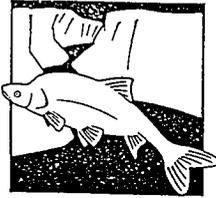


John Hamill
Director,
Recovery Program



RECOVERY PROGRAM FOR
THE ENDANGERED FISHES
OF THE UPPER COLORADO

Ralph Morgenweck
Chairman,
Implementation Committee

U.S. Fish and Wildlife Service • P.O. Box 25486 • Denver Federal Center • Denver, CO 80225 • (303) 236-2985 • Fax (303) 236-0027

Status Reports
Mail Stop 65115

AUG 31 1995

Memorandum

To: Interested Parties
From: Program Director
Subject: Status Report

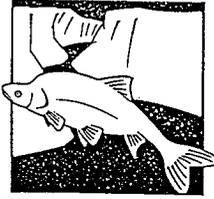
Enclosed is the second copy of our new status report, designed to help you keep up-to-date about upcoming actions of the Recovery Program for Endangered Fish of the Upper Colorado, without having to receive the large number of mailings that the program generates. Every effort has been made to ensure that the accuracy of dates, times and locations of upcoming meetings listed in this report. However, the schedule is subject to change, and readers are advised to double-check the information before the meeting by calling the individual identified at the bottom of that section of the report.

If you have any comments or suggestions about the format or content of the report, please do not hesitate to call me at (303) 236-2985, ext. 223, or Connie Young at (303) 236-2985, ext. 227.

A handwritten signature in cursive script, appearing to read "John Hamill".

cc: Implementation Committee
Management Committee
Information and Education Committee
Biology Committee
Water Acquisition Committee

John Hamill
Director,
Recovery Program



RECOVERY PROGRAM FOR THE ENDANGERED FISHES OF THE UPPER COLORADO

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Status Report

Recovery Program for Endangered Fish of the Upper Colorado River Basin
Aug. 30, 1995

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Fish ladder at Redlands Diversion Dam

Biologists believe dams and water diversion structures in the river are one of the primary reasons for the decline of the Colorado squawfish, razorback sucker, humpback chub and bonytail chub. These barriers have fragmented migration routes of endangered fish, cutting their historic range by 75 percent. The fish are no longer able to access preferred spawning, feeding and winter habitats. Once they leave the area they cannot return. Upstream of such barriers, these fish are nearly extinct.

Redlands Diversion Dam is a 12-foot structure on the Gunnison River three miles upstream of the Colorado River confluence. Owned by the Redlands Water and Power Company, the dam was constructed in 1918 for irrigation and power generation. Colorado squawfish, razorback sucker and bonytail were once abundant in the Gunnison River above Redlands, especially near Delta, Colo. Around 1950, these native fish began to decline dramatically in this area. The dam now blocks the fish from accessing more than 50 miles of their historical habitat. U.S. Fish and Wildlife Service biologists first proposed developing a fish ladder at Redlands in 1982.

A final environmental assessment was completed for the fish ladder and is available through Jone Wright at the Bureau of Reclamation (970-248-0636). All city and county permits and approvals have been obtained. The U.S. Bureau of Reclamation is currently renegotiating the long-term operation and maintenance contract for the passage structure. The ladder will be built beginning in October 1995, and should be operational by April 1, 1996.

Action: Contract to be awarded for construction of fish ladder.
Date: Sept. 29, 1995.

Action: Construction to begin on fish ladder.
Date: October 1995.

Action: Draft report to be available on refined minimum flow recommendations for the Gunnison River downstream of Redlands Diversion Dam.
Date: January 1996.

Action: Final report to be available on refined minimum flow recommendations for the Gunnison River downstream of Redlands Diversion Dam.
Date: March 1996.

Action: Fish ladder construction to be complete; operation and evaluation to begin.
Date: April 1996.

Action: Automatic radiotelemetry system to be deployed (sensors to be installed above, below and within the fish ladder to monitor movements and distribution of radio-tagged Colorado squawfish).
Date: June 1996.

