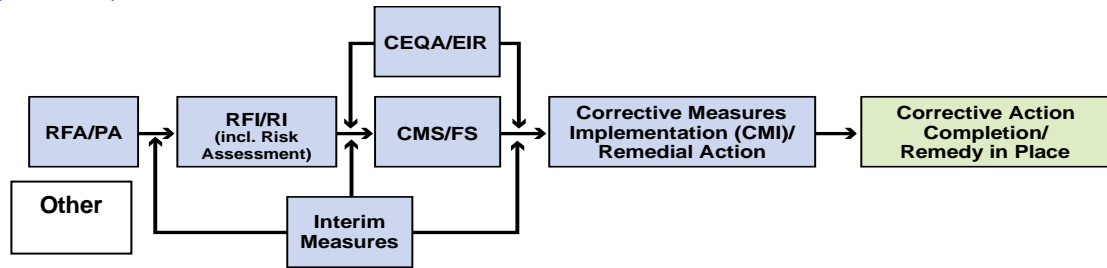


Topock Project Executive Abstract

<p>Document Title:</p> <p>2012 Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station Needles, California</p> <p>Final Document? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Date of Document: December 31, 2012</p> <p>Who Created this Document?: (i.e. PG&E, DTSC, DOI, Other)</p> <p>PG&E</p>
<p>Priority Status: <input type="checkbox"/> HIGH <input type="checkbox"/> MED <input checked="" type="checkbox"/> LOW</p> <p>Is this time critical? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Action Required:</p> <p><input checked="" type="checkbox"/> Information Only <input type="checkbox"/> Review & Comment</p> <p>Return to: _____</p> <p>By Date: _____</p> <p><input type="checkbox"/> Other / Explain:</p>
<p>Type of Document:</p> <p><input type="checkbox"/> Draft <input checked="" type="checkbox"/> Report <input type="checkbox"/> Letter <input type="checkbox"/> Memo</p> <p><input type="checkbox"/> Other / Explain:</p>	<p><input type="checkbox"/> Other / Explain:</p>
<p>What does this information pertain to?</p> <p><input type="checkbox"/> Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)/Preliminary Assessment (PA)</p> <p><input type="checkbox"/> RCRA Facility Investigation (RFI)/Remedial Investigation (RI) (including Risk Assessment)</p> <p><input type="checkbox"/> Corrective Measures Study (CMS)/Feasibility Study (FS)</p> <p><input type="checkbox"/> Corrective Measures Implementation (CMI)/Remedial Action</p> <p><input type="checkbox"/> California Environmental Quality Act (CEQA)/Environmental Impact Report (EIR)</p> <p><input type="checkbox"/> Interim Measures</p> <p><input checked="" type="checkbox"/> Other / Explain: Biological Reports</p>	<p>Is this a Regulatory Requirement?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If no, why is the document needed?</p>
<p>What is the consequence of NOT doing this item? What is the consequence of DOING this item?</p> <p>This report is required by the approved Programmatic Biological Assessment (PBA). Not performing the survey and preparing this report constitute non-compliance with the PBA.</p>	<p>Other Justification/s:</p> <p><input type="checkbox"/> Permit <input type="checkbox"/> Other / Explain:</p>
<p>Brief Summary of attached document:</p> <p>The 2012 Southwestern Willow Flycatcher Presence/Absence Surveys Report presents the finding of the five Southwestern Flycatcher (SWFL) protocol surveys conducted between May and July 2012 in areas near the PG&E Topock Compressor Station. Two SWFL (one in CA and one in AZ) were detected during the 2012 surveys.</p> <p>Written by: PG&E</p>	
<p>Recommendations:</p> <p>This report is for information only.</p>	
<p>How is this information related to the Final Remedy or Regulatory Requirements:</p> <p>The survey and this report fulfill the requirement of project management Measure 26 of the Programmatic Biological Assessment.</p>	
<p>Other requirements of this information?</p> <p>None.</p>	

Related Reports and Documents:

Click any boxes in the Regulatory Road Map (below) to be linked to the Documents Library on the DTSC Topock Web Site (www.dtsc-topock.com).



Legend

RFA/PA – RCRA Facility Assessment/Preliminary Assessment

RFI/RI – RCRA Facility Investigation/CERCLA Remedial Investigation (including Risk Assessment)

CMS/FS – RCRA Corrective Measure Study/CERCLA Feasibility Study

CEQA/EIR – California Environmental Quality Act/Environmental Impact Report

Version 10



Southwestern Willow Flycatcher Presence / Absence Surveys for the PG&E Topock Compressor Station

October 2012

Garcia and Associates
Natural and Cultural Resource Consultants



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2012 Southwestern Willow Flycatcher
Presence/Absence Surveys
for the
PG&E Topock Compressor Station

Prepared by:

Garcia and Associates

Prepared for:

CH2M HILL, Inc. and

Pacific Gas & Electric Co.

October 2012

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Introduction

Under contract to CH2M HILL, Garcia and Associates (GANDA) conducted a protocol survey for the southwestern willow flycatcher (SWFL) (*Empidonax traillii extimus*) for Pacific Gas and Electric (PG&E) near the Topock Compressor Station Groundwater Extraction Project, 15 miles southeast of Needles, California. The purpose of the survey was to determine the presence or absence of SWFL, which are listed as endangered by the Arizona Game and Fish Department (AZGFD) and threatened by the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS). In addition to this year's survey, GANDA conducted six previous surveys at this site (GANDA 2005-2010). All surveys were conducted following the survey protocol outlined in *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher* (Sogge *et al.* 2010). This report fulfills general project management Measure 26 of the Programmatic Biological Assessment (PBA) prepared for the project (CH2M HILL 2007). Measure 26 states:

Riparian areas surrounding the proposed action site and subject to influence of operations and maintenance activities shall be surveyed for southwestern willow flycatcher according to the protocol established by the USFWS. These surveys shall be completed each year by a biologist permitted by the USFWS to carry out flycatcher surveys until the action has been completed and all facilities have been removed. Reports shall be provided to the biologists in the BLM Lake Havasu Field Office on an annual basis.

Site Description

The survey area consists of twelve sites near the Topock Compressor Station. The sites are located along both sides of the Colorado River. Seven sites are in San Bernardino County, California, and five sites are in Mohave County, Arizona. California sites CA-3, CA-4, and CA-6 are located on land owned by the Bureau of Land Management, sites CA-1 and CA-2 are located in Moabi Regional Park, site CA-5 is in the California portion of the Havasu National Wildlife Refuge, and site CA-7 is on land owned by PG&E (Figures 1 and 2). All Arizona sites are located in the USFWS Havasu National Wildlife Refuge with the exception of site AZ-2, which is on land owned by PG&E (Figures 3 and 4). The survey area increased in 2012 when compared to the previous survey in 2010 - particularly along the Arizona side of the Colorado River - due to potential future Project work in Arizona. The 2012 survey sites total approximately 160 acres and vary in elevation from 300 to 500 feet above sea level. None of the survey sites are located within USFWS designated critical habitat for the SWFL (USFWS 2013). Photographs of the survey sites are provided in Appendix A.

