannah sparrow
- Melospiza lincolnii* – Lincoln's sparrow
- Melospiza melodia* – song sparrow
- Melozone aberti* – Abert's towhee

FALCONIDAE – CARACARAS AND FALCONS

- Falco peregrinus* – peregrine falcon
- Falco sparverius* – American kestrel

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

- Carpodacus mexicanus* – house finch
- Spinus psaltria* – lesser goldfinch

HIRUNDINIDAE – SWALLOWS

- Petrochelidon pyrrhonota* – cliff swallow
- Stelgidopteryx serripennis* – northern rough-winged swallow

APPENDIX A (Continued)

Tachycineta bicolor – tree swallow

Tachycineta thalassina – violet-green 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

Sturnella neglecta – western meadowlark

Xanthocephalus xanthocephalus – yellow-headed blackbird

LANIIDAE – SHRIKES

Lanius ludovicianus – loggerhead shrike

LARIDAE – GULLS, TERNS, AND SKIMMERS

Chlidonias niger – black tern

Chroicocephalus philadelphia – Bonaparte's gull

Gelochelidon nilotica – gull-billed tern

Hydroprogne caspia – Caspian tern

Larus californicus – California gull

Larus delawarensis – ring-billed gull

Larus livens – yellow-footed gull

Leucophaeus atricilla – Laughing Gull

Rynchops niger – black skimmer

Sterna forsteri – Forster's tern

Thalasseus elegans – elegant tern

MIMIDAE – MOCKINGBIRDS AND THRASHERS

Mimus polyglottos – northern mockingbird

ODONTOPHORIDAE – NEW WORLD QUAIL

Callipepla gambelii – Gambel's quail

PARULIDAE – WOOD-WARBLERS

Dendroica petechia – yellow warbler

Geothlypis trichas – common yellowthroat

Icteria virens – yellow-breasted chat

Oreothlypis celata – orange-crowned warbler

APPENDIX A (Continued)

PELECANIDAE – PELICANS

Pelecanus erythrorhynchos – American white pelican

Pelecanus occidentalis – brown pelican

PHALACROCORACIDAE – CORMORANTS

Phalacrocorax auritus – double-crested cormorant

PHASIANIDAE – PARTRIGES, GROUSE, TURKEYS, AND OLD WORLD QUAIL

Phasianus colchicus – ring-necked pheasant

PICIDAE – WOODPECKERS AND ALLIES

Picoides scalaris – ladder-backed woodpecker

PODICIPEDIDAE – GREBES

Aechmophorus clarkii – Clark’s grebe

Aechmophorus occidentalis – western grebe

Podilymbus podiceps – pied-billed grebe

POLIOPTILIDAE – GNATCATCHERS AND GNATWRENS

Poliottila melanura – black-tailed gnatcatcher

RALLIDAE – RAILS, GALLINULES, AND COOTS

Fulica americana – American coot

Gallinula chloropus – common moorhen

Porzana carolina – sora

Rallus longirostris yumanensis – Yuma clapper rail

RECURVIROSTRIDAE – STILTS & AVOCETS

Himantopus mexicanus – black-necked stilt

Recurvirostra americana – American avocet

REMIZIDAE – PENDULINE TITS AND VERDINS

Auriparus flaviceps – verdin

SCOLOPACIDAE – SANDPIPERS, PHALAROPES, AND ALLIES

Arenaria interpres – ruddy turnstone

Calidris mauri – western sandpiper

Limosa fedoa – marbled godwit

Limnodromus griseus – short-billed dowitcher

Limnodromus scolopaceus – long-billed dowitcher

Numenius americanus – long-billed curlew

APPENDIX A (Continued)

Numenius phaeopus – whimbrel
Phalaropus lobatus – red-necked phalarope
Tringa melanoleuca – greater yellowlegs
Tringa semipalmata – willet

STRIGIDAE – TYPICAL OWLS

Athene cunicularia – burrowing owl
Bubo virginianus – great horned owl

STURNIDAE – STARLINGS

Sturnus vulgaris – European starling

THRESKIORNITHIDAE – IBISES AND SPOONBILLS

Plegadis chihi – white-faced ibis

TROCHILIDAE – HUMMINGBIRDS

Archilochus alexandri – black-chinned hummingbird
Calypte anna – Anna's hummingbird
Calypte costae – Costa's hummingbird

