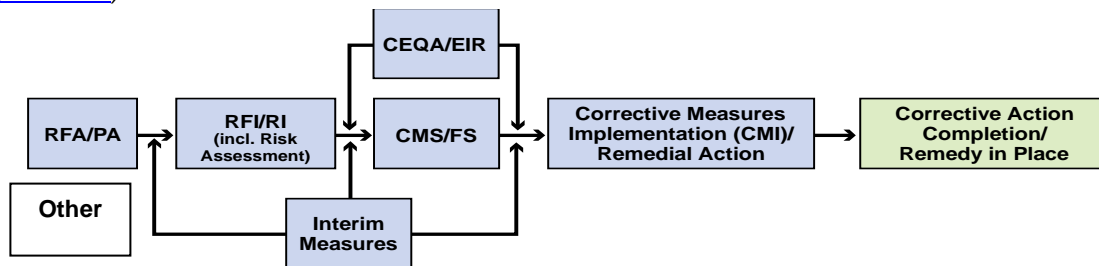


Topock Project Executive Abstract

<p>Document Title:</p> <p>2017 Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station</p> <p>Final Document? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Date of Document: October 31, 2017</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 checked="" 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: Programmatic Biological Assessment</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) and Bird Impact Avoidance and Minimization Plan (BIO-2a of the FEIR). Not performing the survey and preparing this report constitute non-compliance with the PBA and the FEIR.</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 2017 Southwestern Willow Flycatcher Presence/Absence Surveys Report presents the finding of the five Southwestern Flycatcher (SWFL) protocol surveys conducted between May and July 2017 in areas near the PG&E Topock Compressor Station. No SWFL were observed during the 2017 survey. More transient SWFL were observed in 2014 than any of the previous surveys. The lack of detections in current study was potentially attributable to a decline in habitat quality due to recent fires and to local infestation by Tamarisk leaf beetles. However the reemergence of native vegetation could result in improved habitat in the future and the SWFL could establish nests in this habitat. There is a potential for SWFL to breed in these areas in the future, therefore the continued SWFL surveys are recommended.</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 General Management Measure 27 of the PBA, Species-Specific Mitigation Measure in the Bird Impact Avoidance and Minimization Plan</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



ch2m.

Garcia and Associates
Natural and Cultural Resource Consultants



SOUTHWESTERN WILLOW FLYCATCHER PRESENCE / ABSENCE SURVEYS FOR THE PG&E TOPOCK COMPRESSOR STATION

October 2017



PREPARED BY:

CH2M and
Garcia and Associates
2601 Mission Street, Suite 600
San Francisco, California 94110

2017 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 2017

Table of Contents

Introduction.....	1
Site Description.....	1
Vegetation and Habitat Quality	4
Habitat Quality.....	4
Survey Methods	5
Results.....	6
Incidental Species	6
Conclusions.....	8
References.....	8

Figures

Figure 1. California survey sites CA-2, CA-3, CA-4, CA-5, CA-6 and CA-7.....	2
Figure 2. Arizona survey sites AZ-1, AZ-3, AZ-4 and AZ-5.	3
Figure 3. Incidental Species Detections and Past SWFL Detections.....	7

Appendices

Appendix A: Photo Log	
Appendix B: Incidental Plant, Vertebrate and Avian Species	
Appendix C: Survey Forms	
Appendix D: Incidental Species UTM Coordinates	

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 Remediation 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 Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS). 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). In addition to this year's survey, GANDA conducted previous SWFL surveys in this area annually between 2005 and 2010 as prescribed in the 2007 Programmatic Biological Assessment (PBA) prepared for the project (CH2M HILL 2007). Based on these findings, the SWFL survey frequency was reduced with surveys occurring every 2 years between 2010 and 2014. Currently, the survey frequency is every 3 years as prescribed by measure 27 of the 2014 PBA (CH2M HILL 2014), which states:

Riparian areas surrounding the proposed Action Area 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 every three years by a biologist permitted by the USFWS to carry out flycatcher surveys until the project has been completed and all facilities have been removed. Reports shall be provided to the biologists in the BLM Lake Havasu Field Office and the USFWS's Phoenix, Arizona Ecological Services Field (AESO) Office (2321 West Royal Palm Road, Suite 103, Phoenix, AZ 85021, 602-242-0210) at the end of each survey period.

Site Description

Ten sites have been identified within the Action Area defined in the 2007 and 2014 PBA. , Six sites in San Bernardino County, California, and four sites in Mohave County, Arizona. California sites CA-3, CA-4, and CA-6 are located on land managed by the Bureau of Land Management. Site CA-2 is located in Moabi Regional Park. Sites CA-5 and CA-7 are in the California portion of the USFWS Havasu National Wildlife Refuge (Figure 1). All Arizona sites are located in the USFWS Havasu National Wildlife Refuge (Figure 2). The 2017 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 2005). Photographs of the sites are provided in Appendix A.

