

**UPPER COLORADO RIVER
ENDANGERED FISH
RECOVERY PROGRAM**

Final
FISCAL YEAR 2006 & 2007
PROGRAM GUIDANCE

March 23, 2005

FY 2006 & 2007 PROGRAM GUIDANCE
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INTRODUCTION

This is the guidance for development of the Recovery Program's FY 2006-2007 Work Plan. The Program Director's office developed this guidance on the basis of the Recovery Program's Recovery Action Plan (RIPRAP) and input from Program participants and it was subsequently reviewed, modified, and approved by the Program's technical and Management committees (the Implementation Committee delegated their review and approval to the Management Committee). The RIPRAP identifies all the activities currently believed necessary and feasible to recover the endangered fish in the Upper Basin. Thus, annual Program guidance is closely tied to the RIPRAP.

Like the RIPRAP, the guidance is organized by recovery element. Within each recovery element, guidance is provided for ongoing, ongoing-revised, and new projects. Projects to be completed in or discontinued or suspended after FY 2005 also are listed. Ongoing projects are those previously approved for out-year funding for which goals/objectives, methods, cost, and expected outcome have not changed significantly. Scopes of work for these projects should require only minor updates. Ongoing-revised projects are those previously approved for out-year funding for which goals, objectives, methods, cost, or expected outcome have changed significantly (as outlined in the guidance), thus their scopes of work may require more changes. New projects are those not previously approved for out-year funding and completely new scopes of work will be developed for these.

NOTE: DATES AND PROCESS MAY CHANGE SOMEWHAT PENDING INCORPORATION OF RECLAMATION'S REVISED PROCUREMENT PROCESS!

This FY 2006-2007 guidance requests proposals for FY 2006-2007 activities; proposed scopes of work are requested for each of the projects listed in this guidance. Scopes of work should be prepared according to the format in the appendices. Please review this format carefully, especially the explanatory text printed in italics. Scopes of work which do not contain the information and budget detail requested will be returned to the principal investigator for revision. This could prevent the scope from receiving FY 2006-2007 funding consideration because of the tight work plan development schedule.

Scopes of work for new, ongoing and ongoing-revised biological and water acquisition projects (under recovery elements I-V) are due NO LATER THAN April 28, 2005 (this includes scopes of work for capital-funded projects). Submit new, ongoing-revised, and ongoing scopes of work for these projects to the appropriate Program coordinator (see list near end of this section) in WordPerfect or Word format by electronic mail. IN ADDITION, submit a courtesy electronic or hard copy of new and ongoing-revised biological scopes of work to each member of the Biology Committee and water acquisition scopes of work to each member of the Water Acquisition Committee (see lists at end of this section). If you wish, you may provide this courtesy copy by posting it to the fws-coloriver listserv. (The technical committees do not need to see ongoing scopes of work until later in the work plan review process, and these will be sent to them by the Program Director's office.)

For your information, the evaluation form that will be used by the Recovery Program in evaluating new scopes of work, the evaluation form used by the Recovery Program in reviewing

and commenting on final draft project reports, the proper format for final draft reports that are submitted to the Biology Committee for review and approval, and the Biology Committee review process for final draft reports may all be found at <http://www.r6.fws.gov/crrip/rfdoc.htm>.

Scopes of work for information & education projects (under recovery element VI) also are due April 28, 2005, and should be submitted in WordPerfect or Word format to Debbie Felker (debbie_felker@fws.gov).

Program management scopes of work (under recovery element VII) are due by July 1, 2005 (in WordPerfect or Word format by electronic mail to angela_kantola@fws.gov).

Upon receipt of the proposed scopes of work, the Program Director's office will begin working (with technical advisory panels and principal investigators) to review and refine the scopes of work and develop a recommended technical annual work plan. This recommended work plan and refined scopes of work will be submitted by the Program Director to the technical committees for review on June 21. Technical committee comments are then due to the Program Director and the Management Committee by July 22. The recommended Program management work plan also is due from the Program Director to the Management Committee at this time. The Management Committee will meet in early August to discuss the recommended work plans and approve projects for the Draft FY 2006-2007 Work Plan. The Draft Work Plan will be submitted to the Implementation Committee for review by August 25. The Implementation Committee will meet in September and the final FY 2006-2007 Work Plan and final scopes of work will be distributed in the first quarter of FY 2006. If you have any questions about this guidance or the FY 2006-2007 work plan development process, please contact Angela Kantola at 303/969-7322, ext 221, or the appropriate coordinator:

Instream flow protection - George Smith 303/236-5322 ext. 235, george_smith@fws.gov

Habitat restoration and nonnative fish control - Pat Nelson 303/969-7322 ext. 226,

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Genetics and propagation, monitoring/research/life history - Tom Czaplá 303/969-7322 ext. 228,

tom_czapla@fws.gov

Information, education, and public involvement - Debbie Felker 303/969-7322 ext. 227,

debbie_felker@fws.gov

Program management - Angela Kantola 303/969-7322 ext. 221, angela_kantola@fws.gov

The Program Director's Office would like to call to the committees' attention the fact that available funds in the Recovery Program are indexed to inflation, which has averaged 2.68% annually over the last 5 years and may be ~3% in FY 06. Project budgets, however, have been increasing at ~5% annually. One reason for this is that salaries increases frequently outpace inflation due to grade increases, etc. However, the gap between inflation and project costs means that the number of activities the Program can fund has been slowly, but steadily decreasing. Therefore, where an inflation factor has applied been to projects in the FY 06-07 draft Program Guidance, we have used 3%.

