



Montana Fish, Wildlife & Parks

January 29, 2010
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 Bureau
 Endangered Species Coordinator
 Missoula Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Montana Wildlife Federation, P.O. Box 1175, Helena, MT 59624
Wayne Hadley, 1016 Eastside Road, Deer Lodge, MT 59722
Montana River Action, 304 N 18th Ave., Bozeman, MT 59715
Bitterroot Conservation District, 1709 North First Street, Hamilton, MT 59840
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Bitterroot Chapter Trout Unlimited, 701 N 7th Street, Hamilton, MT 59840
Douglas Soehren, 607 Grantsdale Road, Hamilton, MT 59840

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 stabilization of a short reach of Skalkaho Creek, a tributary to the Bitterroot River. The proposed project is located approximately 3 miles south of the town of Hamilton in Ravalli County.

Please submit any comments that you have by 5 P.M., March 3, 2010 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 Section
Fisheries Bureau
e-mail: mlere@mt.gov

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Skalkaho Creek Bank Stabilization 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 purposes 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 stabilization of approximately 300-feet of stream channel on Skalkaho Creek, a tributary to the Bitterroot River. The intent of the project is to prevent further channel incision from occurring on a reach of the stream located immediately downstream of the Republican diversion. Additionally, the project would create some additional localized pool habitat for fish.

The project site is located approximately 3 miles south of the town of Hamilton on property owned by Doug Soehren in Ravalli County (Attachment 1).

I. Location of Project: This project will be conducted on Skalkaho Creek, a tributary to the Bitterroot River, located approximately 3 miles south of the town of Hamilton within Township 5 North, Range 20 West, Section 7 in Ravalli 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 the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposal would help achieve this goal.

Skalkaho Creek supports a mixed salmonid assemblage, including westslope cutthroat trout and bull trout. A reach of the stream located immediately downstream of the Republican diversion has down-cut, contributing to some localized long-term bank erosion and is now threatening adjacent infrastructure. The Republican diversion, located immediately upstream of the project site, diverts water from Skalkaho Creek and historically passed diverted river water in the Republican Canal from one side of the stream to the other. The existing diversion contributes to the channel incision process due to trapping of natural sediment routing through the system, resulting in a sediment deficit downstream of the structure. In the recent past, this creek has been subject to a series of successfully completed habitat enhancement projects involving the restoration of migratory connectivity between the stream and the Bitterroot River. This project proposes to stabilize the channel grade located immediately downstream of the Republican diversion by installing a series of vortex log weirs.

III. Scope of the Project:

The project proposes to install three log vortex weirs downstream of the Republican diversion to create roughness and reduce scour. The weirs would create sediment deposition areas above the weirs and scour pools below (Attachment 2). The weirs would be held in place by large boulders buried underneath the streambed and by through-bolts anchoring the logs to the boulders to protect against lateral stream forces and vertical buoyancy forces (Attachment 3). The apex of the weirs would be anchored to the stream bottom with cabled rock anchors. Following installation of the weirs, native willows would be planted on the lower stream banks near the new structures to provide for further bank stabilization. This project is expected to cost \$22,789.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$11,226.00. The remaining funding would come from in-kind services.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Stabilizing a short segment of Skalkaho Creek may provide some localized overhead cover and pool habitat for the fish species that reside there.

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 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, stabilizing an actively eroding area 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 project construction, but would be stabilized following proposed re-vegetation efforts. Overall, the project is expected to reduce bank erosion and improve channel stability.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed during the period of construction. However, re-vegetation efforts, in conjunction with stream bank stabilization efforts,

would mitigate for the disturbance.

5. Aesthetics.

In the short term, aesthetics would be adversely affected due to ground disturbance and the presence of heavy equipment.

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

Skalkaho Creek supports both bull trout and westslope cutthroat trout. Bull trout are listed as threatened under the Endangered Species Act. Stabilizing an actively eroding stream bank may provide for a more stable environment and decrease sediment delivery to the active channel, providing benefits to bull trout.

9. 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. Funding will not be released until a cultural clearance is granted.

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 Skalkaho Creek will continue to down-cut and bank erosion will continue to accelerate. Additionally, infrastructure at one private residence will continue to be threatened by bank erosion.

2. Rock rip-rap alternative

This alternative would involve the use of blanket rock riprap to stabilize and armor the actively eroding stream banks. This alternative would not prove effective in preventing bank erosion in the long-term because the stream channel would likely continue to down-cut. Additionally, the local conservation district likely would not permit the use of blanket rock riprap through the Natural Streambed and Land Preservation Act.

2. The Proposed Alternative

The proposed alternative is designed to stabilize a 300-foot reach of Skalkaho Creek by installing a series of three log vortex weirs downstream of the Republican diversion. The installed weirs would prevent further channel incision, reduce bank erosion and protect infrastructure located on private property. Additionally, this alternative would create

localized overhead cover and pool scour for fish habitat.

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 P.M. on March 3, 2010.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
Habitat Protection Section
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Montana Department of Fish, Wildlife and Parks
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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 Skalkaho Creek Bank Stabilization Project
 Division/Bureau Fisheries Bureau -Future Fisheries Improvement
 Description of Project The Future Fisheries Improvement Program is proposing to provide partial funding to a project calling for the stabilization of approximately 300 feet of stream channel on Skalkaho Creek, a tributary to the Bitterroot River. The intent of the project is to prevent further channel incision from occurring on a reach of the stream located immediately downstream of the Republican diversion. The project site is located on the Skalkaho Creek approximately 3 miles south of the town of Hamilton in Ravalli 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 Bitterroot 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 Herrera Environmental Consultants.

Recommendation concerning preparation of EIS No EIS required.
 EA prepared by: Mark Lere
 Date: January 21, 2010