

## FY 2007 AMP Ancillary Projects

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<b>Projects Identified by Grand Canyon Wildlands Council (Larry Stevens)</b>	
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>The Paria River Mouth as an Experimental Humpback Chub Rearing Site: A Feasibility Study</p> <p>Pilot study to determine feasibility of restoring HBC rearing habitat at the mouth of the Paria River</p> <p>Paria River mouth vicinity downstream to Mile 35</p> <p>Pending</p> <p>3 year, \$150,000; funding pending</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>An Invertebrate Inventory of the Grand Canyon Ecoregion (GCE) Database existing specimens; collect and identify additional specimens; develop an annotated list of invertebrates of the GC region; prepare publications on invertebrate biogeography in the GCE</p> <p>Grand Canyon drainage in the 4 Corners area</p> <p>Small project funds from AWPf, GCNP, and private sources; project conducted with the Museum of Northern Arizona</p> <p>10 yr, \$500,000, most funding pending</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>An All Taxon Biological Inventory of the Grand Canyon Ecoregion (GCE)</p> <p>Database existing specimens; collect and identify additional specimens; develop an annotated list of all species detected in the GC region; prepare publications on GCE biodiversity</p> <p>Grand Canyon drainage in the 4 Corners area</p> <p>Project conducted with the Museum of Northern Arizona</p> <p>10 yr, \$1,000,000, funding pending</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Development of a Conservation Area Design for the Grand Canyon Ecoregion (GCE)</p> <p>Describe in book form the landscape, ecosystems, species, conservation challenges, and implementation of a conservation initiative for the GCE GCE</p> <p>Grand Canyon drainage in the 4 Corners area</p> <p>Various Conservation NGO's</p> <p>Nearing completion; \$200,000, funding from various Conservation NGOs</p>
<b>Projects Identified by CREDA (Bill Davis)</b>	
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Humpback Chub Translocation into Grand Canyon Tributaries</p> <p>Analyze and report on tributary suitability for translocation of endangered humpback chub, and develop planning, compliance, and implementation of translocation</p> <p>Colorado River in Grand Canyon</p> <p>Project conducted through the National Park Service and in collaboration with SWCA, Inc.</p> <p>\$175,000; NPS (primary funder) and GCWC (limited cost-sharing); 3 yr</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Native Habitat Restoration along the Colorado River in Glen Canyon</p> <p>Conduct planning, compliance, implementation, and monitoring of a 6 ac habitat restoration project –6.5R upstream from Lees Ferry in Glen Canyon. This project will entail removal of non-native tamarisk and planting native riparian vegetation.</p> <p>Lower Glen Canyon</p> <p>Project conducted under the auspices of Glen Canyon National Recreation Area and Grand Canyon National Park</p> <p>\$185,000; NPS (primary funder) and GCWC (limited cost-sharing); 3 yr</p>

<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Non-native Tamarisk Life History Modeling in the Colorado River Basin</p> <p>Model tamarisk life history in relation to flow, geomorphology, and climate through dendroecological and field experimentation in the Colorado River in Grand Canyon and elsewhere in the CR basin</p> <p>Colorado River basin, primarily Grand and Cataract Canyons</p> <p>U.S. Department of Agriculture; study conducted collaboratively between the University of Nevada at Reno (Peter Weisberg, PI) and GCWC (Larry Stevens, PI)</p> <p>\$350,000; USDA ; 3 yr</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Lake Powell fisheries management program by Utah DOW and how it may affect species available for introduction into the CRE via Glen Canyon Dam spillway or bypass releases</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Lake Powell water/reservoir management program by USBR and how it may affect water quality introduced into the CRE (Section 8 ?)</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Little Colorado River and other tributary watershed programs by AGFD, UDOW, USFS, Tribes, ADEQ, EPA, etc. that may influence water quality, quantity, biota ultimately delivered to the CRE</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>ADEQ and EPA standards setting process that establishes water quality parameters for the CRE and tributaries</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Upper Colorado Recovery Implementation Program and the recovery goals, stocking programs, nonnative control efforts, etc. that bear directly on program parameters for humpback chub and razorback in the CRE</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>San Juan River Recovery Implementation Program and the recovery goals, stocking programs, nonnative control efforts, etc. that bear directly on program parameters for the CRE</p>
<p><b>Projects Identified by NPS (Ken McMullen and Jan Balsom)</b></p>	
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and</p>	<p>Colorado River Management Plan Implementation</p> <p>Implement commitments made in the CRMP EIS and ROD, particularly regarding human impacts arising from the CRMP implementation</p> <p>Grand Canyon National Park</p> <p>NPS</p>

