

## RECOVERY PROGRAM DIRECTOR'S UPDATE

October 2002

Recovery Goals: Recovery goals for the humpback chub, bonytail, Colorado pikeminnow, and razorback sucker were signed by Dr. Ralph Morgenweck (Director, FWS Region 6) on August 1, 2002, and the notice of their availability was published in the *Federal Register* on August 28 (67 FR 55270–55271). Paper and compact disk copies are available from the Program Director's office. The recovery goals are also available in \*.pdf format at <http://www.r6.fws.gov/crrip/rg.htm>.

Population Estimates: Numbers reflect the best currently available point estimates of the mean number of wild adults.

SPECIES	RIVER		
	MIDDLE GREEN <sup>1</sup>	LOWER GREEN <sup>2</sup>	COLORADO
Colorado pikeminnow	About 3,500.	Population estimates initiated in 2001; data being analyzed.	About 700.
Humpback chub	<u>Yampa Canyon:</u> Population small (200–1,000). Effort is being expanded in 2003 to develop a more precise estimate.	<u>Desolation/Gray Canyon:</u> A preliminary population estimate in 1996, based on a limited number of sample sites, was 1,500; effort was expanded in 2002 to include additional sites, but only 2 passes were completed due to low flows.	<u>Black Rocks Canyon:</u> About 1,000 <u>Westwater Canyon:</u> 2,200–5,200 based on 3 sampling sites in 1996-1997 and in 2000; effort will be expanded in 2003. <u>Cataract Canyon:</u> About 500; a mark-recapture will be investigated in 2003 (this effort was scheduled to begin in 2002 but was postponed due to low flows).

Population Estimates, Continued.

SPECIES	RIVER		
	MIDDLE GREEN <sup>1</sup>	LOWER GREEN <sup>2</sup>	COLORADO
Razorback sucker	<100 wild adults; population being augmented through stocking; augmentation is being expanded with excess fish stocked into selected floodplain depressions; stocked fish are returning to spawning bar; monitoring and evaluation of stocked fish in 2003-2004 being accomplished through sampling conducted for population estimates and nonnative fish control.	Few adults; population being augmented through stocking; monitoring and evaluation of stocked fish in 2003-2004 being accomplished through sampling conducted for population estimates and nonnative fish control.	Few adults; population being augmented through stocking; monitoring and evaluation of stocked fish in 2003-2004 being accomplished through sampling conducted for population estimates and nonnative fish control
Bonytail	Populations are currently being re-introduced in Colorado, lower Green, middle Green and Yampa rivers; augmentation is being expanded with excess fish stocked into selected floodplain depressions; survival of stocked fish observed; monitoring and evaluation of stocked fish in 2003-2004 being accomplished through sampling conducted for population estimates and nonnative fish control.		

<sup>1</sup>Middle Green River includes the Yampa River (Craig to Echo Park), White River (Taylor Dam to Green River confluence), and mainstem Green River (Split Mountain to Sand Wash)

<sup>2</sup>Lower Green River includes Desolation/Gray canyons (Sand Wash to Green River City), and the lower mainstem (Green River City to Colorado River confluence).

I. Instream Flow Identification and Protection

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

- Status:
- Governor Bill Owens of Colorado congratulated the Recovery Program and water users for their cooperative efforts in 2002 to share water shortages and stretch water supplies to get us through this drought year.
  - The Biology Committee reached agreement at their August meeting on draft peak flow recommendations and instantaneous peak flow targets for Chuck McAda to incorporate in revisions to the report *Flow Recommendations to Benefit Endangered Fishes in the Colorado and Gunnison Rivers*. Some Program participants have expressed continuing concern about the scientific basis for the peak flow targets. The Service anticipates revising the report and

sending it back to the Biology Committee by January 31, 2003. The revised report will include justification for the target flows.

