

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
Park Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Joe Brooks Chapter Trout Unlimited
Trail Creek Ranch, LLC, 3896 Old Yellowstone Trail North, Livingston, MT 59047
Oasis Environmental, P.O. Box 582, Livingston, MT 59047

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide partial funding for a stream channel restoration project on a 2500-foot degraded reach of Trail Creek, a tributary to the Yellowstone River. The intent of the project is to reduce erosion and restore aquatic habitat for Yellowstone cutthroat trout. This proposed project is located on properties owned by the Trail Creek Ranch, LLC approximately thirteen miles southwest of the town of Livingston in Park 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. 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 Trail Creek Channel Restoration Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which 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 the restoration of a 2,500-foot reach of upper Trail Creek. The intent of this project is to enhance habitat conditions on a stream channel that had been historically inundated by a dam for years, followed by a natural breaching of the reservoir dam in 1996. Restoration of this stream reach may provide an opportunity to re-establish a native Yellowstone cutthroat trout fishery. However, this draft environmental assessment (EA) is only addressing the proposed channel restoration work. Should Yellowstone cutthroat trout be proposed for re-introduction sometime in the future, a separate EA would be prepared. The project site is located approximately thirteen miles southwest of the town of Livingston in Park County (Attachment 1).

I. Location of Project: This project will be conducted on upper Trail Creek, a tributary to the Yellowstone River, located approximately thirteen miles southwest of the town of Livingston within Township 3 South, Range 7 East, Sections 26 and 35 in Park County. The project will be undertaken on property owned by the Trail Creek Ranch, LLC.

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.

Prior to failure of the dam in 1996, this project reach had been inundated as a lake for more than 40 years. During the 1996 spring run-off, the earthen dam impounding Trail Creek at this site catastrophically failed and released the entire water volume of the 15-acre lake into downstream waters during a very short period of time. The reach of Trail Creek located within the pond basin, as well as the reach stretching approximately 5 miles downstream, suffered severe scour damage as a result of this flush of water and associated debris. The channel within the pond basin down-cut through the lakebed sediments and currently is beginning to actively erode laterally, carrying large quantities of sediment to downstream waters.

Additionally, a high percentage of the Trail Creek watershed was burned in 2001. These flood and fire events are thought to have sterilized this stream reach of fish. A steep cascading canyon reach downstream

of the project site may be acting as a migration barrier to non-native species of trout. As a result, once the channel dimensions, pattern and profile are restored, the above factors suggest that this reach of Trail Creek may prove to be an ideal site to re-establish native Yellowstone cutthroat trout. The Yellowstone cutthroat trout is classified as a species of special concern in Montana because of declining numbers and shrinking distribution.

III. Scope of the Project:

The project proposes to restore a 2,500-foot reach of upper Trail Creek located within the drained lake basin. The project proposes to replace the existing incised channel with a new stable stream constructed with proper channel dimensions, pattern and profile at an elevation that would allow flows that exceed bankfull conditions access to the floodplain (Attachment 2). Final designs have not been completed but will be developed using reference reach conditions and hydraulic modeling. Based on existing channel materials and valley slope, the new channel is expected to be relatively sinuous, flowing through an extensive willow complex. Riparian re-vegetation efforts would include planting approximately 1,000 containerized willows. Material excavated during the construction of the new channel would be used to fill the old channel. This project is expected to cost \$147,927.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$73,963.00 to complete the project. Oasis Environmental, Inc., a stream restoration company, will provide project design and oversight.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Restoring the degraded stream channel and re-connecting access to the floodplain on this reach of Trail Creek are expected to create healthier habitat for aquatic life by lengthening the channel, reducing sediment loading and creating greater environmental complexity. Expected improvements in the aquatic habitat should provide an environment conducive to re-establishing native Yellowstone cutthroat trout.

