NONNATIVE FISH MANAGEMENT POLICY*

Upper Colorado River Endangered Fish Recovery Program

Issue

Over 40 nonnative fish species now occur in the Upper Colorado River Basin, compared to 14 native fish species. Nonnative fishes can be numerically predominant in riverine fish habitats and communities, and negative interactions with certain warmwater nonnative fish species (particularly sportfishes) have contributed to declines in native fish populations. The August 1, 2002, *Humpback Chub (Gila cypha), Bonytail (Gila elegans), Colorado Pikeminnow (Ptychocheilus lucius), and Razorback Sucker (Xyrauchen texanus) Recovery Goals* identified predation or competition by nonnative fish species as a primary threat to the continued existence or the reestablishment of self-sustaining populations of these endangered fishes.

The recovery goals require that management actions to address threats posed by nonnative fishes be implemented in two steps: (1) develop management programs to identify the levels of management needed to minimize or remove the threat for selected species in selected river reaches (requirement for downlisting), and (2) implement the identified levels of nonnative fish management (requirement for delisting). Nonnative fish management actions conducted by the Recovery Program are consistent with these requirements.

Policy

It is the policy of the Upper Colorado River Endangered Fish Recovery Program (Recovery Program) and its participating partners, with respect to nonnative fish management, that:

- 1. Management of nonnative fish populations is essential to achieve and maintain recovery of the endangered fishes.
- 2. Nonnative fish management is one of many management actions necessary to achieve and maintain recovery of the endangered fishes, and failure to adequately manage nonnative fishes may nullify the positive effects of other Recovery Program actions associated with habitat management and restoration and endangered fish stocking.
- 3. The overall goal of nonnative fish management is to attain and maintain fish communities where populations of the endangered and other native fish species can persist and thrive, and the recovery goals for the endangered fishes can be achieved.
- 4. Management of nonnative fishes will be conducted as needed. Implementation of an

^{*}Adopted by the Implementation Committee of the Upper Colorado River Endangered Fish Recovery Program on February 4, 2004.

effective nonnative fish management program is an adaptive process. As strategies are developed and implemented, they will be evaluated and revised based on results of research and monitoring.

- 5. Because nonnative fish species targeted for management may have sportfish value to the angling public, the dual responsibilities of State and Federal fish and wildlife agencies to conserve listed and other native species while providing for recreational fishery opportunities will be considered in nonnative fish management strategies developed and implemented by the Recovery Program. This consideration will include consultation and approval from the State wildlife agencies prior to implementation of nonnative fish management actions.
- 6. Agency and public understanding of the purpose and scope of nonnative fish management actions by the Recovery Program and its participating agencies is critical to the success of the effort. Recovery Program partners agree to support and actively participate in public communication and involvement.

Policy Implementation

Management of nonnative fish species will initially follow an experimental approach to develop effective strategies and identify the levels of management necessary to minimize or remove threats to the endangered fishes. An annual assessment of data will determine future nonnative fish management strategies, including possible changes to the list of target nonnative fish species, geographic scope of management areas, and methods employed. However, this adaptive process should not unduly delay timely and effective actions to minimize or remove the nonnative threat to the endangered fishes.

Recognizing this adaptive process, nonnative fishes of immediate primary concern and currently explicitly targeted for management are northern pike (*Esox lucius*), smallmouth bass (*Micropterus dolomieu*), and channel catfish (*Ictalurus punctatus*). These nonnative fish species pose significant threats to the endangered fishes because of their high or increasing abundance and range expansion, their habitat and resource requirements overlap with those of the endangered fish species, and they are known fish predators. Areas for management of one or all three of these nonnative species currently include the Yampa and Colorado rivers in Colorado and portions of the Green River system in Utah. Current priorities do not preclude future management of other nonnative fish species and/or expansion of management areas.