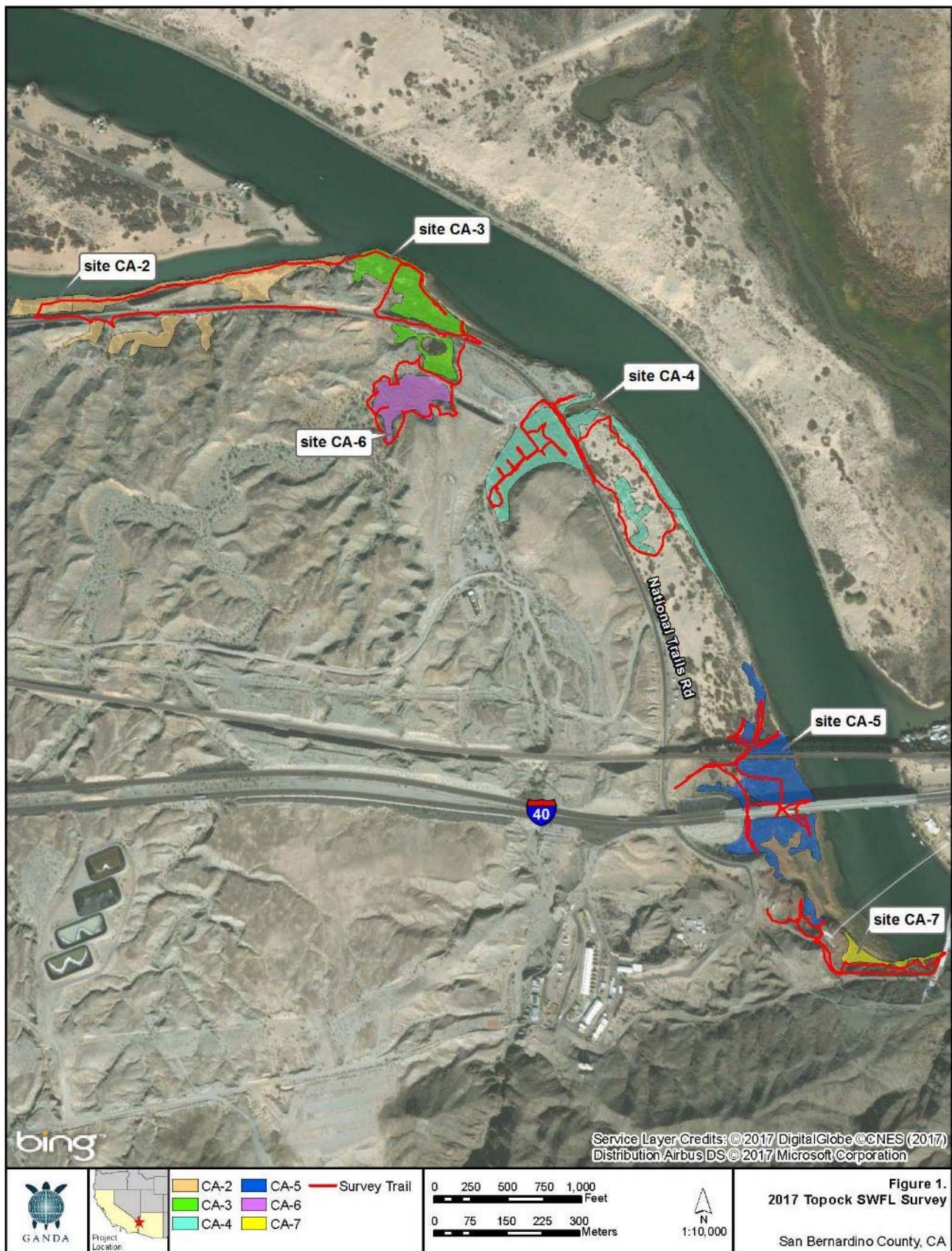


Figure 1. California survey sites CA-2, CA-3, CA-4, CA-5, CA-6 and CA-7.

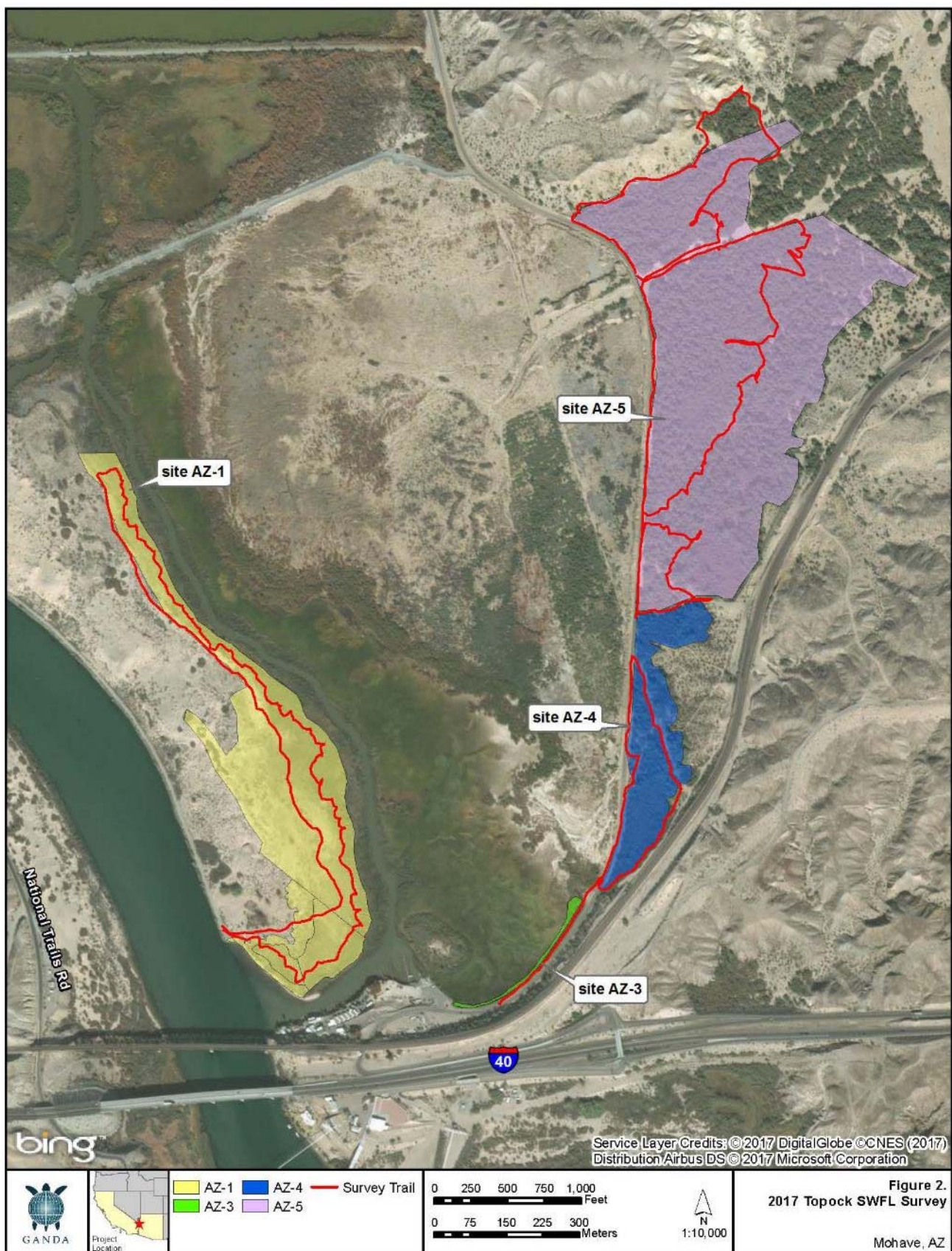


Figure 2. Arizona survey sites AZ-1, AZ-3, AZ-4 and AZ-5.

