

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife & Parks
Mulherin Creek Fish Screen

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in streams 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. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP is proposing to provide partial funding to a project calling for the installation of a fish screen on Mulherin Creek, which would prevent loss of Yellowstone cutthroat trout fry and adult spawners into the irrigation canal and provide passage around the diversion. The purpose of this project is to prevent the entrainment of fluvial Yellowstone cutthroat trout adults and outmigrating fry into an irrigation system.

I. Location of Project:

The project site is located on Mulherin Creek, a tributary to the Yellowstone River, within Township 8S, Range 7E, Section 24 in Park County (Attachment 1). It is located near Corwin Springs, and north of Gardner.

II. Need for the Project:

One goal within FWP's Statewide Fisheries Management Plan for the fisheries management program is to "protect, maintain, and restore native fish populations, their habitats, life cycles, and genetic diversity to ensure stewardship of native species and to ensure angling opportunities whenever possible." By implementing habitat restoration projects through the FFIP, this critical goal can be achieved. This project proposes to install a more functional, low-maintenance fish screen to stop entrainment of Yellowstone cutthroat trout and improve survival and recruitment of this native fish species.

III. Scope of the Project:

This project involves installation of a Farmers™ fish screen at an irrigation diversion on Mulherin Creek near Corwin Springs. Mulherin Creek is the third greatest producer of Yellowstone cutthroat trout fry to the Yellowstone River; however, trapping determined that a substantial portion of outmigrating fry become entrained in the canal. Furthermore, a substantial number of fluvial spawning adults have been found in the canal, or dead in irrigated fields. The

fish screen will block entrainment of fry, juvenile, and adult fish, while allowing delivery of water to its point of use.

The project will modify up to 20 feet of bank with installation and armoring of the head gate. About 15 feet of the streambed will be modified with large rock and concrete blocks to divert water to the head gate. Rocks and concrete blocks are currently in place at this location, and they may be replaced with other material depending on the final the design specifications.

A fish screen was installed in the 1990’s at this location, but failed because a clogged infiltration gallery led to a water user cutting the pipe to ensure water delivery. This project proposes to install a more functional, low-maintenance fish screen to stop entrainment of Yellowstone cutthroat trout while allowing for delivery of diverted water. The successful completion of this project could improve Yellowstone cutthroat survival and recruitment in Mulherin Creek and the Yellowstone River.

The total estimated cost for this project is \$80,870. Of this total, the FFIP would be contributing up to \$20,000. The remaining funds will come from other sources and from in-kind services:

Contributor	In-kind services	In-kind cash
Bring Back the Natives		\$25,870 (unsecured)
MT Chapter, American Fisheries Society		\$5,000 (unsecured)
Joe Brooks Chapter, Trout Unlimited		\$5,000 (unsecured)
Montana Trout Foundation		\$5,000 (unsecured)
TOTAL = \$40,870		

This project will obtain the proper permits for construction. A Montana Stream Protection Act permit will be obtained and the U.S. Army Corps of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit).

IV. Environmental Impact Checklist:

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

Project Title: Mulherin Creek Fish Screen

Division/Bureau: Fisheries Division / Habitat Bureau (FFIP)

Description of Project: The FFIP tentatively plans to provide partial funding to a project calling for installation of a fish screen on Mulherin Creek (a tributary to the Yellowstone River), which could reduce loss of Yellowstone cutthroat trout into the existing irrigation diversion.

A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture				X		
2. Air quality or objectionable odors				X		
3. Water quality, quantity and distribution (surface or groundwater)			X			X
4. Existing water right or reservation			X			X
5. Vegetation cover, quantity and quality			X			X
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species			X			X
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species			X			X

B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				X		
2. Land use			X			X
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation				X		
8. Cultural and historic resources				X		X
9. Evaluation of significance				X		
10. Generate public controversy				X		

V. Explanation of Potential Impacts on the Physical Environment

3. Water quality, quantity, and distribution (surface or groundwater):

No changes in stream flow would occur in Mulherin Creek as a result of the proposed project. Short-term increases in turbidity will occur during project construction, as three stream crossings will be removed. 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 (318 authorization).

4. Existing water right or reservation:

This project will reduce entrainment of Yellowstone cutthroat fry while ensuring delivery of all legal water rights.

5. Vegetation cover, quantity, and quality:

Installation of the fish screen will cause minor disruption to vegetation cover, quantity, and quality. The screen would be approximately 40 feet in length with a 20-foot long pipe to capture water downstream of the head gate and be installed adjacent to the stream. A bypass channel would return fry and adult fish to Mulherin Creek. The potential impacts would be confined to the work area, and most of the impacts would be temporary. Some vegetation would be removed from the proposed screen location, but the amount is considered to be minor relative to the overall project benefit. Reclamation of disturbed areas will include addition of 4 inches of top soil and application of a native grass seed mix.

7. Terrestrial or aquatic life and/or habitats:

Installation of the fish screen will cause a short-term disruption in terrestrial and aquatic habitats. Streamside terrestrial vegetation will be disturbed during the installation of the fish screen and bypass pipe. However, this impact will be localized. Installation of the head gate and the associated armoring will cause disruption of the streambed, but the impacts will be confined to an area smaller than 20 linear feet.

