

RECOVERY PROGRAM DIRECTOR'S UPDATE  
September 2000

Population Status: Little change in population status.

SPECIES	RIVER		
	MIDDLE GREEN <sup>1</sup>	LOWER GREEN <sup>2</sup>	COLORADO
Colorado pikeminnow	Stable/increasing	Stable	Stable
Humpback chub	<u>Yampa Canyon:</u> Stable/small	<u>Desolation/Gray Canyon:</u> Stable?/small	<u>Black Rocks Canyon:</u> Stable/doing well <u>Westwater Canyon:</u> Stable/doing well <u>Cataract Canyon:</u> Stable?/small
Razorbuck sucker (All populations are currently being augmented through stocking)	<500 adults, very limited recruitment; stocked fish returning to spawning bar	Few adults, very limited recruitment	Few adults, no recruitment
Bonytail	Populations are currently being re-introduced in Colorado, lower Green, middle Green and Yampa rivers.		

<sup>1</sup>

<sup>2</sup> Middle Green River consists of the Yampa River to approximately 30 miles SSW of Ouray, Utah.

Lower Green River is from the end of the Middle Green River section to the confluence of the Colorado River.

Recovery goals: Recovery goals are in a final draft stage prior to being published in the Federal Register in early to mid-October this year. The recovery goals consist of both demographic criteria and criteria to minimize or remove threats. The objective, measurable criteria are presented for both downlisting and delisting for each of the four endangered fishes throughout their range.

I. Instream Flow Identification and Protection

Goal: To protect sufficient instream flows to support self-sustaining populations of the fishes.

Status: The report on flow recommendations for endangered fishes in the Green River downstream of Flaming Gorge Dam was approved as final in April 2000. The report will be posted to the Recovery Program's web site in early September 2000, and hard copies will be available by the end of September. This report will be used in preparing a new biological opinion on operation of Flaming Gorge Dam. Flow recommendations in the report will be used by the State of Utah to pursue extending current protection of flows for the endangered fishes in the Green River downstream to the Colorado River confluence.

A draft final report on flow recommendations to benefit endangered fishes in the Colorado and Gunnison rivers has been completed, and will be revised based on written comments from the Biology Committee and other interested parties. It is anticipated that the report will be resubmitted for approval as final by the Biology Committee at a meeting scheduled for October 24-25, 2000.

A draft of the White River flow recommendations report has been completed and is out for internal review. It is anticipated that the report will be submitted for peer review by October 2000.

The final 15-Mile Reach Programmatic Biological Opinion (PBO) was signed in December 1999. The first Recovery Agreement under the PBO was signed in February and as of September 2000, 22 agreements have been signed. Signing of the PBO has allowed construction of Grand Valley Water Management Plan checks and water-control structures to proceed with the first contract issued in 2000.

A multi-party agreement was completed in 1996 that established a working group known as the Managing Entities. Beginning in 1998 and continued in 2000, the Managing Entities implemented a program of managing releases of surplus water from Green Mountain Reservoir and coordinating releases from Ruedi and Wolford Mountain reservoirs for the endangered fishes.

Agreements have been negotiated between the Colorado River Water Conservation District and the Service, and among Denver Water, Colorado Water Conservation Board, and the Service for annual release of 10,825 acre-feet (5,412.5 acre-feet each from the River District and Denver Water) to benefit the endangered fish under the terms of the PBO. The agreements were completed just in time to help augment flow in August of 2000. Releases from the Denver pool began on August 1, and releases from the Wolford pool began on August 11 when the 6,000 AF fish pool was exhausted. The Managing Entities welcomed the additional water from Denver's Williams Fork Reservoir and Wolford Reservoir. The additional water sources have relieved part of the burden to supply fish with water from Ruedi Reservoir. Dry conditions in the late summer put great pressure on all of the water sources and demonstrated the need to get the Green Mountain Municipal Recreation contract in place so that Green Mountain HUP surplus water can be released and protected under Colorado Water Law.

Program participants coordinated operations of several reservoirs in Colorado during spring 1997–1999 to provide water for the endangered fishes. Conditions in 2000 were so dry that Program participants decided that target flow levels could not be met and that water would be best conserved for late summer augmentation. Ironically, the Colorado River at Cameo peaked near 16,000 cfs. The peak was short lived and would have been very hard to match.

