

March 3, 2008
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
MT Environmental Information Center
Montana Audubon Council
Montana Wildlife Federation
Park Conservation District, 5242 Highway 89 South, Livingston, MT 59047
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Montana Rail Link, P.O. Box 16390, Missoula, MT 59808

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 upstream fish passage through a railroad culvert located near the mouth of Locke Creek, a tributary to the Yellowstone River. Upstream fish passage would be enhanced by modifying the channel profile downstream of the culvert with a series of step pools created with the installation of a series of rock weirs. The intent of the project is to improve upstream fish passage for Yellowstone cutthroat trout, a species of special concern in Montana. This proposed project is located approximately 12 miles east of the city of Livingston in Park County.

Please submit any comments that you have by 5:00 P.M., March 31, 2008 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@mt.gov

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Locke 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. 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 facilitating fish passage at a perched box culvert on Locke Creek, a tributary to the Yellowstone River. The intent of the project is to enhance upstream fish passage for Yellowstone cutthroat trout, a species of special concern in Montana. This railroad culvert, located near the mouth of the stream, currently acts as a barrier to fish passage due to the culvert's perched nature above the channel outlet. A series of rock weirs would be installed downstream of the culvert outlet to raise the elevation of the channel's tailwater control section and eliminate the elevation drop between the culvert outlet and the existing channel. This culvert is owned and maintained by Montana Rail Link and is located approximately 12 miles east of the city of Livingston in Park County (Attachment 1).

I. Location of Project: This project will be conducted on Locke Creek, a tributary to the Yellowstone River, located approximately 12 miles east of the city of Livingston within Township 2 South, Range 11 East, Section 1 in Park 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.

Until the late 1990's, Locke Creek was a significant producer of Yellowstone cutthroat trout fry to the Yellowstone River and one of the few streams providing recruitment downstream of the city of Livingston. The Future Fisheries Improvement Program has contributed funding in the past to insure adequate instream flow remains in Locke Creek and that riparian habitat is trending toward recovery. However, channel changes to the Yellowstone River during the late 1990's adjusted water elevations in the lower portion of Locke Creek. This change in stage levels located downstream of an existing railroad culvert created a passage barrier for migrating Yellowstone cutthroat trout spawners. Spawning fish could pass through this culvert in years past, but now are blocked by the culvert. In apparent association, populations of Yellowstone cutthroat trout have substantially declined in recent years within the river reach located between the communities of Springdale and Big Timber.

III. Scope of the Project:

The project proposes to install a series of 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). The resulting backwatering effect will increase water depth through the culvert, allowing Yellowstone cutthroat trout access to their historic spawning areas in Locke Creek. Additionally, the final project design will include a means to selectively allow for upstream passage of Yellowstone cutthroat trout while preventing rainbow trout from entering the stream during the Yellowstone cutthroat trout spawning period. The proposed approach is to construct two outlets for flow downstream of the culvert. One outlet would be designed to act as a migration barrier for all fish by creating excessive water velocities and/or impassable leap characteristics. The second outlet would contain the proposed step pool features. This design would help ensure that hybridization between native Yellowstone cutthroat trout and non-native rainbow trout would be minimized. This project is expected to cost approximately \$35,572.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$21,306.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Creating fish passage at the railroad culvert on Locke Creek is expected to restore access for Yellowstone cutthroat trout to their historic spawning areas. As a result, the project is expected to enhance Yellowstone cutthroat trout populations in both Locke Creek and the Yellowstone River.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, the construction zone may 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, 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.

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

In the recent past, Locke Creek was known to be an important recruitment source for Yellowstone cutthroat trout fry to the Yellowstone River. Yellowstone cutthroat trout are considered a species of special concern in Montana as a result of declining numbers and diminishing habitat. This project is expected to benefit the Yellowstone cutthroat trout population in both Locke Creek and a portion of the Yellowstone River.

9. Historic and archaeological sites

This site has been previously disturbed by the construction of the railroad culvert. 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.

7. Access to & quality of recreational activities.

Locke Creek has been an important Yellowstone cutthroat trout recruitment tributary to the Yellowstone River in the past. Enhancing fish passage at the railroad culvert will allow Yellowstone cutthroat trout to access their historic spawning grounds and will restore recruitment of fry to the river. As a result, this proposed project is expected to improve recreational fishing in a portion of the Yellowstone River.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the railroad culvert on Locke Creek will continue to act as a migration barrier for fish attempting to migrate into Locke Creek to spawn. As such, Locke Creek will remain unavailable for spawning and rearing habitat for Yellowstone cutthroat trout. The Yellowstone cutthroat trout population located in a portion of the Yellowstone River will remain suppressed.

2. The Proposed Alternative

The proposed alternative is designed to enhance fish passage in Locke Creek, providing access to spawning, rearing and adult habitat for Yellowstone cutthroat trout residing in the Yellowstone River. Enhancing fish passage at this culvert crossing is expected to both increase recruitment of fish and improve recreational fishing in the portion of the Yellowstone River located between the communities of Springdale and Big Timber.

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.mt.gov.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on March 31, 2008.

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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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 Locke Creek Fish Passage 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 facilitating fish passage through a perch box culvert on Locke Creek, a tributary to the Yellowstone River. The intent of the project is to enhance upstream fish passage for Yellowstone cutthroat trout, a species of special concern in Montana. The project will be conducted at the railroad culvert on Locke Creek located approximately 12 miles east of the city of Livingston in Park 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 Park Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office, Montana Rail Link
 Individuals or groups contributing to this EA: Carol Endicott, MFWP; Oasis Environmental.
 Recommendation concerning preparation of EIS: No EIS required.
 EA prepared by: Mark Lere

Date: February 8, 2008