

COLORADO RIVER ACTION PLAN: GUNNISON RIVER

	ACTIVITY	WHO	STATUS	FY 07 10/06 9/07	FY 08 10/07 9/08	FY 09 10/08 9/09	FY 10 10/09 9/10	FY 11 10/10 9/11	FY 12 10/11 9/12	OUT- YEARS
I.	PROVIDE AND PROTECT INSTREAM FLOWS (HABITAT MANAGEMENT)									
I.A.	Identify fish habitat and flow needs.									
I.A.1.	Initially identify year-round flows needed for recovery (Flow recommendations will be provided upon completion of Aspinall Unit studies.)									
I.A.1.a.	Complete draft technical synthesis report.	FWS	Complete	McAda 2000.						
I.A.1.b.	Complete draft biological assessment.	BR	Pending		X					
I.A.1.c.	Complete final technical synthesis report.	FWS	Complete	McAda 2003.						
I.A.1.d.	Complete final biological assessment.	BR	Pending		X					
I.A.1.e.	Complete draft biological opinion.	FWS	Pending			X				
I.A.1.f.	Complete draft NEPA document .	BR	Pending		X					
I.A.1.g.	Complete final biological opinion (FWS) and NEPA document (BR).	FWS/BR	Pending			X				
I.A.1.h.	Complete ESA Section 7 consultation resulting in a programmatic biological opinion (PBO) for the Gunnison Basin.	FWS/BR/WAPA	Pending							X
I.B.	State acceptance of initial flow recommendations (Flow recommendations will be provided upon completion of Aspinall Unit studies.)									
I.B.1.	Review scientific basis, dependent on development of flow recommendations by FWS.	CWCB/CDOW	Complete	Complete with acceptance of McAda 2003.						
I.B.2.	Assess legal and physical availability of water.	CWCB	Complete	Colorado completed work on a water availability study in early 1995 & the work was used as the basis of the allocation of compact water between the five subbasins.						
I.B.3.	Assess compact considerations.	CWCB	Complete	Colorado completed work on a water availability study in early 1995 & the work was used as the basis of the allocation of compact water between the five subbasins.						
I.B.4.	CWCB notice of intent to appropriate (in Colorado).	CWCB	On hold							
I.C.	Legally protect identified flows.									
I.C.1.	Acquire (flow recommendations will be provided upon completion of Aspinall Unit studies.)									
I.C.1.a.	Assess, acquire and convert water rights to instream flows.	CWCB	On hold							
I.C.2.	Appropriate (flow recommendations will be provided upon completion of Aspinall Unit studies.)									
I.C.2.a.	CWCB approval to appropriate.	CWCB	On hold							
>* I.C.2.b.	Colorado Attorney General's Office file date.	CWCB	On hold							
>* I.C.2.c.	Water court adjudication (litigation dependent).	CWCB	On hold							
I.C.3.	Deliver.									
>* I.C.3.a.	Aspinall Unit supplemental releases to maintain 2,000 cfs minimum flow at Colorado-Utah state line 9 out of 10 years. Provide annual report.	BR	Through 01							
I.C.3.b.	Flows from Aspinall Unit for research studies.									
>* I.C.3.b.(1)	Deliver flows.	BR	Complete							
>* I.C.3.b.(2)	Protect research flows.	FWS/BR/ CWCB	Complete	An interim contact is in place between Reclamation, Service & CWCB. Long term legal protection of Gunnison River flows will occur after completion of Aspinall biological opinion (BR 04/95-FY96).						
>* I.C.3.c.	Continue annual coordination (meeting 3 times/year) of Aspinall operation until biological opinion complete.	BR	Ongoing							
I.C.3.d.	Flows from Paonia Reservoir in accordance with FWS Horsethief Biological Opinion.									
>* I.C.3.d.(1)	Deliver flows.	BR	Ongoing	X	X	X	X	X	X	X
I.C.3.e.	Flows from Aspinall Unit pursuant to Aspinall Biological Opinion.									