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I. INSTREAM FLOW IDENTIFICATION AND PROTECTION

Instream flow activities in FY 2006 and 2007 will be directed toward: 1) ongoing flow, temperature, and channel/sediment monitoring (as identified in the Strategic Plan for Geomorphological Research and Monitoring); 2) augmenting flows in the Colorado, Yampa and Gunnison rivers to help meet Service flow targets; and 3) continue efforts to develop PBO'S for tributaries.

<u>PROJECT NUMBER</u>	<u>TITLE</u>	<u>PROJECTED FY 06/07 BUDGET</u>
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ONGOING PROJECTS

9	WATER RIGHT ACQUISITION CONSULTANT	Up to \$10,000/year
	Supports actions as needed to identify and protect flows on the Colorado, Green, and Yampa rivers.	

67	STEAMBOAT LAKE WATER LEASE	Up to \$80,000/year
	This project is an interim water supply to support late summer flows in the Yampa River until water from Elkhead enlargement comes on line in 2007. A new 5-year lease was negotiated in 2004 for up to 2,000 acre feet of water/year at \$40/acre foot. The Recovery Program pays only for the amount of water actually released for instream flow augmentation.	

70	COLORADO INSTREAM FLOW PROTECTION	\$15,000 / \$15,000
	CWCB activities to protect instream flows in the Colorado and Yampa river basins. These are additional funds provided by Colorado.	

71	COLORADO RIVER DECISION SUPPORT SYS.	\$150,000 / \$150,000
	CWCB uses CRDSS to assess legal and physical availability of water and Compact considerations for protection of instream flows in the Colorado and Yampa river basins.	

C-11	GRAND VALLEY WATER MANAGEMENT	\$? / \$0
	Some capital funds may be needed in FY 06 for final activities related to construction of the Grand Valley Water Management Project to provide additional water for the 15-Mile Reach of the Colorado River.	

86	GEOMORPHOLOGY PEER REVIEW	Up to \$10,000/FY
	As-needed peer review of scopes of work and draft final reports containing a geomorphological component.	

C-9	ELKHEAD ENLARGEMENT	\$2,000,000 / \$1,729,000
	Enlargement of Elkhead Reservoir as discussed in Yampa River Management Plan to augment Yampa River base flows using 5,000 af of permanent storage out of the 12,000 af enlargement with option to lease an additional 2,000 af on an as-needed basis.	

135 O&M FOR RUEDI RESERVOIR 10,825af \$?? / \$??
No scope of work or annual report is required for this project, but the Recovery Program covers the operational costs of providing 10,825 af of water from Ruedi Reservoir to benefit the endangered fishes.

C-32 RUEDI RESERVOIR 10,825 CAPITAL COST \$735,000 / \$735,000
No scope of work or annual report is required for this project. Reclamation is credited for contributing the annual capital cost of 10,825 af of water from Ruedi Reservoir to benefit the endangered fishes. This is over and above Reclamation's annual and capital funding obligations to the Recovery Program.

ONGOING PROJECTS NEEDING REVISION

8 RECOVERY PROGRAM GAGE O&M \$83,500 / \$86,800
Supports several actions to identify, deliver, and protect instream flows on the Colorado, Green, Yampa, Duchesne, and Price Rivers. New gage on Williams Fork to be added to administer Elkhead releases.

19 RECOVERY PROGRAM HYDROLOGY SUPPORT \$148,300 / \$152,800
The Service's Division of Water Resources collects temperature and hydrology data, administers contracts, and develops data used by the Water Acquisition Committee to assess instream flow protection. Other tasks include: collecting data required under 15-Mile Reach and Yampa River PBO's; working with the Bureau of Reclamation and recovery Program staff on the Aspinall re-operation EIS; and supporting the Program Director's Office on various projects as they arise. (Combine previous 19h & 19b into one scope of work).

FR-Sed. Mon. GREEN AND YAMPA RIVER SEDIMENT MONITORING

\$65,800/\$67,800

This project is establishing automated suspended-sediment samplers in two critical reaches of the Upper Colorado River Basin (Whitewater gage on the Gunnison River and the Green River near Jensen, Utah). Daily suspended-sediment load data at these two sites provides information needed for: (1) an understanding of sediment budgets (sediment import and export balance); (2) the effects of flow regime on habitat maintenance; (3) the relationship between sediment load and flow, including base and peak flows; (4) the effects of antecedent conditions (if the right sequence of years is present) on sediment transport; and (5) the effect of peak-flow duration on sediment transport rates.

Sediment data previously collected at streamflow gages in the basin will be useful in resolving many of the key uncertainties associated with existing flow recommendations. A retrospective analysis of historic sediment data is underway for the key sites on the Colorado, Gunnison, and Green River near Green River Utah. This analysis will determine whether sediment-transport relations can be derived from existing data and what if any additional data may be needed to develop or improve sediment transport equations at these sites. Also, historic data is being evaluated to determine if significant trends exist in sediment transport, and the effect of variations in annual hydrographs (wet vs. dry years) on sediment transport is being evaluated.

As these sediment data are gathered and the retrospective sediment data analysis is completed, the sediment work group will continue to meet to identify methods, information gaps, and tasks to be included in potential scopes of work for future habitat monitoring.

