

March 15, 2004
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
Bozeman Office
Montana State Library, Helena
Montana Department of Transportation, P.O. Box 201001, Helena, MT 59620
MT Environmental Information Center
Montana Audubon Council
Gallatin Conservation District, 3710 Fallon #B, Bozeman, MT 59718
Gallatin National Forest, P.O. Box 130, Bozeman, MT 59771
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
John Costello, 211 Gibbon Avenue, West Yellowstone, MT 59758

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 enhancement of upstream fish passage in Duck Creek at the culvert located underneath U.S. Highway 191. The intent of the project is to improve upstream fish passage for adfluvial rainbow trout and brown trout residing in Hebgen Lake. This proposed project is located approximately 8 miles south of the town of West Yellowstone in Gallatin County.

Please submit any comments that you have by 5:00 P.M., April 15, 2004 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of 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
e-mail: mlere@state.mt.us

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Duck Creek Fish Passage 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 the installation of a series of rock weirs at the Duck Creek highway culvert to enhance upstream fish passage for adfluvial rainbow trout and brown trout residing in Hebgen Reservoir. This culvert, located underneath U.S. Highway 191, currently acts as a partial barrier to fish passage due to high water velocities and the culvert's perched nature above the channel outlet. The intent of the rock weirs is to raise the elevation of the channel's tailwater control section to eliminate the elevation drop between the culvert outlet and the existing channel and to create some backwater to reduce water velocities inside the culvert pipe. This culvert is owned and maintained by the Montana Department of Transportation and is located approximately 8 miles south of the town of West Yellowstone in Gallatin County (Attachment 1).

I. Location of Project: This project will be conducted on Duck Creek at the U.S. Highway 191 culvert located approximately 8 miles south of the town of West Yellowstone within Township 12 North, Range 5 West, Sections 21 and 22 in Gallatin 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 achieve this goal.

The fishery in Hebgen Lake is very popular, supporting an estimated 37,000 angler days in 2001. Duck Creek is one of the most important recruitment tributaries in the Hebgen Basin. However, recruitment from Duck Creek appears to be below potential because of a partial fish passage barrier located at the culvert crossing on U.S. Highway 191. This highway culvert is undersized and acts as a partial fish passage barrier due to high water velocities and the culvert's perched nature above the channel outlet. During the spring spawning run of rainbow trout, fish readily can be observed failing in attempt to jump and pass through this culvert.

III. Scope of the Project:

The project proposes to install a series of seven rock weirs downstream of the culvert outlet with the intent of raising the elevation of the tailwater control to a level that will eliminate the elevation drop between the culvert outlet and the existing channel (Attachment 2). This elevated tailwater control will also create some backwater to reduce velocities inside the culvert tube. This project is expected to cost approximately \$15,000.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$5,075.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Enhancing fish passage in Duck Creek at the U.S. Highway 191 culvert is expected to increase recruitment of adfluvial rainbow trout and brown trout to Hebgen Reservoir. As a result, the project is expected to enhance rainbow trout and brown trout populations in both Duck Creek and Hebgen Reservoir.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, the construction zone will be dewatered either by piping the stream flow or by passing the flow down a lined by-pass channel. 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 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 within the immediate project area would be disturbed during construction, but would be stabilized with re-vegetation efforts (sowing seed).

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed within the immediate project area during the period of construction. However, proposed re-vegetation efforts would act to mitigate these disturbances.

5. Aesthetics

Aesthetics of the site would be degraded during the short time frame of construction due to ground disturbance and the presence of heavy equipment. Long-term impacts to aesthetics would be negligible.

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

Grizzly bears, a species listed as endangered under the Endangered Species Act, are known to frequent the area. However, proposed construction activity is not expected to significantly contribute to the disturbance of these animals because ongoing human activity associated with highway traffic on U.S. Highway 191 and the adjacent Montana Department of Transportation maintenance yard is already high. Although speculative, rainbow trout presently attempting to pass

through the Duck Creek culvert may provide a food source for bears foraging in the area. Improving fish passage at this site may make it more difficult for foraging bears to utilize this potential food source.

7. Historic and archaeological sites

This site has been previously disturbed by the construction of U.S. Highway 191. As a result, there is a very low likelihood that cultural properties will be impacted as result of the proposed project. 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.

Duck Creek is one of the most important tributaries in the Hebgen Lake drainage for providing recruitment of rainbow trout and brown trout to the reservoir. Enhancing fish passage at the U. S. Highway 191 culvert will allow fish from Hebgen Reservoir to more readily access more than 5 miles of spawning and rearing habitat. As a result, this proposed project is expected to improve recreational fishing in Hebgen Lake.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the culvert underneath U.S. Highway 191 will continue to act as a partial migration barrier for adfluvial rainbow trout and brown trout. As such, the upstream passage of fish into Duck Creek will continue to be hindered and the potential for recruitment will remain reduced.

2. The Proposed Alternative

The proposed alternative is designed to enhance fish passage in Duck Creek at the culvert located underneath U.S Highway 191. Duck Creek has been identified as one of the most important recruitment tributaries providing fish to Hebgen Lake. Enhancing fish passage at this culvert crossing is expected to increase recruitment of trout to Hebgen Lake, thereby improving recreational fishing in the reservoir.

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 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 web page: fwp.state.mt.us.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on April 15, 2004.

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@state.mt.us

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 Duck Creek Fish Passage 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 fish passage in Duck Creek at the culvert located underneath U.S. Highway 191. Fish passage will be enhanced by installing a series of rock weirs downstream of the culvert outlet to raise the elevation of the tailwater control. The project will be conducted at the US. Highway 191 culvert located approximately 8 miles south of the town of West Yellowstone in Gallatin 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		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Montana Department of Transportation, Gallatin National Forest, Gallatin 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 Gallatin National Forest, Montana Department of Transportation
 Recommendation concerning preparation of EIS No EIS required.

EA prepared by: Mark Lere
Date: February 13, 2004