

March 20, 2007  
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  
USDA – NRCS, Larry Holzworth, 10 E. Babcock, Room 443, Bozeman, MT 59715  
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  
Erb Livestock, Inc, 540 Skyline Drive, Dillon, MT 59725

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for the Future Fisheries Improvement Program. The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for enhancing the riparian vegetative community within a one mile reach of the Big Hole River upstream from the Wisdom Bridge by planting approximately 20,000 containerized native willow stock. 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 Erb Livestock, Inc. near the community of Wisdom in Beaverhead County

Please submit any comments that you have by 5:00 P.M., April 20, 2007 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 Willow Enhancement Project

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 the riparian vegetative community within a one mile reach of the Big Hole River upstream from the Wisdom Bridge by planting approximately 20,000 containerized native willow stock. The willows will come from local cuttings and will be rooted in 10 cubic inch containers at the DNRC state nursery in Missoula. 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 Erb Livestock, Inc. near the community of Wisdom in Beaverhead County (Attachment 1).

I. Location of Project: This project will be conducted on the Big Hole River, located near the community of Wisdom within Township 2 South, Range 15 West, Section 33 in Beaverhead County. The project site includes about one mile of the Big Hole River located immediately upstream of the Wisdom Bridge on Highway 43.

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.

Sparse willow vegetation, poor pool development, eroding stream banks and the loss of multiple threaded channels characterize the one-mile reach on the Big Hole River that is proposed for restoration. The existing degraded conditions primarily are due to historic overgrazing within the riparian corridor, the active removal of willows and the intentional blocking of side channels with earthen berms. The degraded channel and riparian conditions currently are providing marginal habitat for fluvial Arctic grayling and other species of fish. Stable stream banks and habitat features such as scour pools on the upper Big Hole River almost entirely depend on willow-dominated riparian vegetation.

III. Scope of the Project:

This project calls for planting approximately 20,000 containerized willow shrubs within a one-mile reach of the upper Big Hole River in 2008. Willow cuttings will be obtained from local sources in 2007 and will be rooted in containers at the DNRC State nursery located in Missoula. This proposed effort would be part of a larger ongoing effort intended to restore the willow community along nearly seven miles of the upper

Big Hole River. Additionally, an ongoing effort involves installing riparian fencing on both sides of the river along this same seven-mile river reach. This proposed project is part of a larger effort associated with the Candidate Conservation Agreement with Assurances (CCAA) that has been adopted for fluvial Arctic grayling.

The project is expected to cost \$35,000.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$12,500.00.

#### IV. Environmental Impact Checklist:

Please see attached checklist.

#### V. Explanation of Impacts to the Physical Environment

##### 1. Terrestrial and aquatic life and habitats.

Enhancing 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. An ongoing riparian fencing project will help insure long-term recovery. Controlling livestock grazing within the riparian corridor and restoring the willow community along the river also would improve habitat for riparian dependent wildlife.

##### 2. Water quantity, quality and distribution.

Restoration of the willow riparian community may result in greater water use as a result of increases in evapo-transpiration. At the same time, a healthier riparian community may improve bank storage, thus allowing for more water to be retained during high flow periods and then later released as surface flow during the summer and fall. However, the overall effect of restoring the willow community on the water balance in the upper Big Hole River remains highly speculative, at best, and is beyond the scope of this assessment.

##### 3. Geology and soil quality, stability and moisture.

Soils along the stream margin would tend to be stabilized over time as a result of the development of deep-binding root masses from the planted willow stock.

##### 4. Vegetation cover, quantity and quality.

The planting of 20,000 containerized willows along a one-mile reach of river is expected to enhance the riparian vegetative community.

##### 5. Aesthetics.

Aesthetics would tend to be improved as a result of enhancing the riparian vegetative community.

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. The enhancement and long-term protection of the riparian corridor would improve channel stability and lead to a more complex aquatic environment over the long-term. A more complex aquatic environment is expected to enhance grayling and other species of fish residing in the Big Hole River. This project would be part of a larger watershed-wide effort, under the CCAA, for fluvial Arctic grayling, a candidate species under the Endangered Species Act.

7. Historic and archaeological sites

This proposed project is contained entirely on private property and therefore is not covered under the State Antiquities Act. However, the project is receiving federal funds through the Natural Resources and Conservation Service (NRCS) and, as a result, NRCS will be responsible to meet all pertinent requirements associated with the National Historic Preservation Act.

#### VI. Explanation of Impacts on the Human Environment.

1. 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, would benefit the associated recreational fishery.

2. Locally adopted environmental plans and goals.

This proposed project is part of the CCAA that has been adopted for fluvial Arctic grayling in the Big Hole drainage.

#### 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 support minimal native willow.

2. The Proposed Alternative

The proposed alternative is designed to enhance overall aquatic and riparian habitat within a one-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 restoring willow to the riparian corridor. 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 Fish, Wildlife and Parks Commission also will review the proposed project 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](http://fwp.mt.gov).

3. Duration of comment period?

Public comment will be accepted through 5 PM on April 20, 2007.

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  
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e-mail: [mlere@mt.gov](mailto: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 Big Hole River Willow Enhancement Project

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 the riparian vegetative community within a one-mile reach of the upper Big Hole River located immediately upstream of the Wisdom Bridge by planting approximately 20,000 containerized native willow stock. The intent of the project is to enhance habitat for fluvial Arctic grayling and other species of fish within this reach of the Big Hole River. The project site is located on property owned by Erb Livestock, inc. near the community of Wisdom 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		
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 Beaverhead Conservation District, US Fish and Wildlife Service, Natural Resource and Conservation Service, Montana Department of Environmental Quality, State Historic Preservation Office  
 Individuals or groups contributing to this EA Jeffery Everett, U.S. Fish and Wildlife Service  
 Recommendation concerning preparation of EIS No EIS required. EA prepared by: Mark Lere  
 Date: February 20, 2007