PLACEHOLDERS

113 GUNNISON RIVER CONSULTATION PROCESS Funded under #19
Identify an appropriate means by which to consult on depletions from the Gunnison River basin. Quantify foreseeable future depletions and identify a volume of existing and future depletions (to be covered under 19 as the need arises).

114 TRIBUTARY MGMT. PLAN(S)/PBO(S) Funded under #19
Identify which, if any, significant tributaries are not covered by existing/pending biological opinions and develop management plan(s) for those tributaries to quantify existing and foreseeable future depletions to be covered under programmatic biological opinion(s) and identify management actions to offset impacts of depletions.

114a TRIBUTARY WATER DEMAND TBD
Placeholder for one or more depletion estimates for significant tributaries found to lacking adequate coverage under existing biological opinions. The FY 2002 scope of work was not implemented pending identification of affected tributaries. We anticipate that Colorado (CWCB) and/or Utah (UDWR) would be responsible for this activity.

135a RUEDI EXTRA O&M COST TBD
Extra costs for repairs, etc. Uncertain if there will be costs in FY 06-07.

FR-115 FLAMING GORGE MONITORING \$10,000 / \$???
Report identifying process to monitor the effect of future Flaming Gorge operations in Lodore and Whirlpool Canyons due in FY 05. Placeholder for \$10K to write up results of additional FY 05 monitoring of fish community response to full implementation of flow recommendations and expanding smallmouth bass population. Task(s) to manage smallmouth bass may continue in FY 06/07 under nonnative fish management.

II. HABITAT RESTORATION

The goal of Habitat Restoration is to provide and protect habitat necessary to both achieve and sustain endangered fish recovery. Currently there are three major thrusts under this element of the Recovery Program.

1. Re-open access to historically-occupied river sections by restoring fish passage at the following migration barriers:
 - a. Redlands Diversion Dam (completed 6/96)
 - b. Grand Valley Irrigation Company Diversion (completed 1/98)
 - c. Price-Stubb Diversion Dam (scheduled for completion 4/06)
 - d. Grand Valley Project Diversion Dam (completed 8/04)
 - e. Tusher Wash Diversion Dam (dropped from further consideration; deemed unnecessary)
 - f. Yampa River diversion structures (dropped from further consideration; deemed unnecessary)

2. Install fish screens to prevent entrainment of endangered fishes into diversion canals.
 - a. Redlands Diversion Dam (scheduled for completion 8/05)
 - b. Grand Valley Irrigation Company Diversion (completed 4/02; modified 3/04)
 - c. Grand Valley Project Diversion Dam (scheduled for completion 8/05)
 - d. Tusher Wash Diversion Dam (scheduled for completion in 2007)
 - e. Yampa River diversion structures, if deemed necessary

3. Restore or enhance natural floodplain functions that support endangered fish recovery.

<u>PROJECT</u>	<u>TITLE</u>	<u>PROJECTED</u>
<u>NUMBER</u>		<u>FY 06/07 BUDGET</u>

ONGOING PROJECTS

C-4b REDLANDS and GVP FISH PASSAGE O&M	\$57,000 / \$58,700
Fish & Wildlife Service monitoring of the fish trap at both the Redlands and Grand Valley Project fish passage (sorting, examining and enumerating all fish; cleaning trash and debris from the trash racks, bar screens, fish trap, and fishway entrance).	

C-4c REDLANDS LADDER and GAGE O&M	\$16,600 / \$16,600
Reclamation's fish ladder start up and shut-down activities; monthly inspections; gage ratings; service and replacement of equipment; annual reports.	

C-5 PRICE-STUBB FISH PASSAGE	\$1,910,000 / \$0
Finish construction of fish passage at the Price-Stubb Diversion Dam on the Colorado River. Scheduled for completion by 4/06.	

C-23 GVP FISH SCREEN & PASSAGE O&M \$85,000/\$85,000
Operation and maintenance of passage and screen facilities at the GVP Diversion Dam on the Colorado River.

C-28 TUSHER WASH DIVERSION SCREEN \$1,041,000 / \$2,959,000
Construct fish screen at the Tusher Wash Diversion Dam canal on the Green River near Green River, Utah. Scheduled for completion in 2007. Operation and maintenance funds also expected to be needed in FY 07.

C-29 GVIC PASSAGE AND SCREEN O&M \$93,600 / \$93,600
Operation and maintenance of passage and screen facilities at the GVIC Diversion Dam on the Colorado River near Palisade.

C-29a GVIC/GVP FISH SALVAGE \$23,700/\$24,400
Retrieve native fish from GVIC and GVP canals if screens not fully operated. If funds not needed, FWS will carry them over to the next fiscal year.

C-33 REDLANDS SCREEN O&M \$15,000 / \$15,000
Operation and maintenance of screen at the Redlands Diversion Dam on the Gunnison River (by Redlands Power).

C-6-hyd HYDROLOGY/GEOMORPHOLOGY \$60,000 / \$0
Includes \$27.3K for construction oversight at the Hot-Spot complex on the Colorado River; and post-construction evaluation of nursery habitats along the Green, Colorado, and Gunnison rivers (if flows available).

C-6-const HABITAT RESTORATION (CONSTRUCTION) \$100,000 / \$0
Restore Hot-Spot Complex on Colorado River near Grand Junction, Colorado.
Construction expected to be completed in FY 06.