Vegetation and Habitat Quality

The most abundant plant species in the survey sites include tamarisk (*Tamarix ramosissima* and *Tamarix aphylla*), coyote willow (*Salix exigua*), catclaw acacia (*Senegalia greggii*), arrundo (*Arundo donax*) and arrow weed (*Pluchea sericea*). Tamarisk is the dominant species throughout the survey sites, often forming dense thickets over eight feet in height. A complete list of the plant species observed is included in Appendix B.

Habitat Quality

The habitat quality of the survey sites and the Action Area outlined in the 2007 and 2014 PBA (CH2M HILL 2007 and 2014) has been reassessed each year during the first survey period. The reassessment consists of observing the Action Area and each site for any changes in habitat and vegetation quality. Overall, the survey sites are of moderate habitat quality for SWFL. The Colorado River provides standing surface water throughout the breeding season and includes suitable vegetation composition; however, habitat fragmentation and human disturbance detract from the overall habitat quality. The California sites (Figure 1) 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 Moabi Regional Park, Interstate 40, the Burlington Northern Santa Fe Railway, the Pirate Cove Resort, and the PG&E Topock Compressor Station. Arizona site AZ-1 (Figure 2) is located on a large peninsula between the Colorado River and the Topock Marsh and is bordered by contiguous riparian habitat and bulrush-dominated marsh. However, this site and the other Arizona sites (Figure 2) are also adjacent to the Oatman Topock Highway 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. In past years there have been additions and subtractions to the survey sites based on changes to the habitat quality. This year no survey sites were added or subtracted. However, habitat quality has been diminished at nearly all sites due to the 2015 and 2016 Topock Fires and damage by the introduced tamarisk leaf beetles (TLB) (*Diorhabda* spp.). Additional reduction in quality was from the installation of temporary access roads to conduct soil sampling in Site CA-3 and from the installation of a construction yard in site AZ-2. Appendix A provides photos representative of each survey site. These additional factors are discussed below.

Tamarisk Leaf Beetles

Tamarisk, the most abundant species in the survey sites, were severely affected by the invasion of TLB, which eat the foliage of tamarisk, turning the vegetation brown and causing the leaves to fall off. This reduces the cover and habitat they can provide for SWFL and other nesting birds. Photos 1 and 2 in Appendix A demonstrate the browning and leafless vegetation associated with TLB. Photo 2 shows a branch at the end of the season when only emergent vegetation could be seen along the branches. Although TLB do not immediately kill tamarisk they can lead to death of the tamarisk over several years, further reducing habitat quality unless supplanted by native vegetation. TLB were released in Colorado and Utah in 2004 as a means of controlling tamarisk but have spread out across the southwest (Tamarisk Coalition 2017). The beetles were first

observed in the Lower Colorado River and Lake Havasu area in 2015 (Tamarisk Coalition 2016). The only site that was not affected by the beetle was AZ-5, which is composed almost entirely of Athel tamarisk. Athel tamarisk is not the preferred host of tamarisk beetles (Lindsey *et al.* 2006). See Appendix A for photos of the beetle damage, including photos from 2014 of sites CA-4, CA-6 and CA-7 for comparison (Photos 19, 26 and 30).

The Topock Fires

In July of 2015, an unnamed fire was accidentally started by a BNSF crew working on their tracks above site CA-5. The fire burned a few acres of tamarisk dominated riparian habitat in between the BNSF railroad and Interstate 40. The majority of the vegetation in the burn area was destroyed. Two years after the fire some of the native vegetation is becoming reestablished.

In April of 2016 the Topock Fire (also known as the Pirate Fire in California) burned 2,100 acres (USFS 2017). The fire, the cause of which is still under investigation, burned on both sides of the Colorado River and impacted parts of Havasu Wildlife Refuge, Moabi Regional Park, and Pirates Cove Resort. The fire directly damaged portions of sites AZ-1 and AZ-3. Both sites were severely affected by the fire, with the majority of the mature riparian vegetation in the sites having been destroyed. A year after the fire the native vegetation is starting to become reestablished, particularly along the water's edge. However, the vegetation is still small in both size and density and probably not currently suitable to support breeding willow flycatchers. See Appendix A for photos of the fire damage, including photos 3 and 4 of site AZ-1 from 2014 and 2017 for an example of pre- and post-fire conditions.

Additional Factors

During the survey effort, construction occurred between sites AZ-4 and AZ-5 along the Oatman Topock Highway to prevent the Sacramento Wash from flooding portions of the highway. Although the construction occurred along sites AZ-4 and AZ-5 the impact to the sites was minor. However, to facilitate construction a laydown yard was established within Site AZ-3 that removed a large section of the habitat (Photo 7 in Appendix A).

In early 2017 PG&E conducted soil sampling at site CA-4. In order for equipment to access the sampling locations, temporary access roads were established. These access roads and sampling sites have resulted in a reduction of habitat within the site (Photo 21 in Appendix A).

Survey Methods

Surveys were conducted by GANDA wildlife biologist Jeff Steinman (USFWS Permit #TE-085026-5, AZGFD Permit #SP502602, and CDFW Permit SC-007801). All surveys followed the protocol outlined by Sogge *et al.* (2010). 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. Steinman conducted the SWFL surveys from May 16 to 19, June 6 to 9, June 20 to 23, June 27 to 30, and July 11 to 14. All surveys were conducted between 5:00 AM and 10:00 AM. Completed survey forms for each site are included in Appendix C.

