

Work Task B8: Fish Tagging Equipment

FY14 Estimate	FY14 Actual Obligations	Cumulative Expenditures Through FY14	FY15 Approved Estimate	FY16 Proposed Estimate	FY17 Proposed Estimate	FY18 Proposed Estimate
\$100,000	\$102,290.33	\$767,737.85	\$125,000	\$135,000	\$135,000	\$135,000

Contact: Jon Nelson, (702) 293-8046, jnelson@usbr.gov

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 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 fish 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. 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-kHz PIT tags (Lake Mead and Lake 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 fish 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 on the LCR. Purchase of the new PIT tags, tag readers, and antennae began in 2006. A total of 72,651 razorback sucker 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 sucker and 6,579 bonytail in 2009, 22,476 razorback sucker and 4,993 bonytail in 2010, and 25,598 razorback sucker and 7,122 bonytail in 2011. In 2012, 27,105 razorback sucker 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.

FY14 Accomplishments: PIT tags, tagging equipment, and tag readers were purchased as needed to mark fish for monitoring and research. A total of 24,919 razorback sucker and 8,628 bonytail were tagged (PIT and/or wire) and released into the LCR during 2014.

FY15 Activities: PIT tags, tagging equipment, and tag readers will be purchased as needed to mark fish for monitoring and research. The increase in funding beginning in FY15 reflects the expanded use of and reliance on PIT technology as a means for increasing re-contact probabilities and improving data collection. In addition, augmentation numbers are expected to increase. To prepare for these increases, additional tags will be purchased.

Proposed FY16 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 the need for additional supplies and equipment to support ongoing tagging and remote sensing research and monitoring efforts.

Pertinent Reports: N/A