NEW PROJECTS

COLORADO PIKEMINNOW ENTRAINMENT INTO YAMPA RIVER DIVERSION CANALS \$10,000 / \$10,300
Assessment and evaluation of Colorado pikeminnow entrainment into diversion canals adjacent to the Yampa River. Efforts will focus on the largest diversion (i.e., Maybell and/or Duffey ditch), beginning in the fall of 2006.

TITLE: EVALUATION OF ENTRAINMENT OF COLORADO PIKEMINNOW INTO THE MAYBELL AND/OR DUFFEY CANAL

RIPRAP Item Number:

Green River Action Plan: Yampa and Little Snake Rivers

II.A.2. Reduce/eliminate entrainment of Colorado pikeminnow at diversion structures.

II.A.2.a. Identify and evaluate existing diversion structures for entrainment of Colorado pikeminnow.

Rationale/Problem Statement:

Identification of existing Yampa River diversion structures which may entrain Colorado pikeminnow into canals is recommended in the Yampa Management Plan (Roehm 2004) and Yampa PBO (USFWS 2005). The Maybell Diversion Canal is currently the largest diversion on the Yampa River. If entrainment is determined to be a problem, then remedial action will be considered and additional diversion canals may be evaluated.

Project Goals and Objectives:

Document the number of native and endangered fish salvaged from the Maybell Canal and/or Duffey Ditch. Return native fish to the Yampa River.

Expected Products:

A report that identifies and tabulates native and endangered fishes entrained and stranded in the Maybell Canal.

Recommended Approach/Methods:

The entire length of the Maybell Canal and major laterals that hold water after irrigation diversions are terminated will be sampled using a barge electrofishing system carried in the back of a pickup truck. The truck will travel the canal road searching for pools of water that could still hold fish. When pools of water are found, crews will walk the canal using electrofishing probes and capture all fish possible. Native fish will be placed in a hatchery truck, transported to the Yampa River and released alive. Records of species and numbers of fish collected will be maintained.

Schedule:

November 2006	Sample canal and major laterals
December 2006	Submit annual report
November 2007	Sample canal and major laterals
December 2007	Submit annual report

Cost Range: ~\$10,000

Literature Cited:

Roehm, G.W. 2004. Management plan for endangered fishes in the Yampa River Basin and environmental assessment. U.S. Fish and Wildlife Service, Mountain-Prairie Region (6). Denver.

USFWS. 2005. Final programmatic biological opinion on the *Management Plan for Endangered Fishes in the Yampa River Basin* dated January 10, 2005. Mountain-Prairie Region (6). Denver.

PLACEHOLDERS

C-6-em	EASEMENT MANAGEMENT	\$62,000 / \$62,000
Easements acquired by the Recovery Program are managed by the Ouray National Wildlife Refuge Manager. Currently under management are 17 properties (1,347.12		

acres). \$50,000 from Recovery Program; \$12,000 from FWS-Refuges. The actual cost of managing these easements needs to be fully evaluated.

C-6-RZ-recr EVALUATION OF RAZORBACK SUCKER MIGRATION AND RECRUITMENT FROM FLOODPLAIN DEPRESSIONS INTO THE MAINSTEM MIDDLE GREEN RIVER \$26,500 / \$0

Evaluation of the size and age at which razorback suckers stocked as larvae migrate from floodplain depressions into the mainstem river (and of environmental cues related to this migration). The study has been delayed because flows have not been high enough to connect the floodplain habitats with the river.

C-6-RZ-entr LARVAL DRIFT/ENTRAINMENT \$105,200 / \$15,000

Determine larval entrainment rates as a function of flow, levee-breach configuration, and distance from spawning sites (contingent upon adequate flows). Need to see revised FY 05 scope of work and FY 05 project results to judge need for continuation in FY 06/07.

COMPLETED/DISCONTINUED PROJECTS

C-6-BT/RZ SURVIVAL/GROWTH OF STOCKED RAZORBACK AND BONYTAIL IN MIDDLE GREEN FLOODPLAINS

C-6-RZ/BT SURVIVAL/GROWTH OF LARVAL RAZORBACK AND BONYTAIL STOCKED INTO MIDDLE GREEN FLOODPLAIN DEPRESSIONS

III. REDUCE NONNATIVE FISH AND SPORTFISH IMPACTS

Nonnative fish management activities in FY 2006–2007 will be directed primarily toward: 1) removal/control of problematic nonnative fishes from river reaches occupied by the endangered fishes; 2) evaluation of species response to nonnative fish management activities; and 3) identification of sources of problematic nonnative fishes.

<u>PROJECT NUMBER</u>	<u>TITLE</u>	<u>PROJECTED FY 06/07 BUDGET</u>
<i><u>ONGOING PROJECTS</u></i>		
C-20	HIGHLINE LAKE NET O&M O&M from Colorado additional in-kind funds.	\$3,470 / \$3,470
119	ESCAPEMENT FROM STARVATION RESERVOIR Evaluation of sportfish escapement from Starvation Reservoir. If flows adequate for evaluation of spillway escapement in 2005, then additional funds will not be needed in FY 06 except for writing report.	
<i><u>ONGOING PROJECTS NEEDING REVISION</u></i>		
All of these nonnative fish control activities may require revision based on the outcome of previous years' work.		
98a	MIDDLE YAMPA PIKE TRANSLOCATION Removal and translocation of northern pike from the middle Yampa River by CDOW.	\$78,800 / \$81,200
98b	UPPER YAMPA PIKE TRANSLOCATION Removal and translocation of northern pike from the upper Yampa River between Hayden and Craig.	\$141,700 / \$146,000
109	MIDDLE GREEN PIKE MANAGEMENT Continuation of the removal of northern pike from the middle Green River which began in 2001.	\$25,800 / \$26,500
110	LOWER YAMPA BASS AND CATFISH MGMT. Removal of smallmouth bass and channel catfish from the lower Yampa River to sufficiently reduce their abundance and minimize predatory and competitive impacts on growth, recruitment, and survival of resident humpback chub.	\$115,200 / \$118,700
123	GREEN RIVER BASS MANAGEMENT Removal of smallmouth bass and northern pike from the Green River.	\$223,000 / \$229,700
124	DUCHESNE NONNATIVE FISH MANAGEMENT Removal of channel catfish, smallmouth bass, and northern pike from the Duchesne River.	\$30,000 / \$30,900