The Coordinated Facilities Project was initiated in 1999 to investigate alternatives for supplying up to an additional 20,000 acre-feet (average annual) of water to the 15-Mile Reach of the Colorado River. The additional water will be supplied to supplement spring peak flows by about 1,000 cfs over a 10-day period. A secondary purpose is to augment flows during the late summer and fall period. Phase I of this project examined a wide-range of possible alternatives that were subjected to a preliminary screening process in order to arrive at a short-list of alternatives that would be intensively studied in Phase II. Phase I analyses have been completed, and the final report is expected in September 2000. Preliminary work in Phase II has begun, funding and contracting difficulties have slowed progress; these difficulties are being solved.

Colorado State Parks continues to release up to 2,000 acre-feet of water annually from Steamboat Lake per their agreement with the Colorado Water Conservation Board and the Service. The Yampa River synthesis report was finalized in 1999, and a management plan for the Yampa River is near completion to benefit the endangered fish as well as covering existing and future depletions up to 28,000 acre-feet in the Yampa River Basin.

A draft biological opinion for the Narrows Project on the Price River was released September 21, 1999. This biological opinion has now been revised; the final opinion was signed in August 2000. Pursuant to the Reasonable and Prudent Alternative in the biological opinion, revisions were made to the RIPRAP to include action items for the Price River. FY 2001 program guidance included a project to evaluate overwinter use of the Price River by subadult/adult Colorado pikeminnow and to develop year-round flow recommendations.

From 1988 through June 30, 2000, the Service consulted on 231 projects with a potential to deplete a total of 618,774 af of water in the Upper Colorado River Basin, of which 73 are historic projects depleting 484,443 af. Three of these "projects" are blanket consultations for depletions under 100 af, up to 6,000 af total. These consultations have covered 364 actual projects depleting a total of 5,257 af. (3,917 af in Colorado, 841 af in Utah, and 499 af in Wyoming). Another of these 220 "projects" is the 15-Mile Reach programmatic biological opinion which covers an average of 1 million acre-feet per year of existing depletions (through September 30, 1995) and up to 120,000 acre-feet of new depletions (since September 30, 1995) in the Colorado River above the confluence with the Gunnison River.

The Service continued to waive charges for water projects that deplete fewer than 100 acre-feet of water per year. This arrangement has simplified the section 7 consultation process for many water projects in the upper basin.

## II. Habitat Restoration

**Goal:** To provide or enhance habitat for the rare fishes through habitat development or management measures such as:  
fish passageways  
screens to prevent fish entrainment into diversion canals  
restoration of flooded bottomland habitats.

**Status:** The fish ladder at the Redlands Diversion Dam on the Gunnison River has been operational since June 1996. The ladder has been used primarily by native fishes, including 50 Colorado pikeminnow. Six of the pikeminnow have used the ladder twice; one has used it three times. Native fishes that were marked and released above the dam dispersed upstream, some as far as 57 river miles to the base of the Hartland Diversion Dam. A fish screen will be installed at Redlands by April 2005 if deemed necessary, to prevent entrainment of endangered fishes into the diversion canal.

A fish passage structure was constructed at the Grand Valley Irrigation Company Diversion Dam on the Colorado River in January 1998. Ten adult Colorado pikeminnow were captured above the GVIC dam between August 19 and September 24, 1998. Providing fish passage at this structure, Price-Stubb, and the Grand Valley Project Diversion Dam will restore 55 miles of historically-occupied habitat for endangered fishes. Design options for a canal

fish screen are being developed; construction is scheduled for completion by March 2002.

Design options are being developed to restore fish passage at the Price-Stubb Diversion Dam. Construction was tentatively scheduled to begin in the fall of 1998. However, complex issues (e.g., potential effects of passage restoration on railroad, highway, Reclamation's siphon, and Ute pumping; ownership of property and FERC license) have caused delays. The schedule for construction is pending a decision by FERC on the amendment to the hydropower license. Construction is tentatively scheduled for completion by April 2003. A fish screen will not be necessary because water has not been diverted at this site since 1919.

Pre-construction activities are ongoing through FY 02 to restore fish passage at the Grand Valley Project Diversion Dam. Construction is scheduled for completion in April 2003. Installation of a fish screen is scheduled for completion by February 2004.

Design options are being developed for a fish screen at the Tusher Wash Diversion canal on the Green River in Utah. Construction is tentatively scheduled for completion by March 2002. The Recovery Program has decided that a fish ladder will not be needed at this site.

