Montana Fish, Wildlife & Parks

March 5, 1998

1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
- Fisheries Division
- Endangered Species Coordinator
- Nongame Coordinator
- Bozeman Office

Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Ruby Valley Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
U.S. Fish and Wildlife Service, 420 Barrett Street, Dillon, MT 59725-3572
State Historic Preservation Office, Helena
Ruby Watershed Committee, P.O. Box 295, Sheridan, MT 59749-0295
Ruby River Task Force, %George Swan, 100 Silver Spring Rd., Sheridan, MT 59749

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for a Future Fisheries Project tentatively planned to replace archaic diversions located on the lower 48 miles of the Ruby River with modern diversion structures of Natural Resource and Conservation Service design as prioritized by the Ruby Watershed Committee. The installation of modern diversions would provide for more efficient water management and would promote water conservation.

Please submit any comments that you have by 5 P.M., April 6, 1998 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division

Madison

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Ruby River Diversion Improvement Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purposes of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. This project is being proposed to replace archaic diversions on the lower Ruby River, as prioritized by the Ruby Watershed Committee, with modern diversion structures of Natural Resources and Conservation Service design. The installation of modern diversions would provide for more efficient water management, improve the stability of the channel and reduce the need for channel maintenance. The proposed project is an important component in an overall program directed toward maintenance of minimum instream flows and the establishment of contingencies for drought emergency in the Ruby River as defined by the Ruby River Task Force.

I. Location of Project: This project will be conducted on diversions, as prioritized by the Ruby Watershed Committee, located on the lower 48 miles of the Ruby River downstream from Ruby Reservoir within Townships 4, 5, 6 South and Ranges 4, 5 and 6 West in Madison County.

II. Need for the Project: Department Goal A indicates that a Fisheries Division objective is to "protect existing aquatic habitat and improve degraded stream systems for the welfare of healthy fish populations and other wildlife species and for public enjoyment and use." The Future Fisheries Improvement Program is a tool to help achieve that objective.

As part of the Ruby River Task Force recommendations and requirements included in a consent decree following problems with irrigation management on the lower Ruby River and Ruby Reservoir in 1994, the Ruby Water Users and Decreed Water Users have begun the process of installing modern measuring devices, headgates, and diversions to better implement water management in the lower Ruby River. The replacement of these archaic diversions with modern structures would provide water managers the ability to maintain minimum instream flows and to implement a drought emergency plan that would call for irrigation cutbacks during shortfalls. Modern structures would be designed to maximize efficiency and promote water conservation, facilitate fish passage, promote bed load transport and minimize bank erosion both upstream and downstream of the diversion site. This proposed project is an important component of an overall program of channel maintenance, channel stability and improved water quality as directed by the Ruby Watershed Committee.

III. Scope of the Project:

The replacement of diversions would follow the attached priority listing until all of the diversions on the lower Ruby River have been modernized. The new diversions would be comprised of a variety of structure types in order to conform with NRCS design requirements

and with varying channel configurations. The designs would include permanent low-head rock shear or rock grade control structures; vortex rock weirs; and floored collapsible jack pin and plank structures. All of these diversions would be designed to maximize efficiency and promote water conservation, facilitate fish passage, promote bedload transport, minimize adjacent bank erosion, and reduce the need for in-channel maintenance. Modern headgates and measuring devices would accompany the installation of new diversions under a separate phase of the overall watershed improvement program. This project is expected to cost $115,000.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $25,000.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Improving the efficiency of water management on the lower Ruby River by replacing existing archaic diversions with modern structures would provide managers the ability to maintain minimum instream flows and implement a drought emergency plan that would call for irrigation cutbacks during shortfalls. Additionally, the design of the proposed new structures would reduce channel instability created by the existing archaic diversions. Improved stream flow, especially during drought conditions, and increased channel stability would result in a more diverse and healthy habitat for aquatic life. Improvements in minimum instream flows should eliminate the fish kills that have occurred in the past as a result of severe dewatering of the river. Overall, expected improvements in the aquatic habitat should enhance resident fish populations.

2. Water quantity, quality and distribution.

Short term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. A permit for a short term exemption from turbidity will be obtained from the Water Quality Bureau and a 310 permit will be obtained from the local Conservation District. A major outcome of the proposed project is to provide for better flow management in the lower river. Consequently, instream flows would be enhanced. In the long term, maintenance of appropriate base flows will enhance water quality and reduce excessive water temperatures during periods of low flow in the summer. Additionally, improvements in channel stability would reduce sediment contribution to downstream areas, thereby improving the overall quality of downstream waters.

3. Geology and soil quality, stability and moisture.

No effects on geology and soils are expected above the high water mark. Below the high water mark, the project is expected to create a more stable stream channel.

5. Aesthetics.

Aesthetics would be enhanced by improving minimum instream flows and by insuring the lower river remains watered during times of drought. Additionally, creating more stable channel would result in a more healthy and natural stream environment.

9. Historic and archaeological sites

The proposed project will likely require an individual Army Corp of Engineers (COE) 404 permit. Therefore, the State Historic Preservation Office has been contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

4. Agricultural or industrial production.

The installation of efficient diversion structures would not interfere with crop or livestock production in the Ruby Valley. The project cannot interfere with water or property rights because it is part of the Ruby River Task Force program and has been incorporated into the signed Consent Decree by the Ruby Water Users and the Ruby Decreed Water Users.

7. Access to & quality of recreational activities.

It is anticipated that the proposed project would enhance fish populations and, as a result, the recreational fishery in the river would be expected to be improved. Angling opportunity on the lower Ruby River has been assured through the recent acquisition of public fishing access sites.