The Recovery Program believes it will be necessary to remove substantial numbers of the more abundant target nonnative fish species from certain river reaches, and, through research and monitoring, demonstrate sustained reductions in nonnative fish abundance and resulting positive native fish responses at the population level. As deemed appropriate and practical, efforts will be made to relocate nonnative sportfish removed from rivers to local ponds or reservoirs publicly

accessible to anglers. Relocation of sportfish will be in compliance with State laws and regulations, in coordination with State fish and wildlife agencies, and in accordance with the 1996 Procedures for Stocking Nonnative Fish Species in the Upper Colorado River Basin. The number or biomass of sportfish relocated to any one body of water in a given year will be determined by State fish and wildlife agencies. However, once the State agencies indicate that the established relocation thresholds are reached and no other appropriate relocation sites are immediately available, Recovery Program partners recognize the need for and support lethal removal of additional target nonnative fish from the river, in compliance with State laws and regulations and in coordination with State fish and wildlife agencies, to achieve the levels of management necessary to minimize or remove threats to the endangered fishes.

Other nonnative fish management efforts conducted or supported by the Recovery Program include screening of reservoir outlets and berming of ponds to prevent escapement of nonnative fish into the rivers, agreements to regulate stocking of nonnative fishes, and changes to State bag and possession limits to increase harvest of nonnative fish.

A comprehensive public communication and involvement plan on nonnative fish management has been developed by the Recovery Program. The plan details ongoing strategies for public outreach and is revised as needed to support the management actions. Implementation of this plan will assure that the public understands what is being done and why, and has confidence that the process is driven by science and is clear, open, and honest.

Background

The Recovery Program was established under a Cooperative Agreement signed by the Secretary of the Interior; Governors of Colorado, Utah, and Wyoming; and the Administrator of Western Area Power Administration on January 22, 1988. That commitment was reaffirmed in December 2001, when those same officials signed a 10-year extension of the Cooperative Agreement that extended the Recovery Program through September 30, 2013. Recovery Program partners include: Colorado River Energy Distributors Association, Colorado Water Congress, National Park Service, State of Colorado, State of Utah, State of Wyoming, The Nature Conservancy, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, Utah Water Users Association, Western Area Power Administration, Western Resource Advocates, and Wyoming Water Association.

The Recovery Program is a coordinated effort by the partners to recover the endangered humpback chub, bonytail, Colorado pikeminnow, and razorback sucker in the Upper Colorado River Basin while ensuring that water development in the upper basin proceeds in compliance with State and Federal laws, including the Endangered Species Act (ESA), State water law, interstate compacts, and Federal trust responsibilities to American Indian tribes. As originally established, the Recovery Program consists of five fundamental elements: (1) provision of instream flows; (2) habitat development and maintenance; (3) native fish stocking; (4)

management of nonnative species and sportfishing; and (5) research, monitoring, and data management.

Under the October 15, 1993 (revised March 8, 2000) Section 7, Sufficient Progress, and Historic Projects Agreement, management actions implemented by the Recovery Program (including nonnative fish management) are intended to provide the reasonable and prudent alternatives that avoid the likelihood of jeopardy to the continued existence of the endangered fishes resulting from the depletion impacts of new water projects and the direct and depletion impacts of all historic water projects. Management actions identified by the Recovery Program for implementation include requirements of the August 1, 2002, Humpback Chub, Bonytail, Colorado Pikeminnow, and Razorback Sucker Recovery Goals. The U.S. Fish and Wildlife Service annually determines whether the cumulative accomplishments of the Recovery Program are sufficient to avoid jeopardy.

Recovery goals for the endangered fishes were developed by the U.S. Fish and Wildlife Service through a public process and in cooperation with stakeholders throughout the Colorado River Basin, including Recovery Program partners. Those recovery goals identify site-specific management actions to minimize or remove threats to the endangered fishes and specify the numbers of endangered fish required for self-sustaining populations (i.e., demographic criteria). Downlisting of the fishes from "endangered" to "threatened" and removing the species from ESA protection (delisting) will be considered once the necessary management actions are achieved and the fish populations have met the demographic criteria.