

Work Task G3: Adaptive Management Research Projects

FY11 Estimate	FY11 Actual Obligations	Cumulative Expenditures Through FY11	FY12 Approved Estimate	FY13 Proposed Estimate	FY14 Proposed Estimate	FY15 Proposed Estimate
\$300,000	\$54,339.42	\$1,649,688.10	\$200,000	\$300,000	\$300,000	\$300,000

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Start Date: FY06

Expected Duration: FY55

Long-term Goal: Effective conservation of native species and their habitats.

Conservation Measures: MRM1, MRM2, MRM4, WIFL1, MRM5, BONY5, RASU6, CRCR1, YHCR1, MRM3, FLSU3, LLFR1, LLFR3.

Location: System-wide.

Purpose: Develop tools to effectively evaluate conservation actions.

Connections with Other Work Tasks (past and future): Research projects initiated under this work task may be continued as Species Research (Section C). Information obtained may be used for Fish Augmentation (Section B), System Monitoring (Section D), Habitat Creation (Section E), Post-Development Monitoring (Section F), or Habitat Maintenance (Section H).

Project Description: The Adaptive Management Program is an assurance that the conservation actions presented in the HCP are effectively accomplished. This work task develops and evaluates tools by which the conservation actions can be measured, and provides data to improve the efficacy of techniques to successfully create habitat.

This work task enables Reclamation to initiate priority research projects in a timely manner. For example, opportunistic research proposals (e.g. time-sensitive such as spawning or breeding season dependent) can be considered and initiated during the funding year and then be elevated to full research or monitoring status (Section C, D, or F) the following year. Also, experimental techniques can be evaluated through research to assess their utility, and if found to be useful, they would be incorporated into monitoring activities.

Previous Activities: All previous activities were moved to other work tasks after initial year of funding.

FY11 Accomplishments: Analysis of the data collected for the Tamarisk Beetle Study (conducted under D2) will be used to determine future potential conservation and management recommendations in the adaptive management portion of the program. Data analysis has been

completed and result show that there is the potential for decreased nest success for SWFL nest in defoliated stands of tamarisk. The report will be completed and made available in FY12.

A demonstration project was conducted at Topock Marsh to place additional water in a portion of the tamarisk WIFL habitat to determine the effects this may have on increasing the number of nesting pairs and potentially increasing nest success. The results were found to be inconclusive due to only one year of data and the low abundance of WIFLs.

FY12 Activities: Efforts will be initiated in Lake Mead, AZ-NV with the goal of determining the types of habitat frequently used by juvenile/subadult razorback sucker. These efforts will be accomplished through tracking wild, immature razorback sucker that have been captured from Lake Mead and implanted with sonic or radio telemetry tags. In addition to locating the general area(s) of Lake Mead used by this life stage of razorback sucker, the physicochemical environment of all utilized habitat, including any identified recruitment or spawning habitat, shall also be determined. It is anticipated that efforts to capture juvenile/subadult fish will be conducted throughout the known razorback sucker spawning season (approximately February – April) with additional, less intensive monitoring occurring from May through November.

Vegetation typing of new aerial photos has been cost-shared with Reclamation's Lower Colorado River Accounting Systems group. This product will provide Reclamation with additional tools for determining vegetation structure changes over time.

Proposed FY13 Activities: Research questions identified during fish augmentation, species research, system-wide monitoring, habitat creation, and post-development monitoring will be evaluated for development into adaptive management research projects under this work task.

Pertinent Reports: The statement of work for the *Acquisition and Distribution of the W.L. Minckley Reprint Library* is available upon request.