The survey method consisted of using an MP3 player and speaker system to broadcast SWFL calls every 20 to 30 meters along survey routes through the survey sites. Although not required by the protocol, fixed call points were used in previous years to aid in insuring coverage in sites that were difficult to navigate. Fixed call points were discarded this year as the sites have significantly changed, in both habitat and access, due to the damage from the fires and beetles.

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

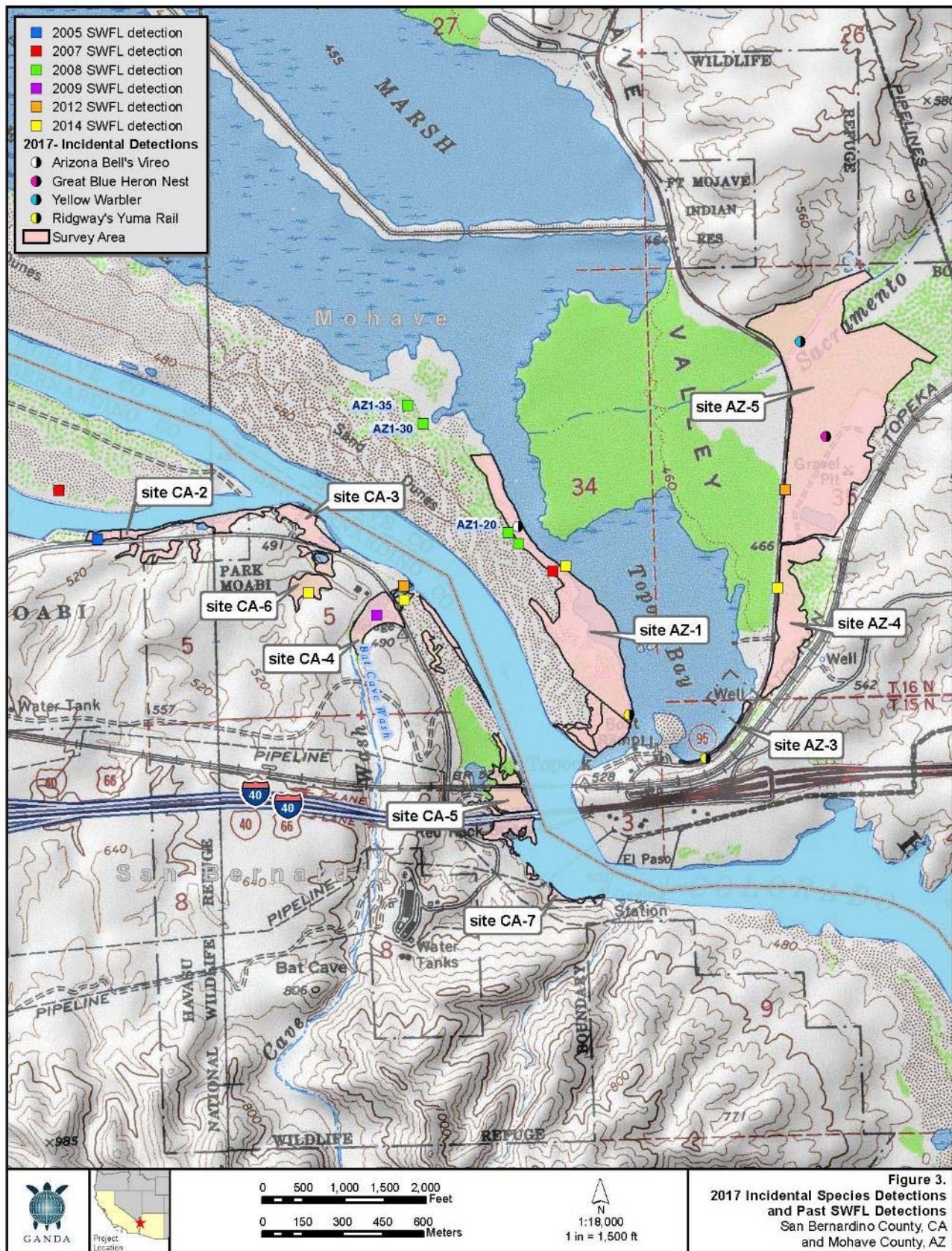
Results

No SWFL were detected during any of the surveys at any of the survey sites. Transient SWFL had been detected during every previous survey year except 2010, when no SWFL were detected. Previously, SWFL were detected in sites CA2 in 2005, CA1 and AZ1 in 2007, AZ1 in 2008, CA4 and AZ5 in 2009, CA4 and AZ5 in 2012 and in CA4, CA6 and AZ1 in 2014. (GANDA 2005, 2006, 2007, 2008, 2009, 2010, 2012 and 2014). The locations of all SWFL observations recorded since 2005 are shown in Figure 3.

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 sites to the creosote-dominated desert and the Topock Marsh, a large wetland with abundant wildlife. The most commonly observed non-avian vertebrate species were 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*), and black-tailed gnatcatcher (*Poliophtila melanura*). Complete lists of wildlife species observed are included in Appendix B.

Incidental observations of special status species during the 2017 surveys were detections of Arizona Bell’s vireo (*Vireo bellii arizonae*), yellow warbler (*Setophaga petechia*), and Ridgeway’s Yuma rail (*Rallus obsoletus yumanensis*). Brown-headed cowbird (*Molothrus ater*), a known nest parasite of SWFL, were also observed in almost every survey site. The locations of all special status species observations are shown in Figure 3 and their GPS coordinates are located in Appendix D.



Conclusions

Before the Topock fires and the introduction of the TLB, the habitat within the survey sites and Action Area were continuing to improve. More transient SWFL were observed in 2014 than any of the previous surveys. However, no SWFL were observed during the 2017 survey, which could be contributed to the decline in habitat quality. Fortunately, the reemergence of native vegetation could result in improved habitat in the future. In addition, if TLB continue to impact habitat in other nearby areas, SWFL could move out of those areas and establish nests in the native vegetation that is reemerging within the Action Area.

