

August 10, 2009
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
 Native Species Coordinator, Fisheries Office
 Missoula Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Montana Wildlife Federation, P.O. Box 1175, Helena, MT 59624
Wayne Hadley, 1016 Eastside Road, Deer Lodge, MT 59722
Montana River Action, 304 N 18th Ave., Bozeman, MT 59715
Bitterroot Conservation District, 1709 North First Street, Hamilton, MT 59840
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Bitterroot Chapter Trout Unlimited, 701 N 7th Street, Hamilton, MT 59840
Daly Ditches Irrigation District, 566 Tammany Lane, Hamilton, MT 59840
Mr. Loyd Rennaker, 2022 Old Darby Road, Hamilton, MT 59840

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide partial funding to a project calling for the design and installation of a fish screen into the Hedge diversion on the Bitterroot River. The intent of the project is to eliminate fish entrainment into the irrigation system. The project site is located on the Hedge diversion ditch, owned by the Daly Ditches Irrigation District, approximately 9 miles south of the town of Hamilton in Ravalli County.

Please submit any comments that you have by 5:00 P.M., September 10, 2009 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. If you have any questions, feel free to contact me at (406) 444-2432. Funding for this project through the Future Fisheries Improvement Program is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Section
Fisheries Bureau
Email: mlere@mt.gov

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Hedge Diversion Fish Screen 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 providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. The program calls for the enhancement of bull trout and cutthroat trout through habitat restoration, natural reproduction and reductions in species competition by way of the Future Fisheries Program.

The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for the design and installation of a fish screen into the Hedge diversion, located on the Bitterroot River approximately 9 miles south of the town of Hamilton. The Bitterroot River supports a very popular recreational fishery in western Montana, providing fishing opportunities for rainbow trout, brown trout, westslope cutthroat trout and mountain whitefish. The river also supports a remnant population of bull trout. The Hedge diversion diverts up to approximately 140 cubic feet per second (cfs) of water for irrigation purposes and entrains numerous fish. This project calls for designing and constructing a fish screen down-canal from the head of the diversion to eliminate the loss of fish into the ditch. Installation of a fish screen would be done in concert with re-building the existing diversion structure, which is failing, with the use of a separate source of funds. This environmental assessment only addresses the proposed fish screen. The project site is located on the Hedge diversion, owned and operated by the Daly Ditches Irrigation District (DDID), approximately 9 miles south of the town of Hamilton in Ravalli County.

I. Location of Project: This project will be conducted on the Hedge diversion located on the Bitterroot River approximately 9 miles upstream from the town of Hamilton within Township 4 North, Range 21 West, Section 11 in Ravalli County (Attachment 1).

II. Need for the Project: One goal within Montana Fish, Wildlife and Parks six year operations plan for the fisheries program is to “restore and enhance degraded habitats” by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposed project would help meet this goal.

The Hedge diversion diverts up to approximately 140 cfs of water from the Bitterroot River and entrains numerous fish. Although entrainment rates have not been fully quantified, a trapping study conducted at the head of the canal monitored fish entrainment between June and September, 1984 and collected 2362 mountain whitefish, 238 brown trout, 179 rainbow trout and rainbow-westslope cutthroat trout hybrids and 8 bull trout. Installation of a fish screen into the

canal would eliminate fish entrainment and, at the same time, would continue to provide the water needed for irrigation. A by-pass pipe would be part of the fish screen and would act to return screened debris and fish back to the river. The intent of this project is to enhance fish populations in the Bitterroot River.