Action: Minimum flow recommendations to be validated and refined.
Date: September 1996.

Questions? Please call Pat Nelson at (303) 236-2985, ext. 226.

Flood plain restoration

Over the past century, the upper Colorado River basin has lost much of its flood plain. Levees have been built to prevent flooding. Rip-rap has been installed to protect property. Dams and water diversions have tamed the high flows that previously were common in the spring. These events have reduced the extent, frequency and duration of flooding. The loss of flood plain habitats is believed to have contributed to the decline of the now endangered razorback sucker.

One aspect of endangered fish recovery involves enhancing or restoring natural flood plain habitats. An inventory of these habitats has been completed for 869 miles of the Colorado, Green, Gunnison, Yampa and White rivers (a final report available is available from Pat Nelson). Plans are being formulated to restore several areas, including a gravel pit at 29 5/8 Road in Grand Junction, Colo.; a site on Walter Walker State Wildlife Area on the Colorado River downstream of Grand Junction; and an area near Adobe Creek downstream of Walter Walker.

Major components of the flood plain restoration effort include:

- Screening potential restoration areas to determine levels of contaminants, such as selenium and copper. This information will be used to assess suitability of sites for restoration.
- Studies and activities to remediate contaminants problems in flood plain habitats.
- Studies on managing flood plain habitats to benefit endangered fish rather than non-native fish.
- Analyses of alternatives to restore flows on selected sites.
- Environmental compliance to secure permits for flood plain restoration.
- Design, engineering and construction to restore natural flood plain habitats and functions.
- Acquisition of interests in privately-owned flood plain properties from willing participants.
- Evaluation of results on a site-specific, reach-specific and basin-wide basis.

The flooded bottom lands restoration effort is funded by the U.S. Bureau of Reclamation and will continue until at least 1999. Success will be measured according to the response of endangered fish populations, non-native fish populations and the river ecosystem. (An annual report for FY 1994 is available from Pat Nelson.)

A report describing options for restoring Leota Bottom for use by endangered fish has been developed. Leota Bottom is a flood plain on the Ouray National Wildlife Refuge in northeastern Utah. The flood plain is divided into sections by dikes; the portion that was evaluated for restoration is the seventh of these sections and is referred to as "Leota L-7." Results of this work suggested that highly-engineered sites may be extremely expensive to construct and maintain, and that it may be more cost-effective to restore areas in such a manner that they will behave more naturally. Documents required for compliance with the National Environmental Policy Act have been com-

pleted for the three sites previously identified.

To take advantage of the high spring flows of 1995, aerial photos were taken of the Green, Colorado and Gunnison rivers during peak flows. The photos will be used to determine the extent of flooding that occurred for a given flow, and the relative "flood-ability" of different flood plains.

Action: "Conceptual framework" for the habitat restoration program to be developed. This will list program objectives, questions to be answered and hypotheses to be tested.

Date: Sept. 30, 1995.

Action: Land acquisition plan to be developed, identifying options for acquisition of interests in privately-owned flood plain properties from willing participants. The plan will identify flood plain areas targeted for acquisition and restoration and will describe the approaches to be used.

Date: Sept. 30, 1995.

Action: Levee removal strategy to be developed, identifying flood plain areas to be restored by levee removal and evaluating areas that currently flood. The strategy will describe the reach-specific approach to be used for evaluating flood plain restoration results.

Date: Sept. 30, 1995.

Action: First draft of basin-wide monitoring/evaluation program to be available for review. This involves developing written protocols for monitoring endangered razorback suckers, non-native fish populations and the river ecosystem.

Date: Sept. 30, 1995.

Action: Flood model reports to be complete for a 16-mile portion of the Green River in the Ouray National Wildlife Refuge and a nine-mile stretch through Canyonlands National Monument. (The reports are to estimate the amount of flooding that would result from various river flows and will help determine the amount, duration and frequency of flooding that occurred before Flaming Gorge Dam and other water projects existed. This is the second flood model produced by the Army Corps of Engineers' Hydrologic Engineering Center and is sometimes referred to as the "HEC-2" model.)