Coupled with the cumulative detections of SWFL over the years and the presence of suitable habitat (Ellis, *et al.* 2008, SWCA 2004), there is potential for SWFL to breed in the Action Area in the future. Given these conditions, continuing the survey effort is recommended, as agreed to in the 2014 PBA (CH2M HILL 2014). Additionally, given the fire and TLB impacts on habitat in the survey sites, it is recommended to continue to assess habitat quality during future surveys.

References

- CH2M HILL. 2007. Programmatic Biological Assessment for Pacific Gas and Electric Topock Compressor Station Remedial and Investigative Actions. January 2007.
2014. Final Programmatic Biological Assessment for the Final Groundwater Remedy at the Topock Compressor Station. April 28.
- Ellis, L.A., D.M. Weddle, S.D. Stump, H.C. English, and A.E. Graber. 2008. Southwestern Willow Flycatcher Final Survey and Nest Monitoring Report. Arizona Game and Fish Department, Research Technical Guidance Bulletin #10. Arizona Game and Fish Department, Phoenix, AZ.
- Garcia and Associates (GANDA). 2005. Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Compressor Station Expanded Groundwater Extraction and Treatment System, Topock, California. August.
2006. Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station Expanded Groundwater Extraction and Treatment System. September.
2007. Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station. September.
2008. Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station. September.
2009. Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station. September.
2010. Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station. September.

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

2014. Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station. September.

Lindsey R. Milbrath, C. Jack Deloach; Acceptability and Suitability of Athel, *Tamarix aphylla*, to the Leaf Beetle *Diorhabda elongata* (Coleoptera: Chrysomelidae), a Biological Control Agent of Saltcedar (*Tamarix* spp.), *Environmental Entomology*, Volume 35, Issue 5, 1 October 2006, Pages 1379–1389,

Sogge, M.K., Ahlers, Darrell, and Sferra, S.J., 2010, A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher: U.S. Geological Survey Techniques and Methods 2A-10, 38 p.

SWCA Environmental Consultants. 2004. Southwestern Willow Flycatcher Surveys, Demography, and Ecology along the Lower Colorado River and Tributaries. Annual Report. February.

Tamarisk Coalition. 2017. Tamarisk Beetle Maps. 2016 Tamarisk Leaf Beetle Distribution Map. 2017. <http://www.tamariskcoalition.org/events/tamarisk-beetle-maps>

Tamarisk Coalition. 2017. Tamarisk Beetle Monitoring and Education Program <http://www.tamariskcoalition.org/services/tamarisk-beetle-monitoring-education-program>

U.S. Fish and Wildlife Service (USFWS). 2005. Federal Register, Department of the Interior, Fish and Wildlife Service. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Southwestern Willow Flycatcher; Final Rule. 50 CFR Part 17. RIN 1018-AT88. October 19.

U.S. Forest Service (USFS). 2000. InciWeb: incident information system. 2017. <http://https://inciweb.nwcg.gov/incident/4684/purl.fdlp.gov/GPO/gpo22103>.

Appendix A

Photo Log



Photo 1. Site CA-4 Beetle Damage Tamarisk.



Photo 2. Beetle Damaged Tamarisk.



Photo 3. Site AZ-1 Exterior 2014 Before Fire (Facing South).



Photo 4. Site AZ-1 Exterior 2017 After Fire (Facing South).



Photo 5. Site AZ-1 Exterior 2017 (Facing South).



Photo 6. Site AZ-1 Interior 2017 (Facing South).



Photo 7. Site AZ-3 New Laydown Yard for road work 2017 (Facing North).



Photo 8. Site AZ-3 Exterior 2017 (Facing East).



Photo 9. Site AZ-3 Interior 2017 (Facing North).



Photo 10. Site AZ-4 Exterior 2017 (Facing East).



Photo 11. Site AZ-4 Interior 2017 (Facing South).



Photo 12. Site AZ-5 Exterior 2017 (Facing West).



Photo 13. Site AZ-5 Interior 2017 (Facing South).



Photo 14. Site CA-2 Exterior 2017 (Facing West).



Photo15. Site CA-2 Interior 2017 (Facing South).



Photo 16. Site CA-3 Exterior 2017 (Facing East).



Photo 17. Site CA-3 Interior 2017 (Facing North).



Photo 18. Site CA-4 Exterior 2014 Before Beetle Damage (Facing North).



Photo 19. Site CA-4 Exterior 2017 After Beetle Damage (Facing North).



Photo 20. Site CA-4 Interior 2017 (Facing East).



Photo 21. Soil Sampling Access Road Site CA-4 2017 (Facing South).



Photo 22. Site CA-5 Exterior 2017 (Facing East).



Photo 23. Site CA-5 Interior 2017 (Facing East).



Photo 25. Site CA-6 Exterior 2017 After Beetle Damage (Facing West).



Photo 26. Site CA-6 Exterior 2014 Before Beetle Damage (Facing West).



Photo 27. Site CA-6 Interior 2017 (Facing South).



Photo 28. Site CA-7 Exterior 2017 (Facing South).



Photo 29. Site CA-7 Interior 2014 Before Beetle Damage (Facing North).



Photo 30. Site CA-7 Interior 2017 After Beetle Damage (Facing North).

Appendix B

Incidental Plant, Vertebrate and Avian Species

Incidental Plant Species

Common Name	Latin Name
Arrowweed	<i>Pluchea sericea</i>
Athel Salt Cedar	<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</i> var. <i>basilaris</i>
Russian Thistle	<i>Salsola tragus</i>
Catclaw Acacia	<i>Senegalia greggii</i>
Screw Bean Mesquite	<i>Prosopis pubescens</i>
Blue Palo Verde	<i>Parkinsonia florida</i>
Salt Cedar	<i>Tamarix ramosissima</i>
Coyote Willow	<i>Salix exigua</i>
Gooding's Willow	<i>Salix gooddingii</i>
Cattail	<i>Typha angustifolia</i>

