

March 13, 2006
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
North Powell Conservation District, 1 Hollenback Road, Deer Lodge, MT 59722
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Big Blackfoot Chapter of Trout Unlimited, P.O. Box 1, Ovando, MT 59854

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 installation of a self-cleaning fish screen in a diversion located at steam mile 1.8 on Murphy Spring Creek, a tributary to the North Fork Blackfoot River. The intent of the project is to eliminate entrainment mortality and restore connectivity between Murphy Spring Creek and the North Fork Blackfoot River for migratory westslope cutthroat trout and possibly bull trout. The project site is located on Murphy Spring Creek approximately 7 miles northeast of the community of Ovando in Powell County.

Please submit any comments that you have by 5:00 P.M., April 13, 2006 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Funding for 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. 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 Bureau
Fisheries Division
Email: mlere@mt.gov

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Murphy Spring Creek 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 installation of a self-cleaning fish screen in an irrigation ditch located at stream mile 1.8 on Murphy Spring Creek, a first order tributary to the North Fork Blackfoot River. The intent of this project is to eliminate entrainment of fish into the diversion during the irrigation season, especially westslope cutthroat trout and bull trout. The project site is located on private property approximately 7 miles northeast of the community of Ovando in Powell County (Attachment 1).

I. Location of Project: This project will be conducted at a diversion on Murphy Spring Creek, a tributary to the North Fork Blackfoot River, located approximately 7 miles northeast of the community of Ovando within Township 15 North, Range 11 West, Section 16 in Powell County.

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.

Murphy Spring Creek is a first order tributary to the North Fork Blackfoot River. The North Fork is an important fluvial bull trout spawning tributary and has been designated a bull trout core area. Core areas are watersheds used by migratory bull trout for spawning and early rearing and typically support the strongest remaining populations. Murphy Spring Creek also falls within this core area designation. Currently, a relatively large ditch on the spring creek at stream mile 1.8 is not screened and entrains fish during the irrigation season. This diversion was retrofitted with a fish ladder in 1998 to facilitate upstream passage. More recently, an agreement has been reached with the water users on this ditch granting a minimum 2.2 cubic feet per second of instream flow in the creek. These past habitat improvements have the potential to significantly enhance fluvial westslope cutthroat trout and bull trout. However, entrainment into this irrigation ditch continues to be a major source of mortality for both fluvial and resident

species of fish. The intent of this project is to greatly reduce entrainment by installing a self-cleaning Coanda style fish screen.

III. Scope of the Project:

The project proposes to construct a Coanda style self-cleaning fish screen near the head of the irrigation ditch on Murphy Spring Creek (Attachment 2). This screen would be designed to filter up to 20 cubic feet per second of water diverted into the ditch, with a by-pass pipe allowing fish and debris to be returned to the river. Coanda style screens are low maintenance structures, allowing fish and debris to slide off the face of the screen while water is filtered into a collection gallery located underneath, directing diverted water down the canal. The project also calls for some minor channel modifications upstream and downstream of the screen site, as well as the installation of two rock vanes to better control the quantity of water diverted into the canal. This project is expected to cost \$39,771.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$9,943.00.

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 main source of fish entrainment from Murphy Spring Creek by installing a self-cleaning fish screen into a significant diversion will restore downstream connectivity between the spring creek and the North Fork Blackfoot River for migrating fish. Eliminating entrainment of fish from this irrigation diversion is expected to enhance fish populations in Murphy Spring Creek and possibly the North Fork Blackfoot River.

2. Water quantity, quality and distribution.

The fish screen will be installed during the non-irrigation season when the ditch is shut down. Short-term increases in turbidity may occur during installation of the by-pass pipe. To minimize turbidity, operation of equipment in the stream channel will be minimized to the extent practicable. 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 (Stream Protection Act) will be obtained from the Missoula office of 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. 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 during the period of construction. Proposed re-vegetation efforts 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. In the long term, aesthetics would not be adversely affected.

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

Installation of the fish screen will eliminate entrainment of fish from a significant diversion on Murphy Spring Creek. The spring creek currently supports westslope cutthroat trout, a species of special concern in Montana and juvenile bull trout have been documented rearing near the confluence with the North Fork Blackfoot River. Bull trout are listed as threatened under the Endangered Species Act. The project area has been classified as a bull trout core area. Because the North Fork Blackfoot drainage supports 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.

7. 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.

1. Access to & quality of recreational activities.

This fish screen is expected to enhance fish populations in Murphy Spring Creek and the North Fork Blackfoot River. As a result, this project is expected to improve the recreational fishery that these water bodies provide.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the diversion on Murphy Spring Creek will continue to entrain downstream migrating fish and migratory connectivity to the North Fork Blackfoot River

will continue to be diminished.

2. The Proposed Alternative

The proposed alternative calls for installing a self-cleaning fish screen in a significant irrigation diversion on Murphy Spring Creek. The intent of the project is to decrease entrainment of downstream migrating fish into the canal system, thereby enhancing fish populations in the spring creek and the North Fork Blackfoot River. This project is expected to enhance the recreational fishery that these water bodies provide. The project also is expected to enhance the fluvial life history component for both westslope cutthroat trout and bull trout populations.

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 has been reviewed and supported by the Fish, Wildlife and Parks Commission. 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 April 13, 2006.

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
e-mail: mlere@mt.gov

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 Murphy Spring Creek 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 installation of a self-cleaning fish screen into a diversion located at stream mile 1.8 on Murphy Spring Creek, a tributary to the North Fork Blackfoot River. The intent of the project is to significantly reduce entrainment mortality and restore downstream connectivity between Murphy Spring Creek and the North Fork Blackfoot River for migratory fish.

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 North Powell 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 Ryen Aasheim, Big Blackfoot Chapter of TU
 Recommendation concerning preparation of EIS No EIS required.

EA prepared by: Mark Lere
Date: March 9, 2006