8. Unique, endangered, or fragile wildlife or fisheries species:

The Yellowstone cutthroat trout is classified as a “Species of Special Concern” in Montana due to their limited numbers and distribution. They are also federally threatened under the Endangered Species Act. This project is expected to enhance survival and spawning success of Yellowstone cutthroat trout and thereby increase recruitment to the Yellowstone River.

10. Changes to abundance or movement of species:

Installation of a fish screen on Mulherin Creek will reduce the number of Yellowstone cutthroat trout fry and spawning adults that are entrained in the irrigation diversion. This project is expected to eliminate entrainment of adults and fry into the diversion, thereby increasing the survival and spawning success of Yellowstone cutthroat trout in this location and within the Yellowstone River.

VI. Explanation of Impacts on the Human Environment.

2. Land use:

The modifications of the irrigation structures were designed to provide the irrigators full access to their water rights. However, unforeseen circumstances may temporarily disrupt ditch flow. In the first irrigation season in operation, FWP will assist irrigators in operation and maintaining the structures to ensure they operate properly and provide adequate irrigation flows.

8. Cultural uniqueness & diversity, historical & archaeological sites:

No cultural or historical resource impacts are anticipated. However, the State Historical Preservation Office will be notified of this project and any potential concerns will be addressed.

VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects. The long-term impacts to the physical and human environments are considered be minor and positive.

VIII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative.

If no funding is provided through the FFIP, either the applicant would have to seek additional sources of funding to complete the project, or the irrigation diversion on Mulherin Creek will continue to entrain Yellowstone cutthroat trout, affecting survival and recruitment in Mulherin Creek and the Yellowstone River. Yellowstone cutthroat trout are a “Species of Concern” in Montana and a federally sensitive species.

2. The Proposed Alternative.

The proposed alternative intends to provide partial funding through the FFIP to complete the project as proposed, preventing entrainment of Yellowstone cutthroat trout into the irrigation diversion. This alternative would include installation of a fish screen and

bypass channel that would allow water to be diverted for irrigation and fish to remain in Mulherin Creek.

VIII. Environmental Assessment Conclusion Section.

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

Park Conservation District, Montana Department of Natural Resources and Conservation, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another governmental agency:

None.

3. Is an EIS required?

No. We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish and Wildlife Commission, and funding will be contingent upon their approval. The EA will be distributed to all individuals and groups listed on the cover letter and will be published on the FWP webpage: www.fwp.mt.gov.

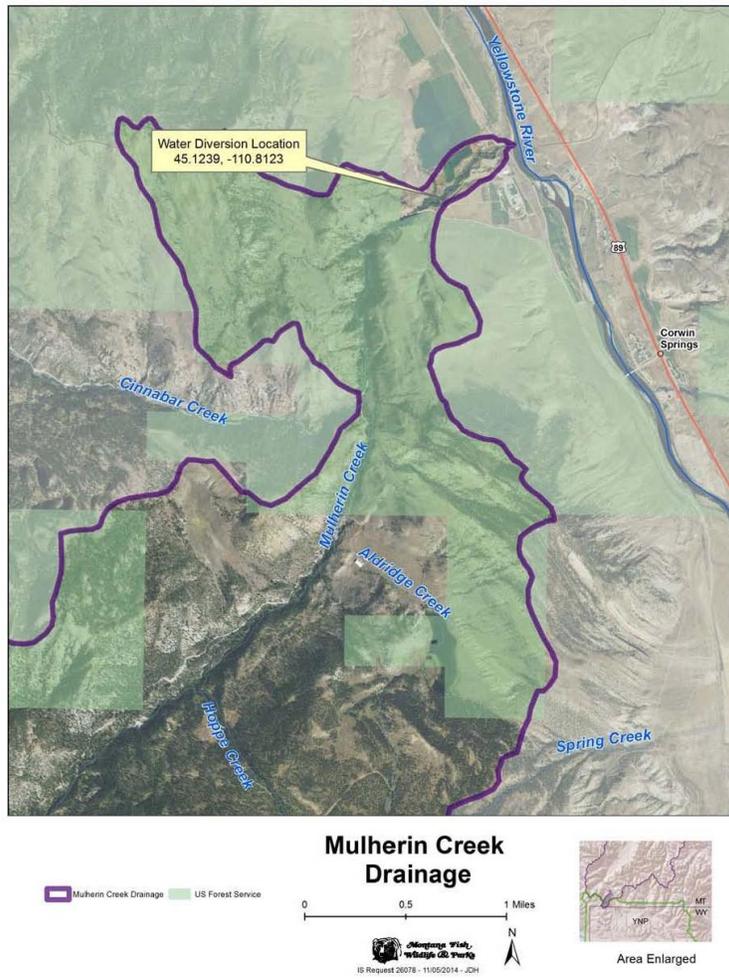
5. Duration of comment period?

Public comment will be accepted through 5:00 PM on February 16, 2015.

6. Person responsible for preparing the EA.

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ATTACHMENT 1 (PROJECT LOCATION)



ATTACHMENT 2 (YELLOWSTONE CUTTHROAT TROUT)

