Work Task E24: Cibola NWR Unit #1

FY13 Estimate	FY13 Actual Obligations	Cumulative Expenditures Through FY13	FY14 Approved Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate
$1,100,000	$486,307.81	$3,955,455.68	$500,000	$1,000,000.00	$1,250,000.00	$1,400,000.00

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Start Date: FY07

Expected Duration: FY55

Long-term Goal: Habitat creation.

Conservation Measures: WIFL1, WRBA2, WYBA3, YBCU1, ELOW1, GIFL1, GIWO1, VEFL1, BEVI1, YWAR1, SUTA1, CLNB2, PTBB2.

Location: Reach 4, Cibola National Wildlife Refuge, one-half mile east of River Mile 97, Arizona.

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

Connections with Other Work Tasks (past and future): This work task incorporates Cottonwood Genetics Study (E6), Mass Transplanting Demonstration (E7), and upon completion, the Seed Feasibility Study (E8) with additional adjacent acreage on Unit #1 of Cibola NWR. After completion of the research projects in FY07, operation and maintenance of these work tasks will be tracked under E24.

Project Description: Reclamation currently has a number of established projects at Unit #1, which includes restoration research and demonstration projects that began as a pre-cursor to the LCR MSCP. A 50-year land use agreement with the USFWS to restore new areas and maintain created land covers on Unit #1 has been signed.

Work Task E24 incorporates the existing projects and active agricultural land as well as substantial additional undeveloped adjacent acreage into a single conservation area. The land included in Unit #1 (E24) encompasses approximately 950 acres and ranges in cover and use from agricultural fields, to partially improved land, to undeveloped land. The acreage in Unit #1 is targeted primarily for cottonwood-willow cover type development for SWFL, but will also likely include a mosaic of native habitats including riparian, wetland, and riparian-upland interface areas.

The acreage in Unit #1 has been categorized into five areas. Area #1 (193 acres) includes active agricultural fields, existing (converted agriculture) cottonwood-willow cover type, and ongoing LCR MSCP research and demonstration projects. Area #2 (Hippy Fire)

includes 338 acres that have been cleared as a result of the Hippy Fire. Cibola NWR has performed substantial capital improvements to this area over the past few years including clearing, laser-leveling, field construction, and irrigation and drainage infrastructure installation. The area is currently planted in a cover crop and is being conditioned to improve soil salinity. Areas #3 (Baseline 90) and #4 (North 160) are 107 and 158 acres of undeveloped land and fallowed agricultural land, respectively. The areas will require clearing, leveling, installation of irrigation infrastructure, and soil conditioning before development for native riparian species. Area #5 (Crane Roost, 154 acres) has been cleared and leveled and is currently irrigable. A portion of this area has been planted with cottonwood, willow, and mesquite species. The area will require upgrades to the irrigation system and needs further soil conditioning to continue development.

Previous Activities: A land use agreement and exhibit specific to this conservation area have been signed. Several research and development projects are underway or completed and are currently being managed as land cover types for various LCR MSCP covered species. Through FY13, 343 acres of native trees have been established within the 950 acre site.

FY13 Accomplishments:

Maintenance/Restoration/Management. Ongoing infrastructure improvements and repair occurred during this fiscal year. Site maintenance including irrigation, invasive and nonnative weeding, and other associated farm services were conducted.

The northern portion of Area #2 (Hippy Fire) was planted in FY13. The 74 acres were planted with 238,500 sacaton/saltgrass plugs, 15,400 baccharis shrubs and 132,485 trees that included a mix of cottonwood, coyote willow, Goodding's willow, and honey mesquite. A ground cover and alfalfa and rye grass was seeded prior to planting shrubs and trees. Expenditures were less than anticipated and minor maintenance deferred, to transfer funding to the Laguna Division Conservation Area.