125 MIDDLE YAMPA BASS AND PIKE TRANSLOCATION \$221,900 / \$228,500
Removal and translocation of smallmouth bass and northern pike from the middle Yampa River by CSU. Need to see revised FY 05 scope of work to estimate FY 06/07 budget.

126 COLORADO RIVER CENTRARCHID MGMT. \$73,800 / \$76,000
Removal of centrarchids from the Colorado River.

140 YAMPA FISH RESPONSE TO NONNATIVE FISH MANAGEMENT
\$64,000 / \$34,600
Study to determine response of small-bodied fishes, and native and endangered fishes to Yampa River nonnative fish management activities.

GREEN RIVER FISH RESPONSE TO NONNATIVE FISH MANAGEMENT
\$32,900 / \$34,500
Study to determine response of small-bodied fishes, and native and endangered fishes to Green River nonnative fish management activities.

YAMPA RIVER NORTHERN PIKE SOURCES \$10,000 / \$0
Study to determine sources of northern pike that immigrate into critical habitat of the Yampa River.

COMPLETED/DISCONTINUED PROJECTS:

118 EVALUATION OF ESCAPEMENT FROM ELKHEAD
Study to determine levels of nonnative warmwater sportfish escapement from Elkhead Reservoir completed. Final report expected in early 2005.

98c UPPER YAMPA NORTHERN PIKE TAGGING
Study to quantify immigration of northern pike into critical habitat of the Yampa River from upstream sources. FY 05 expected to be the last year of tagging northern pike upstream of the Hayden Bridge.

C-18/19 CENTRARCHID SOURCES
Isotope study to identify sources of centrarchids found in the Colorado River. Draft report due to coordinator 12/15/05. Assume additional funds will not be needed to finalize report in FY 06.

IV. PROPAGATION & GENETICS MANAGEMENT

The goals of Propagation and Genetics management are: to prevent immediate extinction of any endangered Colorado River fish stocks; to conserve genetic diversity of wild endangered fish stocks through recovery efforts; to maintain genetic diversity in captive-reared endangered fish broodstock that is similar to that of the wild stock used as founders; and to produce genetically sound offspring for augmentation efforts.

<u>PROJECT NUMBER</u>	<u>TITLE</u>	<u>PROJECTED FY 06/07 BUDGET</u>
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ONGOING PROJECTS

C-7 PROPAGATION FACILITIES

Leasing growout ponds to produce endangered fish for stocking and purchasing necessary PIT-tags and tagging equipment. At this point, it does not appear that any leases need to be renewed in FY 07.

COLORADO RIVER SUBBASIN GROWOUT PONDS	\$129,400 / \$0 (Capital)
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PIT TAGGING EQUIPMENT FOR BROODSTOCK AND AUGMENTATION FISH	\$176,200 / \$190,000
FY 06: 48,030 PIT-tags (~\$3.55/tag) for stocking requirements and 2 new readers (~\$2,850 each).	

ONGOING PROJECTS NEEDING REVISION

29 O&M OF PROPAGATION FACILITIES

Operation and maintenance of Program hatchery facilities to produce endangered fish for stocking according to approved stocking plans. Ouray NFH budget reflects only the currently anticipated FWS-Fisheries contribution. Program Director's Office has reduced Wahweap budget recognizing it contained a fairly sizeable contingency fund and moved those funds to an overall hatchery O&M contingency, to be obligated to any of the four hatcheries, as needed. If not needed in any given year, these funds would be used to purchase additional PIT-tags, readers, and/or hatchery-related equipment for the following year.

29a GRAND VALLEY END. FISH FACILITY	\$416,800 / \$429,300
29b OURAY ENDANGERED FISH FACILITY	\$437,000 / \$447,900
OURAY WELL-FIELD DEVELOPMENT/ REPAIR	\$45,000 / \$5,000
29c WAHWEAP STATE FISH HATCHERY	\$217,600 / \$224,200
29d COLORADO NATIVE SPECIES HATCHERY	\$79,500 / \$81,900
29e HATCHERY O&M CONTINGENCY	\$30,000 / \$30,000

V. RESEARCH, MONITORING, & DATA MANAGEMENT

The goals of Research, Monitoring and Data Management are to provide the necessary information in life histories of endangered fishes to aid in the implementation of other Program activities, to determine the status and trends of the natural stocks, and to actively maintain the data in a useable format for researchers. The objective is to use this information in deciding the course of other Program management actions to recover the endangered fish.