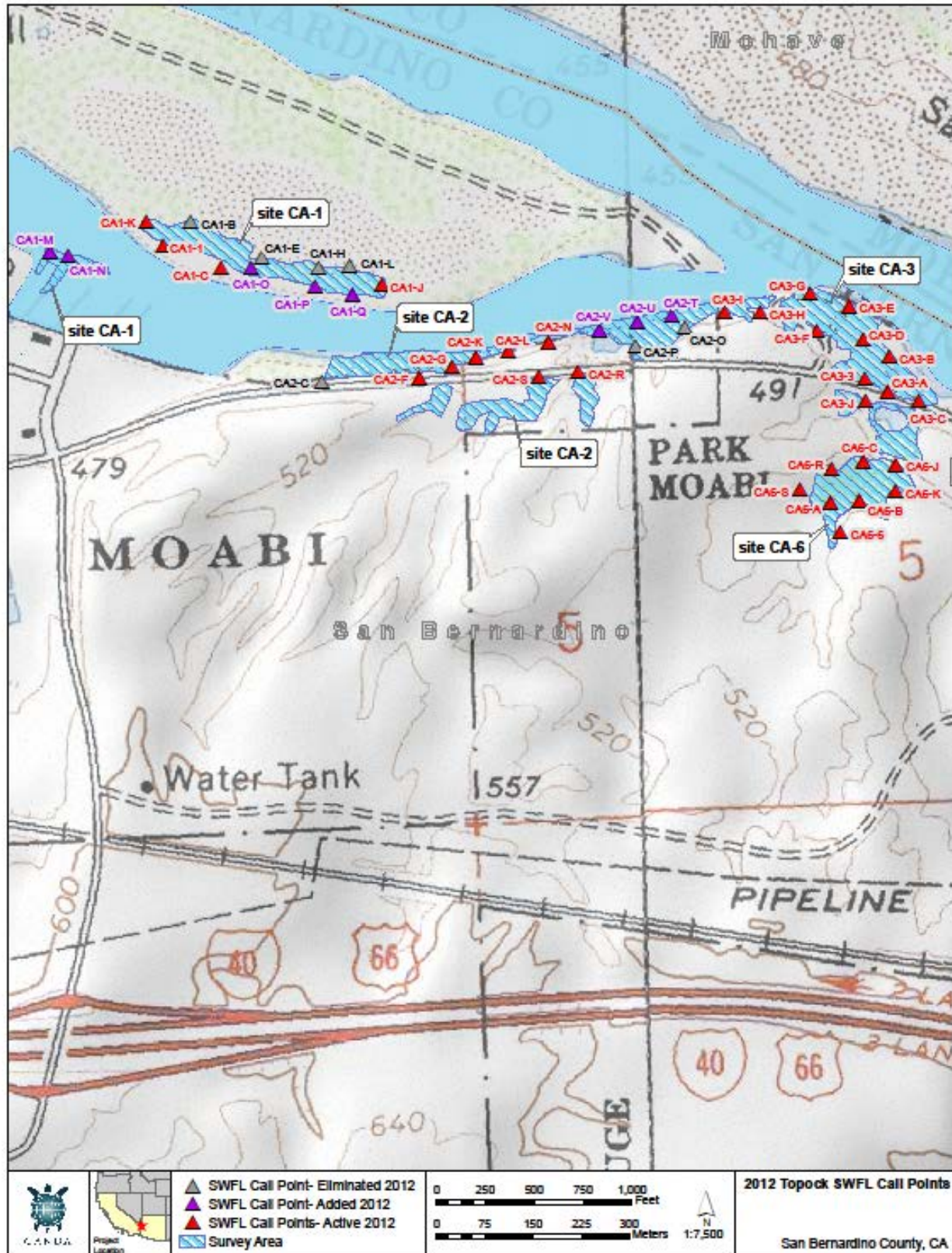


Figure 1. California survey sites CA-1, CA-2, CA-3, and CA-6.

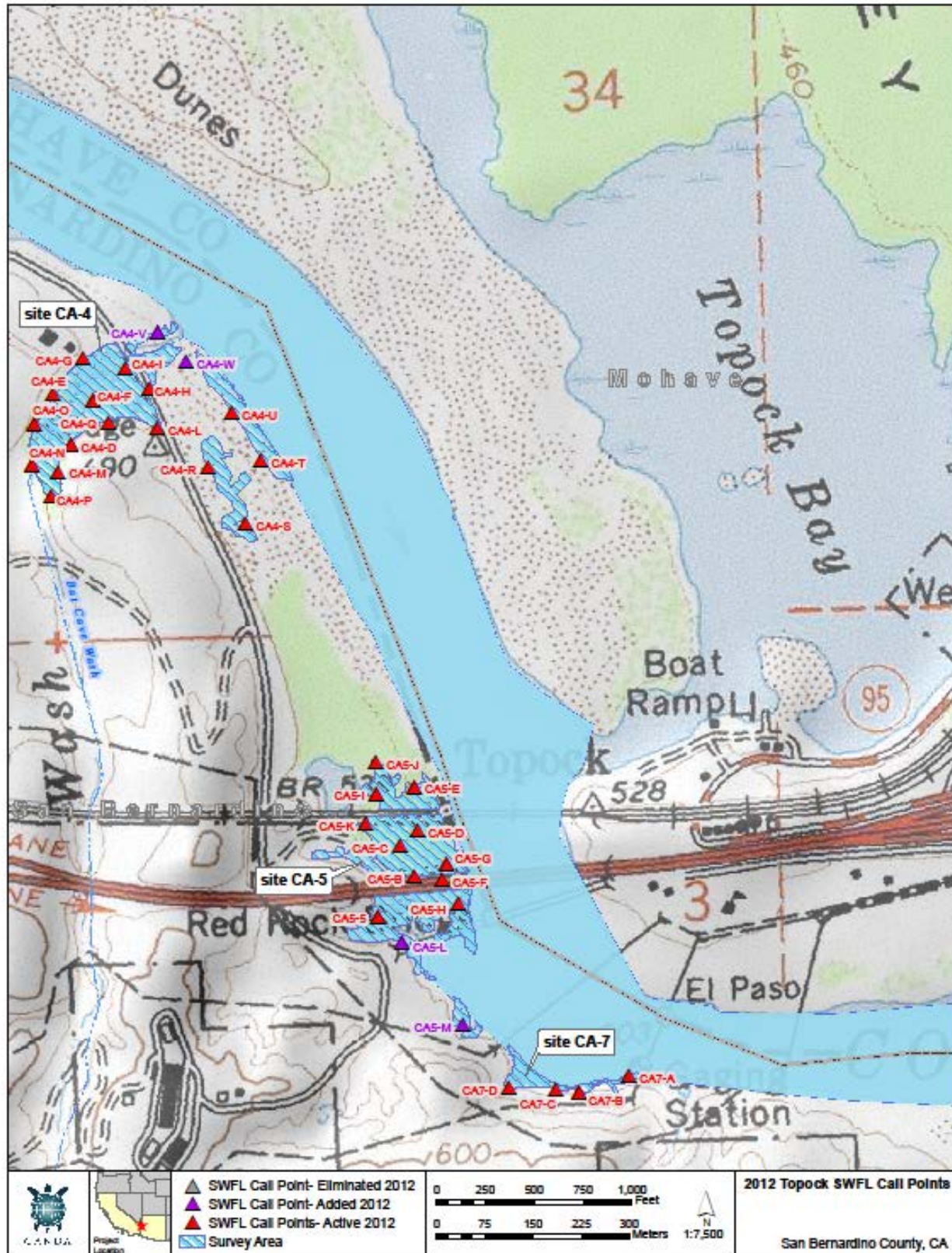


Figure 2. California survey sites CA-4, CA-5, and CA-7.

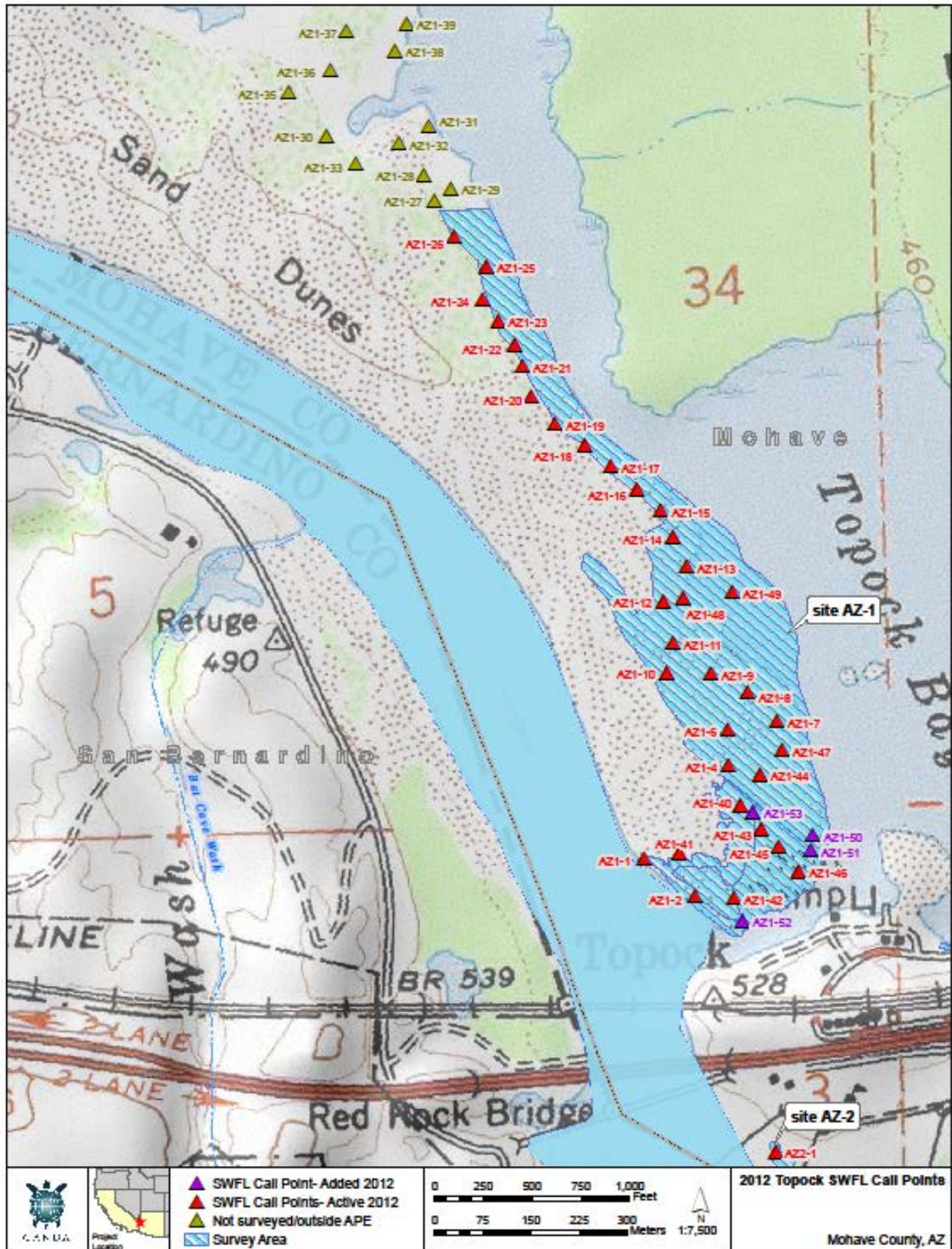


Figure 3. Arizona survey sites AZ-1 and AZ-2.