- A programmatic biological opinion for the Gunnison River is proposed after completion the aforementioned flow recommendations, settlement of the Park Service reserved water right and/or contract for the Black Canyon, and Reclamation's EIS on Aspinall reoperation. In order to conduct the EIS, Reclamation will need Colorado to estimate future depletions from the Gunnison River. (In the absence of such an estimate, Reclamation would use their 2002 draft water demand analysis of estimated in-basin depletions based on demographic projections.)
- No Coordinated Reservoir Operations (CROS) were undertaken in 2002 because flows did not reach the desired 12,900 cfs threshold at Cameo.
- The Coordinated Facilities Operations Project (CFOPS) was initiated in 1999 to investigate alternatives for supplying up to an additional average annual 20,000 acre-feet of water to the 15-Mile Reach of the Colorado River. A secondary purpose is to enhance flows in the 15-Mile Reach during late summer and fall. Phase I of this project examined a wide range of possible alternatives that were subjected to a preliminary screening process to arrive at a short list of alternatives that would be intensively studied in Phase II. The final report on Phase I was completed in September 2000. Phase II modeling is under review/revision, and a report on Phase II is expected to be completed by January 2003.
- The Grand Valley Water Management facilities enabled Reclamation to reduce diversions and conserve up to 1,400 acre-feet per day this irrigation season, which primarily benefitted water users by allowing them to conserve stored water for later use.
- The Flaming Gorge EIS Interdisciplinary Team is preparing the preliminary draft EIS. The preliminary draft EIS is expected to be ready to forward to the Cooperating Agencies for review in early October. If no major substantive issues are raised in that review, Reclamation will finalize and publish the draft EIS in November 2002, with public hearings in December 2002 and January 2003. The target date for publication of the final EIS is April 2003, and for the Record of Decision, May 2003.
- Yampa River Management Plan and PBO:

A revised draft of the Management Plan will be completed by the end of October 2002. The draft environmental assessment (EA) will be completed no

later than the end of November 2002. A biological assessment (BA) will be

completed and sent to the Service by end of November 2002. A draft programmatic biological opinion (PBO) is expected by mid-February 2003.

No water was released from Steamboat Lake in 2002. The initial 5-year lease between the Fish and Wildlife Service and Colorado State Parks expired in 2000, with a 1-year extension in 2001. The Program and Colorado Department of Parks and Recreation have been negotiating a long-term lease of water from Steamboat Lake, but both parties now question the value of such a lease. Water released from Steamboat Lake is difficult to deliver to critical habitat, because the lake is a considerable distance from critical habitat and deliveries are difficult to track. The Colorado River Water Conservation District re-assessed its proposed Elkhead enlargement and determined that a 12,000-af enlargement (instead of 8,500 af previously contemplated) is possible without impacting structures. The District likely would entertain splitting the cost of the enlargement up to 50/50 with the Program, and would like to know how much water the Program would like to get from Elkhead. Total project cost is estimate to be \$21.5M of which the Recovery Program would pay \$11.2M. for 6,000 af (less than \$2,000/af, including a \$900K barrier net to prevent nonnative fish escapement). With an 8,500-af enlargement, costs are estimated to be about \$2,500/af. The Program had budgeted \$6.2M for the enlargement and \$1.4M for a barrier net. The balance of \$3.6M could come from the \$9.6M overall capital projects contingency (“to acquire new water to enhance flows”).

- The Program Director’s office has proposed to develop a strategic plan to prioritize and direct future habitat research and monitoring activities. Argonne National Laboratory has drafted a scope of work for this FY-2003 project, which would include a conference of biologists and geomorphologists in December 2002 to assess the state of our knowledge, both in terms of physical processes and biological requirements and identify data gaps. Argonne would then develop a strategic plan by March 2003 to direct future research toward meeting the recovery goals of the fishes.
- From the Program’s inception in 1988 through June 30, 2002, the Service has consulted on 146 projects with a potential to deplete a total of 1,704,088 af in the Upper Colorado River Basin, of which 1,481,133 af are historic depletions. Three of these "projects" are blanket consultations for depletions under 100 af, up to 7,500 af total. Thus far, these three consultations have covered 417 actual projects depleting a total of 6,089 af (4,291 af in Colorado, 1050 in Utah, and 748 af in Wyoming). Another of these 146 "projects" is the 15-Mile Reach PBO which covers an average depletion of up to 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. Thus far, the 15-Mile Reach PBO has covered 124 actual projects. In total, then, since

January 1988, the Service has consulted on 683 projects depleting water from the upper Colorado River basin.