Incidental Vertebrate Species

Common Name	Scientific Name
American Bullfrog	<i>Rana catesbeiana</i>
American Badger	<i>Taxidea taxus</i>
Beaver	<i>Castor canadensis</i>
Black-tailed Jackrabbit	<i>Lepus californicus</i>
Burro	<i>Equus asinus</i>
Coyote	<i>Canis latrans</i>
Desert Cottontail	<i>Sylvilagus audubonii</i>
Desert Iguana	<i>Dipsosaurus dorsalis</i>
Feral Hog	<i>Sus scrofa</i>
Gray Fox	<i>Urocyon cinereoargenteus</i>
Western Side-blotched Lizard	<i>Uta stansburiana</i>

Incidental Avian Species

Common Names	Scientific Names
Abert's Towhee	<i>Melospiza aberti</i>
American Coot	<i>Fulica americana</i>
American Kestrel	<i>Falco sparverius</i>
Anna's Hummingbird	<i>Calypte anna</i>
Arizona Bell's Vireo	<i>Vireo bellii</i>
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>
Bewicks Wren	<i>Thryomanes bewickii</i>
Black Pheobe	<i>Sayornis nigricans</i>
Black-tailed Gnatcatcher	<i>Polioptila melanura</i>
Blue Grosbeak	<i>Passerina caerulea</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Bushtit	<i>Psaltiriparus minimus</i>
Canada Goose	<i>Branta canadensis</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Common Raven	<i>Corvus corax</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Double-crested Cormorant	<i>Phalacrocorax auritus</i>
Eared Grebe	<i>Podiceps nigricollis</i>
Eurasian-collared Dove	<i>Streptopelia decaocto</i>
Gambel's Quail	<i>Callipepla gambelii</i>
Great Blue Heron	<i>Ardea herodias</i>
Great horned Owl	<i>Bubo virginianus</i>
Greater Roadrunner	<i>Geococcyx californianus</i>
Great-tailed Grackle	<i>Quiscalus mexicanus</i>
Green Heron	<i>Butorides virescens</i>
House Finch	<i>Haemorhous mexicanus</i>
Killdeer	<i>Charadrius vociferous</i>
Ladder-backed Woodpecker	<i>Picoides scalaris</i>
Lesser Nighthawk	<i>Chordeiles acutipennis</i>
Long-billed curlew	<i>Numenius americanus</i>
Lucy's Warbler	<i>Oreothlypis luciae</i>
Mallard	<i>Anas platyrhynchos</i>
Marsh Wren	<i>Cistothorus palustris</i>
Mourning Dove	<i>Zenaidura macroura</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Phainopepla	<i>Phainopepla nitens</i>
Pied-billed Grebe	<i>Podilymbus podiceps</i>
Song Sparrow	<i>Melospiza melodia</i>
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>
Townsend's Warbler	<i>Setophaga townsendi</i>
Turkey Vulture	<i>Cathartes aura</i>
Verdin	<i>Auriparus flaviceps</i>
Western Grebe	<i>Aechmophorus occidentalis</i>
Western Kingbird	<i>Tyrannus verticalis</i>
White-faced Ibis	<i>Plegadis chihi</i>
White-throated Swift	<i>Aeronautes saxatalis</i>
White-winged Dove	<i>Zenaidura asiatica</i>
Wilson's Warbler	<i>Cardellina pusilla</i>
Yellow Warbler	<i>Setophaga petechi</i>
Yellow-breasted Chat	<i>Icteria virens</i>
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>
Yellow-rumper Warbler	<i>Setophaga coronata</i>
Yuma Clapper Rail	<i>Rallus obsoletus yumanensis</i>

Appendix C

Survey Forms

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>Dorhobda</i> spp.], If <i>Dorhobda</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): J Steinman	Date: 5/17/2017	0	0	0	NA	BHCO and RIRA observed	# Birds	Sex	UTM E	UTM N
	Start: 6:01									
	Stop: 9:37									
	Total hrs: 207.0									
Survey # 2 Observer(s): J Steinman	Date: 6/7/2017	0	0	0	NA	RIRA observed	# Birds	Sex	UTM E	UTM N
	Start: 5:31									
	Stop: 8:00									
	Total hrs: 149.0									
Survey # 3 Observer(s): J Steinman	Date: 6/20/2017	0	0	0	NA	RIRA, AZBV and BHCO observed	# Birds	Sex	UTM E	UTM N
	Start: 4:30									
	Stop: 6:55									
	Total hrs: 145.0									
Survey # 4 Observer(s): J Steinman	Date: 6/27/2017	0	0	0	NA	AZBV observed	# Birds	Sex	UTM E	UTM N
	Start: 5:01									
	Stop: 8:35									
	Total hrs: 314.0									
Survey # 5 Observer(s): J Steinman	Date: 7/12/2017	0	0	0	NA	AZBV observed	# Birds	Sex	UTM E	UTM N
	Start: 5:05									
	Stop: 8:09									
	Total hrs: 184.0									
Overall Site Summary Totals do not equal the sum of each column. Includes 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>X</u>				
Total survey hrs: 14.0		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: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 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 9/30/2017
 Was this site surveyed in a previous year? Yes ☒ No ☐ Unknown ☐
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☒ No ☐ Not Applicable ☐
 If name is different, what name(s) was used in the past? Topack AZ
 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 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)
☒ 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, Accacia gregii.

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.

This survey area was severely damaged by both the Topock Fire and Tamarisk leaf beetles. The remaining stands consisted almost entirely of native vegetation. However some tamarisk had started to regrow by the end of the season.

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

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

Attach additional sheets if necessary

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

Site Name: 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>Dorhobda</i> spp.]). If <i>Dorhobda</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): J Steinman	Date: 5/19/2017	0	0	0	NA	AZBY observed				
	Start: 6:32									
	Stop: 7:05									
	Total hrs: 33 min									
Survey # 2 Observer(s): J Steinman	Date: 6/8/2017	0	0	0	NA	RIRA observed				
	Start: 5:17									
	Stop: 5:56									
	Total hrs: 39 min									
Survey # 3 Observer(s): J Steinman	Date: 6/22/2017	0	0	0	NA					
	Start: 4:47									
	Stop: 5:11									
	Total hrs: 24 min									
Survey # 4 Observer(s): J Steinman	Date: 6/29/2017	0	0	0	NA					
	Start: 5:02									
	Stop: 5:35									
	Total hrs: 33 min									
Survey # 5 Observer(s): J Steinman	Date: 7/11/2017	0	0	0	NA					
	Start: 8:46									
	Stop: 9:21									
	Total hrs: 35 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: 3.0		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 State Wildlife Agency Permit #: AZ SP592602

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-3 Date report Completed 9/30/2017
 Was this site surveyed in a previous year? Yes ☐ No ☐ Unknown ☒
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☐ 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 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.