<u>PROJECT NUMBER</u>	<u>TITLE</u>	<u>PROJECTED FY 06/07 BUDGET</u>
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ONGOING PROJECTS

15	LARVAL FISHES IDENTIFICATION	\$49,100 / \$50,600
Processing of collections under project #22F, backlog cataloging, and maintenance curation of existing specimens.		

121	SURVEY OF LARVAL RAZORBACK IN UPPER COLORADO	
Final report due in FY 06.		

127	UPPER COLORADO RIVER PIKEMINNOW EST.	\$66,500 / \$0
Osmundson recommended gathering additional year of data due to poor confidence intervals in FY 03 estimate. However, Program Director's office recommends sticking to the current plan of three years sampling followed by two years of no sampling, and monitoring population status in "off years" with data collected through other studies. FY 06 funds are for data analysis and report write-up. Sampling begins again in FY 08.		

128	GREEN RIVER PIKEMINNOW EST.	\$330,000 / \$339,900
Population estimate of Colorado pikeminnow in the middle and lower Green River, restart after 2 years off.		

129	DESO/GREY HUMPBACK EST.	\$60,000 / \$123,600
Population estimate of humpback chub in Desolation/Grey Canyons of the Green River. Restarts in FY 06.		

130	CATARACT CANYON HUMPBACK CHUB EST.	\$0 / \$25,000
Population estimate for humpback chub in Cataract Canyon to restart in fall FY 2007.		

131	BLACK ROCKS HUMPBACK CHUB EST.	\$0 / \$12,000
Population estimate for humpback chub in Black Rocks to restart in September 2007.		

132	WESTWATER CANYON HUMPBACK CHUB EST.	\$0 / \$44,300
Population estimate for humpback chub in Westwater Canyon to restart in September 2007.		

ONGOING PROJECTS NEEDING REVISION

16 DATABASE MANAGEMENT \$37,900 / \$39,000
The Service compiles, manages, and maintain all research and monitoring data collected by the Recovery Program. Also includes all stocking information from the various hatcheries. Needs to include annual report identifying all endangered fish handled (including a summary of the status of stocked fish). Also, researchers will need to begin submitting data in a more specific format.

22F YAMPA & MIDDLE GREEN COLO. PIKEMINNOW & RAZORBACK SUCKER LARVAL ABUNDANCE \$102,200 / \$105,200
“Real-time” larval razorback and pikeminnow monitoring to determine optimal dam operations. Re-assess: is all of this information, in fact, being used to drive dam operations?

138 GREEN RIVER YOY PIKEMINNOW MONITORING \$56,400 / \$58,100
Monitoring of young-of-the-year Colorado pikeminnow (previously included in ISMP) to maintain longterm database. Need summary report of data gathered to date; this report and future reports must link data with environmental factors as identified in the scope of work.

NEW PROJECTS

TITLE: POPULATION ESTIMATION AND ASSOCIATED DATA INTEGRATION

(Research framework to be developed in FY 2005.) Placeholder: \$60,000 / \$60,000

TITLE: DEVELOPMENT OF A COMPUTER-INTERACTIVE KEY TO IDENTIFY CYPRINID LARVAE AND EARLY JUVENILES \$40,600 / \$89,900

The Larval Fishes Laboratory at CSU has proposed to develop this key, similar to the one developed to identify razorback sucker larvae. Other entities to share the cost of this work need to be found before Recovery Program funds are committed. Placeholder for one-third of the funds (i.e. \$13,500 and \$30,000) has been included in the FY 06/07 budgets.

PLACEHOLDERS

133 YAMPA CANYON HUMPBAC CHUB EST. \$0 / \$55,700
Population estimate for humpback chub in Yampa Canyon to restart in FY07; pending review of current data (having difficulty getting population estimate). If continued, anticipated sampling schedule is two trips in September, two in October.

VI. INFORMATION, EDUCATION, & PUBLIC INVOLVEMENT

A strategic, multi-faceted information and education program is being implemented to: develop public involvement strategies at the beginning of any and all projects; educate target audiences (including the public and elected officials) about endangered fish and increase their understanding of and support for the recovery of these fish at local, state and national levels; provide opportunities for the public to participate in activities that support recovery; and improve communication and cooperation among members of the Recovery Program.

<u>PROJECT NUMBER</u>	<u>TITLE</u>	<u>PROJECTED FY 06/07 BUDGET</u>
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ONGOING PROJECTS

12 INFORMATION AND EDUCATION		\$50,000 / \$50,000
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The Information and Education Program scope of work is a comprehensive communications plan that addresses goals, objectives and strategies for all aspects of the Recovery Program. Project-specific plans are included as subsets to the comprehensive plan. This method of planning and evaluating I&E activities is designed to improve both internal and external communication. The I&E Committee reviews and evaluates the plans and updates and changes them as needed to address changes in Program activities.

The following projects have scopes of work that contain public involvement activities which are considered subsets of the comprehensive I&E communication plan:

PIP 12B GRAND VALLEY PROJECTS		\$10,000 / \$10,000
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This SOW is ongoing and addresses public involvement related to: restoring fish passage at the abandoned, privately-owned Price-Stubb Dam, constructing a fish screen at Tusher Wash Diversion Dam on the Green River; and assisting with the Gunnison River biological opinion and NEPA compliance. These activities include, but are not limited to, public meetings, news releases, one-on-one meetings with affected interests, distribution of literature and provision of regular updates to local congressional staff.