III. Scope of the Project:

The project proposes to design, construct and install a self-cleaning fish screen near the head of the canal on the Hedge diversion (Attachment 2). The screen would be constructed within the canal downstream from the headgate and would be designed to filter up to 140 cubic feet per second (cfs) of water diverted into the ditch. An associated by-pass pipe would be installed to divert a yet to be determined quantity of water back to the river, allowing fish and debris to be returned to the stream. The final design would be used to determine the exact location of the screen and by-pass pipe. The style of fish screen, associated infrastructure and screen criteria (mesh size, approach velocity and sweeping velocity) also would be finalized through the design process. Personnel from the DDID would maintain the operation of the screen. This project is expected to cost \$280,000.00. Of this total, the Future Fisheries Improvement Program (FFIP) would be contributing up to \$98,000.00 and FFIP funding would be contingent upon DDID securing all additional funding prior to beginning the project.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Removing a source of fish entrainment from the Bitterroot River by installing a self-cleaning fish screen into a major irrigation diversion may enhance fish populations. It remains unknown if entrainment of fish into this diversion acts as a limiting factor for fish populations in the river.

2. Water quantity, quality and distribution.

The fish screen will be installed in the dry during the non-irrigation season when the ditch is shut down. Short-term increases in turbidity in the Bitterroot River may occur during installation of the associated by-pass pipe. To minimize turbidity, operation of equipment in the river channel would not be allowed. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 124 permit (Montana Stream Protection Act) will be obtained from Montana Fish, Wildlife and Parks and the U.S. Army Corp of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit).

3. Geology and soil quality, stability and moisture.

Soils along the ditch bank would be disturbed during the construction, but would quickly stabilize following proposed re-vegetation efforts. The likely footprint for this fish screen is the width of the existing ditch by about 50 feet in length. Re-vegetation efforts call for re-seeding disturbed areas with native grasses.

4. Vegetation cover, quantity and quality.

Vegetation cover would be disturbed along the ditch bank and along the alignment of the by-pass pipe during the period of construction. Proposed re-vegetation efforts (re-seeding) would act to mitigate these disturbances.

5. Aesthetics.

Aesthetics would be adversely impacted during construction due to ground disturbance and the presence of heavy equipment. The long-term affects on aesthetics likely would be negligible since the fish screen would substantially be hidden from view by the existing banks of the ditch.

7. Unique, endangered, fragile, or limited environmental resources.

Installation of the fish screen will eliminate entrainment of bull trout into a major irrigation diversion on the Bitterroot River. A past survey documented that the Hedge diversion entrains a relatively small number of these fish. Bull trout are listed as threatened under the Endangered Species Act. Because entrainment of bull trout into the Hedge diversion has been documented in the past and because the Bitterroot River has been identified as nodal habitat for bull trout, the project will be included in Montana Fish, Wildlife and Parks Section 6 conservation plan with the U.S. Fish and Wildlife Service.

9. Historic and archaeological sites

This fish screen would be installed within the existing ditch and installation would cause only minimal ground disturbance. As a result, there is a very low likelihood that cultural properties could be impacted. Should cultural materials be inadvertently discovered during the project, the State Historic Preservation Office will be contacted and the site will be investigated.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

This fish screen may enhance fish populations in the Bitterroot River. As a result, this project may improve the popular recreational fishery that the river provides.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this diversion will continue to entrain fish residing in the Bitterroot River.

2. The Proposed Alternative

The proposed alternative calls for the design and installation of a self-cleaning fish screen in a major irrigation diversion on the Bitterroot River. The intent of the project is to eliminate entrainment of fish into the canal system and enhance fish populations in the Bitterroot River. This project would continue to provide the water need for irrigation and, at the same time, may enhance the popular recreational fishery that the river provides.

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 funding 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 Montana Fish, Wildlife and Parks webpage: fwp.mt.gov.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on September 10, 2009.

4. Person responsible for preparing the EA.

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

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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 Hedge Diversion Fish Screen Project

Division/Bureau Fisheries Division -Future Fisheries Improvement
 Description of Project The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for the design and installation of a fish screen into the Hedge diversion located on the Bitterroot River. The intent of the project is to eliminate entrainment of fish into the irrigation system.

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			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			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		
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		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Bitterroot Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office
 Individuals or groups contributing to this EA Daly Ditches Irrigation District, Morrison-Maierle, Inc.

Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere
Date: August 3, 2009