

## Work Task E31: Hunters Hole

FY15 Estimate	FY15 Actual Obligations	Cumulative Expenditures Through FY15	FY16 Approved Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate
\$80,000	\$112,273.39	\$440,441.26	\$65,000	\$60,000	\$60,000	\$60,000

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**Start Date:** FY11

**Expected Duration:** FY55

**Long-Term Goal:** Habitat creation and maintenance

**Conservation Measures:** WIFL1, YBCU1, GIFL1, GIWO1, VEFL1, BEV11, YWAR1, SUTA1, MNSW2, and YHCR2

**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 United States and 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. 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. Local officials from State, Tribal, and Federal agencies joined together in an effort to restore the area while increasing public safety and border security.

Hunters Hole has been fully developed and increased the acreage of cottonwood-willow in the program by 44 acres. The roads, in addition to being used for LCR MSCP purposes, are also used by the U.S. Border Patrol for patrolling the surrounding area.

**Annual Maintenance and Management:** Irrigation is provided by a groundwater well through a series of automated gates and delivered to five cells within the conservation area. The entire irrigation cycle can be managed remotely, including operation of the well, typically 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, invasive and non-native weed control, and periodic inspections.

**Previous Activities:** This conservation area has been irrigated and managed since 2012.

**FY15 Accomplishments:**

**Maintenance/restoration/management:** Hunters Hole is fully developed and was irrigated and managed throughout the year for LCR MSCP covered species.

The plan to remotely irrigate the site was completed in FY15. To complement the new groundwater pump, which can now be remotely operated, additional upgrades were made to automate the irrigation system valves. These upgrades were intended to reduce labor costs and travel times and to increase the safety of onsite personnel. The irrigation cycle was refined to reduce water use (an approximately 40-percent reduction was achieved). The upgrades resulted in increased expenditures in FY15.

In August 2015, an 80-foot section of small willow trees was cut in irrigation Cell 5 (between the irrigation water outlet and the 21-mile spillway outlet of the Main Outlet Drain Extension canal). This cutting was conducted by the U.S. Border Patrol in order to increase visibility of agents tasked with detecting illegal immigrants crossing the U.S./Mexico border through a culvert extending under the Main Outlet Drain Extension canal and the U.S./Mexico border fence. This work was authorized and conducted due to U.S. national security concerns.

**Monitoring:** Monitoring was conducted at Hunters Hole for birds, bats, small mammals, and MacNeill's sootywings.

Riparian bird surveys were conducted at Hunters Hole from April 15 to June 15, 2015, using the LCR MSCP double sampling protocol. No covered species were detected breeding, but migratory yellow warblers were detected.

Southwestern willow flycatcher surveys were conducted. Migrant flycatchers were detected on the first survey in May, but no breeding or resident birds were detected.

Yellow-billed cuckoo 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, western yellow bats, and Townsend's big-eared bats were detected at Hunters Hole.

Small mammal trapping was conducted in fall and spring. A Yuma hispid cotton rat was captured at the site for the first time in October.

MacNeill's sootywing surveys were conducted at Hunter Hole in May and June. Individuals were detected in both months.

### **FY16 Activities:**

**Maintenance/restoration/management:** Hunters Hole now uses 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 in May 2016 using light detection and ranging 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 FY17 Activities:** Hunters Hole now uses 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 light detection and ranging vegetation data collected during FY16 will be used to determine the schedule for vegetation monitoring data collection for FY17 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 *2015 Hunters Hole Conservation Area Annual Report* will be posted on the LCR MSCP Web site once integration of the data collected throughout the calendar year is complete.