Date: Sept. 30, 1995.

Action: Draft report to be available on fish species that used flood plain habitats during 1995 high spring flows.

Date: Sept. 30, 1995.

Action: Gravel pit at 29 5/8 Road to be constructed; evaluation to begin.

Date: Sept. 30, 1995.

Action: Report to be available on possible Green River flow easements on land that could be used as razorback sucker habitat. (The area targeted is a 40-mile stretch from Jensen, Utah, downstream to Brennan Bottom, which appears to be good habitat for razorbacks. Easements would be acquired from willing landowners only.)

Date: November 1995.

Action: Final report for Phase I of the flood plain issue paper to be completed. Phase I will identify gaps in the habitat restoration program. Committees will decide whether or not to proceed with Phase II, where Colorado and Utah will identify and evaluate cooperative, incentive-based opportunities for protecting the flood plain from further degradation.

Date: Dec. 31, 1995.

Action: Annual reports to be completed for habitat restoration program components.

Date: December 1995.

Action: Report to be complete on presence of contaminants at sites that could be used as habitat for razorback suckers. (The report will be used to determine which areas are feasible for restoration.)

Date: December 1995.

Action: Final basin-wide monitoring/evaluation plan to be completed.

Date: Feb. 28, 1996.

Action: Construction at Walter Walker to be completed.

Date: April 1996.

Questions? Please call Pat Nelson at (303) 236-2985, ext. 226.

Flaming Gorge Dam operations

A major element of recovery in the Green River is to alter the operation of Flaming Gorge Dam to enhance endangered fish habitat. The Fish and Wildlife Service issued a biological opinion on the operation of Flaming Gorge Dam in 1991. This opinion contained flow recommendations for the Green River at Jensen, Utah, for July through October. For the rest of the year, it specified a range of experimental test flows.

The biological opinion identified the need to protect releases from Flaming Gorge from possible diversion in habitat occupied by endangered fish. The initial focus was to legally protect Green River flows from Flaming Gorge to the confluence with the Duchesne River for July through October. Flow protection for the remainder of the year (November through June) and downstream to Canyonlands National Park will be addressed after the revised biological opinion is issued in 1997.

The Flaming Gorge Work Group met Aug. 10, 1995, in Heber, Utah, to plan winter releases. Flaming Gorge is nearly full, and higher winter releases will be necessary to avoid the possibility of spills in 1996. Researchers would like to repeat studies to look at the effects of icing and ice breakup in the Jensen area. Western Area Power Administration would like to be able to fluctuate flows in a higher range to produce more power and to reduce reservoir levels. The group decided to allow Western to maintain releases at 2,500 cubic feet per second on a daily basis in November and December. These releases would continue until there is evidence of icing, at which point flows would be stabilized to prevent ice breakup. The issue of using the bypass tubes at Flaming Gorge in spring 1996 was identified by the U.S. Fish and Wildlife Service and National Park Service, creating considerable discussion. This will be discussed Oct. 26, 1995, as identified below.

In other news, research for the Flaming Gorge revised biological opinion is winding down, with many studies scheduled for completion in 1996. These studies are designed to meet long-term data needs while collecting new information necessary for the revised biological opinion, due in 1997.

Action: Flaming Gorge Work Group to meet to identify issues related to the possibility of releasing bypass flows in spring 1996. (The meeting will be at Western Plaza Community Center, 300 East 200 South, Vernal, Utah.)
Date: Oct. 26, 1995, 1 p.m. to 5 p.m.

Action: Biologists from the U.S. Fish and Wildlife Service and Bureau of Reclamation to begin meeting to review results of research conducted on Flaming Gorge Dam operations during the previous five years. Biologists will use information from these discussions to write the revised biological opinion on Flaming Gorge.
Date: Beginning in November 1995. (Specific dates and locations of meetings to be determined.)

Action: Revised biological opinion on operation of Flaming Gorge Dam to be finalized.
Date: Sept. 30, 1997.

