

September 22, 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
 Bozeman Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Montana Wildlife Federation
Beaverhead Conservation District, 420 Barrett Street, Dillon, MT 59725
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
State Historic Preservation Office, Helena
Big Hole Watershed Committee, P.O. Box 931, Butte, MT 59703
Montana Trout Unlimited, P.O. Box 7186, Missoula, MT 59807
Greenbridges, LLC, 5100 California Avenue, Suite 234, Bakerfield, CA 93309

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 enhancing the riparian vegetative community along approximately a 0.7-mile reach of the Big Hole River and restoring the dimension and profile of the channel on two short segments within this 0.7-mile reach. The intent of the project is to enhance overall aquatic and riparian habitat for the benefit of fluvial Arctic grayling and other species of fish. The proposed project is located approximately 3 miles south of the community of Jackson in Beaverhead County.

Please submit any comments that you have by 5:00 P.M., October 22, 2006 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Funding for this project through the Future Fisheries Improvement Program 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
e-mail: mlere@mt.gov

ENVIRONMENTAL ASSESSMENT

Fisheries Division

Montana Fish, Wildlife and Parks

Big Hole River Aquatic and Riparian Habitat Enhancement Project – Jackson Reach

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 that 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 purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal.

The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for enhancing habitat complexity along a 0.70-mile reach of the Big Hole River. The proposed project calls for enhancing the riparian vegetative community, reconstructing an existing hardened livestock crossing, excavating two pools, and stabilizing about 50 feet of eroding bank. The intent of the project is to enhance habitat for fluvial Arctic grayling and other native and sport fish species within this reach of the Big Hole River. The project site is located on property owned by Greenbridges, LLC approximately 3 miles south of the community of Jackson in Beaverhead County (Attachment 1).

I. Location of Project: This project will be conducted on the Big Hole River, located approximately 3 miles south of the community of Jackson within Township 6 South, Range 15 West, Section 9 in Beaverhead County.

II. Need for the Project: One goal within Montana Fish, Wildlife and Parks six-year plan of operation for the fisheries program is to “restore and enhance degraded habitat” 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 achieve this goal.

The upper Big Hole River Basin, with the exception of a few attempts at re-founding fluvial grayling in several southwestern Montana waters, supports the last river dwelling Arctic grayling in the lower 48 states. These fish are classified as a “species of special concern” in Montana because of their low numbers and shrinking distribution.

Portions of this 0.70-mile reach on the Big Hole River proposed for restoration are characterized by sparse willow vegetation, high width to depth ratios for channel dimensions and poor pool development. The existing degraded conditions are primarily due to historic overgrazing within the riparian corridor. The degraded channel and riparian conditions currently are providing marginal habitat for fluvial Arctic grayling and other species of fish.

III. Scope of the Project:

This project calls for fencing the riparian corridor with 3 to 5 strands of barbed wire designed to allow for wildlife passage. The bottom wire would be no less than 16 inches from the ground and the top wire would be no more than 44 inches from the ground. An approximately 250-foot segment of channel located at the upstream end of the project reach would be restored by narrowing the channel to reference reach dimensions, excavating a pool and constructing an adjacent point bar, and re-vegetating the site with willow transplants and borrowed sods excavated on nearby donor sites (Attachment 2). The pool would be excavated adjacent to the east bank and would be approximately 2.5 feet in depth and 35 feet in length.

Material excavated from the pool would be used to construct a point bar on the opposite bank to meet channel dimensions obtained from a reference reach. The constructed point bar would be re-vegetated with willow clumps placed on 10-foot centers and with borrowed sod mats. The toe of the east bank would be covered with sod mats and would be planted with transplanted willow clumps in a series of two rows. Additionally, a 50-foot section of eroding stream bank would be graded to a stable angle of repose and vegetated with mature willow transplants and borrowed sod mats.

Approximately 700 feet of channel located on the downstream end of the project reach would be restored by re-constructing an existing vehicle and livestock crossing, constructing a pool and associated point bar, and transplanting willows and sods to stabilize the stream banks (Attachment 3). The existing stream crossing would be hardened by adding a mixture of pit run gravel and 6-inch cobble to both approaches. Approximately 45 feet of both approaches would be excavated to a width of 30 feet and a depth of 1.5 feet and a geo-textile fabric would be installed before adding the gravel cobble mixture to a depth of 18 inches. A pool would be excavated on the west bank immediately downstream of the hardened crossing and material would be placed on the opposite bank to create a point bar to meet channel dimensions obtained from reference reaches. Installing large willow transplants and sod mats would stabilize the toe of the stream bank.

