Work Task C26: Evaluation of Raceway Rearing of Razorback Rucker at Lake Mead Fish Hatchery

FY06 Estimates	FY06 Actual	Cumulative Accomplishment Through FY06	FY07 Approved Estimate	FY08 Proposed Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate
$0	$0	$0	$0	$100,000	$100,000	$100,000

Contact: Tom Burke, (702) 293-8310, tburke@lc.usbr.gov

Start Date: FY08

Expected Duration: FY10

Long-term Goal: Rear RASU of sufficient quantity and quality to accomplish the LCR MSCP Fish Augmentation and Species Research Programs

Conservation Measures: RASU3, RASU4, and RASU8

Location: Reach 1, Lake Mead, Boulder City, NV

Purpose: Evaluate raceway rearing of RASU to improve physical conditioning prior to stocking.

Connections with Other Work Tasks (past and future): This research is complementary to work conducted under Work Task C10. If successful (i.e., shows benefit to fish and is cost effective), this action may be included in the Fish Augmentation Program (Section B) in the future. Other rearing of RASU is being conducted at this facility under Work Task B6.

Project Description: This project will investigate and evaluate rearing of RASU in flowing raceways at Lake Mead SFH. The study will investigate ways to deliver food, efficiency of food conversion, feeding rate, growth of RASU, and physical condition of fish. End-of-year results will be compared with similar parameters for RASU being reared for the LCR MSCP in non-flow facilities (Willow Beach NFH and Bubbling Ponds SFH).

This research is being proposed to take advantage of a unique opportunity at Lake Mead SFH. Research underway at Achii Hanyo by the USGS and USFWS is showing that RASU acclimated to flow have improved swimming performance. This may improve post-stocking survival for fish released by the LCR MSCP. Currently, there are no facilities rearing fish for the LCR MSCP using flowing raceways. Due to current water elevations of Lake Mead, intake water temperatures at Lake Mead SFH are too warm for rearing rainbow trout (summer water temperatures in 2006 exceeded 75°F). The NDOW is investigating ways to acquire water from deeper, cooler areas of Lake Mead. The current timeline projects that acquisition of a new water source is 3-5 years away. In the meantime, all or parts of the Lake Mead SFH will be idle. This work proposes to use RASU from lakes Mead and Mohave to examine and evaluate the

practicality and cost effectiveness of feeding and growing RASU in raceways at Lake Mead SFH.

Previous Activities: Reclamation, SNWA, and NDOW have cooperatively been rearing RASU from Lake Mead in tanks at the hatchery (See B6).

FY06 Accomplishments: N/A

FY07 Activities: N/A

Proposed FY08 Activities: Conduct rearing trials for juvenile and subadult RASU in flow-through raceways to evaluate such parameters as growth rate, condition factor, and food conversion efficiency.

Pertinent Reports: A final study plan will be available in August 2007.