Questions? Please call George Smith at (303) 236-5322.

Yampa River Basin water issues

Recovery efforts in the Yampa River are focused on maintaining and legally protecting natural flows needed for endangered fish. The Recovery Program is attempting to obtain a portion of the Juniper Reservoir water rights from the Colorado River Water Conservation District. The Juniper rights are conditional, or undeveloped, water rights that could control about 75 percent of the river's flow. The River District has expressed a willingness to consider converting a portion of these and other Yampa Basin rights to in-stream flows for endangered fish if long-term water needs can be met through some other mechanism, such as enlargement of Elkhead Reservoir.

The U.S. Fish and Wildlife Service recently issued draft flow recommendations for the Yampa River during non-runoff months. The recommendations update those developed in 1990 and are based upon new hydrology information. The Colorado Water Conservation Board has begun a public review process of the flow recommendations in order to file for an in-stream flow appropriation by the end of 1995.

The Colorado River Water Conservation District has held several meetings in Craig, Colo., with interested water users and agencies to help develop a Yampa River operation and management plan. The Water District also has developed a draft of the plan, which was discussed at the meeting in Craig and is scheduled for completion in 1995. Funding for the plan has not been finalized, but \$1.5 million has been tentatively set aside in the FY 1996 Recovery Program budget.

Action: Colorado Water Conservation Board to submit preliminary notice on Yampa River in-stream flow appropriation for endangered fish.
Date: Oct. 11, 1995. (Meeting time and location to be determined at next meeting of the Colorado Water Conservation Board.)

Action: Colorado Water Conservation Board to submit final notice on Yampa River in-stream flow appropriation for endangered fish.
Date: Dec. 1, 1995. (Meeting time and location to be determined at next meeting of the Colorado Water Conservation Board.)

Action: Colorado Water Conservation Board to file with water court for Yampa River in-stream flow appropriation for endangered fish.
Date: By Dec. 31, 1995.

Questions? Please call George Smith at (303) 236-5322.

Gunnison River basin water issues

In the early 1980s the Aspinall Unit, which includes Blue Mesa, Morrow Point and Crystal dams, received a jeopardy biological opinion under the Endangered Species Act for its impacts on native fish in the Gunnison River. To correct this situation, in 1992 federal and state biologists began a five-year research study to evaluate effects of the Aspinall Unit on endangered fish and their habitat. The Bureau of Reclamation and Western Area Power Administration are providing "test" flows during this period to benefit endangered fish.

Also, the U.S. Fish and Wildlife Service, Bureau of Reclamation and Colorado Water Conservation Board recently completed negotiations on protecting Gunnison River flows of 300 cubic feet per second in the river reach below Redlands Diversion Dam. These flows are also needed for proper operation of a planned fish ladder that would allow endangered fish to swim around the dam. Long-term protection of these flows will be addressed after the Service issues a biological opinion on operations of the Aspinall Unit in 1997.

The FY 1996 work plan continues studies of Gunnison River fish populations and endangered fish flow needs. The biological opinion for the Aspinall unit is to be completed in 1997.

Action: Grand Junction, Colo., office of the U.S. Fish and Wildlife Service to complete research and data collection for biological opinion on operation of the Aspinall Unit, which includes Blue Mesa, Morrow Point and Crystal dams.
Date: Sept. 30, 1996.

Action: Biological opinion on operation of the Aspinall Unit to be completed.
Date: Sept. 30, 1997.

Questions? Please call George Smith at (303) 236-5322.

Grand Valley water management

The 15-mile reach of the Colorado River upstream of the confluence of the Gunnison River is an important area for recovery efforts. In recent years, biologists have captured twice as many Colorado squawfish in the 15-mile reach as anywhere else in the main stem Colorado River. Also, 10 or more years ago, razorback suckers were found in spawning condition in this stretch of river. Major agricultural water diversions have decreased in-stream flows significantly during late summer and early fall.