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. Construction of the new stream reach would be completed in the dry before water is turned in from the existing active 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 (318 authorization). A 310 permit will be obtained from the local Conservation District and the U.S. Army Corp of Engineers will be contacted for requirements needed to meet the federal Clean Water Act (404 permit). In the long term, restoring this entrenched channel would reduce sediment contributions to downstream areas, thereby improving the overall quality of downstream waters.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during construction of the new channel, but would be stabilized with substantial re-vegetation efforts. Overall, the project is expected to reduce bank erosion and improve channel stability by returning the stream to a natural meander pattern and by providing functional access to the floodplain.

4. Vegetation cover, quantity and quality.

Riparian vegetation would be disturbed during the period of construction. However, proposed re-vegetation efforts, in conjunction with re-connecting channel function to the floodplain would result in a significant overall improvement to the riparian vegetation.

5. Aesthetics.

During the period of construction, aesthetics would be adversely impacted due to on-site construction activities and the presence of heavy equipment. In the long term, aesthetics would be enhanced by restoring a degraded reach of Trail Creek to a healthier and more natural stream environment. Additionally, the riparian vegetative community would be enhanced by substantial re-vegetation efforts along the margins of the channel.

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

Historically, upper Trail Creek likely supported resident forms of Yellowstone cutthroat trout. Yellowstone cutthroat trout is a species of special concern in Montana. Improvements made to this reach of Trail Creek are expected to create an environment that would be conducive to the re-establishment of a genetically pure Yellowstone cutthroat trout population.

7. Historic and archaeological sites

Work associated with this project would be located within the deposition zone of the historic lakebed. Deposition of sediment in the lake occurred over an approximately 40-year time span prior to the dam breach in 1996. The new channel would be excavated within these recent deposits and, as a result, there is a low likelihood that cultural properties would be adversely impacted. 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.

NONE

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this reach of Trail Creek will continue to undergo a recovery process associated with incised channels that previously has been described by Schumm et. al. (1984). Erosion estimates provided by Oasis Environmental, Inc. indicate that this recovery process would generate up to 25,000 cubic yards of sediment to downstream reaches. The channel recovery process would be very slow and the opportunity for re-establishing Yellowstone cutthroat trout to the upper reaches of Trail Creek would be much reduced.

2. Conduct channel restoration within the existing entrenched stream reach

Under this alternative, the channel would be restored within the existing stream corridor by constructing an inset floodplain. This restoration work would provide for more diverse aquatic habitat and a more functional channel and floodplain. However, an unreasonably large quantity of material would need to be excavated to establish a stable belt width. Additionally, the water table would remain at a lower elevation and the current conversion of the historic floodplain from wetland to an upland community would continue.

3. The Proposed Alternative

The proposed alternative is designed to restore approximately 2500-feet of entrenched channel on Trail Creek by building a new channel at elevation with the historic floodplain. This restoration work would provide for more diverse aquatic habitat and a more functional channel and floodplain. This alternative would lengthen the existing channel and would greatly improve the diversity of aquatic habitat in the stream. This alternative would improve fish and wildlife habitat, aesthetics and water quality within the project area and would provide a future opportunity to re-establish genetically pure Yellowstone cutthroat trout.

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 Park's web page: fwp.mt.gov.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on October 22, 2006.

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@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 Trail Creek Channel Restoration Project

Division/Bureau Fisheries Division -Future Fisheries Improvement
 Description of Project The Future Fisheries Improvement Program is proposing to provide partial funding for a project calling for the restoration of a 2,500-foot degraded reach of Trail Creek, a tributary to the Yellowstone River. The intent of the project is to reduce sediment loading into downstream waters and to create an opportunity to re-establish a native Yellowstone cutthroat trout population into the upper basin. The project site is located on property owned by the Trail Creek Ranch, LLC approximately thirteen miles southwest of the town 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		
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

Individuals or groups contributing to this EA Oasis Environmental, Inc.
Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere
Date: September, 14, 2006