Restoration of passage and installation of a fish screen at the Hartland Diversion Dam on the Gunnison River has been delayed because of other priorities. Construction is scheduled for completion by March 2004.

Between March 1997 and March 1998, levees were breached at 8 sites along the Green River, resulting in 1216 to 1734 floodable acres (depending on flows), and filling out the eight-site block design recommended by the Levee Removal Evaluation Group and subsequently approved by the Biology and Management committees. A report based on preliminary results of data collected from 1996 through 1998 was submitted to the Recovery Program in December 1998. A draft final report is expected to go to the Biology Committee in September 2000.

During April 2000, levees were breached at the upstream end of the Bonanza Bridge and Above Brennan sites on the Green River, to entrain drifting razorback larvae. Evaluation of how well the sites entrain drifting larvae is scheduled to begin during spring runoff 2001.

Both public and private lands continue to be screened for contaminants and relative floodability (pre-acquisition; pre- and post-restoration). Land acquisition activities have resulted in acquisition of eight properties (580 acres) along the Green and Colorado rivers thus far. Currently 30 additional properties (1,600 acres) are in the land acquisition process.

Razorback suckers 3 to 5 inches in length were stocked into 3 floodplain wetlands in April 1999. In the presence of nonnative fishes, the razorbacks grew to 14 inches in length. Of the 5,955 razorbacks that were stocked, 1,100 were recaptured. The razorbacks survived in the wetlands over the winter of 1999-2000. In the spring of 2000, ~30 razorbacks were captured trying to leave the wetlands to get into the river; they were subsequently pit-tagged and released into the river. Also during spring runoff 2000, one of the razorbacks that had been stocked into the wetlands was captured at the spawning bar.

### III. Nonnative Fishes and Sportfishing

**Goal:** Minimize the impacts of nonnative fishes and incidental take associated with sport fishing on the endangered fishes.

**Status:** Mechanical removal of nonnative cyprinids from backwater nursery areas used by native fishes in reaches of the Green and lower Colorado (Utah) rivers was begun in 1998 and is scheduled to continue through 2001. For 1998 and 1999 combined, approximately 93,000 nonnative cyprinids (plus 1,300 other nonnatives) were removed from backwaters of the Green River, and approximately 149,000 nonnative cyprinids (plus 1,500 other nonnatives) were removed from backwaters of the lower Colorado River.

A project to mechanically remove (through seining) small nonnative cyprinids and centrarchids from backwaters on the Colorado River in Colorado, was initiated in 1999. A total of 65 backwaters was sampled in 1999, including 38 in the 15-Mile Reach and 27 in the 18-Mile Reach. Data are still being analyzed, but an interim progress report was submitted on September 25, 1999. In a companion study initiated in 1999, electrofishing in spring and autumn is being used to remove centrarchids from Colorado River backwaters. Data from that study are still being analyzed. Preliminary results indicate that about 5,800 nonnative fishes were removed, but suggest that the spring removal effort did not have a significant depletive effect (i.e., catch rates in autumn were essentially unchanged from those in spring).

Mechanical removal of channel catfish from reaches in Yampa Canyon on the Yampa River was initiated in 1998 and continued in 1999. For 1998 and 1999 combined, approximately 4,400 channel catfish were collected. Data are still being analyzed, but preliminary results suggest a depletion effect on channel catfish populations and that numbers of channel catfish in Yampa Canyon are lower than anticipated. The final report is expected in 2000.

The project to remove adult northern pike from the Yampa River and translocate these fish to off-channel sites in compliance with the 1996 Nonnative Fish Stocking Procedures (NNFSP) was initiated in 1999. After a late start due to delays in identifying appropriate receiving waters and in obtaining collecting permits, 164 northern pike were collected. Of those, 80 were translocated to ponds at the Yampa State Wildlife Area, and 72 were returned alive to the Yampa River (returned alive because at time of capture no appropriate receiving waters had been identified). Response of local anglers fishing the translocation ponds was positive. In 2000, about 350 northern pike were translocated to Rio Blanco Lake because in-basin sites that meet the criteria of the NNFSP agreement were unavailable.

Removal and control of nonnative fishes in Colorado and Gunnison River floodplain source ponds began in 1998 and continued in 1999. As of December 13, 1999, 104 ponds had been surveyed. Of those, 19 had been chemically reclaimed, 1 had been reduced in depth to allow for winterkill, and 5 are managed annually through filling and drying. An objective of the project is to reclaim/control water levels/reshape/isolate 150 floodplain ponds of the Colorado and Gunnison rivers through 2003.