The Grand Valley Project consists of a roller dam on the Colorado River near Cameo, Colo., and more than 55 miles of canal and pipelines that deliver irrigation water for the Grand Valley. The Bureau of Reclamation is working to determine how the Grand Valley Project could be operated to increase flows in the 15-mile reach of the Colorado River near Grand Junction for endangered fish. A diverse group of water interests is participating in a Grand Valley water management study to explore the technical, legal and policy issues associated with modified operation and to identify canal improvements that will increase system efficiency.

For the past three years the Recovery Program has contracted for the operation of a water gauge at the lower end of the 15-mile reach. The gauge determines the amount of Grand Valley irrigation water that eventually returns to the 15-mile reach. The report summarizing flows in the 15-mile reach can be obtained from George Smith.

The Bureau of Reclamation has developed a computer model of the Grand Valley Project's canal system that identifies where gates or "check structures" can be installed to improve canal efficiency and reduce demands for future water diversions. A fair amount of work on this project has been completed, and Reclamation has been working with water users on how automation could help their systems operate more efficiently. Reclamation also has identified other issues that water users want to solve as part of the project. The water management work group, which includes the Colorado Water Conservation Board, Reclamation, water users and interested citizens, has identified enough potential benefit that the project should move quickly into the design and permitting stage.

An important aspect of this project is the quantification and protection of water saved by canal automation. Several methods are being considered for protecting some of the saved water for endangered fish. These options include new legislation that would allow saved water from the Grand Valley to be made available for in-stream flows for the fish and would allow modification of the Orchard Mesa checking operation, permitting more water to be stored in Green Mountain Reservoir for endangered fish.

(There are no specific action items at this time.)

Questions? Please call George Smith at (303) 236-5322.

Ruedi Reservoir water contract

For the last five years Reclamation has provided 10,000 acre-feet of water to enhance habitat conditions for endangered fish species in the 15-mile reach. This arrangement came about as a condition of the biological opinion issued by the Fish and Wildlife Service in 1987 on water marketing from Ruedi and Green Mountain reservoirs. An additional 10,000 acre-feet — for a total of 20,000 acre-feet — also was made available on a year-to-year basis beginning in 1991 following an agreement by Reclamation, the Service and the Colorado Water Conservation Board.

Also, beginning in the late 1980s several blocks of water from Ruedi and Green Mountain reservoirs have been sold for municipal and industrial use. When current "Round II" water sales have been completed, the Service, Reclamation and state of Colorado will develop an agreement to use the reservoir's remaining uncommitted water for endangered fish. This agreement will accommodate environmental commitments agreed to by Reclamation in the Environmental Impact Statement on the Round II sales and any constraints of the reservoir's authorizing legislation. If flow recommendations for the 15-mile reach are met from other sources during the interim agreement, additional water from Ruedi beyond the original 10,000 acre-feet would no longer be needed. At the end of the interim agreement, Reclamation may pursue additional water sales, regardless of whether flow recommendations have been met. These sales would be subject to review under Section 7 of the Endangered Species Act.

Action: Bureau of Reclamation to begin executing Ruedi Round II water contracts.
Date: By fall 1995.

Action: Public meetings to be held on Ruedi Reservoir water sales. (The meeting will be in Glenwood Springs, Colo.)
Date: Fall 1995. (Meeting date and specific location have not yet been set.)

Action: Bureau of Reclamation to complete contract on remaining water from Ruedi Reservoir.
Date: By Dec. 31, 1995.

Questions? Please call George Smith at (303) 236-5322.

Propagation facilities for endangered fish

The Recovery Program currently has endangered fish "refuge" ponds at Ouray Endangered Fish Facility in Utah and at Horsethief Canyon State Wildlife Area in Colorado. Additional ponds are under construction at Ouray, and by the end of FY 1996, the combined surface area of these two sites will be 7.9 acres. An additional 9.3 acres is needed for primary refuge ponds and another 14.5 acres for backup ponds.