Monitoring. Vegetation monitoring plots were surveyed at full intensity at the following sites: Nature Trail (24 plots), Mass Translanting (6 plots), Crane Roost (27 plots), Hippy Burn (17 plots), and Cottonwood North (6 plots). Seed bank samples were collected in February and May at Cibola Unit 1 and delivered to University of Nevada Las Vegas for grow out and identification (Work Task 54 discontinued later in FY13).

Small mammal trapping was conducted at the Nature Trail, Cottonwood Genetics fields, and north Hippy Burn areas. Cotton rats were documented at Nature Trail and the Cottonwood Genetics fields. The long term bat station ran most of the year and all LCR MSCP species were detected, but activity was low. Two red bats were captured at the Nature Trail in September suggesting they were migrants.

General avian species were surveyed to determine breeding status at the Nature Trail, Crane Roost, and the LCR MSCP research and demonstration fields using area search and spot mapping techniques. The Arizona bell's vireo was the only LCR MSCP covered

avian species confirmed breeding within the conservation area, but yellow warblers and summer tanagers were detected.

Bird banding was again conducted at the Nature Trail, following the MAPS protocol. Ten surveys were conducted between May and August.

No breeding southwestern willow flycatchers were detected at the Cibola Nature Trail, and all birds were detected before June 16th when birds are considered to be residents.

Yellow-billed cuckoos were detected at the Nature Trail, Mass Planting and Cranes Roost fields, with most detections located at the Cranes Roost. One probable territory and two possible territories were found at the Crane's Roost. One possible territory was found at Mass Planting and Nature Trail.

FY14 Activities: No additional restoration or tree planting is scheduled for FY14. Site maintenance will continue including regular watering and field maintenance of all the established fields within the Conservation Area's portion of Unit #1. Site maintenance will increase slightly as 74 new acres of riparian cover-type have been established (FY13), but these activities are expected to include the same services needed across the rest of the established portions of the Conservation Area. Water for irrigation of the trees and to simulate historical river flooding was provided by Cibola NWR.

A local farmer is utilized to divert and irrigate established land cover types based on site conditions and species planted. The farmer provides local knowledge of weather and farming practices, which are applied to the maintenance of the Conservation Area. The farmer and his employees are an on-site 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 Refuge and the LCR MSCP, delivers the water.

Maintenance activities include grading access roads, maintaining field borders, irrigation canals, invasive plant control including hand removal and application of herbicides, and physically opening and closing irrigation gates of established land cover types. Annual costs associated with operating irrigation pumps are shared with the Refuge and are included in the annual maintenance costs.

Monitoring. Vegetation monitoring will continue at above listed sites. Wildlife monitoring will continue for the same species as FY13. Pre- and post-development monitoring will also continue at Cibola NWR Unit #1 Conservation Area.

Proposed FY15 Activities:

Maintenance/Restoration/Management. No additional restoration or tree planting is scheduled for FY15, however the plants will be ordered in April of 2015 for planting in spring of 2016. Site maintenance will continue including regular watering and field maintenance of all the established fields within the Conservation Area's portion of Unit #1. Site maintenance will continue including regular watering and field maintenance of all the established fields within the Conservation Area's portion of Unit #1. Water for

irrigation of the trees and to simulate historical river flooding was provided by Cibola NWR.

A local farmer is utilized to divert and irrigate established land cover types based on site conditions and species planted. The farmer provides local knowledge of weather and farming practices, which are applied to the maintenance of the Conservation Area. The farmer and his employees are an on-site 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 Refuge and the LCR MSCP, delivers the water.

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Monitoring. Vegetation monitoring will continue at above listed sites. Wildlife Monitoring will continue for the same species as FY13. Pre- and post-development monitoring will also continue at Cibola NWR Unit #1 Conservation Area.

Pertinent Reports: The *2013 Cibola NWR Unit #1 Conservation Area Annual Report*, which summarizes any planting conducted, site management, results of monitoring, and any recommendations for future adaptive management will be posted after integration of data collected throughout the calendar year.