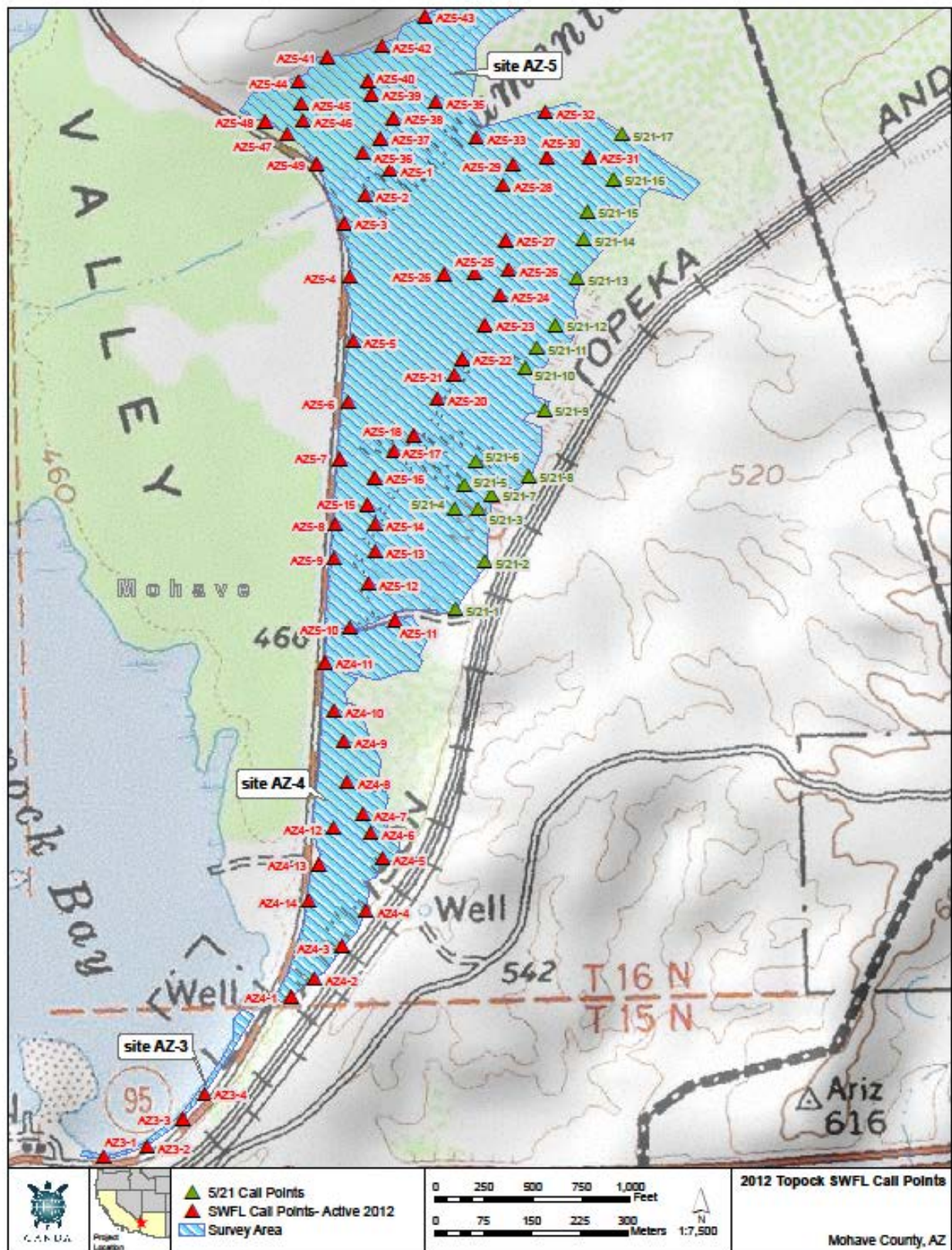


Figure 4. Arizona survey sites AZ-3, AZ-4 and AZ-5.

Vegetation and Habitat Quality

The most abundant plant species in the survey area include tamarisk (*Tamarix ramosissima*), coyote willow (*Salix exigua*), catclaw acacia (*Senegalia greggii*), arrowweed (*Pluchea sericea*), and blue palo verde (*Parkinsonia microphylla*). Tamarisk is the dominant species throughout the survey area, often forming dense thickets over eight feet in height. A complete list of the plant species observed is included in Appendix B.

Habitat Quality

Overall, the survey area is of moderate habitat quality for SWFL. The Colorado River provides standing surface water throughout the breeding season and includes a suitable vegetation composition; however, habitat fragmentation and human disturbance detract from the overall habitat quality. The California sites (Figures 1 and 2) are small and geographically isolated by the surrounding desert, National Trails Highway, and the Colorado River. Additionally, the California sites are subject to a high level of human disturbance due to their proximity to Park Moabi, Interstate 40, the Burlington Northern Santa Fe Railway, The Pirate Cove Marina, and the PG&E Topock Compressor Station. Arizona site AZ-1 (Figure 3) is located on a large peninsula and is bordered by contiguous riparian habitat and bulrush-dominated marsh. However, this site and the other Arizona sites (Figure 4) are also adjacent to Old Route 66 and the Topock Marina, a community that includes several houses and businesses. Recreational watercraft, frequently observed on the Colorado River and in the Topock Marsh, contribute to regular human disturbance at all locations. Additionally, a fire destroyed a large portion of potential habitat adjacent to the Arizona sites in 2009, and this, combined with the clearance of the vegetation in that area, may be contributing to the degradation of habitat quality for SWFL at these sites (Photo 1). Appendix A provides representative views of each survey site.

Survey Methods

Surveys were conducted by GANDA wildlife biologist Jeff Steinman (USFWS permit #TE-085026-4, AZGFD Permit #SP-7801, and CDFG Permit SC-007801) with exception of the first survey, which was conducted by CH2MHill wildlife biologist Gabriel Valdes (USFWS permit # TE-092622, AZGFD Permit #SP-798144, and CDFG Permit SC-6500) with the assistance of Mr. Steinman. All surveys followed the protocol outlined by Sogge *et al.* (2010). This protocol replaces the 1997, *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher* and the 2000 revision prepared by the USFWS (USFWS 2000). For project related surveys, the 2010 protocol recommends that five surveys be conducted during three survey periods, with two surveys occurring within each of the last two survey periods. The three survey periods are defined as May 15 to 31, June 1 to 24, and June 25 to July 17. Mr. Valdes and Mr. Steinman conducted the initial SWFL survey from May 24 to 25, and Mr. Steinman conducted the remaining four surveys from June 5 to 8, June 19 to 22, June 26 to 30, and July 10 to 13. All surveys were conducted between 05:00 AM and 10:30 AM. Completed survey forms for each site are included in Appendix C.

The habitat quality of the survey sites and the area surrounding them has been re-assessed each year during the first survey period. The reassessment consists of observing each site for an increase or decrease in habitat, either due to an increase in size and density of vegetation or the elimination of habitat due to vegetation removal. Additionally, any changes in the project's Area of Potential Effect (APE) was assessed to determine if any areas should be eliminated or added to the survey area. The following describes changes made to the 2012 survey area surveyed in 2010:

- Call points were eliminated in locations where vegetation had been removed in Moabi Regional Park (Figure 1 and Photo 2 in Appendix A).
 - Eliminated call points; CA1-E, CA1-H, CA1-L, CA2-C, CA2-O and CA2-P.
- Call points were added where habitat quality improved due to an increase in the size and density of the vegetation (AZ-1 and CA-4) or to improve coverage in sites where points were eliminated (CA-1 and CA-2) (Figures 1-3 and Photos 2-4 in Appendix A).
 - Added call points; CA1-T, CA1-U, CA1-V, CA2-T, CA2-U, CA2-V, CA4-V, CA4-W, CA5-X, AZ1-50, AZ1-51, AZ5-52 and AZ1-53.
- Call points on the north side of survey area AZ-1 were eliminated due to their location outside the study area (Figure 3).
 - Eliminated call points; AZ1-27 to AZ1-39
- Survey areas were added due to an increase in the size of the project area and its study area (Appendix A).
 - Added survey areas; CA-7, AZ-2, AZ-3, AZ-4, AZ-5
- Call points on the west side of survey area CA-1 and the south side of CA-5 were added due to their location inside the expanded study area (Figure 1, 2, and photos 5 and 6 in Appendix A).
 - Added call points inside the study area; CA1-M, CA1-N, CA5-L and CA5-M.

Of note, survey site AZ-5 was added to the survey schedule late as the result of an unanticipated increase in the potential project footprint. This did not allow for the site to be reviewed prior to the first survey effort. The portion of the site that was surveyed during the first survey on May 21, 2012 only included call points 5/21-1 through 5/21-17. These points were replaced by AZ5-1 through AZ5-49 during the rest of the survey visits. These new call points covered the portion of potential habitat that were closer to the Topock Marsh and included better habitat (Figure 4). Due to this change in survey area, site AZ-5 did not fully conform to the requirements of the survey protocol.

The survey method consisted of using an MP3 player and speaker system to broadcast SWFL calls from established call points. Call points were originally established in the field using aerial photographs, topographic maps, and global positioning system (GPS) units. Call points were placed 30 to 50 meters apart, depending on the quality of the

habitat, thickness of vegetation, and accessibility. The call points were re-located in 2012 using a GPS unit containing their UTM coordinates. Appendix D includes a complete list of call points surveyed in 2012 and their corresponding UTM coordinates.