- The FWS continues 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 floodplain and instream 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 by 48,000 native fishes (versus 5,600 nonnative fishes), including 59 Colorado pikeminnow and six previously-stocked razorback suckers. Six of the Colorado 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 during FY04 to prevent entrainment of endangered fishes into the diversion canal.

Due to low flows in 2002, an agreement was reached among the Service, Reclamation, and CWCB to reduce fish-ladder water deliveries through the late-summer base-flow period. In 2002, one razorback sucker and seven Colorado pikeminnow used the ladder. One of the pikeminnow was a 37-inch female that apparently had not been handled previously and appeared to have spawned.

- 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 56 miles of historically-occupied habitat for endangered fishes. A fish screen on the canal was completed in March 2002 and operated through June when drought-year flows became too low to effectively operate the screen facility. Other operational difficulties are being addressed.
- Construction to restore fish passage at the Price-Stubb Diversion Dam 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. Reclamation recently released a draft EA for the rock ramp alternative. The public comment deadline was September 23. Construction is now scheduled for FY04–05. A fish screen will not be necessary because water has not been diverted at this site since 1919.

- Preconstruction activities are ongoing through FY 2002 to restore fish passage at the Grand Valley Project Diversion Dam. Construction is scheduled for FY04–05. Installation of a fish screen is scheduled for FY03–04.
- Design options have been developed for a fish screen at the Tusher Wash Diversion canal on the Green River in Utah. Screen construction cannot begin until a water-rights dispute has been settled in court. Therefore, construction has been postponed until FY05.
- Restoration of passage and installation of a fish screen at the Hartland Diversion Dam on the Gunnison River is on hold pending reassessment of the need for passage this far up the Gunnison River and assessment of the feasibility of warming releases from the Aspinall Unit. If passage and screen are deemed warranted, passage is tentatively scheduled for FY05–06 and screen for FY06.
- The Recovery Program sponsored a workshop in November 2001 to review the habitat restoration program. Workshop results and continued evaluation of the habitat restoration program will guide future Recovery Program actions to provide habitat for endangered fishes. A revised habitat synthesis report and habitat plan will be out shortly, and the razorback sucker habitat model will be finalized in December 2002. Subsequent discussions will lead to a revised work plan for FY 03 and beyond.
- Floodplain habitat has been restored at five Bureau of Land Management sites on the Green River, three sites at Ouray National Wildlife Refuge, two sites on the Colorado River near Grand Junction, and the Escalante State Wildlife Area on the Gunnison River. The Recovery Program has acquired 934 acres of floodplain/wetland habitat along the Green, Colorado, and Gunnison rivers. A quarterly update on land acquisition was distributed in July 2002.
- Razorback sucker survival and growth in floodplain wetlands.

In the spring of 1999, 4-inch (age-1) razorback suckers were stocked into floodplain wetlands adjacent to the Green River. The Stirrup (20 acres), Baeser Bend (38 acres), and Above Brennan (41 acres), each received 1,985 fish. Although the sites had high numbers of resident nonnative fishes when stocked, 56% of the razorback suckers survived through spring of 2000 in the Stirrup, 59% in Baeser Bend, and 72% in Above Brennan. Survivors had grown to an average length of 12.7–13.8 inches, more than tripling in length during the 1999 growing season.

Survival was lower during the second year of study, thought to be a result of deterioration in water quality conditions. Spring flows were not high enough in 2000 to replace and freshen the stagnant water that remained in the Stirrup and Baeser Bend, and conditions became lethal to both native and nonnative fishes. Above Brennan, however, has upstream connection points, floods at lower flows, and river flow-through during 2000 was apparently adequate to sustain fishes (including razorback suckers) through the winter of 2000–2001.