A fish barrier net was installed on August 18, 1999, in Highline Lake Reservoir to reduce or eliminate escapement of nonnative sportfishes from the reservoir and into reaches of critical habitat in the Colorado River. Evaluation

of the operation, maintenance, and effectiveness of this fish barrier net is ongoing. This effort has allowed active management of Highline Reservoir to provide warmwater fishing opportunities. Similar devices to control escapement of nonnative fishes from reservoirs are being considered for Elkhead Reservoir, Bottle Hollow Reservoir, and possibly other reservoirs.

#### IV. Propagation Activities

**Goal:** Produce a sufficient supply of hatchery reared fish to support research and recovery activities.  
Conserve the genetic diversity present in the wild.

**Status:** The table on the following page identifies the species stocked from September 1998 through August 2000.

This past year, 19 adult razorback suckers were collected from the spawning bar in the middle Green River. Of these, 8 were wild fish (2 females and 6 males) and 11 were hatchery fish (2 females and 9 males).

In addition to stocking events, two new lots were added to the brood stock development of razorback sucker for the middle Green River and over 8,000 razorbacks are at the hatchery for stocking this year.

One of the hatchery females collected from the spawning bar was stocked into the Baeser Bend depression wetland last fall. The female appeared ready to spawn. Other radio tagged razorbacks from the wetlands were detected in the area of the spawning bar.

This was the first year of stocking bonytail in the State of Colorado. A total of 10,000 bonytail were stocked at Dinosaur National Monument, in Yampa and Lodore canyons. This fall approximately 64,000 will be stocked into the Green and Colorado rivers.

The Program continues to obtain grow out ponds both in the Grand Valley, CO and Vernal, UT areas. We currently have approximately 45 acres of ponds in Grand Valley area through leases and agreements. An additional 11 acres are being developed in DeBeque by the Bureau of Reclamation. Approximately 7.5 acres have been leased in the Vernal, UT vicinity. The Leota 10 site that is being modified for second year grow out is approximately 150 acres.

Species	Date	River Section	Number	Approximate Size (inches)
Bonytail	Oct 1998	Colorado	3,280	5
	Oct 1998	Lower Green	3,000	5
	Mar 1999	Colorado	15 (with radio tags)	10
	Apr 1999	Colorado	10,000	4
	Apr 1999	Lower Green	10,000	4
	<b>Mar 2000</b>	<b>Lower Green</b>	<b>13</b>	
	<b>Apr 2000</b>	<b>Lower Green</b>	<b>19,987</b>	<b>4-7</b>
	<b>Apr 2000</b>	<b>Colorado</b>	<b>15,037</b>	<b>3</b>
	<b>Jul 2000</b>	<b>Yampa</b>	<b>5,000</b>	<b>4</b>
	<b>Jul 2000</b>	<b>Middle Green<sup>1</sup></b>	<b>5,000</b>	<b>4</b>
Razorback sucker	Oct 1998	Middle Green <sup>2</sup>	125	6-8
	Apr & Aug 1999	Middle Green <sup>2</sup>	6659	4-8
	May 1999	Middle Green <sup>2</sup>	57,900	<1
	May 1999	Middle Green	35 (with radio tags)	>10
	Jun 1999	Middle Green	738	10-16
	<b>Jun 2000</b>	<b>Old Charlie</b>	<b>9599</b>	<b>&lt;1</b>
	<b>Jun 2000</b>	<b>Middle Green</b>	<b>79</b>	<b>17</b>
	<b>Jun 2000</b>	<b>Stewart Lake</b>	<b>145</b>	<b>12</b>
	<b>Jun 2000</b>	<b>Old Charlie</b>	<b>2,106</b>	<b>&gt;6</b>
	Sept 1998	Gunnison	249	9
	Oct 1998	Gunnison	126	16
	May & Nov 1999	Gunnison	2,772	8
	Sept-Oct 1999	Colorado <sup>3</sup>	3,498	8
	<b>Apr 2000</b>	<b>Colorado<sup>3</sup></b>	<b>7,147</b>	<b>4-6</b>
	<b>Aug 2000</b>	<b>Colorado<sup>3</sup></b>	<b>3,875</b>	<b>4-13</b>
	<b>Aug 2000</b>	<b>Gunnison</b>	<b>1,640</b>	<b>3-13</b>
Colorado pikeminnow	Apr 1999	Middle Green	36	16
	<b>Jun 2000</b>	<b>Colorado</b>	<b>60<sup>4</sup></b>	<b>17-22</b>

<sup>1</sup> This reach of the middle Green River was in the Lodore Canyon.

