

Adaptive Management Work Group Meeting
October 25-26, 2004

Updates on Ongoing Humpback Chub Projects in HBC Plan

Project 01: Assess genetics of humpback chub being held at Willow Beach National Fish Hatchery for their potential as brood stock. Not Funded by GCDAMP, Funded by USFWS, Region 2; Reporting: USFWS Region 2.

Project 02: Remove humpback chub from mainstem Colorado River at 30-Mile to maintain genetic stock in refugia. Funded: FY 2004 as Genetic Refugium, Replaced by Hualapai Fish Facility Evaluation FY 2005; Reporting: GCMRC.

Project 03: Genetic relationships within and among populations of the endangered *Gila cypha* (humpback chub) in the Colorado River ecosystem. Funded: 2001; Reporting: GCMRC.

Project 04: Feasibility of Developing a Program to Augment the Population of Humpback Chub (*Gila cypha*) in Grand Canyon. Funded: FY 2003; Completed FY 2004 by USFWS, Region 2.

Project 05: Translocation of native fishes to tributaries of the Colorado River, Grand Canyon National Park and tribal lands. Funded: FY 2004, FY 2005; Reporting: USFWS, Region 2.

Project 06: Complete feasibility study of selective withdrawal on Glen Canyon Dam and, if feasible, finish compliance, construct, and test the device. Funded: FY 2004; Reporting: Ongoing by Reclamation as TCD Updates.

Project 07: Use Dam Operations to Benefit Humpback Chub. Funded: FY 2004, FY 2005; Reporting: GCMRC.

Project 08: Consider sediment augmentation to benefit native fish (e.g. sediment pipeline from San Juan River), both long-term feasibility and short term experiment. Funded: FY 2004, FY 2005; Reporting: GCMRC.

Project 09: Understand the effect and identify the threats of scientific work and recreational activities on humpback chub populations in the Grand Canyon area (review Upper Basin Recovery Program, etc.). Funded FY 2004 (scientific work portion), FY 2005; Reporting: GCMRC.

Project 10: Evaluate the use of a temporary weir in Bright Angel Creek to remove nonnative salmonids from the Colorado River Ecosystem during 2002 and 2003. Not Funded by GCDAMP, Funded by NPS; Reporting: Grand Canyon National Park.

Project 11: Removal/suppression of Nonnative Fish in tributaries of the Colorado River in Grand Canyon National Park and tribal lands. Not Funded by GCDAMP, Funded by NPS; Reporting: Grand Canyon National Park.

Project 12: Mechanical removal of non-native fishes from the Colorado River near the confluence with the Little Colorado River. Funded in FY 2004, FY 2005; Ongoing Reporting by GCMRC.

Project 13: Develop a monitoring program for the Colorado River downstream of Diamond Creek to detect changes in habitat and fish communities resulting from operation of Glen Canyon Dam and Lake Mead. Funded in FY 2004, FY 2005; Reporting: GCMRC.

Project 14: Develop an invasive species management plan for the Colorado River Ecosystem (CRE). Not Funded.

Project 15: Monitoring fish parasites and diseases, Colorado River Ecosystem. Funded FY 2004, FY 2005. Reporting: GCMRC.

Project 16: Reclamation will lead a review of Little Colorado River (LCR) watershed management plan. Funded FY 2005. Reporting: Reclamation.

Project 17: Conduct concurrent estimates of HBC in LCR and mainstem to develop/confirm population estimates. Evaluate the age group survivability for all age classes, including recruitment. Funded FY 2004, 2005 (includes simulation modeling); Reporting: GCMRC.

Project 18: Development of an Adaptive Management Work Group Outreach Program. Not Funded in HBC Plan, Transferred to Public Outreach.

Project 19: Develop and Implement a Genetics Management Plan for Humpback Chub in Grand Canyon. Not Funded by GCDAMP: Reporting: WAPA, USFWS Region 6.

Project 20: Development of Emergency Response/Contingency Plan for Protection of Downstream Species from Spills into the Little Colorado River at Cameron or other Potential Sites. Not Funded.

Project 21: Develop pollution control plan for Little Colorado River watershed that includes capability. Not Funded.