The habitat quality of this survey area was significantly reduced. It received significant fire damage from the Topock fire. Additionally it had a large area cleared for a lay down yard for road work along the Sacramento Wash. AZBV were only heard during the first survey round and are assumed to have abandoned the area.

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

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

Attach additional sheets if necessary

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

Site Name: 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>Dorhobda</i> spp.]. If <i>Dorhobda</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): J Steinman	Date: 5/18/2017	0	0	0	NA					
	Start: 8:25									
	Stop: 9:07									
	Total hrs: 42 min									
Survey # 2 Observer(s): J Steinman	Date: 6/9/2017	0	0	0	NA					
	Start: 5:26									
	Stop: 6:18									
	Total hrs: 52 min									
Survey # 3 Observer(s): J Steinman	Date: 6/22/2017	0	0	0	NA					
	Start: 5:11									
	Stop: 5:47									
	Total hrs: 36 min									
Survey # 4 Observer(s): J Steinman	Date: 6/29/2017	0	0	0	NA					
	Start: 5:36									
	Stop: 6:08									
	Total hrs: 32 min									
Survey # 5 Observer(s): J Steinman	Date: 7/11/2017	0	0	0	NA					
	Start: 8:08									
	Stop: 8:45									
	Total hrs: 37 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>				
Total survey hrs: 3.0		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: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 State Wildlife Agency Permit #: AZ SP592602

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 9/30/2017
 Was this site surveyed in a previous year? Yes ☐ No ☐ Unknown ☒
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☐ 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) Havas 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.

This area was received only minor damage from the Topock Fire and was not effected by the Tamarisk leaf beetles.

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

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

Attach additional sheets if necessary

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

Site Name: 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>Dendroica</i> spp.]). If <i>Dendroica</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): J Steinman	Date: 5/18/2017	0	0	0	NA					
	Start: 5:21									
	Stop: 8:25									
	Total hrs: 184 min									
Survey # 2 Observer(s): J Steinman	Date: 6/8/2017	0	0	0	NA					
	Start: 6:12									
	Stop: 9:05									
	Total hrs: 172 min									
Survey # 3 Observer(s): J Steinman	Date: 6/22/2017	0	0	0	NA					
	Start: 5:49									
	Stop: 8:22									
	Total hrs: 153 min									
Survey # 4 Observer(s): J Steinman	Date: 6/29/2017	0	0	0	NA					
	Start: 6:09									
	Stop: 8:25									
	Total hrs: 136 min									
Survey # 5 Observer(s): J Steinman	Date: 7/11/2017	0	0	0	NA					
	Start: 5:18									
	Stop: 8:21									
	Total hrs: 183 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>				
Total survey hrs: 13.5		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: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 State Wildlife Agency Permit #: AZ SP592602

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 9/30/2017
 Was this site surveyed in a previous year? Yes ☐ No ☐ Unknown ☒
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☐ 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 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)
☒ 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.

This survey area was not effected by the Topock Fire or by the Tamarisk leaf beetles.

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

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

Attach additional sheets if necessary

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

Site Name: 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>Dendrobates</i> spp.]). If <i>Dendrobates</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.			
Survey # 1 Observer(s) J Steinman	Date: 5/19/2017	0	0	0	NA	BHCO	# Birds	Sex	UTM E	UTM N
	Start: 7:40									
	Stop: 8:27									
	Total hrs: 47 min									
Survey # 2 Observer(s) J Steinman	Date: 6/6/2017	0	0	0	NA		# Birds	Sex	UTM E	UTM N
	Start: 6:15									
	Stop: 6:45									
	Total hrs: 30 min									
Survey # 3 Observer(s) J Steinman	Date: 6/23/2017	0	0	0	NA		# Birds	Sex	UTM E	UTM N
	Start: 5:24									
	Stop: 6:00									
	Total hrs: 36 min									
Survey # 4 Observer(s) J Steinman	Date: 6/30/2017	0	0	0	NA		# Birds	Sex	UTM E	UTM N
	Start: 5:05									
	Stop: 5:36									
	Total hrs: 31 min									
Survey # 5 Observer(s) J Steinman	Date: 7/13/2017	0	0	0	NA		# Birds	Sex	UTM E	UTM N
	Start: 5:45									
	Stop: 6:20									
	Total hrs: 35 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: 2.7		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 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 9/30/2017
 Was this site surveyed in a previous year? Yes x No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes x No Not Applicable
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes 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: 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)
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.

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

Attach additional sheets if necessary

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

Site Name: 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>Dendroica</i> spp.]). If <i>Dendroica</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): J Steinman	Date: 5/16/2017	0	0	0	NA					
	Start: 5:56									
	Stop: 6:35									
	Total hrs: 39 min									
Survey # 2 Observer(s): J Steinman	Date: 6/6/2017	0	0	0	NA	BHCO observed				
	Start: 5:41									
	Stop: 6:15									
	Total hrs: 34 min									
Survey # 3 Observer(s): J Steinman	Date: 6/23/2017	0	0	0	NA					
	Start: 6:08									
	Stop: 6:40									
	Total hrs: 32 min									
Survey # 4 Observer(s): J Steinman	Date: 6/30/2017	0	0	0	NA					
	Start: 5:37									
	Stop: 6:18									
	Total hrs: 42 min									
Survey # 5 Observer(s): J Steinman	Date: 7/13/2017	0	0	0	NA					
	Start: 5:01									
	Stop: 5:44									
	Total hrs: 43 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>				
Total survey hrs: 3.0		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: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 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 9/30/2017
 Was this site surveyed in a previous year? Yes X No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes X No Not Applicable
 If name is different, what name(s) was used in the past?
 If site was surveyed last year, did you survey the same general area this year? Yes X No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes X No If no, summarize below.
 Management Authority for Survey Area: Federal 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.