13. Locally adopted environmental plans & goals.

The proposed project is an integral link in the recommendations as outlined by the Ruby River Task Force, as well as the program adopted by the Ruby Watershed Committee. The project is also part of the signed Consent Decree adopted by the Ruby Water Users and the Ruby Decreed Water Users.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, water use on the lower Ruby River will remain inefficient and water managers will not readily be able to maintain minimum instream flows or implement a drought emergency plan that would call for irrigation cutbacks during shortfalls. Additionally, the existing archaic diversions will continue to contribute to channel instability. As a result, sections of the river will become occasionally dewatered and aquatic habitat will be lost. Recreational opportunities associated with the aquatic resources will remain reduced.

2. The Proposed Alternative

The proposed alternative is designed to replace archaic diversions with modern structures to give water users the ability to more efficiently manage water and to promote water conservation. Water managers would have the ability to maintain minimum instream flows and would be able to implement a drought emergency plan that calls for irrigation cutbacks during shortfalls. The design of the modern diversions would act to minimize channel aggradation which would result in improved channel stability. Expected improvements in the aquatic habitat should enhance resident fish populations and improve recreational opportunities. Additionally, the proposed project should result in less erosion and reduced maintenance costs.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

   We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

   The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on the Montana Electronic Bulletin Board.

3. Duration of comment period?

   Public comment will be accepted through 5 P.M. on April 6, 1998.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
Montana Department of Fish, Wildlife and Parks
1420 East 6th Avenue
Helena, MT 59620

Telephone: (406) 444-2432

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title Ruby River Diversion Improvement Project

Division/Bureau Fisheries Division -Future Fisheries Improvement

Description of Project The project is being proposed to replace archaic diversions on the lower 48 miles of the Ruby River, as prioritized by the Ruby Watershed Committee, with modern diversion structures of Natural Resources and Conservation Service design. The installation of modern diversions would provide for more efficient water management and would promote water conservation.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats		X				X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality				X		
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		X
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		X
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping

jurisdiction Ruby Valley Conservation District, NRCS, Army Corp of Engineers

Individuals or groups contributing to this EA None

Recommendation concerning preparation of EIS No EIS required.

EA prepared by : Mark Lere

Date: March 5, 1998

STRUCTURE NEEDS - RUBY RIVER AND CANALS BELOW RESERVOIR

No.	DITCH/CANAL	CONTACT	DIVERSION	HDGATE	MEAS DEV	PRIORITY	TOTAL $	NOTES
1	Ruby Canyon	J.Anderson	3500		3330	High	6830	60"w x 30"h
2	Passamari	J.Anderson	5000	3500	3330	High	11830	Hdgt 10x4; 60"w x 30"h
3	Stanley	J.Anderson	5000		4160	High	9160	84"w x 36"h
4	Peters	J.Anderson				Done	0	ok
5	Phillips	J.Anderson	5000		1548	High	6548	24"w x 30"h
6	Little Phillips	J.Anderson	5000		1107	High	6107	12"w x 24"h
7	Elser-Finley	J.Anderson	5000	2200	1253	High	8453	Hdgt 4x4; 24"w x 30"h
8	Putnam	S.Wood	3600		2111	High	5711	36"w x 30"h
9	Dauterman-Island	S.Wood			1269	High	1269	18"w x 24"h
10	Ruby Valley	S.Wood		8100	3480	High	11580	Hdgt 15x4; 60"w x 36"h
11	Laurin	S.Wood			1548	High	1548	24"w x 30"h
12	Schoolhouse #2	S.Wood				Medium	0	*install w/private $
13	Schoolhouse #1	S.Wood				Done	0	ok
14	Tunnel	S.Wood				Done	0	ok
15	Bullerdick	K.Stone	5000		3480	High	8480	60"w x 36"h
16	Duncan-Edelman	K.Stone			3480	High	3480	60"w x 36"h
17	Clark-Sennett	R.Rosenthal			3303	High	3303	60"w x 30"h
18	Thompson	K.Stone			2994	High	2994	48"w x 36"h
19	Baril-Talty	R.Rosenthal			2112	High	2112	36"w x 30"h
20	Nelson	R.Rosenthal				Medium	0	
21	Jones	R.Rosenthal				Medium	0	
22	Schoolhouse Sl.	R.Rosenthal				Medium	0	
23	Sarge Hall	T.Todd	7500			Medium	7500	
24	Lewis-Jenkins	T.Todd	5000	3100	1269	High	9369	18diax22; 18"w x 24"h
25	Ellis-Thomas	T.Todd				Medium	0	ok
26	Gum Boot Thomas	T.Todd				Medium	0	maintenance
27	Frieler	T.Todd	5000			Medium	5000	
28	Seylor+Harvey	T.Todd	5000	5000	1708	High	11708	30diax22; 30"w x 24"h
29	Small	T.Todd		6600	2111	High	8711	49x33x22; 36"w x 30"h
30	Clear Creek	S.Wood	5000	15500		High	20500	200cy r.sill; hdgate
31	Carter	S.Wood				Medium	0	
32	Ayotte	S.Wood				Medium	0	
33	West Side	S.Wood				Medium	0	
34	East Side	S.Wood				Medium	0	
35	Marion	S.Wood		4900	1548	High	6448	24"w x 30"h
36	Bench-Ayotte	S.Wood				Medium	0	
37	Peterson	S.Wood				Medium	0	
38	East Gervais	S.Wood				Medium	0	
39	Hayden (aband'd)	S.Wood				Medium	0	
40	West Gervais	S.Wood				Medium	0	
41	Boatman	S.Wood				Medium	0	
42	Marshall #3	S.Wood				Medium	0	
		TOTAL=	64600	48900	45141		158641	