I.C.3.e.(1)	Determine if change in water right and/or contract is needed.	BR	Pending							
I.C.3.e.(2)	Enter into contract if needed.	BR	Pending							
>* I.C.3.e.(3)	Deliver flows.	BR	Pending							
I.C.3.e.(3)(a)	Study Gunnison River return flows to determine consumptive use to be charged against flow deliveries.	USGS	Complete	Kuhn and Williams 2004.						
I.D.	Evaluate and revise as needed flow regimes to benefit endangered fish populations.	FWS/Program	Ongoing	X	X	X	X	X	X	X
I.E.	Initiate investigations of the feasibility of modifying releases from Aspinall Unit dams to increase water temperatures that would allow for upstream expansion of Colorado pikeminnow in the Gunnison River.	BR/Contract	Complete	Boyer and Cutler 2004.						
II.	RESTORE HABITAT (HABITAT DEVELOPMENT AND MAINTENANCE)									
II.A.	Restore and manage flooded bottomland habitat.									
II.A.1.	Develop management plan for Escalante State Wildlife Area.		Complete 5/94	Burdick 1994.						

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II.A.2.	Develop and implement levee removal strategy at high-priority sites.									
II.A.2.a.	Preconstruction (contaminants screening, floodability assessments, environmental compliance, design & engineering).	BR	Complete							
>* II.A.2.b.	Construction (levee removal)	BR	Complete							
II.A.2.c.	Operate and maintain.	BR/FWS	Complete							
II.A.2.d.	Evaluation.	FWS	Complete							
II.A.3.	Acquire interest in high-priority flooded bottomland habitats.									
II.A.3.a.	Identify and evaluate sites.	FWS	Complete							
II.A.3.b.	Pre-acquisition planning and identification of acquisition options.	PD	Complete							
II.A.3.c.	Conduct appraisal/NEPA compliance.	PD	Complete							
>* II.A.3.d.	Negotiate & acquire.	PD	Complete							
II.A.3.e.	Evaluate effectiveness of land acquisition activities and provide recommendations.	PD	Complete							
>* II.A.3.	Develop and implement Colorado River Subbasin Floodplain Management Plan (Valdez and Nelson 2004b).	Program	Ongoing	X	X	X	X	X	X	X
II.B.	Restore native fish passage at instream barriers.									
II.B.1.	Restore passage at Redlands.									
II.B.1.a.	Assess and make recommendations for fish passage.	FWS	Complete							Burdick and Kaeding 1990.
II.B.1.b.	Implement viable options to restore fish passage.									
II.B.1.b.(1)	Design passage, conduct NEPA compliance.	BR	Complete							1996 RR; Passage under construction as of 11/20/95, to be completed by 04/96, 96status.as
>* II.B.1.b.(2)	Construct fish ladder.	BR	Complete							Construction completed in June 1996 (Burdick 2001).
>* II.B.1.c.	Operate and maintain fish ladder.	FWS-FR/BR	Ongoing	X	X	X	X	X	X	X
II.B.1.d.	Monitor and evaluate success.	FWS-FR/BR	Complete							Burdick 2001.
II.B.1.e.	Identify minimum flows below Redlands Diversion Dam.	FWS-FR	Complete							Burdick 1997.
>* II.B.1.f.	Deliver flows below Redlands.	BR	Ongoing	X	X	X	X	X	X	X
II.B.1.g.	Screen Redlands diversion structure to prevent endangered fish entrainment									
II.B.1.g.(1)	Design.	BR	Complete							2003
>* II.B.1.g.(2)	Construct.	BR	Complete							August 2005.
>* II.B.1.h.	Operate and maintain fish screen.	Redlands	Ongoing	X	X	X	X	X	X	X
II.B.2.	Restore passage at Hartland.									
II.B.2.a.	Assess and make recommendations for fish passage. (Passage at Hartland not identified as necessary for recovery in species' recovery goals).	FWS-FR	Complete							Burdick and Pfeifer 1996.