Feasibility studies and engineering design investigations have been completed for a site at Craig, Colo., and at a state fish culture station in Wahweap, Utah. These studies will be completed in 1995 and evaluated based on Recovery Program needs for refuges and propagation. The Management Committee recently approved construction of up to six additional ponds at the Wahweap site. Also, the Management Committee is developing recommendations for additional hatchery construction in FY 1996. Potential sites for development and/or expansion include Wahweap, Craig, Horsethief and Ouray.

Together, these ponds will allow the Recovery Program to produce fish for adult brood stocks, research, stocking and "refuge" populations that will prevent extinction in the wild. The brood stocks will consist of 25 family lots, which will be offspring from four stocks of fish: razorback suckers from the middle Green River and upper Colorado River, bonytail chubs from Lake Mohave and Colorado squawfish from the upper Colorado River. (Long-term fish needs for augmentation and restoration stocking have not yet been identified.)

Action Ten to 11 additional 0.2-acre ponds to be completed at the Ouray Endangered Fish Facility in Utah.

Date: Oct. 1, 1995.

Action: The Implementation Committee will approve recommendations for additional hatchery sites in FY 1996.

Date: Sept. 7, 1995.

Action: The Utah Division of Wildlife Resources will construct up to six additional refuge ponds at the Wahweap site.

Date: November 1995.

Questions? Please call Dick Wydoski at (303) 236-2985, ext. 228.

Non-native fish stocking procedures

Only 14 fish species are native to the upper Colorado River basin; eight of these are either endangered or are candidates for listing. In contrast, more than 40 non-native species have been introduced and are believed one of the primary causes of the decline in native Colorado River fish.

To partially address this problem, in 1994 the Service and the states of Colorado, Utah and Wyoming developed "Interim Procedures for Stocking of Non-native Fish Species in the Upper Colorado River Basin." The purpose of the procedures is to prevent non-native fish from escaping out of upper Colorado River basin ponds and reservoirs and into the river. Stocking non-native fish for recreational fishing in the upper basin is still permitted, provided the stocking is consistent with endangered fish recovery.

A team of federal and state biologists has revised the interim procedures, which have been widely distributed to federal and state agencies and the public for information, review and comment. This action is part of the scoping process for compliance with the National Environmental Policy Act. Several public meetings will be held in appropriate locations to explain the purpose of the procedures, alternatives considered and impacts on the public. An Environmental Assessment will be prepared in compliance with NEPA that also will be widely distributed for review and comment. Public notices will be published in key newspapers in Colorado, Utah and Wyoming, informing interested individuals of how to obtain the document. Public comments will be considered when the Environmental Assessment is revised.

- Action:** Public comments on revised draft procedures due to the U.S. Fish and Wildlife Service.
Date: Aug. 31, 1995.
- Action:** Public meeting on revised draft procedures to be conducted at Western Wyoming Community College, Room 1302, Rock Springs, Wyo.
Date: Sept. 18, 1995, 7 p.m. to 10 p.m.
- Action:** Public meeting on revised draft procedures to be conducted at Utah State University extension office, 1680 W. Highway 40, Room 211, Vernal, Utah.
Date: Sept. 19, 1995, 7 p.m. to 10 p.m.
- Action:** Public meeting on revised draft procedures to be conducted at the Holiday Inn, Craig Room, 300 S. Colorado Highway 13, Craig, Colo.
Date: Sept. 20, 1995, 7 p.m. to 10 p.m.
- Action:** Public meeting on revised draft procedures to be conducted at the Ramada Inn, Horizon Room, 2790 Crossroads Blvd., Grand Junction, Colo.
Date: Sept. 21, 1995, 7 p.m. to 10 p.m.
- Action:** Public meeting on revised draft procedures to be conducted in Denver.
Date: September 1995. Date and location to be determined.
- Action:** Draft Environmental Assessment of the procedures to be mailed to appropriate agencies, organizations and individuals for 30-day review and comment. Also, public notice of availability of Environmental Assessment to be published in key newspapers in Colorado, Utah and Wyoming.
Date: Oct. 16, 1995.

Action: Public comments on the draft Environmental Assessment due to the U.S. Fish and Wildlife Service.

