

Work Task C30: Development and Evaluation of Measures to Reduce Transport of Quagga Mussel During Fish Transfer and Stocking Activities

FY08 Estimates	FY08 Actual	Cumulative Accomplishment Through FY08	FY09 Approved Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate	FY12 Proposed Estimate
\$0	\$0	\$0	\$100,000	\$70,000	\$25,000	\$0

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Start Date: FY09

Expected Duration: FY11

Long-term Goal: Maintain effectiveness of the fish augmentation program.

Conservation Measures: BONY2, BONY3, BONY4, BONY5, RASU2, RASU3, RASU4, RASU5, RASU6, and RASU8.

Location: Various state and federal hatcheries and laboratories in Boulder City, Nevada; Willow Beach, Arizona; Cornville, Arizona.

Purpose: To develop and test measures to assure non-transmittal of quagga mussel larvae and adults during the fish transport and stocking activities of the LCR MSCP Fish Augmentation Program.

Connections with Other Work Tasks (past and future): This work is related to all fish facilities B2, B3, B4, B5, B6, B7, B10, and B11 as RASU and/or BONY are moved between these sites and the Colorado River. Work began as a literature investigation under G3.

Project Description: This study will develop and test means to assure that quagga mussel larvae and adults are not being transported throughout the Colorado River system as a result of the Fish Augmentation Program. The original Fish Augmentation Plan called for capture of wild RASU larvae from Lake Mohave and providing them to Willow Beach NFH (B2), Dexter NFH (B4), and Bubbling Ponds SFH (B5). In addition, RASU larvae and juveniles are transported from Willow Beach NFH to Lake Mead SFH (B6) and to lakeside rearing ponds (B7). BONY are transferred from Dexter NFH to Willow Beach NFH and to Achii Hanyou NFRS (B3), and directly to the river system. Some of these transfers have been halted until such time that assurances can be made that quagga mussel are not being carried along with these fish. This study will attempt to develop measures to allow such certification.

Previous Activities: During January 2007, the exotic quagga mussel was discovered in Lake Mead, and subsequently found in both Lake Mead SFH (B6) and Willow Beach NFH (B2). Larval RASU that were to be transferred to Bubbling Ponds SFH (B5) were not collected (B1)

and no RASU of any size or year-class were delivered to waters outside the lower Colorado River corridor. Quagga mussels have not severely impacted the maintenance or operation of the facility. However, quagga mussels continue to have an impact on delivery of fish. Preventing further movement or transfer of quagga mussels is a priority for state and federal agencies. Fish transport protocols for the lower Colorado River corridor have been developed and are under review by cooperating resource agencies.

FY08 Accomplishments: None.

FY09 Activities: The USFWS and Reclamation will investigate the efficacy of standard protocols for control of motile life stages of quagga mussels from transport tanks. This work will be conducted by Dexter NFH staff at Willow Beach NFH in a two-phase approach.

Proposed FY10 Activities: Develop testing apparatus and conduct second phase tests of various treatments to prevent transport of quagga mussel larvae and adults. Research conducted by USFWS is expected to be completed in FY10.

Pertinent Reports: The scope of work is available upon request. Annual reports from each year will be posted to the LCR MSCP Web site.