At each survey site, Mr. Steinman and Mr. Valdes first spent 10 minutes listening for the presence of any singing flycatchers. After this initial listening period, SWFL “fitz-bew” calls were broadcast at each call point for a 30-second period, immediately followed by a 60-second listening period. To reduce bias, start times at each site and the order in which call points were surveyed were intentionally varied from one visit to the next.

Results

SWFL

SWFL were detected on June 5 at call point CA4-V and on June 7 at call point AZ5-8 (Figure 5). Both detections included auditory and visual observations of single birds, with the characteristic “fitz-bew” call heard during both detections. No additional SWFL were detected during any of the other surveys or at any of the other survey sites. Due to the single detection events in both areas, these SWFL are considered to be transients and are not expected to be breeding in the survey area. Transient SWFL had been detected during every previous survey year except 2010, when no SWFL were detected. Previously, SWFL were detected at call points CA2-D in 2005, at CA1-E and AZ1-16 in 2007, call point AZ1-19, AZ1-20, AZ1-30, and AZ1-35 in 2008, and at call point CA4-F in 2009 (GANDA 2005, 2006, 2007, 2008, 2009 and 2010). The locations of all SWFL observations recorded since 2005 are shown in Figure 5. This is the first year that surveys were conducted in the AZ-5 site, and it is unknown if SWFL have been previously recorded in this survey area.

Incidental Species

Many additional wildlife species were observed during the SWFL survey. The diversity and abundance of wildlife species encountered are influenced by the proximity of the survey area to the creosote-dominated desert and the Topock Marsh, a large wetland with abundant wildlife. The most commonly observed non-avian wildlife species were Audubon’s cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), burro (*Equus asinus*), and western side-blotched lizard (*Uta stansburiana*). The most commonly observed avian species were great-tailed grackle (*Quiscalus mexicanus*), white-winged dove (*Zenaida asiatica*), verdin (*Auriparus flaviceps*), and black-tailed gnatcatcher (*Poliophtila melanura*). Complete lists of the avian and non-avian wildlife species observed are included in Appendix B.

Notable observations during the 2012 surveys were detections of Yuma clapper rail (*Rallus longirostris yumanensis*), Arizona Bell’s vireo (*Vireo bellii arizonae*), brown-headed cowbird (*Molothrus ater*) and the discovery of a great blue heron nest (*Ardea herodias*). The locations of these observations are shown in Figure 5 and their GPS coordinates are located in Appendix D.

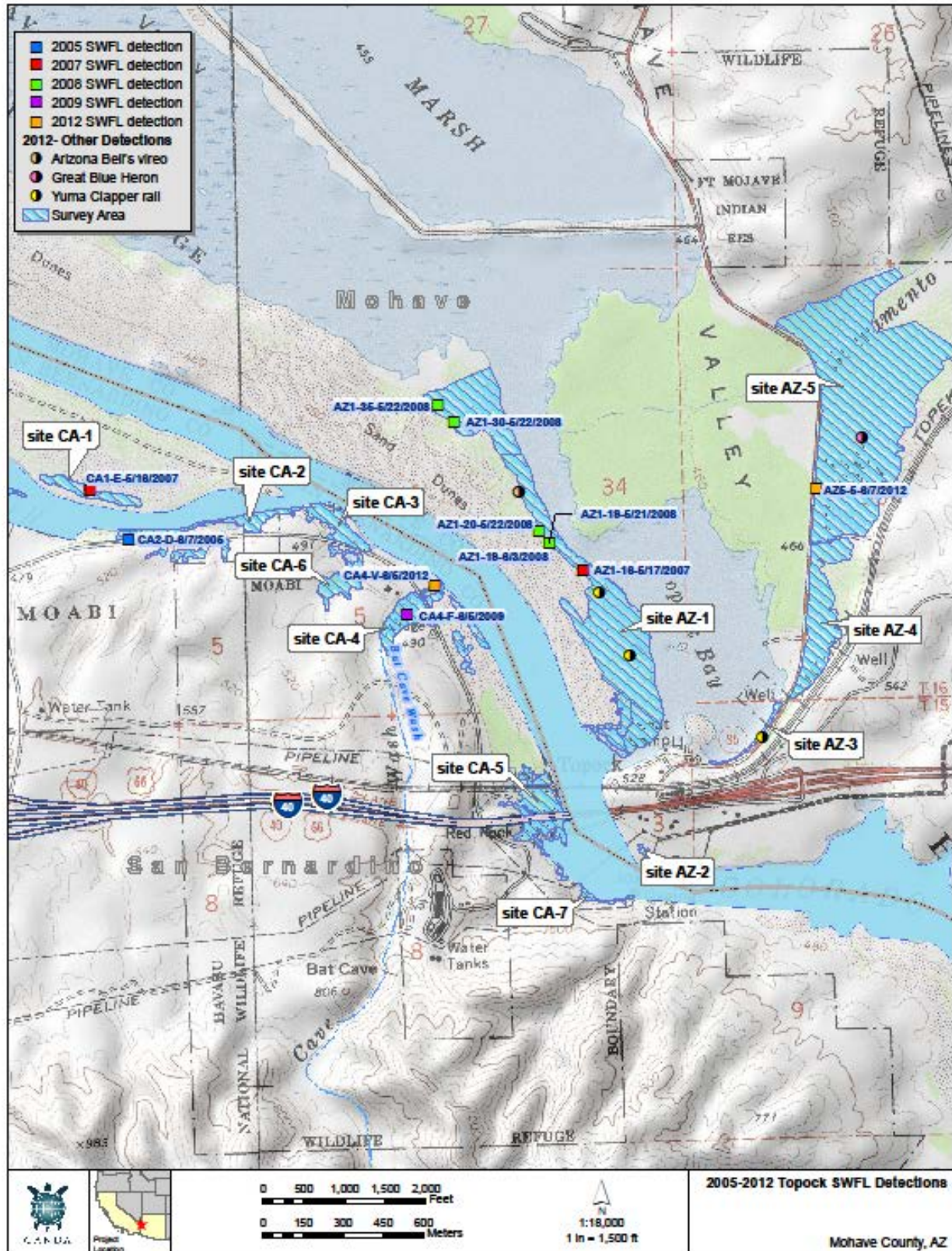


Figure 5. Southwestern willow flycatcher detections (2005-2012).

Yuma clapper rail were heard on multiple occasions in survey sites AZ-1 (6/6, 6/19 and 6/26) and AZ-3 (6/7 and 6/21). The Yuma clapper rail is listed as an endangered species by both the USFWS and CDFG and a species of concern by the AZGFD. This is the fourth survey year that Yuma clapper rails were detected in site AZ-1.

Arizona Bell's vireos (AZBV) were detected in the AZ-1 survey area on June 19 and 26 at call point AZ1-24. Although this species has no Arizona or federal protective status, the California subspecies, least Bell's vireo (*Vireo bellii pusillus*), is listed as endangered in California. This is the sixth season that Arizona Bell's vireo have been observed and they are assumed to be breeding in the area.

Brown-headed cowbirds were observed at three sites in the survey area (AZ-1, AZ-3 and CA-3). Cowbirds have been observed during every survey year and are assumed to be breeding in the project area. Cowbirds are known nest parasites of SWFL and other songbirds, and their presence may be affecting SWFL occurrence in the area.

A great blue heron nest was found in AZ-5 (Figure 5). Active great blue heron nests are protected by the Migratory Bird Treaty Act. Although they have no specific state protection in Arizona, rookeries are protected in some municipalities.

Also of note is that Western yellow-billed cuckoo (*Coccyzus americanus*) were not observed at call point AZ1-16, where they had been observed each year from 2008 through 2010. The western yellow-billed cuckoo is listed as an endangered species by the CDFG, a species of concern by the AZGFD, and is a candidate for listing by the USFWS.

Conclusions

Two SWFL were observed during the 2012 survey. Each observation was a single detection occurring at a time when some SWFL would be expected to be migrating through the area. The absence of additional detections indicates that they were most likely transient SWFL and the species is not currently nesting in the survey areas. This is the first year that additional sites were surveyed in Arizona, and the detection of a SWFL in Arizona site AZ-5 could be a result of either a transient from another area or due to the loss of nesting habitat from the 2009 fire along Topock Marsh. Given the cumulative detections of SWFL over the years, the presence of suitable habitat, and the presence of nearby breeding populations (Ellis, *et al.* 2008, SWCA 2004), there is a potential for SWFL to breed in the survey area in the future. In consultation with PG&E in 2010, the USFWS agreed that SWFL surveys only need to be conducted every two years. However, additional consultation may be warranted to determine if this schedule is applicable for survey areas added in 2012 or to survey site AZ-5, where the first survey round did not conform to survey protocols. There is potential for follow-up surveys to be required in 2013 to account for these variations in the 2012 surveys.

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Appendix A

Photo Log



Photo 1. Burned area cleared of all vegetation adjacent to Arizona sites.



Photo 2. Habitat removed on the east side of site CA-1.



Photo 3. Habitat removed along new trail in site CA-2.



Photo 4. New habitat surveyed in site CA-4.



Photo 5. New habitat surveyed in site CA-5.



Photo 6. New habitat surveyed in site CA-1.