PIP 12E FLOODPLAIN RESTORATION		(Funds within C-6)
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This work addresses public involvement related to habitat restoration along the Colorado mainstem and its tributaries. Activities include, but are not limited to, one-on-one meetings with affected landowners, involving potentially affected interests in decision-making processes, informing the public through news releases, distribution of literature and public meetings as appropriate.

PIP 12H INTERPRETIVE SIGNS AND EXHIBITS		\$20,000 / \$20,000
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The Recovery Program is working to install interpretive signs and exhibits in key locations in the Upper Colorado River Basin to provide information about the endangered fishes and the Recovery Program. Plans for FY 06/07 include replacing an interpretive sign at Taylor Draw Dam at Kenney Reservoir in Rangely, Colorado; and producing and installing interpretive signs at Elkhead Reservoir in the Yampa River Basin; in the Gunnison River Basin near Delta, Colorado; at boat launching sites near Moab, Utah; at the visitor center

at Jensen, Utah. In addition, the Recovery Program will pursue establishing an aquarium at the Lake Powell Visitor Center at Glen Canyon Dam in Page, Arizona, and the Dinosaur Museum in Fruita, Colorado.

PIP 12I RUEDI RESERVOIR Funded outside Recovery Program
Since 1990, Reclamation has released water from Ruedi Reservoir to benefit endangered fish species in the 15-Mile Reach of the Colorado River. Local businesses and residents of Basalt, Colorado, remain concerned about the effects these releases will have on the Fryingpan River's gold-medal fishery. The Bureau of Reclamation handles all public involvement issues related to this project including hosting public meetings, sending news releases, and e-mailing updates to interested parties.

ONGOING PROJECTS NEEDING REVISION

PIP 12L NONNATIVE FISH MANAGEMENT \$5,000 / \$5,000
The Recovery Program continues its efforts to minimize the adverse effects certain species of nonnative fish have on the endangered fishes. A comprehensive strategic communications plan is updated and implemented annually to ensure that accurate, timely messages are delivered to target audiences.

PLACEHOLDERS

PIP 12C COORDINATED RESERVOIR OPERATIONS \$32,000 / \$32,000
This work addresses public involvement and voluntary coordination of reservoir operations in the upper reaches of the Colorado River to increase spring peak flows in the 15-Mile Reach of the Colorado River. Reservoir operations are only coordinated in years when hydrological conditions are adequate (i.e., when spring peak flows at the Cameo gage on the Colorado River are projected to be between 12,900-23,000 cfs). Of the \$30,700, \$19,500 comes from Recovery Program O&M funds and \$11,200 comes from additional Reclamation contributions. No funds should be needed in years when reservoir operations are not coordinated. Activities include, but are not limited to, informing the public through news releases, e-mail notifications, and direct mailings as necessary of any decisions to adjust reservoir operations and bypasses made to enhance flows for endangered fish purposes.

PIP 12J INTERACTIVE BASINWIDE MAP \$0 / \$0
An interactive, computerized map of the Colorado River Basin will enable the Recovery Program to provide customized information for specific audience needs. The map will be available in both electronic and print formats and will be used at public meetings, on the Program website, in Program publications, and to provide to print and broadcast news media. Researchers will also have access to the map to highlight specific projects they are involved with. In FY 2002, \$20,000 was provided to the Colorado River Water Conservation District to oversee production of the base map and customize the graphic for Recovery Program use. These funds are adequate to maintain/update the map for the next several years.

PIP 12K TRIBUTARIES

\$1,000 / \$1,000

The Recovery Program is considering developing management plans/consultation processes for significant tributaries of the Upper Colorado River Basin. The White and San Rafael rivers would be the primary focus in FY 06/07.

VII. PROGRAM MANAGEMENT

Program management activities for FY 2006-2007 focus on continued planning and coordination of Program activities by the Program Director and staff and by Utah, Colorado, Wyoming, and the Bureau of Reclamation.

<u>PROJECT NUMBER</u>	<u>TITLE</u>	<u>PROJECTED FY 06/07 BUDGET</u>
<i><u>ONGOING PROJECTS</u></i>		
2	BUREAU OF RECLAMATION PROGRAM MGMT.	\$150,000 / \$150,000
4	COLORADO PROGRAM MANAGEMENT	\$110,000 / \$110,000
5	WYOMING PROGRAM MANAGEMENT	\$14,900 / \$15,300
	CAP21 CAPITAL PROJECTS COORDINATION	\$250,000 / \$250,000

ONGOING PROJECTS NEEDING REVISION

1	UTAH PROGRAM MANAGEMENT Utah Program management costs are substantially higher than requested in previous fiscal years.	\$149,500 / \$154,000
3	SERVICE PROGRAM MANAGEMENT Budget reduced (instream flow coordinator not replaced; now covered under #19). FY 07 activities to include leading species status review and update of recovery goals.	\$911,000 / \$933,800

COLORADO RIVER RECOVERY PROGRAM
FY-2006–2007 PROPOSED SCOPE OF WORK for:
(Show brief title of project here)

Project No.: _____

Lead Agency:

Submitted by: *[Give name of project manager, give name, address, phone, fax, and e-mail of principal investigator]*

Date:

Category:

Expected Funding

Source:

- | | |
|--|--|
| <input type="checkbox"/> Ongoing project | <input type="checkbox"/> Annual funds |
| <input type="checkbox"/> Ongoing-revised project | <input type="checkbox"/> Capital funds |
| <input type="checkbox"/> Requested new project | <input type="checkbox"/> Other (explain) |
| <input type="checkbox"/> Unsolicited proposal | |