<sup>2</sup> These smaller fish were stocked in depression wetlands where early life stages can take advantage of resources for growth and protection.

<sup>3</sup> Colorado River at Parachute, CO.

<sup>4</sup> These fish are 1991 year class from Horsethief ponds and are part of the translocation study

## V. Research, Monitoring, and Data Management

**Goal:** To support recovery activity, monitor endangered fish status and trends, and maintain Recovery Program data archives.

**Status:** The Program is currently developing population estimates for Colorado pikeminnow in the Colorado River and middle Green River; and humpback chub in Yampa, Black Rocks and Westwater canyons. Future population estimates are planned for Colorado pikeminnow in the lower Green River and humpback chub in Desolation/Gray canyons beginning in 2001.

A population estimate for Colorado pikeminnow was initiated this spring for the middle Green River stock. Almost 1200 Colorado pikeminnow were caught and tagged in the Green, Yampa and White rivers.

A population estimate for humpback chub in Black Rocks for 1998 was approximately 1,500; the 1999 data is expected to tighten the confidence limits around that estimate.

A translocation study, moving Colorado pikeminnow into the Palisade-DeBeque reach of the Colorado River from the 18 mile reach, was started this year. Five wild fish were radio-tagged and translocated. In addition, 60 pikeminnow from Horsethief ponds were moved, 5 were radio-tagged.

## VI. Public Involvement, Information, and Education

**Goal:** To promote public understanding, appreciation, and support for efforts to recover the endangered fish.

**Status:** The Information and Education Committee met June 30 in Grand Junction. A tour of Recovery Program facilities in the Grand Valley was offered in conjunction with the meeting. A total of 25 people participated. Susan Wadhams is Colorado's new representative on the committee. In the absence of a representative for environmental organizations, appropriate Management Committee members are informed of all I & E activities.

Key I & E efforts in the past six months include:

February through August news media focused primarily on long-term funding legislation, reintroduction of bonytails and releases from Ruedi and Flaming Gorge reservoirs. News clips are faxed routinely to I&E Committee members, sent to Management Committee quarterly and are available to anyone else upon request.

An outreach plan to announce a public comment period for draft recovery goals was developed.

The Recovery Program newsletter was produced and will be mailed in September.

A video about Recovery Program efforts in the Grand Valley was produced and distributed. Efforts are ongoing to use this tool to present information to targeted audiences in the area.

A second video is in production which will provide an overview of the Recovery Program, including facilities in Vernal and Page. The video is slated for completion this fall.



The 2000 Utah State Fair featured an exhibit on the endangered fishes.

Fact sheets on the endangered fishes were produced and distributed.

The D.C. Briefing Book was prepared and distributed.

Updated informational signs for anglers were produced and posted at key areas along the rivers in Colorado and Utah.

Volunteers from Colorado's Ocean Journey Aquarium were recruited to help with Recovery Program efforts in Vernal.

## VII. Program Management

**Goal:** To ensure effective implementation and coordination of the Recovery Program.

**Status:** The funding authorization legislation for Colorado River and San Juan Recovery Programs was passed by the House (H.B. 2348) on July 25. Program participants are working diligently with Congressional staff and hope for passage in the Senate (S. 2239) in September.

Extending the Recovery Program beyond 2003 - Recognizing the need to make the Program's Cooperative Agreement (which currently goes through 2003) conform with the dates in the long term funding legislation, Program participants have discussed amending the Cooperative Agreement to extend the Program.

The Program's electronic listserv has more than 150 subscribers and is one of two key components of the Program's electronic communication (with about 13 messages posted per week). All Program participants are strongly urged to subscribe. The Program participants' web site (<http://www.r6.fws.gov/crrip/>) has detailed Program information such as upcoming meeting dates and times; meeting agendas and summaries; a bibliography of the Program library; the RIPRAP; a tracking list of Program assignments, and numerous other Program documents. The site is regularly updated and expanded.

Henry Maddux, Program Director since August of 1997, has accepted the position of supervisor of the Service's Utah Ecological Services Field Office. The Service has advertised the program director position and hopes to have a new director on board by late November.