September 26, 2003
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
    Great Falls Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Lewis and Clark Conservation District, 790 Colleen Street, Helena, MT 59601
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Lewis and Clark County Water Quality Protection District, Helena
David and Amy Harris, 130 Horseshoe Bend, Helena, MT 59601
William and Michele Abney, 125 Alfalfa Road, Helena, MT 59602
Michael and Mary Ellen Morrison, 201 Alfalfa Road, Helena, MT 59602

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment (EA) prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide partial funding for a stream stabilization project on approximately 1,000 feet of Tenmile Creek. This proposed project is located on property owned by David and Amy Harris approximately one mile north of the city of Helena in Lewis and Clark County.

Please submit any comments that you have by 5:00 P.M., October 27, 2003 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

Lewis & Clark
Future Fisheries

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Tenmile Creek 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 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 stabilization of approximately 1,000-feet of Tenmile Creek to better direct scour energy, improve the efficient transport of sediment through the reach, and enhance fish habitat. The project site is located on property owned by David and Amy Harris approximately one mile north of the city of Helena in Lewis and Clark County (Attachment 1).

I. Location of Project: This project will be conducted on a 1,000-foot reach of Tenmile Creek located one mile north of the city of Helena within Township 10 North, Range 4 West, Section 13 in Lewis and Clark 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 met this goal. A majority of lower Tenmile Creek has become degraded as a result of past land management practices, including long-term overgrazin by livestock, the active removal of riparian vegetation and channel alterations for irrigation and other agricultural practices. Currently, the channel at the project site is slightly incised and exhibits some accelerated bank erosion and past channel avulsions. The landowners are interested in restoring this degraded reach of stream and enhance fish habitat. They have adopted land management practices intended to restore the woody vegetation within the riparian corridor.

III. Scope of the Project:

The project proposes to restore a 1,000-foot reach of Tenmile Creek by stabilizing approximately 500 feet of eroding stream bank using five large rootwads and about 500 feet of tree revetment (Attachment 2). The project also calls for restoring the channel pattern by re-activating an abandoned meander bend (Attachment 3). Re-activating this meander will result in a slightly reduced bed slope, improved energy distribution across the channel and an increase in channel length from the current 320 feet to a proposed 500 feet. Re-activating the abandoned meander would involve the installation of 6 large rootwads and the placement of approximately 150 feet of tree revetment. Pools and riffles will be constructed in the bed form in a sequence to restore the proper profile of the channel. The preliminary design also calls for transplanting willow clumps strategically among the installed rootwads and tree revetment. Additionally, salvaged sod mats will be transplanted along the stream margin disturbed by construction to provide bank stability and encourage re-vegetation. All areas disturbed during construction will be seeded with native grasses. This project is expected to cost $16,500.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $10,000.00.

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 1,000-foot reach of Tenmile Creek is expected to locally reduce sediment input into the stream and may create some holding water for adult fish. The confluence of Sevenmile Creek provides for a perennial instream flow within this reach of Tenmile Creek, complementing the proposed channel restoration work and created benefits to the aquatic habitat.

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. A 310 permit (Natural Streambed and Land Preservation Act) will be obtained from the local conservation district and the U.S. Army Corp of Engineers will be contacted to determine the requirements needed to meet the federal Clean Water Act. In the long term, stabilizing eroding stream banks within this reach of Tenmile Creek 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 channel construction, but would quickly stabilize following proposed re-vegetation efforts. Overall, the project is expected to reduce bank erosion by stabilizing a series of eroding cut-banks and restoring an abandoned meander.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed during the period of construction. However, proposed re-vegetation efforts would act to mitigate these disturbances. Improved land management practices within the riparian corridor would encourage the recovery of woody shrubs along the stream margin.

5. Aesthetics.

Aesthetics would be negatively impacted during project construction due to ground disturbance and the presence of heavy equipment. Project construction is expected to occur over a two to three week period. In the long term, aesthetics would be enhanced by stabilizing a series of eroding cut-banks on Tenmile Creek and by enhancing vegetation within the riparian corridor.

9. Historic and archaeological sites

The proposed project may 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. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

Stabilizing a 1,000-foot reach of the Shields River is expected to improve overall aquatic habitat, and consequently, would be expected to attract fish and improve fishing opportunities in a localized area.

13. Locally adopted environmental plans and goals.

This project is being conducted with support from the Lower Tenmile Watershed Group and is receiving partial funding from the Lower Tenmile Creek Watershed Protection Project.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this reach of Tenmile Creek will continue to be relatively unstable, sloughing banks will continue to add sediment into the stream and habitat for fish and riparian dependent wildlife will remain in a degraded condition.

2. Bank stabilization using blanket rock rip-rap

Rock rip-rap would provide greater resistance to the existing shear stresses. However, blanket rip-rap would eliminate riparian vegetation on this section of stream and diminish the over-all natural function of the stream channel.

3. The Proposed Alternative

The proposed alternative is designed to stabilize a 1,000-foot reach of Tenmile Creek by re-activating an abandoned meander bend; stabilizing eroding cut-banks with rootwads and tree revetment; and transplanting salvaged sods and willow clumps along the stream margin. While stabilization of this relatively short reach of stream likely will have little impact on overall fish populations, enhancement efforts are expected to attract fish and reduce sediment input in a localized area. A secondary benefit of this alternative is the demonstration value of using softer techniques in bank stabilization.

## 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 also will be published on Montana Fish, Wildlife and Parks webpage: fwp.state.mt.us.

3. Duration of comment period?

   Public comment will be accepted through 5:00 PM on October 27, 2003.

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
   Email: 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 Tenmile Creek Stabilization 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 stabilization of approximately 1,000 feet of Tenmile Creek. The project site is located on property owned by David and Amy Harris approximately one mile north of the city of Helena in Lewis and Clark 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 | | |
| 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 Lewis and Clark 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 Jim Wilbur, Lewis and Clark County Water Quality Protection District
Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere
Date: September 26, 2003