

Work Task E38: Three Fingers Lake

| FY15 Estimate | FY15 Actual Obligations | Cumulative Expenditures Through FY15 | FY16 Approved Estimate | FY17 Proposed Estimate | FY18 Proposed Estimate | FY19 Proposed Estimate |
|---------------|-------------------------|--------------------------------------|------------------------|------------------------|------------------------|------------------------|
| \$0 | \$0 | \$0 | \$0 | \$200,000 | \$4,000,000 | \$3,000,000 |

Contact: John Swatzell, (702) 293-8165, jswatzell@usbr.gov

Start Date: FY17

Expected Duration: FY55

Long-Term Goal: Habitat creation

Conservation Measures: BONY2, RASU2, CLRA1, LEBI1, BLRA1, and CRCR2

Location: Reach 4, Cibola National Wildlife Refuge, California, River Mile 90

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 monitoring is conducted under Work Tasks F1; wildlife monitoring under Work Tasks F2, F3, F4, and F7; and fisheries monitoring under Work Task F5.

Project Description: Three Fingers Lake, located within the Cibola National Wildlife Refuge, is a 500-acre conservation area being restored to create a mosaic of backwater, marsh, honey mesquite, and cottonwood-willow within the State of California. Development of the project is intended to satisfy both the LCR MSCP Habitat Conservation Plan requirements and a portion of California Endangered Species Act Incidental Take Permit No. 2081-2005-008-06.

Three Fingers Lake was dredged in the late 1990s and established 24 acres of open water with a small fringe of cattail. The surrounding landscape is dominated with invasive salt cedar. The backwater is bounded by the old river channel to the east and Milpitas Wash to the west. It is disconnected from the old river channel by an earthen structure and a sheet pile structure. Discussions with both the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife have resulted in a restoration concept that would open 12 acres of the backwater to the river channel and maintain 12 acres of disconnected backwater.

Three Fingers Lake is being developed as a marsh and backwater complex. Honey mesquite and cottonwood-willow would be included on the fringes but not in substantial quantities. The portion of the backwater to be opened to the old river channel requires the removal of the sheet pile structure. No other improvements or restoration is planned for this portion.

The portion of the lake that will remain disconnected from the old river channel is the focus of the restoration efforts. The restoration concept includes reshaping and contouring of the acreage surrounding the dredged channel in combination with the creation of new channels. The new channels would be shallower, but deep enough to remain open water, and would provide avenues of fish passage into the marsh complex. To circulate water and allow for management of water surface elevations for rail species, multiple infrastructure improvements are envisioned. First, new water control structures would be built to regulate surface water flows into and out of the lake. Second, a pump would transfer water from the disconnected backwater into the connected portion of the backwater on the western edge of the property. Removal of water from the lake is the primary water circulation method. Groundwater and recharge through the water control structures would maintain the water surface. A surface water pump would be capable of bringing water from the old river channel into the disconnected backwater. Water delivered from the old river channel would be filtered to reduce entrainment of non-native fishes and would be supplemental.

The grading and contouring, lowering of the ground surface to allow for groundwater to maintain water surface elevations, will have to be completed. Between 1 and 1.5 million cubic yards are expected to be moved. This value will be refined through modeling prior to construction. The goal is to create approximately 48 acres of backwater and over 150 acres of marsh.

A Restoration, Development, and Monitoring Plan will be drafted to guide the development and monitoring of the property for LCR MSCP covered species.

Previous Activities: Identification of the property and evaluation for inclusion into the LCR MSCP were conducted under Work Task E16.

FY15 Accomplishments: This is a new start in FY17.

FY16 Activities: This is a new start in FY17.

Monitoring: Pre-development monitoring will be conducted in FY16 funded under Post Development work tasks (Section F).

Proposed FY17 Activities:

Maintenance/restoration/management: A conceptual design will be prepared, discussed, and finalized. The Restoration, Development, and Monitoring Plan will expand upon the restoration concept in coordination with both the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife and be finalized. Based on the requirements of the plan, design, permitting, and compliance will be initiated.

Monitoring: Pre-development monitoring will continue.

Pertinent Reports: N/A