

Work Task C14: Humpback Chub Program Support

FY09 Estimates	FY09 Actual	Cumulative Accomplishment Through FY09	FY10 Approved Estimate	FY11 Proposed Estimate	FY12 Proposed Estimate	FY13 Proposed Estimate
\$200,000	\$65,136.31	\$103,433.31	\$70,000	\$75,000	\$20,000	\$20,000

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Start Date: FY05

Expected Duration: FY55

Long-term Goal: Support HUCH conservation

Conservation Measures: HUCH1

Location: Grand Canyon, Arizona; Willow Beach, Arizona; Dexter, New Mexico

Purpose: Provide support to the Glen Canyon Dam AMP for conservation of HUCH.

Connections with Other Work Tasks (past and future): This work is connected to B2 and B4, as money will be transferred to USFWS through an agreement for activities at Willow Beach NFH and Dexter NFH.

Project Description: The LCR MSCP will provide a total of \$500,000 over the life of the program (50 years) to the Glen Canyon Dam AMP, or other entities approved by USFWS, to support implementation of planned, but unfunded HUCH conservation measures.

Previous Activities: As recommended by the Glen Canyon Dam AMP, funds were provided to USFWS at Willow Beach NFH in FY06 to support care of HUCH from the Little Colorado River that were held on station. To reduce administrative costs, funds were provided for a three-year period (FY06-08) at \$10,000 per year. During calendar year 2008 these same parties (Glen Canyon Dam AMP, USFWS, and LCR MSCP) agreed to fund the development of a refugia brood stock for HUCH. The agreement will be in place for FY09-FY11.

FY09 Accomplishments: This marks the first year of a three-year agreement to develop a refuge population/captive brood stock of Grand Canyon HUCH (*Gila cypha*) at the Dexter National Fish Hatchery and Technology Center, Dexter, New Mexico. Young-of-year fish were transferred from the Little Colorado River to Arizona Game and Fish's Bubbling Ponds Hatchery. The fish were treated for parasites and held in quarantine for 30 days, then transferred to Dexter NFH. In 2009 Dexter successfully maintained 597

juvenile HUCH. Survival for the year was 97% and the average length (TL) of fish was 120 mm. All the fish were PIT-tagged, and in June, 300 fish were provided for translocation to Shinumo Creek in Grand Canyon National Park. The remaining 287 fish were used to begin establishing the (500-1000) refuge population at Dexter. On 15 January 2009, Dexter received the remaining 38 adult and 37 F1 HUCH from Willow Beach NFH. The fish were quarantined for 60 days and treated for potential diseases, pathogens, and aquatic invasive species. Also under this three-year agreement, Dexter staff completed the draft USFWS *Genetic Management Plan for Captive and Translocated Endangered Humpback Chub* in the Lower Colorado River Basin. The total amount of the agreement is \$200,000, obligated over a three-year period.

FY10 Activities: Development of the refuge population/captive brood stock for HUCH at Dexter NFH will continue. Dexter will receive up to 600 young-of-year HUCH for grow out, tagging, and incorporation into the captive stock. A site visit to Dexter NFH to review progress on refugia development will be conducted. The captive management plan will be finalized and posted to the LCR MSCP Web site.

Dexter staff will also evaluate and refine fish culture, marking, and transport methodologies for wild-caught HUCH. In addition, researchers will conduct acute toxicity tests on HUCH larvae and juveniles (90-160 mm) to determine median lethal concentration (LC50) of potassium chloride.

Proposed FY11 Activities: Continue support for HUCH conservation in coordination with USFWS and Glen Canyon AMP, and conduct a site visit to Dexter NFH.

Pertinent Reports: N/A