

Work Task E27: Laguna Division Conservation Area

FY12 Estimate	FY12 Actual Obligations	Cumulative Expenditures Through FY12	FY13 Approved Estimate	FY14 Proposed Estimate	FY15 Proposed Estimate	FY16 Proposed Estimate
\$6,290,000	\$6,562,631.03	\$8,146,215.66	\$5,000,000	8,600,000	\$4,000,000	\$1,500,000

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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 HDPE 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.

FY12 Activities:

Construction, Maintenance/Restoration/Management. Continued analysis and design refinements occurred between the Laguna Planning team, local stakeholders, state and federal agencies, and Reclamation. Clearing of Reach 1 (over 500 acres) was completed.

The newly created topography of Reach 1 was verified by utilizing Light Detection and Ranging (LIDAR). This is an optical remote sensing technology, flown in late summer, which was used to create contour mapping. This mapping was used to verify the original design drawings.

Six ground water monitoring wells have been installed in Reach 1 and will be instrumented with data loggers to collect ground water elevations and salinity throughout the lifetime of the project. Modeling to forecast groundwater and surface water interaction once diversions begin and 100 cfs is delivered to the site have been completed.

A water control structure, which allows the delivery of water into Mittry Lake from Reach 1, was constructed. This was the first of four water control structures to be built. Pipeline installation was completed in April 2012 with the exception of the diversion structure, which is scheduled for FY13.

The irrigation water inlet structure was relocated from the Gila Canal storage basin to one of the Gila sluiceway gates. Several months of meetings were scheduled with representatives from multiple offices within Reclamation to design and approve constructible drawings.

Monitoring. No monitoring was completed in FY12 due to construction.

FY13 Activities:

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

Clearing activities began in Reach 2 in summer 2012 and are expected to be substantially completed in 2013 (over 500 acres). Over 800,000 marsh plants were ordered for approximately 150 acres in Reach 1 and are scheduled to be planted late in FY13. Cottonwood, willow, and other riparian species will be ordered in 2013 for planting of Reach 1 the following year. Invasive weed control within the project footprint will continue and extend through 2018.

Construction of remaining water control structures will continue through May 2013. Test flooding of Reach 1 is anticipated to occur in summer 2013, to verify groundwater elevations in preparation for marsh planting in late August 2013. Between test-flooding cycles, the Reach 1 area will be re-contoured, if necessary, to correct discrepancies

between the design elevations and site conditions caused by wind, rain, and erosion. During test-flooding, the site will be evaluated for habitat viability, and planting plan changes will be made as necessary to ensure the highest rate of survivability.

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

Proposed FY14 Activities:

Construction, Maintenance/Restoration/Management. Clearing and contouring of Reach 2 is expected to be completed. The final and southern most water control structure is scheduled to be constructed. 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 August 2014. Final riparian and mesquite plantings 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. Internal roads within the LDCA will be restricted to pedestrians and horses only; vehicles are prohibited. The LDCA project managers will work with the Bureau of Land Management to control access and provide law enforcement support.

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

Pertinent Reports: N/A