II.B.2.b.	Evaluate viable options to restore fish passage.	BR	Complete							Burdick and Pfeifer 1996. Tetra Tech 2000 (evaluated 3 design options for passage and 3 options for screens).
II.B.2.c.	Support local interests in efforts to pursue removal of the Hartland Diversion dam. [NOTE: These efforts will be conducted independently of and funded outside of the Recovery Program]	BR/FWS/PD	Ongoing							
II.B.2.d.	Screen Hartland diversion to prevent endangered fish entrainment, if warranted.									
II.B.2.d.(1)	Assess need.	BR/FWS/PD	Complete							
III.	REDUCE NEGATIVE IMPACTS OF NONNATIVE FISHES AND SPORTFISH MANAGEMENT ACTIVITIES (NONNATIVE AND SPORTFISH MANAGEMENT)									
III.A.	Reduce negative interactions between nonnative and endangered fishes.									
>* III.A.1.	Reclaim ponds in critical habitat	CDOW	Complete							
III.A.1.a.	Evaluate and make recommendations.	CDOW	Complete							Martinez 2004.
III.A.2.	Develop basinwide aquatic management plan to reduce nonnative fish impacts while providing sportfishing opportunities.	CDOW	Complete							CDOW 2003b.
>* III.A.2.a.	Implement CDOW's Gunnison River Aquatic Management Plan.	CDOW	Ongoing	X	X	X	X	X	X	X
IV.	MANAGE GENETIC INTEGRITY AND AUGMENT OR RESTORE POPULATIONS (STOCKING ENDANGERED FISHES)									
IV.A.	Augment or restore populations as needed and as guided by the Genetics Management Plan.									
IV.A.1.	Razorback sucker.									
IV.A.1.a.	Develop experimental augmentation plan and seek Program acceptance.	FWS-FR	Complete							Burdick et al 1995.
IV.A.1.b.	Implement experimental augmentation plan. (Goal: 10 adults/river mile.)									
> IV.A.1.b.(1)	Stock fish.	FWS-FR	Complete							Burdick 2003.
IV.A.1.b.(2)	Monitor and evaluate results; make recommendations regarding further augmentation	FWS-FR	Complete							Burdick 2003.
IV.A.2.	Develop integrated stocking plan for Colorado pikeminnow in the Gunnison River.									
IV.A.2.a.	Program acceptance.		Complete							Nesler et al 2003.

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>	IV.A.2.b. Implement Colorado pikeminnow integrated stocking plan.	CDO/FWS	On hold							
	IV.A.2.c. Evaluate stocking success as identified in monitoring plan for stocked fish.	FWS/CDO	On hold							
	IV.A.3. Develop integrated stocking plan for razorback sucker in the Gunnison River.									
	IV.A.3.a. Program acceptance.		Complete	Nesler et al 2003.						
>	IV.A.3.b. Implement razorback sucker integrated stocking plan.	CDO/FWS	Ongoing	X	X	X	X	X	X	X
	IV.A.3.c. Evaluate stocking success as identified in monitoring plan for stocked fish.	LFL/FWS/STATE S/PD	Ongoing	X	X	X	X	X	X	X
V.	MONITOR POPULATIONS AND HABITAT AND CONDUCT RESEARCH TO SUPPORT RECOVERY ACTIONS (RESEARCH, MONITORING, AND DATA MANAGEMENT)									
	V.A. Conduct research to acquire life history information and enhance scientific techniques required to complete recovery actions.									
	V.A.1. Conduct Colorado pikeminnow and razorback sucker inventory in Gunnison River above Redlands.	FWS-FR	Complete	Burdick 1995.						
	V.A.2. Identify additional spawning sites of endangered fishes on the Gunnison River.	FWS-FR	Ongoing	X	X					
	V.A.3. Conduct survey for endangered fish	FWS-FR	Ongoing	X	X					