

Work Task E5: Cibola Valley Conservation Area

| FY15 Estimate | FY15 Actual Obligations | Cumulative Expenditures Through FY15 | FY16 Approved Estimate | FY17 Proposed Estimate | FY18 Proposed Estimate | FY19 Proposed Estimate |
|---------------|-------------------------|--------------------------------------|------------------------|------------------------|------------------------|------------------------|
| \$700,000 | \$722,727.85 | \$11,351,713.78 | \$750,000 | \$800,000 | \$850,000 | \$850,000 |

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Start Date: FY05

Expected Duration: FY55

Long-Term Goal: Habitat creation

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

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 were secured under 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 CVCA fee title and water entitlements. The acreage for LCR MSCP covered species is managed under 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 and alfalfa. 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: 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 conservation area. 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 Cibola Valley Irrigation and Drainage District (CVIDD) and the LCR MSCP Office, 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 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: Water is ordered through and provided by the CVIDD. 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: Water is ordered through and provided by the CVIDD. However, for honey mesquite, water is only used for establishment. Flood irrigation is reduced during establishment by creating deep furrows and planting only within the furrows. Typically, irrigation is concluded within 3 years when the roots have reached the groundwater table.

Previous Activities: Through FY14, over 700 acres of cottonwood-willow and honey mesquite have been established in Phases 1–6 and are being managed for LCR MSCP covered species.

FY15 Accomplishments: In the spring of FY15, Phase 7, consisting of 72 acres, was planted with mesquite and cottonwood trees in accordance with the *Cibola Valley Conservation Area Restoration, Development, and Monitoring Plan: Phase 7*. The riparian and mesquite trees for the FY16 planting of Phase 8 (111 acres) were purchased in FY15 in accordance with the *Cibola Valley Conservation Area Restoration, Development, and Monitoring Plan: Phase 8*.

Maintenance/Restoration/Management: Management, maintenance, irrigation, and monitoring of the established habitat created over the past 9 years continued. Established phases developed as cottonwood-willow (Phase 1, 2, and 3) continued

to be flood-basin irrigated. Phase 7 was also irrigated using furrows following planting and will continue to be irrigated for three growing seasons until the mesquite have established.

No major construction or repairs were needed on the irrigation canals within the conservation area; 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.

Monitoring: Monitoring was conducted at the CVCA for vegetation, birds, bats, small mammals, and MacNeill's sootywings.

Vegetation data were collected in FY15 using light detection and ranging (LiDAR) remote sensing techniques.

Riparian bird surveys were conducted at the CVCA from April 15 to June 15, 2015, using the LCR MSCP double sampling protocol. Summer tanagers were detected breeding at the site. No other LCR MSCP species were detected. Avian mist netting following the Monitoring Avian Productivity and Survivorship (MAPS) protocol was conducted from early May to early August. Summer tanagers were captured, and yellow-billed cuckoos were heard while conducting the MAPS protocol. Southwestern willow flycatcher surveys were conducted, and no resident or breeding individuals were detected. Yellow-billed cuckoo surveys were conducted between late June and early August. Several individuals were detected, but breeding could not be confirmed this year.

The CVCA was mist netted for bats once per month from May to September 2015. Western yellow bats, western red bats, and Townsend's big-eared bats were captured. In conjunction with the bat capture surveys, the established long-term acoustic bat station was used to detect LCR MSCP bat species. Western red bats, western yellow bats, California leaf-nosed bats, and Townsend's big-eared bats were detected during acoustic surveys.

Small mammal trapping was conducted in fall and spring. Colorado River cotton rats were captured.

Surveys were conducted for MacNeill's sootywings in 2015. Individuals were detected in May and June.

FY16 Activities: The planting of Phase 8 is scheduled for April 2016 and will include a mosaic of low- and high-density riparian species (cottonwood and willow) and mesquite planted in furrows. The Restoration, Development, and Monitoring Plan for the planting of Phase 10 and 11 will be drafted. The plants for Phase 9 will be ordered in FY16 to allow time for propagation, and the planting to take place in FY 17.

Maintenance/Restoration/Management: Regular management, maintenance, irrigation, and monitoring will continue. Irrigation will be provided to Phase 1, 2, and 3 (cottonwood-willow) and to the furrows within Phase 7 (honey mesquite). Phase 8 will be watered regularly after planting is complete.

Monitoring: Vegetation monitoring will continue. Vegetation data will be collected in May 2016 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 FY17 Activities:

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 the furrows within Phases 7 and 8 (honey mesquite). The plants for Phase 9 will be ordered in FY17 to allow time for propagation, and the planting to take place in FY18. Field preparation will begin in FY17 for planting Phase 9 using the same mosaic approach as Phase 8.

Monitoring: Vegetation monitoring will continue. Information from LiDAR vegetation data collected during FY15 and/or 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 capture surveys and acoustic monitoring will be conducted during summer. Small mammal monitoring will be conducted in fall and spring.

Pertinent Reports: The *2015 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.