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.

This area was damaged by the Tamarisk leaf beetle but not the Topock fire.

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

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

Attach additional sheets if necessary

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

Site Name: 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>Dorhobda</i> spp.]. If <i>Dorhobda</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): J Steinman	Date: 5/16/2017	0	0	0	NA					
	Start: 6:42									
	Stop: 7:48									
	Total hrs: 66 min									
Survey # 2 Observer(s): J Steinman	Date: 6/6/2017	0	0	0	NA	BHCO observed				
	Start: 6:46									
	Stop: 8:05									
	Total hrs: 79 min									
Survey # 3 Observer(s): J Steinman	Date: 6/21/2017	0	0	0	NA	BTGN observed feeding BHCO young				
	Start: 5:00									
	Stop: 6:24									
	Total hrs: 104 min									
Survey # 4 Observer(s): J Steinman	Date: 6/28/2017	0	0	0	NA					
	Start: 6:47									
	Stop: 7:55									
	Total hrs: 68 min									
Survey # 5 Observer(s): J Steinman	Date: 7/13/2017	0	0	0	NA					
	Start: 7:01									
	Stop: 7:49									
	Total hrs: 48 min									
Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and floatlings. 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: 7.0		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 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-4 Date report Completed 9/30/2017
 Was this site surveyed in a previous year? Yes ☒ No ☐ Unknown ☐
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☒ 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) 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 greggii

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.

This area was moderately effected by the Topock fire but was severaly effected by the beetles.

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

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

Attach additional sheets if necessary

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

Site Name: 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>Dendroica</i> spp.]). If <i>Dendroica</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): J Steinman	Date: 5/16/2017	0	0	0	NA					
	Start: 8:25									
	Stop: 9:35									
	Total hrs: 70 min									
Survey # 2 Observer(s): J Steinman	Date: 6/9/2017	0	0	0	NA					
	Start: 7:05									
	Stop: 8:15									
	Total hrs: 70 min									
Survey # 3 Observer(s): J Steinman	Date: 6/21/2017	0	0	0	NA					
	Start: 7:05									
	Stop: 7:58									
	Total hrs: 53 min									
Survey # 4 Observer(s): J Steinman	Date: 6/28/2017	0	0	0	NA					
	Start: 5:55									
	Stop: 6:45									
	Total hrs: 55 min									
Survey # 5 Observer(s): J Steinman	Date: 7/14/2017	0	0	0	NA					
	Start: 7:06									
	Stop: 7:52									
	Total hrs: 46 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>				
Total survey hrs: 5.0		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: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 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 9/30/2017
 Was this site surveyed in a previous year? Yes ☒ No ☐ Unknown ☐
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☒ 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) 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)
☒ 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 (meters)

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

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

Attach additional sheets if necessary.

This area was severely damaged by the Topock Fire and Tamarisk leaf beetles.

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

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

Attach additional sheets if necessary

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

Site Name: 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>Dendroica</i> spp.]). If <i>Dendroica</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): J Steinman	Date: 5/16/2017	0	0	0	NA					
	Start: 5:15									
	Stop: 5:55									
	Total hrs: 40 min									
Survey # 2 Observer(s): J Steinman	Date: 6/6/2017	0	0	0	NA					
	Start: 5:05									
	Stop: 5:40									
	Total hrs: 35 min									
Survey # 3 Observer(s): J Steinman	Date: 6/21/2017	0	0	0	NA					
	Start: 6:25									
	Stop: 6:57									
	Total hrs: 32 min									
Survey # 4 Observer(s): J Steinman	Date: 6/30/2017	0	0	0	NA					
	Start: 6:19									
	Stop: 6:58									
	Total hrs: 39 min									
Survey # 5 Observer(s): J Steinman	Date: 7/13/2017	0	0	0	NA					
	Start: 6:24									
	Stop: 6:55									
	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: 3.0		0	0	0	na					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 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 9/30/2017
 Was this site surveyed in a previous year? Yes ☒ No ☐ Unknown ☐
 Did you verify that this site name is consistent with that used in previous yrs? Yes ☒ 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) _____ 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)
☒ 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.

This area was not damaged by the Topock Fire but was damaged by the Tamarisk leaf beetles.

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

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

Attach additional sheets if necessary

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

Site Name: 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>Dorhobda</i> spp.]. If <i>Dorhobda</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): J Steinman	Date: 5/16/2017	0	0	0	NA					
	Start: 7:50									
	Stop: 8:20									
	Total hrs: 30 min									
Survey # 2 Observer(s): J Steinman	Date: 6/9/2017	0	0	0	NA					
	Start: 6:30									
	Stop: 7:05									
	Total hrs: 35 min									
Survey # 3 Observer(s): J Steinman	Date: 6/21/2017	0	0	0	NA					
	Start: 8:10									
	Stop: 8:43									
	Total hrs: 33 min									
Survey # 4 Observer(s): J Steinman	Date: 6/28/2017	0	0	0	NA					
	Start: 5:06									
	Stop: 5:48									
	Total hrs: 42 min									
Survey # 5 Observer(s): J Steinman	Date: 7/13/2017	0	0	0	NA					
	Start: 7:50									
	Stop: 8:29									
	Total hrs: 39 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: 3.0		0	0	0	0					

Reporting Individual: Jeff Steinman Date Report Completed: 9/30/2017
 US Fish & Wildlife Service Permit #: TE-085026-5 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 9/30/2017
 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.

This area was damaged by the Tamarisk leaf beetles but not the Topock fire.

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

Incidental Species UTM Coordinates

Name	State	Easting	Northing
Detections			
RIRA AZ1	AZ	730394	3844925
RIRA AZ3	AZ	730680	3844761
YEWA AZ5	AZ	731156	3845961
AZBV AZ1	AZ	729949	3845787
AZBV AZ3	AZ	730839	3844943
GBHE nest	AZ	731132	3845968