

Work Task E17: Topock Marsh Pumping

FY16 Estimate	FY16 Actual Obligations	Cumulative Expenditures Through FY16	FY17 Approved Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate	FY20 Proposed Estimate
\$1,000	\$0	\$1,245,076.45	\$1,000	\$1,000	\$1,000	\$1,000

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Start Date: FY06

Expected Duration: FY25

Long-Term Goal: Avoid impacts from flow-related covered activities on covered species habitats at Topock Marsh

Conservation Measures: AMM2

Location: Reach 3, Havasu National Wildlife Refuge, River Miles 235–244, Arizona

Purpose: To avoid the impacts of flow-related covered actions on covered species habitats at Topock Marsh by constructing a reliable and manageable water control structure that ensures water delivery off the main stem of the Colorado River by gravitational diversion or pumping

Connections with Other Work Tasks (Past and Future): N/A

Project Description: Topock Marsh has been identified as habitat for Yuma clapper rails (*Rallus longirostris yumanensis* [also known as Yuma Ridgway’s rail = *R. obsoletus yumanensis*]) and southwestern willow flycatchers (*Empidonax traillii extimus*). At times, flow-related activities could lower the river stage and reduce gravity diversions of water from the Colorado River to the marsh. The U.S. Fish and Wildlife Service (USFWS) proposed construction of an inlet canal (Fire Break Canal) that diverts water by gravity, combined with pumping, to deliver water to the marsh even when river elevations are low.

Previous Activities: In early 2010, \$1 million was committed under the LCR MSCP toward the construction of Fire Break Canal, which improved the delivery of water to Topock Marsh by greatly reducing transmission losses that occurred when using the old, unlined inlet canal. In return for the monetary contribution, the USFWS concurred that the LCR MSCP had met its construction obligations under Avoidance and Minimization Measure 2 (AMM2).

At the LCR MSCP Steering Committee meeting held on April 28, 2010, the decision was made to provide the USFWS with all the operation and maintenance funds, also required under AMM2, in a lump sum of \$2.55 million during FY12. Lump sum funding was made to the USFWS in March 2012. The final USFWS letter stating that no further action was required by the LCR MSCP to meet the commitments stated in AMM2 was received on July 2, 2012. Additional funding from the Habitat Maintenance Fund (HMF) will be required to complete the infrastructure improvements.

The USFWS concurred with the use of the HMF and AMM2 funds for this purpose, and an agreement to move forward was formalized. AMM2 funds obligated under an interagency agreement were subsequently deobligated. Key components of the agreement included: all commitments under AMM2 will remain fulfilled; all AMM2 funds will be expended prior to utilization of the HMF; prior to construction activities, the USFWS and the LCR MSCP will enter into an agreement to use the HMF, which will detail the long-term roles and responsibilities of both agencies and marsh management objectives.

FY16 Accomplishments: In FY16, discussions with the USFWS Arizona Ecological Services Field Office and the USFWS Region 2 Regional Office continued regarding leveraging the remaining AMM2 funds, approximately \$2.1 million, on the infrastructure improvements at Topock Marsh.

A Decision Support System (DSS) was completed using funds obligated in previous fiscal years in order to determine seasonal target elevations for Topock Marsh based upon species requirements. The information provided by the DSS is being used, in combination with collected survey and river stage data, to determine the amount of water required to meet proposed elevation targets for Topock Marsh. The primary water delivery method is through gravity diversions from the main stem of the river. However, the river stage is not high enough to allow for gravity diversion prior to the desired marsh bird nesting season. The intent of the DSS is to provide a tool to estimate water delivery requirements and the effect of the water surface on various species. The engineering review will help determine the capacity of the existing gravity system and the size of the pumps needed for the volume of water that is necessary to reach the desired water surface elevation prior to marsh bird nesting. Approximately \$100,000 was obligated in FY16 for the preliminary engineering review.

FY17 Activities: Engineering evaluations at Topock Marsh continue. The Bureau of Reclamation and the USFWS will use the engineering analysis to determine the feasibility of managing Topock Marsh for different amounts of habitat and target elevation options. The LCR MSCP will provide limited coordination and general support of these activities but will not directly implement the project.

Proposed FY18 Activities: Engineering design will begin.

Pertinent Reports: N/A