Site AZ-1 Overall



Site AZ-1 Exterior



Site AZ-1 Interior



Site AZ-2 Overall



Site AZ-2 Exterior



Site AZ-2 Interior



Site AZ-3 Overall



Site AZ-3 Exterior



Site AZ-3 Interior



Site AZ-4 Overall



Site AZ-4 Exterior



Site AZ-4 Interior



Site AZ-5 Overall



Site AZ-5 Exterior



Site AZ-5 Interior



Site CA-1 Overall



Site CA-1 Exterior



Site CA-1 Interior



Site CA-2 Overall



Site CA-2 Exterior



Site CA-2 Interior



Site CA-3 Overall



Site CA-3 Exterior



Site CA-3 Interior



Site CA-4 Overall



Site CA-4 Exterior



Site CA-4 Interior



Site CA-5 Overall



Site CA-5 Exterior



Site CA-5 Interior



Site CA-6 Overall



Site CA-6 Exterior



Site CA-6 Interior



Site CA-7 Overall



Site CA-7 Exterior



Site CA-7 Interior

Appendix B

Incidental Plant and Wildlife Species

Table 1. Bird Species Observed

Common Names	Scientific Names
Abert's Towhee	<i>Pipilo aberti</i>
American Coot	<i>Fulica americana</i>
American Kestrel	<i>Falco sparverius</i>
Arizona Bell's Vireo	<i>Vireo bellii</i>
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>
Black-chinned Hummingbird	<i>Archilochus alexandri</i>
Black-tailed Gnatcatcher	<i>Polioptila melanura</i>
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Bushtit	<i>Psaltiriparus minimus</i>
California Gull	<i>Larus californicus</i>
Canada Goose	<i>Branta canadensis</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Common Merganser	<i>Mergus merganser</i>
Common Raven	<i>Corvus corax</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Double-crested Cormorant	<i>Phalacrocorax auritus</i>
European Starling	<i>Sturnus vulgaris</i>
Gambel's Quail	<i>Callipepla gambelii</i>
Great Blue Heron	<i>Ardea herodias</i>
Great Egret	<i>Ardea alba</i>
Greater Roadrunner	<i>Geococcyx californianus</i>
Great-tailed Grackle	<i>Quiscalus mexicanus</i>
House Finch	<i>Carpodacus mexicanus</i>
Inca Dove	<i>Columbina inca</i>
Killdeer	<i>Charadrius vociferous</i>
Lesser Nighthawk	<i>Chordeiles acutipennis</i>
Lucy's Warbler	<i>Vermivora luciae</i>
Mallard	<i>Anas platyrhynchos</i>
Mourning Dove	<i>Zenaida macroura</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Song Sparrow	<i>Melospiza melodia</i>
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>
Townsend's Warbler	<i>Dendroica townsendi</i>
Turkey Vulture	<i>Cathartes aura</i>
Verdin	<i>Auriparus flaviceps</i>
Western Kingbird	<i>Tyrannus verticalis</i>
Western Tanager	<i>Piranga ludoviciana</i>
White-faced Ibis	<i>Plegadis chihi</i>
White-winged Dove	<i>Zenaida asiatica</i>
Wilson's Warbler	<i>Wilsonia pusilla</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Yellow-breasted Chat	<i>Icteria virens</i>
Yellow-Headed Blackbird	<i>Xanthocephalus xanthocephalus</i>
Yuma Clapper Rail	<i>Rallus longirostris yumanensis</i>

Table 2. Wildlife Species Observed

Common Name	Scientific Name
American Bullfrog	<i>Rana catesbeiana</i>
Antelope Ground-squirrel	<i>Ammospermophilus leucurus</i>
Audubon's Cottontail	<i>Sylvilagus audubonii</i>
Beaver	<i>Castor canadensis</i>
Black-tailed Jackrabbit	<i>Lepus californicus</i>
Buro	<i>Equus asinus</i>
Common Kingsnake	<i>Lampropeltis getula</i>
Coyote	<i>Canis latrans</i>
Desert Cottontail	<i>Sylvilagus audubonii</i>
Desert Iguana	<i>Dipsosaurus dorsalis</i>
Feral Hog	<i>Sus scrofa</i>
Side-blotched Lizard	<i>Uta stansburiana</i>

Table 3. Plant Species Observed

Common Name	Latin Name
Arrowweed	<i>Pluchea sericea</i>
Athel Tamarisk	<i>Tamarix aphylla</i>
Cheesebush	<i>Hymenoclea salsola</i>
Prickly Lettuce	<i>Lactuca serriola</i>
Buckhorn Cholla	<i>Cylindropuntia c.f. achanthocarpa</i>
Silver Cholla	<i>Cylindropuntia echinocarpa</i>
Pencil Cholla	<i>Cylindropuntia ramosissima</i>
California Barrel Cactus	<i>Ferocactus cylindraceus</i>
Beavertail	<i>Opuntia basilaris var. basilaris</i>
Fish-hook Cactus	<i>Mammillaria dioica</i>
Russian Thistle	<i>Salsola tragus</i>
Catclaw Acacia	<i>Senegalia greggii</i>
Blue Palo Verde	<i>Parkinsonia florida</i>
Honey Mesquite	<i>Prosopis glandulosa var torreyana</i>
Tamarisk	<i>Tamarix ramosissima</i>
Cottonwood	<i>Populus deltoides</i>
Coyote Willow	<i>Salix exigua</i>
Gooding's Willow	<i>Salix gooddingii</i>
Cattail	<i>Typha angustifolia</i>
Ironwood	<i>Olneya tesota</i>

Appendix C

Survey Forms

Ddfd

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

Site Name: Topock CA-1 State: CA County: San Bernardino
 USGS Quad Name: Whale Mountain Elevation: 134 (meters)

Creek, River, or Lake Name: Colorado River

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

Survey Coordinates: Start: E 728449 N 3845723 UTM Datum: 83 (See instructions)
 Stop: E 728081 N 3845821 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>Diochabada</i> spp.)). If <i>Diochabada</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): G Valdez J Steinman	Date: 5/24/2012	0	0	0	NA					
	Start: 520									
	Stop: 605									
	Total hrs: 45 min									
Survey #2 Observer(s): J Steinman	Date: 6/8/2012	0	0	0	NA					
	Start: 509									
	Stop: 535									
	Total hrs: 26 min									
Survey #3 Observer(s): J Steinman	Date: 6/22/2012	0	0	0	NA					
	Start: 645									
	Stop: 715									
	Total hrs: 30 min									
Survey #4 Observer(s): J Steinman	Date: 6/29/2012	0	0	0	NA					
	Start: 528									
	Stop: 540									
	Total hrs: 12 min									
Survey #5 Observer(s): J Steinman	Date: 7/10/2012	0	0	0	NA					
	Start: 601									
	Stop: 625									
	Total hrs: 24 min									
Overall Site Summary <small>Counts do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Do not count nest to double count individuals.</small>		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u>				
Total survey hrs: 137min		0	0	0	na	If yes, report color combination(s) in the comments section on back of form and report to USFWS.				

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-085026-4 State Wildlife Agency Permit #: CA-007801

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock CA-1 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes x No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes x No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes 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.
 Management Authority for Survey Area: Federal Municipal/County x State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) Moabi Regional Park
 Length of area surveyed: 382 meters (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)
x Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

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

Cercidium microphyllum, Tamarix spp.

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

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

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

Attach additional sheets if necessary.

The area has had more habitat removed from the expansion of Pirate Coves onto the peninsula of Park Moabi. The habitat has been reduced on both sides to a 5 meter strip. Surveys are now only being conducted on one side.

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

Territory Number	All Dates Detected	UTME	UTMN	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: Topock CA-2 State: CA County: San Bernardino
 USGS Quad Name: Whale Mountain Elevation: 146 (meters)
 Creek, River, or Lake Name: Colorado River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 728507 N 3845579 UTM Datum: 83 (See instructions)
 Stop: E 728921 N 3845659 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>Diochabida</i> spp.); If <i>Diochabida</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): G Valdez J Steinman	Date: 5/24/2012	0	0	0	NA					
	Start: 619									
	Stop: 626									
	Total hrs: 7 min									
Survey #2 Observer(s): J Steinman	Date: 6/5/2012	0	0	0	NA					
	Start: 737									
	Stop: 809									
	Total hrs: 32 min									
Survey #3 Observer(s): J Steinman	Date: 6/20/2012	0	0	0	NA					
	Start: 755									
	Stop: 823									
	Total hrs: 28 min									
Survey #4 Observer(s): J Steinman	Date: 6/27/2012	0	0	0	NA					
	Start: 642									
	Stop: 703									
	Total hrs: 21 min									
Survey #5 Observer(s): J Steinman	Date: 7/11/2012	0	0	0	NA					
	Start: 520									
	Stop: 550									
	Total hrs: 30 min									
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 Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 118 min		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: CA -007801

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock CA-2 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes ☒ No ☐ Unknown ☐
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☒ No ☐ Not Applicable ☐
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes ☐ 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) Moabi Regional Park

Length of area surveyed: 609.0 (km)

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

- ☐ Native broadleaf plants (entirely or almost entirely, > 90% native)
☐ 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.

Cercidium microphyllum, *Tamarix* spp.

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.

Pirates cove has incroached and eliminated the habitat on the north side, cut a trail through the middle of the habitat and cleared a portion on the west. See photos in report.