Date: Nov. 17, 1995.

Action: Environmental Assessment document to be finalized.

Date: Dec. 15, 1995.

Action: Consultation on Section 7 of the Endangered Species Act to be completed.

Date: Dec. 8, 1995.

Action: Memorandum of Understanding to be completed between the U.S. Fish and Wildlife Service and states of Colorado, Utah and Wyoming on roles and responsibilities for implementing the procedures. Notice to be published on the final Environmental Assessment in key newspapers in Colorado, Utah and Wyoming.

Date: Dec. 29, 1995.

Action: Action to be taken on the procedures by the Colorado Wildlife Commission. (Similar actions may be taken in Utah and Wyoming as appropriate.)

Date: Jan. 11 - 12, 1996.

Questions? Please call Dick Wydoski at (303) 236-2985, ext. 228.

Non-native fish control on the Gunnison River

This involves a three-year effort to evaluate the effectiveness of removing non-native fish such as northern pike, largemouth bass and green sunfish from the Gunnison River. To locate these sport fish, biologists will use a fish species inventory of the Gunnison that showed the times of year when these fish are concentrated in certain areas. Biologists will capture the fish using trammel nets, trap-nets and "electro-fishing" — a technique that involves running an electrical current through the water to temporarily stun the fish and bring them to the surface. The non-native fish will be removed from the river alive then transported to other waters for sport-fishing purposes. This spring, six northern pike were captured and transported to Harvey Gap Reservoir.

Action: Additional field studies to be conducted on experimental removal of non-native sport fish that prey on endangered fish. Non-native fish removed from Gunnison River to be stocked in Harvey Gap Reservoir.

Date: September to October 1995.

Action: Evaluation report to be completed on experimental removal of non-native sport fish.

Date: Sept. 30, 1997.

Questions? Please call Dick Wydoski at (303) 236-2985, ext. 228.

Non-native fish management in the Green River

Studies conducted during 1993 and 1994 demonstrated that smallmouth bass, small channel catfish and green sunfish can prey heavily on young-of-the-year Colorado squawfish. To help reduce this problem, smallmouth bass will be removed from two one-kilometer sections of the Green River in 1995. Biologists will collect the fish by electro-fishing.

Action: Annual report due on efforts to remove smallmouth bass from selected reaches of the Green River.

Date: Dec. 15, 1995.

Action: Final report due on effectiveness of electro-fishing as a removal method.

Date: Dec. 15, 1996.

Questions? Please call Dick Wydoski at (303) 236-2985, ext. 228.

Experimental removal of northern pike from the Yampa River

Northern pike have expanded their range from the Yampa River to upper sections of the Green River — areas that are critical nursery habitat for young Colorado squawfish. In a Utah State University study on the Green River, researchers documented that young squawfish constituted 5 percent of the diet of northern pike, even though squawfish made up a much smaller portion of the available food base in the river. The researchers estimated that a single northern pike could consume 100 or more squawfish per year. Also, northern pike are known to prey on native roundtail chub and may also feed on humpback chubs in the Yampa River. The Yampa River is one of the last truly "wild" rivers in the West and provides some of the best remaining native fish habitat in the entire Colorado River basin. Ensuring continued availability of this habitat is crucial.

The purpose of the removal effort would be to determine whether pike densities can be reduced in critical habitat of endangered fish over the long term and whether endangered fish will benefit. Northern pike would be captured alive and transferred to public waters open to sport fishing. In June 1995, the Management Committee decided to postpone any work on this project to allow for public involvement and completion of a strategic plan for controlling non-native fish throughout the upper Colorado River basin. This plan is to be available in January 1996.

Action: Strategic plan to be completed for controlling non-native fish in the upper Colorado River basin.

Date: Jan. 15, 1996.

Questions? Please call Dick Wydoski at (303) 236-2985, ext. 228.