TROGLODYTIDAE – WRENS

Cistothorus palustris – marsh wren
Troglodytes aedon – house wren

TYRANNIDAE – TYRANT FLYCATCHERS

Contopus sordidulus – western wood-pewee
Empidonax difficilis – Pacific-slope flycatcher
Empidonax traillii – willow flycatcher
Sayornis nigricans – black phoebe
Tyrannus verticalis – western kingbird
Tyrannus vociferans – Cassin's kingbird

TYTONIDAE – BARN OWLS

Tyto alba – barn owl

APPENDIX B

Willow Flycatcher Survey and Detection Form

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

Site Name: Saltton Sea SCH - Alamo River A State: CA County: Imperial
 USGS Quad Name: Niland Elevation: -68 (meters)
 Creek, River, or Lake Name: Alamo River

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

Survey Coordinates: Start: E 115°37'12.96" N 33°12'37.023" UTM Datum: NAD83 (See instructions)
 Stop: E 115°34'51.230" N 33°11'3.254" 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, <i>Diorhabda</i> spp.)) If <i>Diorhabda</i> 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): <u>Anita Hayworth</u>	Date: <u>5/20/10</u> Start: <u>0530</u> Stop: <u>1100</u> Total hrs: <u>5.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>N</u>					
Survey # 2 Observer(s): <u>Anita Hayworth</u>	Date: <u>6/2/10</u> Start: <u>0500</u> Stop: <u>1105</u> Total hrs: <u>6</u>	<u>4</u>	<u>0</u>	<u>0</u>	<u>N</u>					
Survey # 3 Observer(s): <u>Anita Hayworth</u>	Date: <u>6/10/10</u> Start: <u>0505</u> Stop: <u>1115</u> Total hrs: <u>6</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>N</u>					
Survey # 4 Observer(s): <u>Anita Hayworth</u>	Date: <u>6/28/10</u> Start: <u>0515</u> Stop: <u>1105</u> Total hrs: <u>6</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>N</u>					
Survey # 5 Observer(s): <u>Jeff Priest</u>	Date: <u>7/8/10</u> Start: <u>0500</u> Stop: <u>1100</u> Total hrs: <u>6</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>N</u>					
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: <u>29.5</u>		Total Adult Residents <u>0</u>	Total Pairs <u>0</u>	Total Territories <u>0</u>	Total Nests <u>0</u>	Were any WIFLs color-banded? Yes <u> </u> No <u>X</u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				

Reporting Individual: Anita Hayworth Date Report Completed:
 US Fish & Wildlife Service Permit #: TE-481084 State Wildlife Agency Permit #: SC-10810

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

32 A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher

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

Reporting Individual Anita Hayworth Phone # (760) 479-4239
 Affiliation Dudek E-mail ahayworth@dudek.com
 Site Name Salton Sea SCH - Alamo Date Report Completed _____
 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 years? Yes ___ No ___ Not Applicable ___
 If site 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 ___ No ___ If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No ___ If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County ___ State ___ Tribal ___ Private ___
 Name of Management Entity or Owner (e.g., Tonto National Forest) USFWS

Length of area surveyed: ___ 3.2 (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)
- ___ 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.

Tamarix sp.

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.

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: Salton Sea SCH - New River A State: CA County: Imperial
 USGS Quad Name: Westmeadland West Elevation: -68 (meters)
 Creek, River, or Lake Name: New River

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

Survey Coordinates: Start: E 115°41'41.177" N 33°8'0.609" UTM Datum: NAD83 (See instructions)
 Stop: E 115°40'8.457" N 33°6'14.57" 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, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> 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): <u>Brock Ortega</u>	Date: <u>5/21/10</u> Start: <u>0515</u> Stop: <u>1100</u> Total hrs: <u>5.75</u>	<u>4</u>	<u>φ</u>	<u>φ</u>	<u>N</u>					
Survey # 2 Observer(s): <u>Brock Ortega</u>	Date: <u>6/10/10</u> Start: <u>0500</u> Stop: <u>1115</u> Total hrs: <u>6.25</u>	<u>9</u>	<u>φ</u>	<u>φ</u>	<u>N</u>					
Survey # 3 Observer(s): <u>Brock Ortega</u>	Date: <u>6/18/10</u> Start: <u>0430</u> Stop: <u>1100</u> Total hrs: <u>6.5</u>	<u>φ</u>	<u>φ</u>	<u>φ</u>	<u>N</u>					
Survey # 4 Observer(s): <u>Brock Ortega</u>	Date: <u>6/29/10</u> Start: <u>0430</u> Stop: <u>1100</u> Total hrs: <u>6</u>	<u>φ</u>	<u>φ</u>	<u>φ</u>	<u>N</u>					
Survey # 5 Observer(s): <u>Anita Hayworth</u>	Date: <u>7/9/10</u> Start: <u>0515</u> Stop: <u>1105</u> Total hrs: <u>5.75</u>	<u>φ</u>	<u>φ</u>	<u>φ</u>	<u>N</u>					
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: <u>32.25</u>		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u>X</u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
		<u>φ</u>	<u>φ</u>	<u>φ</u>	<u>φ</u>					

