Work Task E31: Hunters Hole

FY16 Estimate	FY16 Actual Obligations	Cumulative Expenditures Through FY16	FY17 Approved Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate	FY20 Proposed Estimate
$65,000	$42,096.23	$458,252.49	$60,000	$30,000	$30,000	$30,000

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Start Date: FY11

Expected Duration: FY55

Long-Term Goal: Habitat creation and maintenance

Conservation Measures: BEVI1, GIFL1, GIWO1, SUTA1, VEFL1, WIFL1, YBCU1, YHCR2, and YWAR1

Location: Reach 7, Arizona, River Mile 2.5

Purpose: To create and maintain land cover types and support site improvements that benefit LCR MSCP covered species

Connections with Other Work Tasks (Past and Future): Vegetation and species monitoring are being addressed under Work Tasks F1–F7.

Project Description: **Hunters Hole is located** within Reach 7 of the LCR MSCP planning area, in Arizona, approximately 3 miles north of the Southerly International Boundary with Mexico. Hunters Hole once consisted of a series of interconnected ponds with adjacent marsh and a few stands of cottonwood-willow (*Populus fremontii-Salix gooddingii*). Water levels were maintained by groundwater, irrigation drain flows, and by a groundwater well. Over time, the site degraded, and most of the habitat was lost due to declining water levels, establishment of invasive plant species, and wildfires. Officials from State, local, Tribal, and Federal agencies joined together in an effort to restore the area while increasing public safety and border security. The LCR MSCP assumed management of Hunters Hole as a conservation area with 44 acres of cottonwood-willow land cover. The LCR MSCP has an agreement with the U.S. Border Patrol concerning access to the conservation area.

Annual Maintenance and Management: Irrigation is provided by a groundwater well through a series of automated valves and delivered to five cells within the conservation area. The entire irrigation system is managed remotely, including operation of the well. Irrigation cycles are run every 3 weeks

from February through November. The annual costs associated with operating this conservation area include those for maintenance of the pumps and valves, electrical power utility bills, road grading, and periodic inspections.

Previous Activities: This conservation area has been irrigated and managed since 2012. Monitoring began in 2013.

FY16 Accomplishments:

Maintenance/restoration/management: Hunters Hole is fully developed and was irrigated and managed throughout the year for LCR MSCP covered species. Fifteen irrigation cycles were run during the 2016 calendar year. Irrigation cycles, water use, and costs were monitored in a continuing effort to run the site as efficiently as possible. No significant management action was taken, and no significant issues arose at the site during FY16.

Monitoring: Monitoring was conducted at Hunters Hole for vegetation, birds, bats, and small mammals.

Vegetation data were collected in FY16 using light detection and ranging (LiDAR) remote sensing techniques.

Riparian bird surveys were conducted at Hunters Hole from April 15 to June 15, 2016, using the LCR MSCP double sampling protocol. Sonoran yellow warblers (*Dendroica petechia sonorana = Setophaga petechia sonorana*) were detected as residents at the site.

Southwestern willow flycatcher (*Empidonax traillii extimus*) surveys were conducted. Migrant flycatchers (*Empidonax traillii*) were detected on the first survey in May, but no breeding or resident birds were detected.

Yellow-billed cuckoo (*Coccyzus americanus occidentalis*) surveys were conducted, and no birds were detected.

The established long-term acoustic bat station was used to detect LCR MSCP bat species. Western red bats (*Lasiurus blossevilli*), western yellow bats (*Lasiurus xanthinus*), and pale Townsend's big-eared bats (*Corynorhinus townsendii pallescens = Plecotus townsendii pallescens = C. townsendii townsendii*) were detected at Hunters Hole.

Small mammal trapping was conducted in fall and spring. Yuma hispid cotton rats (*Sigmodon hispidus eremicus*) were captured at the site on both occasions.

FY17 Activities:

Maintenance/restoration/management: Hunters Hole is operated on an automated irrigation system. This conservation area will be irrigated and managed throughout the year for LCR MSCP covered species. No construction, restoration, or changes to management activities are planned.

Monitoring: Vegetation data will be collected using LiDAR remote sensing techniques. General bird surveys will be conducted from mid-April to mid-June. Single species surveys for southwestern willow flycatchers and yellow-billed cuckoos will be conducted during their respective breeding seasons. Bat acoustic monitoring will be conducted during summer. Small mammal monitoring will be conducted in fall and spring.

Proposed FY18 Activities:

Maintenance/restoration/management: Hunters Hole is operated on an automated irrigation system. This conservation area is expected to be irrigated and managed throughout the year for LCR MSCP covered species. No construction, restoration, or changes to management activities are planned.

Monitoring: Information from LiDAR vegetation data collected during FY14–17 will be used to determine the schedule for vegetation monitoring data collection for FY18 and beyond. General bird surveys will be conducted from mid-April to mid-June. Single species surveys for southwestern willow flycatchers and yellow-billed cuckoos will be conducted during their respective breeding seasons. Bat acoustic monitoring will be conducted during summer. Small mammal monitoring will be conducted in fall and spring.

Pertinent Reports: The *2016 Hunters Hole Conservation Area Annual Report* will be posted on the LCR MSCP Web site upon completion.