Excess razorback sucker larvae (56,907) were stocked into the Stirrup in May 1999, and 58,240 into Baeser Bend in May 2001. No survival was detected. However, a study conducted during 2002 suggested that larval survival in the presence of nonnative fishes is possible. Razorback sucker and bonytail larvae were stocked into the Stirrup wetland in April 2002, with nonnative fish species composition/abundance representative of a recently reset (dried up) and newly inundated wetland. By August 13, 2002, larval survival ranged from 0.4% to 1.9%, average length ranged from 2 inches to 3.7 inches.

- Razorback sucker movement from floodplain wetlands to the river.

During the 1999 river-floodplain connection period, two of the stocked 4-inch (age-1) razorbacks suckers were caught attempting the leave one of the floodplain sites (Baeser Bend) for the river. During the 2000 connection, 42 of the original stocked razorback suckers, now age-2 and 13 inches in length, were caught leaving the floodplain wetland sites for the river. Based on data collected for 2000–2001 Colorado pikeminnow population estimates and 2001 northern pike removal, 151 razorback suckers were captured in the Green River that had voluntarily left the floodplain during connection, representing 54–65% of the total number of razorback suckers captured in the river.

### III. Nonnative Fishes and Sportfishing

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

- Status:
- A workshop was held February 13–14, 2002, to discuss and evaluate nonnative fish control efforts implemented to date. A workshop summary, with major conclusions and recommendations, was finalized and distributed in September 2002. As a result of workshop recommendations, new control efforts will begin in FY 03 to remove channel catfish and smallmouth bass from the Yampa and Duchesne rivers; and channel catfish from the Colorado and Green rivers.
  - Efforts to removal northern pike from the Yampa River and translocate these fish to off-channel ponds to provide sportfishing opportunities continue to be successful.

- Removal and control of nonnative fishes in floodplain source ponds along the Colorado and Gunnison rivers began in 1997. As of the end of 2001, 335 ponds had been investigated, and 75 ponds reclaimed to remove over 3 million nonnative fish. Follow-up surveys indicated rapid re-invasion by nonnative fish. As a result, redirection of efforts will be determined within the next several weeks.
- Construction of Elders Pond was completed on September 19, 2002. Fish screen construction is underway, expected to be completed by October 10<sup>th</sup>. The pond will be filled during spring 2003, and fish will be stocked when Vernal CRFP and UDWR conducts their nonnative fish removal work between April and June 2003.

#### 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 October 2001 through early October 2002 (*and expected to be stocked this fall*).
  - As a result of a workshop on “Designing methods to evaluate stocked fish in the upper Colorado River, Green River, and San Juan River subbasins” (August 28–29, 2002), the state stocking plans will be revised into a Program plan for consistency on survival and expected adult population numbers.
  - The J.W. Mumma Native Aquatic Species Restoration Facility (CDOW) is currently raising bonytail and Colorado pikeminnow to meet the Colorado State stocking plan within Colorado. Excesses Colorado pikeminnow will be made available to the San Juan Program.

Stocking Status: Below are the species, numbers, and sizes stocked into various river reaches for the Upper Colorado River Endangered Fishes Recovery Program, from October 2001 to early October 2002. Italicized information is what is still expected to be stocked this fall.

Species	Date	River Section	Number	Approximate Size (inches)
Bonytail	October 4, 2002	Green (Above Lodore)	8,000	8
	<i>October 11, 2002</i>	<i>Green (Echo Park)</i>	<i>~7,000</i>	8
	October 2002	Colorado (Dewey Bridge)	5,000	6–8
	October 2002	Green (Green River, UT)	5,000	6–8
	October 2002	Green (Middle)	5,000	6–8

Razorback sucker	May–June 2002	Green (Ouray)	353	12
	Spring	Colorado	1,000	>12
	September	Colorado	6,000	>12
	<i>October</i>	<i>Colorado</i>	<i>4,000–6,000</i>	<i>&gt;12</i>