Reporting Individual: Anita Hayworth Date Report Completed:
 US Fish & Wildlife Service Permit #: TE-781084 State Wildlife Agency Permit #: SL-10010

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

32 A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher

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

Reporting Individual Anita Hayworth Phone # (960)479-4239
 Affiliation Dudek E-mail AHayworth@dudek.com
 Site Name Salton Sea SCH - New River A Date Report Completed _____

Did you verify that this site name is consistent with that used in previous years? Yes ___ No ___ Not Applicable X
 If site 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 ___ 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 X Municipal/County ___ State ___ Tribal ___ Private ___
 Name of Management Entity or Owner (e.g., Tonto National Forest) USEFWS

Length of area surveyed: 3,400 (meters)

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

- Native broadleaf plants (entirely or almost entirely, > 90% native, includes high-elevation willow)
- 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.

Tamarix sp.

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

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

Comments (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 N	UTM E	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: Salton Sea Sch - New River B/Alamo River B State: CA County: Imperial
 USGS Quad Name: Westmorland West + N. land Elevation: -68 (meters)
 Creek, River, or Lake Name: New River + Alamo River

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

Survey Coordinates: * Start: E 115°41'7.33" N 33°6'31.715" UTM Datum: WAD83 (See instructions)
 Stop: E 115°4'28.695" N 33°5'46.105" 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, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> 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): Paul Lemans	Date: <u>5/27/10</u> Start: <u>0550</u> Stop: <u>1100</u> Total hrs: <u>5.25</u>	1	∅	∅	N					
Survey # 2 Observer(s): Paul Lemans	Date: <u>6/4/10</u> Start: <u>0545</u> Stop: <u>1100</u> Total hrs: <u>5.25</u>	∅	∅	∅	N					
Survey # 3 Observer(s): Paul Lemans	Date: <u>6/11/10</u> Start: <u>0600</u> Stop: <u>1100</u> Total hrs: <u>5</u>	3	∅	∅	N					
Survey # 4 Observer(s): Jeff Priest	Date: <u>6/28/10</u> Start: <u>0445</u> Stop: <u>1100</u> Total hrs: <u>6.25</u>	∅	∅	∅	N					
Survey # 5 Observer(s): Paul Lemans	Date: <u>7/9/10</u> Start: <u>0600</u> Stop: <u>1100</u> Total hrs: <u>5</u>	∅	∅	∅	N					
Overall Site Summary <small>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.</small>		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u>X</u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: <u>26.75</u>		∅	∅	∅	∅					

Reporting Individual: Amita Hayworth Date Report Completed:
 US Fish & Wildlife Service Permit #: TE-781084 State Wildlife Agency Permit #: SC-10816

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

* Survey area is split into two areas. The area along Alamo River is:
 start: 115°35'18.91" W 33°11'52.415" N
 end: 115°34'19.6" W 33°11'2.273" N

32 A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher

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

Reporting Individual Anita Hayworth Phone # (960)479-4239
 Affiliation Dudek E-mail AHayworth@dudek.com
 Site Name Salton Sea SCH - New River ~~B~~ / Alamo River B Date Report Completed _____

Did you verify that this site name is consistent with that used in previous years? Yes ___ No ___ Not Applicable X
 If site 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 ___ 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 X Municipal/County ___ State ___ Tribal ___ Private ___
 Name of Management Entity or Owner (e.g., Tonto National Forest) USFWS

Length of area surveyed: 3,400 (meters)

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

- Native broadleaf plants (entirely or almost entirely, > 90% native, includes high-elevation willow)
- 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.

Tamarix sp.

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

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

Comments (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 N	UTM E	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
Site Photos

APPENDIX C Site Photos

Alamo–Overall Site



Alamo–Exterior of Patch



APPENDIX C (Continued)

Alamo–Interior of Patch



New River A–Overall Site



APPENDIX C (Continued)

New River A–Exterior of Patch



New River A–Interior of Patch



APPENDIX C (Continued)

New River B—Overall Site



New River B—Exterior of Patch



APPENDIX C (Continued)

New River B–Interior of Patch