Sources:	\$500,000/yr from NPS
Title of Project: Objectives: Geographic Area: Sponsor(s): Approx. Funding and Sources:	Archaeological Site Treatment Treatment of archaeological sites to achieve NHPA 106 compliance Grand Canyon National Park NPS \$250,000/yr NPS
Title of Project:  Objectives:  Geographic Area: Sponsor(s): Approx. Funding and Sources:	Management & Control of Tamarisk and Other Invasive Vegetation at Backcountry Seeps, Springs and Tributaries in Grand Canyon National Park and on Hualapai Tribal Lands, Phase IIb (Second Year of Phase II of Comprehensive Project) The overarching objective of this project is to continue the successful, large-scale tamarisk management work that biologists initiated in 2000 with support from the Arizona Water Protection Fund (AWPF). During this current project (AWPF Grant Number 06-138WPF), crews will remove tamarisk and other invasive exotic plant species from 30 backcountry seeps, springs and tributaries in the Grand Canyon area and continue with project monitoring efforts. Over the next few years, crews will revisit all of the more than 100 project areas from which tamarisk and other invasive plant species have been removed. Side canyons and springs from Paria River to Diamond Creek Arizona Water Protection Fund, Grand Canyon National Park Foundation 2 year, \$258,000
Title of Project:  Objectives:  Geographic Area: Sponsor(s): Approx. Funding and Sources:	Invasive Vegetation Management & Control Project Along the Colorado River Corridor in Grand Canyon National Park The primary objective is the removal of invasive non-native vegetation (such as Russian olive, camelthorn, ravenna grass, Sahara mustard, sow thistle, Russian thistle, date palms and Himalaya blackberry) along the Colorado river corridor. Lees Ferry to Diamond Creek Grand Canyon Conservation Fund in 2006, no current funding for 2007 \$12,000 in 2006, additional grant submittals pending for 2007-2008
Title of Project:  Objectives:  Geographic Area: Sponsor(s): Approx. Funding and Sources:	Trout Reduction in Bright Angel Creek (primarily with a weir, but also through electrofishing during fish population surveys in Bright Angel Creek) The primary objective is creating a more natural aquatic community within Bright Angel Creek. A secondary objective is reducing spawning in Bright Angel Creek by trout from the mainstem of Colorado River, and thereby reducing the trout population in the mainstem and predation on young humpback chub. Bright Angel Creek Grand Canyon National Park Approximately \$90,000 in NPS funds for each of FY2008 through FY2011 for project implementation (assuming project compliance is completed and approved). During FY06 and FY07 Grand Canyon NP is completing the EA for this project, at a cost of perhaps \$15,000 (the anticipated completion of EA and Decision Notice is February 2007). Past expenditures (FY03 and FY04) on the experimental test for the project and the draft EA totaled about 150,000.
Title of Project: Objectives: Geographic Area:  Sponsor(s): Approx. Funding and Sources:	Survey southwestern willow flycatcher habitat Determine flycatcher occupancy of suitable willow flycatcher Habitat Suitable flycatcher habitat from Lee's Ferry to Diamond Creek. SWCA is surveying lower gorge habitat. Grand Canyon National Park Approximately \$25,000 in NPS funds for each of FY2006 through FY2011 for project implementation.

<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>SWWF Surveys, cowbird trapping and Riparian Vegetation Monitoring, and tributary water quality work</p> <p>Determine nesting use of SWWF habitat, and reduce cowbird numbers to assist SWFF reproductive success, assess habitat condition, etc.</p> <p>West end of Park</p> <p>National Park Service, GCNP, SWCA is contracted to survey lower gorge habitat</p> <p>Approximately \$25,000 in NPS funds for each of FY2006 through FY2011 for project implementation.</p>
<p><b>Projects Identified by Hualapai Tribe (Kerry Christensen)</b></p>	
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>We will perform Southwestern Willow Flycatcher surveys at five sites within the CRE with funding from the U.S. Bureau of Reclamation, Lower Colorado Region as part of the Lower Colorado River Multi-species Conservation Program. We also survey five sites on Lake Mead.</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>We will monitor water quality at 56 sites on the Hualapai Reservation some of which are within the CRE. We will also monitor biotic communities at 18 wetland sites on the reservation, some of which are in the CRE.</p>
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>We are currently rearing razorback suckers for reintroduction into the Colorado River downstream of the CRE. We also hope to receive and rear humpback chub in cooperation with the U.S. Fish and Wildlife Service and the Arizona Game and Fish Department.</p>
<p><b>Project Identified by Don Ostler (Upper Colorado River Commission)</b></p>	
<p>Title of Project:</p> <p>Objectives:</p> <p>Geographic Area:</p> <p>Sponsor(s):</p> <p>Approx. Funding and Sources:</p>	<p>Proposal for coordinated operations of Lakes Powell and Mead</p> <p>Through the current NEPA process and adoption of the strategies, the release patterns from Powell can be significantly changed. This will affect both the annual and monthly release volumes from Powell. The operational criteria based upon target elevations in Powell and Mead for determining release volumes could affect how beach building flows as well as other experiments and monitoring are managed. Implementation of this is at least 18 months off, but I do not want the significance of this potential action(s) to be overlooked; to be considered a surprise; or to impact the efficiency of long term experiments planned under the AMP. I would expect the effects of this will hit in the FY08 work plan, but many things from 07 will carry over into 08. For this reason, I believe you should list it as a "project" so that people can think about it as they devise future actions and coordinate monitoring and experiments (or at least understand how it might be effected) with the planned actions on coordinated operations. I think there is value in keeping it in front of people at this time...One might not want to start an experiment if it would be significantly adversely affected by these changed operational strategies...or it should be designed so that if the operational</p>

Sources:	strategies change, one knows how it will affect the experiment...