## 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 Larval Fish Laboratory verified larval razorback sucker from samples collected this spring in the Gunnison River. Since razorback sucker have been extirpated from the Gunnison, and stocking efforts there have occurred since 1996, these larval razorback sucker are the product of hatchery-reared fish.
  - The Program accepted a report on razorback sucker in the Green River that indicated although the wild population of fish was declining, hatchery-reared fish were showing up at the spawning bar.
  - The Program accepted the recent population estimate for Colorado pikeminnow in the Upper Colorado River. The estimate showed a slight increase in the adult population and did not include Gunnison River fish.
  - As a result of a workshop on “Designing methods to evaluate stocked fish in the upper Colorado River, Green River, and San Juan River subbasins”, monitoring and evaluation of stocked fish in 2003–2004 will be accomplished through sampling conducted for population estimates and nonnative fish control.

## 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 May 15 in Denver and via conference call on October 10. Committee members remain active, helping the Recovery Program achieve its I&E goals. Matt Kales joined the Committee in May representing The U.S. Fish and Wildlife Service. In the absence of a power user representative, CREDA and WAPA Management and Implementation Committee members are informed of all I & E activities.

Key I & E efforts include:

- News Media: The Recovery Program's visibility through the news media remains high. Key stories from March through September included the drought, northern pike removal in the Yampa River, the Stewart brothers, a mural project at TNC's Carpenter Ranch, proposed expansion of Elkhead Reservoir, the Elders Pond dedication, and the discovery of razorback sucker larvae in the Gunnison River. News clips are faxed routinely to the I&E Committee, interested Management Committee members, and anyone else upon request.
- The Recovery Program newsletter will be printed and distributed by mid-November.
- The Recovery Program exhibited at the Colorado Water Workshop in Gunnison in June and will exhibit at the Colorado River Water Users Association annual meeting in Las Vegas in December and the Colorado Water Congress annual meeting in Denver in January.
- Interpretive Exhibits: Text approval is nearly complete for six interpretive signs that will be placed along the Colorado Riverfront Trail in Grand Junction near the former Jarvis site. The Recovery Program will oversee selecting a vendor and plans to have the signs completed and installed by summer 2003. This project is a collaborative effort with local government and private organizations. A memorandum of understanding needs to be prepared between the Recovery Program and the City of Grand Junction to address maintenance of the site.

The aquarium at the Montrose Pavilion in Gunnison will have razorback sucker on exhibit by the end of October. An aquarium at The Nature Conservancy's Carpenter Ranch is in place. Local schoolchildren will help raise the tiny razorback sucker until next spring when students will help tag and release them.

Both Colorado and Utah featured exhibits of endangered fish at their state fairs this year.

- The I&E Committee is working to develop and implement a communications strategy to support expanded nonnative fish management actions. The plan calls for active participation and cooperation by the States of Colorado and Utah, the Fish and Wildlife Service and Colorado State University. Other program partners should also be familiar with this effort and provide support and assistance as appropriate.

## VII. Recovery Program Management

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

- Status:
- Passage of the extension of authorization authority for project construction for both the Upper Basin and San Juan recovery programs to 2008 looks promising. At the beginning of October, the Senate Energy and Natural Resources Committee, on motion from Senator Campbell, passed out of committee a Senate version of H.R. 5099. If the Senate passes a "unanimous consent bill" of non-controversial bills, H.R. 5099 will very likely be included.
  - After being disconnected in mid-December 2001, Department of Interior offices were reconnected to the Internet in late March 2002, and the Recovery Program's electronic listserver and web sites became operational once again. The Program's electronic listserver has more than 190 subscribers and is one of two key components of the Program's electronic communication. 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; and numerous other Program documents. The site is regularly updated and expanded.
  - Development of the Program's FY 2004-2005 work plan will begin with the Program Director's office providing draft "preliminary Program guidance" to the Biology Committee in November 2002.