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

Territory Number	All Dates Detected	UTME	UTMN	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: Topock CA-3 State: CA County: San Bernardino
 USGS Quad Name: Whale Mountain Elevation: 134 (meters)
 Creek, River, or Lake Name: Colorado River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 729285 N 3845544 UTM Datum: 83 (See instructions)
 Stop: E 729038 N 3845681 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>Diochabida</i> spp.); if <i>Diochabida</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): G Valdez J Steinman	Date: 5/24/2012	0	0	0	NA					
	Start: 627									
	Stop: 651									
	Total hrs: 24 min									
Survey #2 Observer(s): J Steinman	Date: 6/5/2012	10	0	0	NA					
	Start: 705									
	Stop: 737									
	Total hrs: 32 min									
Survey #3 Observer(s): J Steinman	Date: 6/20/2012	0	0	0	NA					
	Start: 645									
	Stop: 721									
	Total hrs: 36 min									
Survey #4 Observer(s): J Steinman	Date: 6/27/2012	0	0	0	NA					
	Start: 703									
	Stop: 737									
	Total hrs: 34 min									
Survey #5 Observer(s): J Steinman	Date: 7/11/2012	0	0	0	NA					
	Start: 550									
	Stop: 630									
	Total hrs: 40 min									
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> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 166min		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: CA -007801

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock CA-3 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes X No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes X No Not Applicable
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes X No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes X No If no, summarize below.
 Management Authority for Survey Area: Federal X Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) BLM

Length of area surveyed: 152 meters (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)

X 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.

Acaci greggii, Tamarix spp.

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	UTME	UTMN	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: Topock CA-4 State: CA County: San Bernardino
 USGS Quad Name: Whale Mountain Elevation: 134 (meters)
 Creek, River, or Lake Name: Colorado River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 729537 N 3845317 UTM Datum: 83 (See instructions)
 Stop: E 729384 N 3845151 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>Diochabida</i> spp.); If <i>Diochabida</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): G Valdez J Steinman	Date: 5/24/2012	0	0	0	NA					
	Start: 730									
	Stop: 840									
	Total hrs: 70 min									
Survey #2 Observer(s): J Steinman	Date: 6/5/2012	1	0	1	NA	Single male fits-bew and white visual and auditory detection Single male fits-bew and white visual and auditory detection	1	unk		
	Start: 517									
	Stop: 630									
	Total hrs: 73 min									
Survey #3 Observer(s): J Steinman	Date: 6/20/2012	0	0	0	NA					
	Start: 531									
	Stop: 643									
	Total hrs: 72 min									
Survey #4 Observer(s): J Steinman	Date: 6/27/2012	0	0	0	NA					
	Start: 525									
	Stop: 638									
	Total hrs: 73 min									
Survey #5 Observer(s): J Steinman	Date: 7/10/2012	0	0	0	NA					
	Start: 640									
	Stop: 743									
	Total hrs: 63 min									
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 Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 35 min		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: CA -007801

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates.com
 Site Name Topock CA-4 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes X No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes X No Not Applicable
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes 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.
 Management Authority for Survey Area: Federal X Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) BLM

Length of area surveyed: 249 meters (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)
X 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 spp, Acacia gregii

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

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

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

Attach additional sheets if necessary.

The site was expanded to include several points around the east sided of the bat cave wash route 66 bridge. This areas has improved over the years.

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

Territory Number	All Dates Detected	UTME	UTMN	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: Topock CA-5 State: CA County: San Bernardino
 USGS Quad Name: Whale Mountain Elevation: 134 (meters)
 Creek, River, or Lake Name: Colorado River

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 729889 N 3844738 UTM Datum: 83 (See instructions)
 Stop: E 730025 N 3844330 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>Diochabida</i> spp.); if <i>Diochabida</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): G Valdez J Steinman	Date: 5/24/2012	0	0	0	NA					
	Start: 843									
	Stop: 942									
	Total hrs: 59 min									
Survey #2 Observer(s): J Steinman	Date: 6/8/2012	0	0	0	NA					
	Start: 543									
	Stop: 645									
	Total hrs: 62 min									
Survey #3 Observer(s): J Steinman	Date: 6/22/2012	0	0	0	NA					
	Start: 525									
	Stop: 610									
	Total hrs: 45 min									
Survey #4 Observer(s): J Steinman	Date: 6/29/2012	0	0	0	NA					
	Start: 615									
	Stop: 720									
	Total hrs: 65 min									
Survey #5 Observer(s): J Steinman	Date: 7/11/2012	0	0	0	NA					
	Start: 715									
	Stop: 815									
	Total hrs: 60 min									
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> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 291 min		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: CA -007801

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock CA-5 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes x No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes x No Not Applicable
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes x No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No x 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) BLM

Length of area surveyed: 152 meters (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)
x 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.

Tamoxix spp., Acacia gregii

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

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

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

Attach additional sheets if necessary.

The site has been extended to the south to include the expanded Project Area of Potential Effect.

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

Territory Number	All Dates Detected	UTME	UTMN	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: Topock CA-6 State: CA County: San Bernardino
 USGS Quad Name: Whale Mountain Elevation: 134 (meters)
 Creek, River, or Lake Name: Colorado River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 729163 N 3845340 UTM Datum: 83 (See instructions)
 Stop: E 729249 N 3845445 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>Diochabida</i> spp.); if <i>Diochabida</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): G Valdez J Steinman	Date: 5/24/2012	0	0	0	NA					
	Start: 651									
	Stop: 715									
	Total hrs: 24 min									
Survey #2 Observer(s): J Steinman	Date: 6/5/2012	0	0	0	NA					
	Start: 632									
	Stop: 705									
	Total hrs: 33 min									
Survey #3 Observer(s): J Steinman	Date: 6/20/2012	0	0	0	NA					
	Start: 733									
	Stop: 755									
	Total hrs: 22 min									
Survey #4 Observer(s): J Steinman	Date: 6/27/2012	0	0	0	NA					
	Start: 737									
	Stop: 810									
	Total hrs: 33 min									
Survey #5 Observer(s): J Steinman	Date: 7/11/2012	0	0	0	NA					
	Start: 630									
	Stop: 655									
	Total hrs: 25 min									
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 Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 137min	0	0	0	na						

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: CA -007801

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock CA-6 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes x No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes x No Not Applicable
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes x No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes x No If no, summarize below.

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

Length of area surveyed: 152.0 (km)

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

 Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
x 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.

Acacia greggii, Tamarix spp.

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	UTME	UTMN	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: Topock CA-7 State: CA County: San Bernardino
 USGS Quad Name: Whale Mountain Elevation: 141 (meters)
 Creek, River, or Lake Name: Colorado River

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 730283 N 3844249 UTM Datum: 83 (See instructions)
 Stop: E 730097 N 3844233 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>Diochabida</i> spp.); if <i>Diochabida</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): G Valdez J Steinman	Date: 5/25/2012	0	0	0	NA					
	Start: 745									
	Stop: 810									
	Total hrs: 25 min									
Survey #2 Observer(s): J Steinman	Date: 6/8/2012	0	0	0	NA					
	Start: 648									
	Stop: 703									
	Total hrs: 15 min									
Survey #3 Observer(s): J Steinman	Date: 6/22/2012	0	0	0	NA					
	Start: 612									
	Stop: 630									
	Total hrs: 18 min									
Survey #4 Observer(s): J Steinman	Date: 6/29/2012	0	0	0	NA					
	Start: 555									
	Stop: 612									
	Total hrs: 17 min									
Survey #5 Observer(s): J Steinman	Date: 7/10/2012	0	0	0	NA					
	Start: 750									
	Stop: 815									
	Total hrs: 25 min									
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 Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 100 min		0	0	0	0					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: CA -007801

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock CA-7 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes No Unknown X
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes X No If no, summarize below.

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

Length of area surveyed: 228 meters (km)

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

 Native broadleaf plants (entirely or almost entirely, > 90% native)
X Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

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

Salix Gooddingii, Acacia greggii, Tamarix spp.

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

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

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

Attach additional sheets if necessary.

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

Territory Number	All Dates Detected	UTME	UTMN	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: Topock AZ-1 State: AZ County: Mohave
 USGS Quad Name: Topock Elevation: 134 (meters)
 Creek, River, or Lake Name: Colorado River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 729823 N 3845913 UTM Datum: 83 (See instructions)
 Stop: E 730272 N 3844792 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>Diochabida</i> spp.); If <i>Diochabida</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): G Valdez J Steinman	Date: 5/25/2012	0	0	0	NA					
	Start: 511									
	Stop: 655									
	Total hrs: 104 min									
Survey #2 Observer(s): J Steinman	Date: 6/6/2012	0	0	0	NA					
	Start: 530									
	Stop: 817									
	Total hrs: 167 min									
Survey #3 Observer(s): J Steinman	Date: 6/19/2012	0	0	0	NA					
	Start: 540									
	Stop: 825									
	Total hrs: 165 min									
Survey #4 Observer(s): J Steinman	Date: 6/26/2012	0	0	0	NA					
	Start: 545									
	Stop: 848									
	Total hrs: 183 min									
Survey #5 Observer(s): J Steinman	Date: 7/12/2012	0	0	0	NA					
	Start: 540									
	Stop: 847									
	Total hrs: 187 min									
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 Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 806 min		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: AZ SP790914

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock AZ-1 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes x No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes x No Not Applicable
 If name is different, what name(s) was used in the past? Topock AZ
 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.

