

Work Task E5: Cibola Valley Conservation Area

FY16 Estimate	FY16 Actual Obligations	Cumulative Expenditures Through FY16	FY17 Approved Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate	FY20 Proposed Estimate
\$750,000	\$661,721.39	\$11,979,224.50	\$800,000	\$850,000	\$850,000	\$600,000

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Start Date: FY05

Expected Duration: FY55

Long-Term Goal: Habitat creation

Conservation Measures: BEVI1, ELOW1, GIFL1, GIWO1, MNSW2, SUTA1, VEFL1, WIFL1, WRBA2, WYBA3, YBCU1, and YWAR1

Location: Reach 4, River Miles 99–104, Arizona

Purpose: To create and manage a mosaic of native land cover types for LCR MSCP covered species

Connections with Other Work Tasks (Past and Future): Vegetation and species monitoring are being addressed under Work Tasks F1–F4 and F6.

Project Description: In 2007, 1,309 acres of land serviced by the Cibola Valley Irrigation and Drainage District (CVIDD) were secured by the LCR MSCP, and the Cibola Valley Conservation Area (CVCA) was established. The Arizona Game and Fish Department (AGFD) acquired the CVCA in September 2007 through a multi-organizational agreement involving the AGFD, the Bureau of Reclamation, the Mohave County Water Authority, The Conservation Fund, and the Hopi Tribe. Through these agreements, the AGFD acquired the CVCA’s fee title and water entitlements. The acreage for LCR MSCP covered species is managed by the LCR MSCP.

The CVCA is located in southwestern La Paz County, Arizona, about 15 miles south of Blythe, California. The valley encompasses the land inside an engineered bend of the lower Colorado River and a remnant oxbow on the west side of the river (Palo Verde Oxbow). Seven phases have been restored with native vegetation, and the remainder is farmed for cotton (*Gossypium* spp.) and alfalfa (*Medicago sativa*). The area is bordered to the south by the Cibola National Wildlife Refuge and on the east by unimproved land under the

jurisdiction of the Bureau of Land Management. The river forms the north and west boundaries, except for the Palo Verde Oxbow, from River Miles 98.8 to 104.9.

Annual Maintenance and Management: Water is ordered through and provided by the CVIDD. A local farmer diverts and irrigates the various phases based on site conditions and species planted. This provides local knowledge of weather and farming practices, which are applied to the management of the CVCA. The farmer and his employees are an onsite presence and provide early recognition of issues or concerns. The farmer is also responsible for assessing the water needs of the trees and, in coordination with the CVIDD and the LCR MSCP, orders and delivers the water. Removal of vegetation along the roadside and ditches is typically performed quarterly to reduce the potential of wildfires in conjunction with maintenance of the irrigation canals, gates, and roads.

The annual costs associated with operating the CVCA within the CVIDD, such as water taxes, water tolls, electrical power utility bills, and assessments for district operation, are included in the annual maintenance costs.

Cottonwood-Willow (Populus fremontii-Salix gooddingii): Checks, which are small borders placed within a given field, allow for flooding of only a portion of a field. These provide additional flexibility to create and maintain standing water or saturated soil areas for covered species. Irrigation occurs throughout the year and is expected throughout the life of the LCR MSCP.

Honey Mesquite (Prosopis glandulosa): For honey mesquite, water is only used for establishment. Irrigation during establishment is done by creating deep furrows and planting only within the furrows. Typically, irrigation is concluded within 2 to 3 years when the roots have reached the groundwater table.

Previous Activities: Through FY15, 742 acres of cottonwood-willow and honey mesquite have been established in Phases 1–7 and are being managed for LCR MSCP covered species.

FY16 Accomplishments: In the spring of FY16, Phase 8, consisting of 111 acres, was planted with a mix of cottonwood, willow, honey mesquite, and other riparian shrub and grass species. The trees for the FY17 planting of Phase 9 (76 acres) were purchased in FY16.

Maintenance/Restoration/Management: Management, maintenance, irrigation, and monitoring of the established habitat created over the past 10 years continued. Established phases developed as cottonwood-willow (Phase 1, 2, and 3) continued

to be irrigated. Irrigation on Phase 7 continued through 2016. Phase 8 was irrigated using furrows in the honey mesquite planting and flood irrigation in the cottonwood-willow checks.

No major construction or repairs were needed on the irrigation canals within the CVCA; however, an inventory was completed, and areas were identified for repair/replacement. Sections of canals that were identified as needing repair during the inventory will be scheduled for repair or replacement in conjunction with other conservation areas. Minor canal repair was completed as necessary.

The Farmers Bridge Fire occurred on March 17, 2016. Less than 50 acres were burned within Phase 1. The fire burned mainly the stand understory and caused little to no long-term damage to the established land cover. Suppression of the fire was aided by the CVIDD, which began flooding the fields shortly after the fire began. No replanting or additional restoration is required.

Monitoring: Monitoring was conducted at the CVCA for vegetation, birds, bats, small mammals, and MacNeill's sootywing skippers (*Pholisora graciellae* = *Hesperopsis graciellae* [MacNeill]).

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

Riparian bird surveys were conducted at the CVCA from April 15 to June 15, 2016, using the LCR MSCP double sampling protocol. Sonoran yellow warblers (*Dendroica petechia sonorana* = *Setophaga petechia sonorana*) and summer tanagers (*Piranga rubra*) were detected breeding at the site. Southwestern willow flycatcher (*Empidonax traillii extimus*) surveys were conducted, and no resident or breeding individuals were detected. Yellow-billed cuckoo (*Coccyzus americanus occidentalis*) surveys were conducted between late June and early August; they were detected in Phases 1, 2, and 3, and one nest was found in Phase 1.

The CVCA was mist netted for bats once per month in June, July, and August. Western yellow bats (*Lasiurus xanthinus*), western red bats (*Lasiurus blossevilli*), and California leaf-nosed bats (*Macrotus californicus*) were captured. In conjunction with the bat capture surveys, the established long-term acoustic bat station was used to detect LCR MSCP bat species. These data are still being analyzed.

Small mammal trapping was conducted in fall and spring. Colorado River cotton rats (*Sigmodon arizonae plenus*) were captured.

MacNeill's sootywing skippers were detected in March and July in Phase 4.

FY17 Activities: The planting of Phase 9 (cottonwood-willow land cover type) is scheduled for late March or early April 2017 and will include a mix of cottonwood, willow, honey mesquite, and other riparian shrub and grass species to create a mosaic of low- and high-density riparian habitat. The Restoration Development and Monitoring Plan for the planting of Phases 10 and 11 will be completed. The plants for Phase 11 (193 acres) will be ordered in FY17 to allow time for propagation, and the planting will take place in FY18.

Maintenance/Restoration/Management: Regular management, maintenance, irrigation, and monitoring will continue. Irrigation will be provided to Phases 1, 2, and 3 (cottonwood-willow) and to Phase 8. Phase 9 will be watered regularly after planting is complete.

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 capture surveys and acoustic monitoring will be conducted during summer. Small mammal monitoring will be conducted in fall and spring.

Proposed FY18 Activities:

Maintenance/Restoration/Management: Regular management, maintenance, irrigation, and monitoring will continue. Irrigation will be provided to Phases 1, 2, 3, 8 and 9 (cottonwood-willow). The plants for Phase 10 (123 acres) will be ordered in FY18 to allow time for propagation, and the planting will take place in FY19. Field preparation will begin in FY18 for planting Phase 11.

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 monitoring will be conducted during summer. Small mammal monitoring will be conducted in fall and spring.

Pertinent Reports: The *2016 Cibola Valley 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.