I. Title of Proposal:

II. Relationship to RIPRAP: *[Action plan(s), task number(s) and title(s) in the most recent RIPRAP which are correlated with this project. See RIPRAP at www.r6.fws.gov/crrip/rip.htm]*

III. Study Background/Rationale and Hypotheses: *[If applicable] [Include description of expected study results and how those results will be integrated into the overall recovery effort.]*

IV. Study Goals, Objectives, End Product: *[Include measurable outcomes and their expected due dates.]*

V. Study area *[including river miles and sampling dates, if appropriate]*

VI. Study Methods/Approach *[provide a clear description of sampling methods, gear types, numbers and life stages of fish to be collected, statistical analyses to be used, etc.]*

VII. Task Description and Schedule

VIII. FY-2006 Work

- Deliverables/Due Dates
- Budget *[Broken out by task and funding target; see budget detail example requirements, attached]*
 - Labor
 - Travel
 - Equipment
 - Other
 - Total

FY-2007 Work (for multi-year study)

- Deliverables/Due Dates
- Budget [*Broken out by task and funding target; see budget detail example requirements, attached*]
 - Labor
 - Travel
 - Equipment
 - Other
 - Total

FY-2008 etc. (for multi-year study)

IX. Budget Summary [*Provide total AND break-out by funding target (e.g. station)*]*

FY-2006

FY-2007

FY-2008

Total:

X. Reviewers [*For new projects or ongoing-revised projects, list name, affiliation, phone, and address of people who have reviewed this proposal.*]

XI. References

* Do NOT include overhead costs on funds transferred from Reclamation to the Service.

Scope of Work Budget Detail Requirements

Budgets should be broken down by task, category (at least labor, travel, supplies, and equipment) and funding target. Under "labor," please identify: the type of labor (e.g., project manager, technician, secretary, etc.), the labor rate (per day, per week, or whatever calculation your office uses), and the expected amount of effort (expressed in terms of hours or weeks). If supplies exceed 5% of the project budget, please explain those costs. All equipment expenses for any single item \geq \$1,000 should be itemized and justified.

Example:

FY 2006 Costs:

<u>Task 1</u>	<u>Agency A</u>	<u>Agency B</u>	<u>Contractor</u>	<u>Total</u>
Labor				
Proj. mgr (\$1833/wk; 3 wks @ agency A, \$1800/wk; 2 wks @ agency B)	\$5,500	\$3,600	\$0	\$9,100
Technicians (10 wks per agency; \$810/wk @ agency A; \$900/wk @ agency B)	\$8,100	\$9,000	\$0	\$17,100
Travel				
Per diem (20 days)	\$600	\$700	\$0	\$1,300
Vehicle (20 days)	\$1,200	\$1,500	\$0	\$2,700
*Equipment				
Boat	\$0	\$12,000	\$0	\$12,000
Trailer	\$0	\$6,000	\$0	\$6,000
Motor	\$0	\$2,000	\$0	\$2,000
Electrofishing Unit	\$0	\$4,000	\$0	\$4,000
Supplies	\$700	\$800	\$0	\$1,500
Task subtotal	\$16,100	\$39,600	\$0	\$55,700

*Justification: Additional outfitted electrofishing boat and trailer needed for concurrent sampling in two river reaches as required by population estimate protocol. Current equipment inventory of agency B includes only one outfitted electrofishing boat and trailer.

<u>Task 2</u>	<u>Agency A</u>	<u>Agency B</u>	<u>Contractor</u>	<u>Total</u>
Labor				
Biologist (2 wks; \$1500/wk @agency B; contractor \$2000/wk)	\$0	\$3,000	\$4,000	\$7,000
Technician (3.5 wks @ \$900/wk)	\$0	\$3,150	\$0	\$3,150
Task subtotal	\$0	\$6,150	\$4,000	\$10,150
FY 2006 TOTAL	\$16,100	\$45,750	\$4,000	\$65,850

FY 2007 Costs:

	<u>Agency A</u>	<u>Agency B</u>	<u>Contractor</u>	<u>Total</u>
<u>Task 2</u>				
Labor				
Proj. leader (2 wks @ Agency B @ \$1800/wk; 3 wks contractor @\$2500/wk)	\$0	\$3,600	\$7,500	\$11,100
Biologist (5 wks at each: \$1500/wk @ agency B; \$2000/wk contractor)	\$0	\$7,500	\$10,000	\$17,500
Task subtotal	\$0	\$11,100	\$17,500	\$28,600
<u>Task 3</u>				
Labor				
Biologist (4 wks @ each: \$1500/wk @ agency A&B; \$2000/wk contractor)	\$6,000	\$6,000	\$8,000	\$20,000
Proj. leader (2 wks @ each: \$1833/wk @ agency A; \$1800/wk @ agency B)	\$3,700	\$3,600	\$5,000	\$12,300
Travel				
Vehicle (5 days)	\$300	\$350	\$300	\$950
Airfare (1 trip)	\$500	\$700	\$650	\$1,850
Per diem (7 days)	\$210	\$245	\$210	\$665
Equipment	\$0	\$0	\$0	\$0
Supplies				
Tags		\$1,150		\$1,150
Glassware		\$250		\$250
Sample bottles		\$100		\$100
Task subtotal	\$10,710	\$12,395	\$14,160	\$37,265
FY 2007 TOTAL	\$10,710	\$23,495	\$31,660	\$65,865

