

## Work Task E27: Laguna Division Conservation Area

FY13 Estimate	FY13 Actual Obligations	Cumulative Expenditures Through FY13	FY14 Approved Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate
\$5,000,000	\$9,741,932.20	\$16,424,115.07	\$8,600,000	\$3,000,000	\$2,000,000	\$1,250,000

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**Start Date:** FY10

**Expected Duration:** FY55

**Long-term Goal:** Habitat creation.

**Conservation Measures:** CLRA1, WIFL1, YHCR2, LEBI1, BLRA1, YBCU1, ELOW1, GIFL1, GIWO1, VEFL1, BEV11, YWAR1, SUTA1, PTBB2

**Location:** Reach 6, Federal Lands, River Mile 43-49, California and 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 was a new start for the LCR MSCP in FY10.

**Project Description:** The Laguna Division, river miles 43-49, has been identified as having potential for large-scale riparian and marsh restoration and enhancement (approximately 1,200 acres). In 2007, the Laguna Division Planning Group was formed to identify potential restoration projects within the division. The intent was to identify potential restoration projects and combine resources to ensure any actions taken in the area would not affect other potential restoration projects or ongoing river operations.

The Laguna Division Planning Group consists of representatives from the following organizations:

- Arizona Game and Fish Department
- Arizona Department of Water Resources
- California Department of Fish and Wildlife
- Pacific Institute
- U.S. Fish and Wildlife Service
- Bureau of Land Management
- Bureau of Reclamation

The Laguna Division Conservation Area (LDCA) is a relatively wide, undeveloped area with a series of low linear depressions, which are remnants of former river meanders. The intent of this project is to create marsh and riparian land cover types by shaping and contouring multiple meandering channels. These land cover types will be maintained with a maximum base flow of 100 cubic feet per second (cfs) from the Gila Gravity Canal sluicing gates. Open water areas have been created in the form of linear excavations aligned with historic river meanders east of lands identified as future stockpiling areas for dredged silt removed from the river (Laguna settling basin). To minimize earthwork, cuts and fills follow the existing topography where feasible. Adjacent terraces are graded to allow flooding and promote the establishment of native riparian species. Water control structures have been designed to manage water levels. Upland vegetation will receive water through flooding.

To support the concept described above, inlet modifications to the point of diversion at the Gila Gravity Canal sluicing gates will be made to allow for up to 100 cfs capacity. The diversion pipe system has been engineered to allow for maximum management flexibility including diverting the entire flow to Mittry Lake Wildlife Area, LDCA, or the historic river channel. The Water Accounting Agreement will be used to support LDCA.

In coordination with the Laguna Planning team, several conceptual designs were created with the intent of determining the technical feasibility of implementing a large scale restoration project. In addition, a team was established to determine the availability of water to create and support the new habitat. The combination of technical feasibility, water availability, and cost effectiveness was used to determine the project's implementation.

A final design was presented and approved as a new start project by the LCR MSCP Steering Committee in October 2009 with the passing of resolution 10-002. The final Environmental Assessment was prepared for LDCA in February 2011. A Finding of No Significant Impact (FONSI) was signed by Reclamation, which allowed earthwork to commence.

**Previous Activities:** Procurement and delivery of approximately 4,000 feet of 48-inch high-density polyethylene pipe was completed in early 2011. Fusion and installation of the pipeline began in summer of. Clearing of Reach 1 began in fall 2011.

A pre-development monitoring plan was developed based on vegetation type, presence/absence of standing water or moist soils, and the presence/absence of LCR MSCP species in adjacent areas. The land adjacent to LDCA has been surveyed for many years by AGFD for marshbirds including Yuma clapper rail, California black rail and least bittern, which are LCR MSCP covered species. All three of these species are present within the wetland/marsh area during the breeding season. Surveying of marshbirds continued until work began at the site.

