

Work Task B8: Fish Tagging Equipment

FY15 Estimate	FY15 Actual Obligations	Cumulative Expenditures Through FY15	FY16 Approved Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate	FY19 Proposed Estimate
\$125,000	\$115,059.95	\$878,805.06	\$135,000	\$135,000	\$135,000	\$135,000

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Start Date: FY04

Expected Duration: FY55

Long-Term Goal: Acquire and maintain a supply of fish tagging materials and equipment for marking fish to be released for research and for augmentation stockings

Conservation Measures: RASU3, RASU4, RASU5, RASU6, BONY3, BONY4, and BONY5

Location: N/A

Purpose: To mark fish released into the lower Colorado River (LCR) for identification purposes to assess survival and distribution

Connections with Other Work Tasks (Past and Future): Activities are related to all work tasks that result in fish stocking for augmentation, fish research, and fish monitoring.

Project Description: Under the LCR MSCP, more than 1.2 million native fishes will be reared and stocked into the LCR. Fish will be marked to assess distribution and survival and for effective research and decisionmaking. Funds provide for both tagging materials and detection equipment needed during monitoring and research. The Bureau of Reclamation anticipates the need for fish tags and tagging equipment throughout the life of the program.

Previous Activities: Fish released into the LCR have been tagged with 400-kilohertz (kHz) passive integrated transponder (PIT) tags (Lakes Mead and Mohave, Reaches 1 and 2), 125-kHz PIT tags (Davis Dam to Parker Dam, Reach 3), and wire tags (Davis Dam to Imperial Dam, Reaches 3, 4, and 5). Recaptured fish below Parker Dam have been retagged with 125-kHz PIT tags. In addition, both radio tags and sonic tags have been implanted in fishes used for research on Lakes Mead, Mohave, and Havasu. Fin clipping and floy tags have been used for short-term survival studies in some rearing and grow-out ponds.

In 2006, we began using new 134.2-kHz frequency PIT tags. These new tags have a greater detection range than the previously used tags (12 versus 2 inches away from fish) and will allow for testing and deployment of remote listening stations within spawning areas and other locations along the LCR. Purchase of the new PIT tags, tag readers, and antennae began in 2006. A total of 72,651 razorback suckers and 17,454 bonytail were PIT tagged and/or wire tagged and released into the LCR between 2006 and 2008. More recent stockings have included 24,299 razorback suckers and 6,579 bonytail in 2009, 22,476 razorback suckers and 4,993 bonytail in 2010, and 25,598 razorback suckers and 7,122 bonytail in 2011. In 2012, 27,105 razorback suckers and 7,821 bonytail were tagged and released into the LCR. These reported numbers of tagged fish represent the total number of fish implanted with tags and not the number of fish repatriated and credited under the LCR MSCP Fish Augmentation Program. They include fish used for research, smaller volunteer spawned fish that have been translocated into other areas, and fish that have been retagged due to tag loss or replacement of older frequency tags.

FY15 Accomplishments: PIT tags, tagging equipment, and tag readers were purchased as needed to mark fish for monitoring and research. A total of 33,292 razorback suckers and 7,032 bonytail were PIT tagged and released into the LCR during 2015.

FY16 Activities: PIT tags, tagging equipment, and tag readers will be purchased as needed to mark fish for monitoring and research. As augmentation goals and numbers of tagged fish increase, fiscal year budget estimates will also increase to meet these needs.

Proposed FY17 Activities: PIT tags, tagging equipment, and tag readers will continue to be purchased as needed to mark fish for monitoring and research. Budget estimates reflect increased fish number goals and needs for additional supplies and equipment to support ongoing tagging and remote sensing research and monitoring efforts.

Pertinent Reports: N/A