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

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:

 Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
x 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 spp., Salix Gooddingii, Acacia greggii

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

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

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

Attach additional sheets if necessary.

The survey area is smaller than that was surveyed in previous years to eliminate the survey of areas outside the projects Are of Potential Effect

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

Territory Number	All Dates Detected	UTME	UTMN	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

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

Reporting Individual Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock AZ-2 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes No Unknown x
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable x
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes x No If no, summarize below.

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

Length of area surveyed: 10 meters (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)
x Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

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

Arundo donax, Salix spp., Tamarix spp.

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	UTME	UTMN	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

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

Reporting Individual Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock AZ-2 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes No Unknown x
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable x
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes x No If no, summarize below.

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

Length of area surveyed: 10 meters (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)
x Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

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

Arundo donax, Salix spp., Tamarix spp.

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	UTME	UTMN	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: Topock AZ-3 State: AZ County: Mohave
 USGS Quad Name: Topock Elevation: 141 (meters)
 Creek, River, or Lake Name: Colorado River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 730616 N 3844747 UTM Datum: 83 (See instructions)
 Stop: E 730773 N 3844846 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>Diochabida</i> spp.); If <i>Diochabida</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): G Valdez J Steinman	Date: 5/25/2012	0	0	0	NA					
	Start: 835									
	Stop: 850									
	Total hrs: 15 min									
Survey #2 Observer(s): J Steinman	Date: 6/7/2012	0	0	0	NA					
	Start: 548									
	Stop: 609									
	Total hrs: 21 min									
Survey #3 Observer(s): J Steinman	Date: 6/21/2012	0	0	0	NA					
	Start: 832									
	Stop: 848									
	Total hrs: 16 min									
Survey #4 Observer(s): J Steinman	Date: 6/28/2012	0	0	0	NA					
	Start: 805									
	Stop: 832									
	Total hrs: 27 min									
Survey #5 Observer(s): J Steinman	Date: 7/13/2012	0	0	0	NA					
	Start: 750									
	Stop: 800									
	Total hrs: 10 min									
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 Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 62 min		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: AZ SP790914

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates.com
 Site Name Topock AZ-3 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes ☐ No ☐ Unknown ☒
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☐ No ☒ Not Applicable ☒
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes ☐ 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) Havasupai Wildlife Refuge

Length of area surveyed: 208 meters (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 name.

Salix gooddingii, Tamarix spp.

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

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

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

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

Territory Number	All Dates Detected	UTME	UTMN	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: Topock AZ-4 State: AZ County: Mohave
 USGS Quad Name: Topock Elevation: 143 (meters)
 Creek, River, or Lake Name: Colorado River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 730908 N 3844998 UTM Datum: 83 (See instructions)
 Stop: E 730961 N 3845519 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>Diochabida</i> spp.); If <i>Diochabida</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): G Valdez J Steinman	Date: 5/25/2012	0	0	0	NA					
	Start: 851									
	Stop: 915									
	Total hrs: 24 min									
Survey #2 Observer(s): J Steinman	Date: 6/7/2012	0	0	0	NA					
	Start: 610									
	Stop: 638									
	Total hrs: 28 min									
Survey #3 Observer(s): J Steinman	Date: 6/21/2012	0	0	0	NA					
	Start: 805									
	Stop: 830									
	Total hrs: 25 min									
Survey #4 Observer(s): J Steinman	Date: 6/28/2012	0	0	0	NA					
	Start: 737									
	Stop: 800									
	Total hrs: 23 min									
Survey #5 Observer(s): J Steinman	Date: 7/13/2012	0	0	0	NA					
	Start: 725									
	Stop: 750									
	Total hrs: 25 min									
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 Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 125 min		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: AZ SP790914

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock AZ-4 Date report Completed 9/30/2012
 Was this site surveyed in a previous year? Yes ☐ No ☐ Unknown ☒
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☐ No ☒ Not Applicable ☐
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes ☐ 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) Havasu National Wildlife Refuge

Length of area surveyed: 564 meter (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 name.

Tamarix spp.

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

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

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

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

Territory Number	All Dates Detected	UTME	UTMN	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: Topock AZ-5 State: AZ County: Mohave
 USGS Quad Name: Topock Elevation: 145 (meters)
 Creek, River, or Lake Name: Colorado River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No
 Survey Coordinates: Start: E 731000 N 3845574 UTM Datum: 83 (See instructions)
 Stop: E 731118 N 3846528 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>Diochabida</i> spp.); If <i>Diochabida</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): G Valdez J Steinman	Date: 5/25/2012	0	0	0	NA	survey area different then preceeding surveys				
	Start: 915									
	Stop: 1030									
	Total hrs: 75 min									
	min.									
Survey #2 Observer(s): J Steinman	Date: 6/7/2012	1	0	0	NA	Single male fits-bew and white visual and auditory detectionSingle male fits-bew and white visual and auditory detection				
	Start: 639									
	Stop: 900									
	Total hrs: 141 min									
	min.									
Survey #3 Observer(s): J Steinman	Date: 6/21/2012	0	0	0	NA					
	Start: 535									
	Stop: 801									
	Total hrs: 146 min									
	min.									
Survey #4 Observer(s): J Steinman	Date: 6/28/2012	0	0	0	NA					
	Start: 545									
	Stop: 736									
	Total hrs: 111 min									
	min.									
Survey #5 Observer(s): J Steinman	Date: 7/13/2012	0	0	0	NA					
	Start: 549									
	Stop: 715									
	Total hrs: 86 min									
	min.									
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 Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
Total survey hrs: 559min	0	0	0	na						

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2012
 US Fish & Wildlife Service Permit #: TE-0850264 State Wildlife Agency Permit #: AZ SP790914

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 Jeff Steinman Phone # (415) 250-2692
 Affiliation Garcia and Associates E-mail jsteinman@garciaandassociates
 Site Name Topock AZ-5 Date report Completed _____
 Was this site surveyed in a previous year? Yes _____ No _____ Unknown x _____
 Did you verify that this site name is consistent with that used in previous yrs? Yes _____ No x Not Applicable _____
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes _____ No _____ If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes _____ No x 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) Havasupai National Wildlife Refuge
 Length of area surveyed: 879 meters (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)
x 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 spp.

Average height of canopy (Do not include a range): 20 (meters)

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

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

Attach additional sheets if necessary.

The first survey round was only of the east side of the habitat point 1-20 on map. The subsequent surveys were of points AZ5-1 to AZ5-52.

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 D

Call Points and UTM coordinates

Name	Added/Eliminated	State	Easting	Northing
AZ-1				
AZ1-1		AZ	730119	3844889
AZ1-2		AZ	730198	3844830
AZ1-4		AZ	730251	3845035
AZ1-6		AZ	730250	3845090
AZ1-7		AZ	730327	3845103
AZ1-8		AZ	730280	3845148
AZ1-9		AZ	730223	3845178
AZ1-10		AZ	730154	3845179
AZ1-11		AZ	730164	3845226
AZ1-12		AZ	730149	3845290
AZ1-13		AZ	730185	3845344
AZ1-14		AZ	730164	3845390
AZ1-15		AZ	730145	3845431
AZ1-16		AZ	730108	3845465
AZ1-17		AZ	730067	3845500
AZ1-18		AZ	730027	3845533
AZ1-19		AZ	729980	3845567
AZ1-20		AZ	729943	3845609
AZ1-21		AZ	729929	3845657
AZ1-22		AZ	729917	3845690
AZ1-23		AZ	729891	3845727
AZ1-24		AZ	729867	3845759
AZ1-25		AZ	729873	3845812
AZ1-26		AZ	729823	3845857
AZ1-27	not surveyed/outside APE	AZ	729791	3845915
AZ1-28	not surveyed/outside APE	AZ	729775	3845955
AZ1-29	not surveyed/outside APE	AZ	729817	3845934
AZ1-30	not surveyed/outside APE	AZ	729624	3846016
AZ1-31	not surveyed/outside APE	AZ	729783	3846030
AZ1-32	not surveyed/outside APE	AZ	729736	3846004
AZ1-33	not surveyed/outside APE	AZ	729669	3845972
AZ1-35	not surveyed/outside APE	AZ	729564	3846083
AZ1-36	not surveyed/outside APE	AZ	729629	3846118
AZ1-37	not surveyed/outside APE	AZ	729654	3846178
AZ1-38	not surveyed/outside APE	AZ	729730	3846148
AZ1-39	not surveyed/outside APE	AZ	729748	3846190
AZ1-40		AZ	730269	3844972
AZ1-41		AZ	730173	3844898
AZ1-42		AZ	730259	3844828
AZ1-43		AZ	730302	3844935
AZ1-44		AZ	730300	3845020
AZ1-45		AZ	730329	3844908
AZ1-46		AZ	730360	3844869
AZ1-47		AZ	730334	3845059
AZ1-48		AZ	730180	3845295
AZ1-49		AZ	730256	3845305
AZ1-50	added 2012	AZ	730382	3844927