## **FY13 Accomplishments:**

**Construction, Maintenance/Restoration/Management.** As construction progresses, further analysis and design refinement will occur between local stakeholders, state and federal agencies, and Reclamation.

Excavation and contouring of Reach 1 is complete. Clearing activities began in Reach 2 in summer 2012 and are expected to be substantially completed in early 2014 (over 500 acres). Over 800,000 marsh plants were ordered for approximately 150 acres in Reach 1 and were planted in August and September 2013. Cottonwood, willow, and other riparian species were ordered in 2013 for planting of Reach 1 in the spring of 2014.

Contract for invasive weed control, pole planting, and operation of the irrigation system within the project footprint was awarded in April 2013. This 5-year site maintenance contract will continue through 2018.

Construction of water control structures 1 & 2 and the intake structure was completed in FY2013. Test flooding of Reach 1 occurred in summer 2013, to verify groundwater elevations in preparation for marsh planting in Reach 1. During test-flooding, the site was evaluated for habitat viability, and planting plan changes were made as necessary to ensure the highest rate of survivability.

The FY13 expenditures were higher than budgeted because additional funds were obligated ahead of schedule and before the end of the fiscal year when Reclamation was changing financial systems to allow the project to continue on schedule. Funds were obligated to cover heavy equipment costs for construction and earthwork in 2014. Plant and seed orders were placed in 2013 to supplement vegetation development and condense the planting schedule. Funds were transferred from E4, E5, and E24 to support the efforts at Laguna. The FY14 and FY15 budgets have been subsequently revised to account for the FY13 obligations.

**Monitoring.** There will be no monitoring of species during construction. Once vegetation has been established monitoring will commence.

## **FY14 Activities:**

**Construction, Maintenance/Restoration/Management.** Clearing and contouring of Reach 2 is expected to be completed by May 2014. The crews are moving approximately 50,000 cubic yards of soil per shift in order to contour the site according to the grading plan. To date, an estimated 3,200,000 cubic yards of earth has been moved. The final and southern most water control structure is scheduled to be completed in early 2014. Once all structures are complete, the entire LDCA will be fully operational and controlled remotely or on-site. Remote monitoring and gate operations have been established through a secure online site. A camera has been installed at the staff gauge at Water Control Structure 02 in order to verify water elevations visually.

Minor cracks that developed in the water control structures due to concrete curing, were repaired in January 2014. Potential corrosion issues on the metal gates and appurtenances on the water control structures and Gila sluice gates are being evaluated.

Due to the scale and complexity of the LDCA site, planting is expected to take up to 8 weeks for each sequence. Riparian and mesquite planting of Reach 1 will commence in February 2014. Marsh planting of Reach 2 will commence in May 2014. Final riparian and mesquite plantings in Reach 2 are scheduled for spring 2015.

Internal roads within the LDCA will be restricted to non-motorized recreation such as hiking, horseback riding, and bicycling on designated routes; vehicles are prohibited. The LDCA project managers will work with the Bureau of Land Management and local resource agencies to control access and provide law enforcement support.

Expenditures are expected to be lower than anticipated due to pre-obligated funds at the end of FY13.

**Monitoring.** There will be no monitoring of species during construction. Once vegetation has been established monitoring will commence.

**Proposed FY15 Activities:**

**Construction, Maintenance/Restoration/Management.** Construction is expected to be complete by FY15.

Final riparian and mesquite plantings in Reach 2 are scheduled for spring 2015. Control of invasive and non-native species is necessary and is expected to continue through 2018. Site maintenance, irrigation, and hand planting are expected to continue throughout clearing and construction, and for the first 3-5 years of plant establishment.

Access, law enforcement, and fire suppression for the LDCA will be regulated by the Bureau of Land Management and local resource agencies, per the approved access plan.

**Monitoring.** Monitoring is expected to commence in the spring of 2015, once construction is completed and the native vegetation has established.

**Pertinent Reports:** N/A