

Work Task E9: Hart Mine Marsh

FY08 Estimates	FY08 Actual	Cumulative Accomplishment Through FY08	FY09 Approved Estimate	FY10 Proposed Estimate*	FY11 Proposed Estimate	FY12 Proposed Estimate
\$250,000	\$182,393.19	\$438,337.19	\$3,125,000	\$2,380,000	\$500,000	\$300,000

*see update in FY09 activities

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Start Date: FY05

Expected Duration: FY55

Long-term Goal: Habitat creation.

Conservation Measures: CLRA1, LEBI1, and CRCR2.

Location: Reach 4, Cibola NWR, River Mile 92, AZ.

Purpose: Create and manage marsh habitat for Yuma clapper rail, least bittern, and Colorado River cotton rat.

Connections with Other Work Tasks (past and future): Vegetation and species monitoring are being addressed under F1-F4.

Project Description: Hart Mine Marsh is a decadent marsh located on Cibola NWR. Currently, drainage water from the Refuge's agricultural fields enters Hart Mine Marsh through gated structures in the Arnett Ditch. Previous management practices have not allowed any outflow from the marsh; therefore, the drain water terminates in the marsh to evaporate and stagnate. The result is poor water quality, limited marsh habitat, and saline upland areas, some completely devoid of vegetation or dominated by saltcedar.

Habitat requirements for marsh-covered species include areas of permanent open water and larger areas of adjacent emergent marsh vegetation with water depths ranging from 1 to 12 inches. At least 80 acres adjacent to deep areas will be re-graded to provide more suitable marsh areas, adjacent permanent open water, and controllable water levels. This would provide permanent open water adjacent to emergent vegetation. By managing water levels and providing appropriate vegetation, suitable habitat for covered marsh species can be created. Water, diverted by gravity from the Arnett Ditch, would be used to flood leveled fields and create marsh habitat conditions. Water levels would be managed by a series of small water control structures such as culverts or stop logs.

Previous Activities: Through FY07, NEPA compliance activities, cultural surveys, topographic surveys, and pre-development surveys for marsh birds and riparian obligate birds have been conducted.

FY08 Accomplishments: Engineering designs were finalized during FY08. A Restoration Development Plan for this conservation area has also been drafted. In addition, an exhibit to the Land Use Agreement with Cibola NWR has been signed. A section 401 permit was obtained and an application package for a section 404 permit was submitted to the Corps during FY08.

The section 404 permit was not issued until early in FY09. The entire impact area for the Hart Mine Marsh Conservation Area was delineated as a Corps jurisdictional wetland meaning that work could not commence until the project was permitted. As a consequence, some of the capital expenditures (construction of a staging area) planned for late FY08 were not able to be completed. These unspent funds for FY08 are reflected in the “FY08 Actual” column.

FY09 Activities: The first phase of construction is intended to be completed in FY09. This includes the removal of over 100 acres of saltcedar, the installation of new outlet works and control structures for the marsh, and the dredging and contouring of the cells in the southern portions of the conservation area. When these cells are complete, native vegetation will be planted according to its particular requirements. Plants and planting services will be obtained through commercial sources.

Based on information from construction during FY09, the FY10 budget may be able to be reduced by as much as 1,000,000 dollars. This revised projection is based on having similar site conditions for FY10 work in phase II, as well as similar equipment, materials and fuel costs, and continued production rates by Reclamation construction crews. Difficult or variable site conditions (due to weather or high water table) or changes in other costs may result in a reduction of these projected savings.

Proposed FY10 Activities: The second phase of construction a Hart Mine Marsh will be completed in FY10. This includes the removal of 100-150 acres of saltcedar, dredging and contouring, and installation of control structures in the northern cell of the conservation area. When water control is established in this phase, native vegetation will be planted.

Pertinent Reports: *Hart Mine Marsh, Existing Conditions Report; Comprehensive Conceptual Restoration Plan, Hart Mine Marsh Conservation Area Development Plan*