Long-term funding and legislation

In October 1994, the Recovery Program's Implementation Committee formed an ad hoc committee to address long-term funding for the upper Colorado River and San Juan River endangered fish recovery programs. Participants in these discussions have included the Bureau of Reclamation; the states of Colorado, Utah, Wyoming and New Mexico; several Indian tribes; water, power and environmental groups; staff from the House Resources Committee; and representatives of several members of the Colorado and Utah Congressional delegations. A legislative initiative is expected to emerge from these discussions.

The cost for implementing the Recovery Program is estimated at \$60 to \$110 million through the year 2003. About two-thirds of this funding will be needed to implement a variety of capital projects such as building fish ladders, acquiring water and water rights, acquiring and restoring flood plain habitats used by the endangered fish and constructing additional hatchery facilities.

Major issues being addressed include: potential funding sources and funding mechanism; cost-sharing by program participants, such as federal and state agencies, power users and water users; the relationship between long-term funding and certainty that water projects will receive favorable biological opinions in the future; and whether to include funding for non-listed native species. A draft funding proposal was developed in June 1995.

- Action:** Ad hoc committee to meet to develop final funding recommendations. (The meeting will be at Denver International Airport, meeting room to be determined.)
- Date:** Oct. 5, 1995.
- Action:** Funding recommendations to be submitted to the Recovery Program Implementation Committee for review and approval.
- Date:** Mid-November 1995.
- Action:** Recovery Program legislation to be drafted (as needed).
- Date:** January 1996.
- Action:** Legislation to be submitted to Congress; Congressional committees and state delegations to be briefed.
- Date:** February 1996.
- Questions?** Please call John Hamill at (303) 236-2985, ext. 225.

Recovery Implementation Program Recovery Action Plan update

The Recovery Implementation Program Recovery Action Plan (RIPRAP) identifies actions believed necessary to recover endangered fish in the upper Colorado River basin. The RIPRAP is updated annually and serves as a guide for all program planning, research and recovery efforts.

Accomplishing RIPRAP objectives serves as a reasonable and prudent alternative to "jeopardy" decisions on upper basin water depletion projects that are undergoing Fish and Wildlife Service consultation under Section 7 of the Endangered Species Act.

Action: Program director to send revised RIPRAP to Recovery Program participants and interested parties for final review.

Date: February 1996.

Action: Implementation Committee to approve revised RIPRAP.

Date: March 1996.

Action: Revised RIPRAP to be available for public distribution..

Date: April 1996.

Questions? Please call Angela Kantola at (303) 236-2985, ext. 221.

Annual Work Plan development

The annual work plan describes specific projects to be undertaken that year. Annual work plan development begins in March of the prior year when the "Program Guidance," similar to a request for proposals, is issued. The Program Guidance contains the rationale, goals, objectives, expected product and schedule for each requested new project. Interested principal investigators submit proposals or "scopes of work" for these projects by the end of April. Program staff revise these scopes of work and submit a recommended work plan to program participants in June. This is reviewed first by the technical committees (Biology, Water Acquisition and Information and Education committees), then by the Management Committee and Implementation Committee. Implementation of the Annual Work Plan begins Oct. 1, when the federal fiscal year starts.

Action: Implementation Committee to approve FY 1996 Work Plan.

Date: Sept. 7, 1995.

Action: Final FY 1996 Work Plan to be available for public distribution.

Date: Oct. 7, 1995.

Questions? Please call Angela Kantola at (303) 236-2985, ext. 221.

Committee meetings

Action: Implementation Committee meeting, Rocky Mountain Arsenal conference room, Denver.

Date: Sept. 7, 1995, 9 a.m. to 3:30 p.m.

Action: Biology Committee meeting, Grand Junction.
Date: Sept. 21 - 22, 1995. Specific times and location to be determined.

Action: Water Acquisition Committee meeting, Grand Junction, Colo.
Date: Oct. 19 - 20, 1995. Specific times and location to be determined.

Action: Management Committee meeting, Rocky Mountain Arsenal conference room,
Denver.
Date: Oct. 12, 1995, 9 a.m. to 4:30 p.m.

Questions? Please call Angela Kantola at (303) 236-2985, ext. 221.