Name	Added/Eliminated	State	Easting	Northing
AZ1-51	added 2012	AZ	730379	3844901
AZ1-52	added 2012	AZ	730272	3844792
AZ1-53	added 2012	AZ	730289	3844962
AZ-2				
AZ2-1	added 2012	AZ	730325	3844433
AZ-3				
AZ3-1	added 2012	AZ	730616	3844747
AZ3-2	added 2012	AZ	730683	3844764
AZ3-3	added 2012	AZ	730740	3844808
AZ3-4	added 2012	AZ	730774	3844846
AZ-4				
AZ4-1	added 2012	AZ	730909	3844998
AZ4-10	added 2012	AZ	730976	3845444
AZ4-11	added 2012	AZ	730962	3845519
AZ4-12	added 2012	AZ	730975	3845261
AZ4-13	added 2012	AZ	730952	3845205
AZ4-14	added 2012	AZ	730936	3845148
AZ4-2	added 2012	AZ	730945	3845027
AZ4-3	added 2012	AZ	730988	3845077
AZ4-4	added 2012	AZ	731026	3845131
AZ4-5	added 2012	AZ	731051	3845213
AZ4-6	added 2012	AZ	731033	3845254
AZ4-7	added 2012	AZ	731021	3845283
AZ4-8	added 2012	AZ	730996	3845334
AZ4-9	added 2012	AZ	730991	3845397
AZ-5				
AZ5-1	added 2012	AZ	731062	3846290
AZ5-2	added 2012	AZ	731024	3846250
AZ5-3	added 2012	AZ	730991	3846205
AZ5-4	added 2012	AZ	731001	3846123
AZ5-5	added 2012	AZ	731005	3846021
AZ5-6	added 2012	AZ	730998	3845926
AZ5-7	added 2012	AZ	730984	3845838
AZ5-8	added 2012	AZ	730978	3845736
AZ5-9	added 2012	AZ	730976	3845682
AZ5-10	added 2012	AZ	731001	3845574
AZ5-11	added 2012	AZ	731071	3845586
AZ5-12	added 2012	AZ	731029	3845643
AZ5-13	added 2012	AZ	731040	3845694
AZ5-14	added 2012	AZ	731040	3845735
AZ5-15	added 2012	AZ	731028	3845766
AZ5-16	added 2012	AZ	731039	3845808
AZ5-17	added 2012	AZ	731069	3845849
AZ5-18	added 2012	AZ	731100	3845875
AZ5-20	added 2012	AZ	731137	3845931
AZ5-21	added 2012	AZ	731163	3845968
AZ5-22	added 2012	AZ	731176	3845994
AZ5-23	added 2012	AZ	731211	3846046

Name	Added/Eliminated	State	Easting	Northing
AZ5-24	added 2012	AZ	731235	3846092
AZ5-25	added 2012	AZ	731196	3846128
AZ5-26	added 2012	AZ	731248	3846132
AZ5-26	added 2012	AZ	731148	3846127
AZ5-27	added 2012	AZ	731244	3846178
AZ5-28	added 2012	AZ	731240	3846265
AZ5-29	added 2012	AZ	731255	3846296
AZ5-30	added 2012	AZ	731309	3846309
AZ5-31	added 2012	AZ	731375	3846309
AZ5-32	added 2012	AZ	731306	3846378
AZ5-33	added 2012	AZ	731198	3846338
AZ5-35	added 2012	AZ	731134	3846395
AZ5-36	added 2012	AZ	731021	3846316
AZ5-37	added 2012	AZ	731048	3846338
AZ5-38	added 2012	AZ	731068	3846370
AZ5-39	added 2012	AZ	731034	3846406
AZ5-40	added 2012	AZ	731028	3846427
AZ5-41	added 2012	AZ	730965	3846465
AZ5-42	added 2012	AZ	731050	3846482
AZ5-43	added 2012	AZ	731118	3846529
AZ5-44	added 2012	AZ	730920	3846426
AZ5-45	added 2012	AZ	730924	3846391
AZ5-46	added 2012	AZ	730927	3846366
AZ5-47	added 2012	AZ	730902	3846345
AZ5-48	added 2012	AZ	730868	3846365
AZ5-49	added 2012	AZ	730948	3846298
AZ-1 points surveyed on first survey round				
5/21-	only surveyed 5/21/12	AZ	731165	3845603
5/21-	only surveyed 5/21/12	AZ	731211	3845676
5/21-	only surveyed 5/21/12	AZ	731201	3845759
5/21-	only surveyed 5/21/12	AZ	731164	3845760
5/21-	only surveyed 5/21/12	AZ	731180	3845796
5/21-	only surveyed 5/21/12	AZ	731197	3845834
5/21-	only surveyed 5/21/12	AZ	731222	3845782
5/21-	only surveyed 5/21/12	AZ	731280	3845811
5/21-	only surveyed 5/21/12	AZ	731304	3845914
5/21-	only surveyed 5/21/12	AZ	731275	3845981
5/21-	only surveyed 5/21/12	AZ	731292	3846011
5/21-	only surveyed 5/21/12	AZ	731322	3846047
5/21-	only surveyed 5/21/12	AZ	731355	3846120
5/21-	only surveyed 5/21/12	AZ	731366	3846181
5/21-	only surveyed 5/21/12	AZ	731371	3846224
5/21-	only surveyed 5/21/12	AZ	731412	3846274
5/21-	only surveyed 5/21/12	AZ	731426	3846343
CA-1				
CA1-1		CA	728108	3845784
CA1-B	eliminated 2012	CA	728151	3845822
CA1-C		CA	728199	3845750

Name	Added/Eliminated	State	Easting	Northing
CA1-E	eliminated 2012	CA	728261	3845766
CA1-H	eliminated 2012	CA	728350	3845750
CA1-L	eliminated 2012	CA	728399	3845754
CA1-J		CA	728449	3845723
CA1-M	added 2012	CA	727932	3845776
CA1-N	added 2012	CA	727960	3845769
CA1-K		CA	728081	3845821
CA1-O	added 2012	CA	728245	3845750
CA1-P	added 2012	CA	728344	3845721
CA1-Q	added 2012	CA	728403	3845709
CA1-T	added 2012	CA	728901	3845676
CA1-U	added 2012	CA	728847	3845667
CA1-V	added 2012	CA	728788	3845654
CA-2				
CA2-C	eliminated 2012	CA	728355	3845573
CA2-F		CA	728507	3845579
CA2-G		CA	728558	3845596
CA2-K		CA	728595	3845612
CA2-L		CA	728646	3845620
CA2-N		CA	728708	3845636
CA2-O	eliminated 2012	CA	728921	3845660
CA2-P	eliminated 2012	CA	728844	3845628
CA2-R	added in 2009	CA	728754	3845589
CA2-S		CA	728693	3845581
CA-3				
CA3-3		CA	729201	3845578
CA3-A		CA	729236	3845558
CA3-B		CA	729239	3845613
CA3-C		CA	729285	3845544
CA3-D		CA	729199	3845638
CA3-E		CA	729176	3845691
CA3-F		CA	729127	3845653
CA3-G		CA	729116	3845711
CA3-H	added in 2009	CA	729038	3845681
CA3-I		CA	728983	3845681
CA3-J		CA	729202	3845543
CA-4				
CA4-D		CA	729415	3845232
CA4-E		CA	729387	3845310
CA4-F		CA	729449	3845300
CA4-G		CA	729434	3845366
CA4-H		CA	729537	3845317
CA4-I		CA	729499	3845350
CA4-L		CA	729549	3845257
CA4-M		CA	729395	3845189
CA4-N		CA	729354	3845200
CA4-O		CA	729357	3845263
CA4-P		CA	729384	3845151

Name	Added/Eliminated	State	Easting	Northing
CA4-Q		CA	729473	3845265
CA4-R	added in 2009	CA	729628	3845196
CA4-S	added in 2009	CA	729686	3845109
CA4-T	added in 2009	CA	729710	3845206
CA4-U	added in 2009	CA	729665	3845280
CA4-V	added 2012	CA	729550	3845406
CA4-W	added 2012	CA	729594	3845360
CA-5				
CA5-5		CA	729893	3844498
CA5-B		CA	729949	3844561
CA5-C		CA	729927	3844607
CA5-D		CA	729955	3844631
CA5-E		CA	729949	3844700
CA5-F		CA	729993	3844556
CA5-G		CA	730000	3844581
CA5-H		CA	730019	3844519
CA5-I		CA	729890	3844688
CA5-J		CA	729889	3844738
CA5-K		CA	729874	3844642
CA5-L	added 2012	CA	729930	3844459
CA5-M	added 2012	CA	730025	3844330
CA-6				
CA6-6		CA	729163	3845340
CA6-A		CA	729148	3845387
CA6-B		CA	729193	3845389
CA6-C		CA	729199	3845450
CA6-J		CA	729249	3845445
CA6-K		CA	729249	3845403
CA6-R		CA	729150	3845438
CA6-S		CA	729100	3845406
CA-7				
CA7-A	added 2012	CA	730284	3844250
CA7-B	added 2012	CA	730206	3844225
CA7-C	added 2012	CA	730171	3844230
CA7-D	added 2012	CA	730097	3844233
Detections				
YUCR AZ1-8		AZ	730285	3845150
GBHE nest		AZ	731151	3845960
SWFL6-5-12		CA	729551	3845409
SWFL6-7-12		AZ	730979	3845769
YUCR AZ1-14		AZ	730168	3845384
YUCR AZ3-4		AZ	730778	3844843
AZBV 6/19/2012		AZ	729867	3845759
AZBV 6/24/2012		AZ	729867	3845759