The project is expected to cost \$38,920.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$16,668.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Enhancing both channel stability and the riparian vegetative community on this reach of the upper Big Hole River is expected to benefit fluvial Arctic grayling, as well as other species of fish. Riparian fencing will help insure long-term recovery. Habitat for riparian dependent wildlife also would be improved by controlling livestock grazing within the riparian corridor.

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. 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). A 124 permit (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 needed to meet the federal Clean Water Act (404 permit).

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during pool construction and bank stabilization.

Soils disturbed by construction will be re-seeded with native vegetation and re-graded banks will be stabilized with the placement of dense sod mats and transplanted willow clumps.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed during the period of construction. The tracked excavator will actively avoid disturbance of woody shrubs within the construction site. Re-seeding, transferring sod mats and transplanting of native willow clumps would mitigate any disturbance of vegetation that occurred during construction. Installation of fencing along the riparian corridor would act to protect the riparian vegetative community from over-grazing by livestock over the long-term.

5. Aesthetics.

Aesthetics would be negatively affected during project construction because of ground disturbance and the presence of heavy equipment. These negative effects would be relatively short term since the project is expected to be completed over an approximately two-week period.

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

Fluvial Arctic grayling are native to Montana and are classified as a “species of special concern” because of their declining numbers and shrinking distribution. Grayling appear to select for pool habitat during the heat of the summer for thermal refuge. Although the scale of this project is relatively small, increases in pool habitat are expected to benefit the fluvial grayling population in the upper Big Hole drainage. Additionally, long-term protection of the riparian corridor would improve channel stability and lead to a more complex aquatic environment over the long-term.

7. Historic and archaeological sites

The proposed project likely will require an individual Army Corp of Engineers 404 permit. Therefore, the State Historic Preservation Office will be 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.

1. Agricultural or industrial production.

Fencing the riparian corridor to protect the vegetative community is expected to temporarily remove approximately 5 acres from livestock grazing. Following approximately 5 years of complete rest, this riparian pasture would be managed with short-term, high intensity grazing under a grazing management plan.

2. Access to & quality of recreational activities.

This proposed project is expected to enhance populations of fish residing in the upper Big Hole River and, as a result, the associated recreational fishery.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this reach of the upper Big Hole River will remain degraded. The carrying capacity for fluvial Arctic grayling and other species of fish will remain below potential and the riparian vegetative community will continue to be overgrazed by livestock.

2. Riparian Protection Alternative

Under this alternative, the stream corridor would be protected from livestock grazing by installing riparian fencing. Unstable stream banks would be allowed to continue to erode until such time they reached a stable angle of repose and re-vegetation occurred naturally. The time period required for recovery for this alternative is unknown, but certainly would be significantly longer than for the preferred alternative.

3. The Proposed Alternative

The proposed alternative is designed to enhance overall aquatic and riparian habitat within a 0.7-mile reach of the upper Big Hole River. Fluvial Arctic grayling, as well as other species of fish residing in the river, would benefit by protecting the riparian corridor with fencing, stabilizing eroding stream banks and constructing a couple of pools that meet reference reach conditions. Enhancing streamside vegetation also would benefit riparian dependent wildlife.

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 also will be published on Montana Fish, Wildlife and Parks web page: fwp.mt.gov.

3. Duration of comment period?

Public comment will be accepted through 5 PM on October 22, 2006.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
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Fisheries Division
Montana Department of Fish, Wildlife and Parks
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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 Big Hole River Aquatic and Riparian Habitat Enhancement Project - Jackson Reach

Division/Bureau Fisheries Division-Future Fisheries Improvement
 Description of Project The Future Fisheries Improvement Program is proposing to provide partial funding to a project calling for enhancing habitat complexity along a 0.7-mile reach of the upper Big Hole River. The work would involve enhancing the riparian vegetative community, reconstructing a hardened livestock crossing, excavating two pools, and stabilizing about 50 feet of eroding stream bank. Additionally, the riparian corridor would be fenced to control livestock grazing. The intent of the project is to enhance habitat for fluvial Arctic grayling and other species of fish. The project site is located approximately 3 miles south of the community of Jackson in Beaverhead County.

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			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 Beaverhead 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 Peter Lamothe, Montana Fish, Wildlife and Parks; Confluence Consulting, Inc.
 Recommendation concerning preparation of EIS No EIS required.

EA prepared by: Mark Lere
Date: August 29, 2006
