

September 19, 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 Office
Missoula Office
Bozeman Office

Montana State Library, Helena
Montana Department of Justice, Natural Resource Damage Program
MT Environmental Information Center
Montana Audubon Council
Montana Wildlife Federation
Mile High Conservation District, P.O. Box 890, Whitehall, MT 59759
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
George Grant Chapter of Trout Unlimited, 1485 Continental Drive, Butte, MT 59701
Doug Butori, Spangler Ranch, 5210 Crackerville, Anaconda, MT

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared by Montana Fish, Wildlife and Parks (MFWP). MFWP applied for, and received, partial funding from the U.S. Department of Interior's Fisheries Restoration and Irrigation Mitigation Act to install a fish screen in the Spangler diversion on German Gulch Creek and to modify an existing bypass channel to improve upstream passage. MFWP proposes to undertake this fish screen and fish passage project. The project site is located on German Gulch Creek approximately 12 miles west of the city of Butte in Silver Bow County.

Please submit any comments that you have by 5:00 P.M., October 19, 2006 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. 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
Email: mlere@mt.gov

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
German Gulch Diversion Fish Screen Project

General Purpose: Congress enacted Public Law 106-502, the Fisheries Restoration and Irrigation Mitigation Act in 2000 (FRIMA), that authorized the establishment of a program to plan, design, and construct fish screens, fish passage devices and related features within the Columbia basin. The purpose of this program, administered by the Department of Interior, is to decrease fish mortality associated with the withdrawal of water for irrigation and other purposes. Montana Fish, Wildlife and Parks (MFWP) applied for, and received, partial funding from FRIMA to install a fish screen in the Spangler diversion on German Gulch Creek and to modify an existing by-pass channel to improve upstream fish passage.

MFWP is proposing to undertake this fish screen and fish passage project. The project calls for the installation of a self-cleaning fish screen in the Spangler irrigation ditch located at stream mile 0.1 on German Gulch Creek, a tributary to Silver Bow Creek. The project also is calling for modifying an existing channel that bypasses the diversion head works to provide for upstream fish passage. The intent of this project is to eliminate entrainment of westslope cutthroat trout into the diversion during the irrigation season and to enhance upstream fish passage around the diversion structure. German Gulch Creek supports a genetically pure population of westslope cutthroat trout, a species of special concern in Montana. This proposed project is a part of a larger scale watershed restoration effort in the drainage involving improvements in water quality and quantity, channel restoration and protection of the genetic integrity of the resident westslope cutthroat trout population. The project site is located on property owned by the State of Montana approximately 12 miles west of the city of Butte in Silver Bow County (Attachment 1).

I. Location of Project: This project will be conducted at the Spangler diversion on German Gulch Creek, a tributary to Silver Bow Creek, located approximately 12 miles west of the city of Butte within Township 3 North, Range 10 West, Section 12 in Silver Bow 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 on public and private lands. This proposed project would help meet this goal.

German Gulch Creek is a tributary to Silver Bow Creek that supports a genetically pure population of westslope cutthroat trout. The westslope cutthroat trout is classified as a species of special concern in Montana because of their declining numbers and shrinking distribution. The Spangler diversion, located near the confluence with Silver Bow Creek, is known to entrain a significant number of fish during its period of operation. Fish that are entrained into the diversion are lost to the population. The existing diversion structure also acts as a partial passage barrier to upstream migrating fish. This project proposes to eliminate the entrainment of fish into the Spangler diversion and to provide upstream fish passage around the diversion structure.

III. Scope of the Project:

The project proposes to construct a self-cleaning fish screen near the head of the Spangler irrigation ditch on German Gulch Creek. This screen would be designed to filter up to 10 cubic feet per second of water

diverted into the ditch, with a bypass pipe allowing fish and debris to be returned to the stream. The specific style of fish screen will be determined through a state procurement process, but will be required to be self powered (water or solar) and self-cleaning and must meet velocity and screen face criteria that would effectively protect juvenile westslope cutthroat trout. The project also calls for some channel modifications on an existing channel that bypasses the diversion structure by constructing a series of rock stair-step pools. This project is expected to cost \$71,500.00. Of this total, MFWP would be contributing up to \$46,500.00 via a grant from FRIMA.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Installing a self-cleaning fish screen into the Spangler diversion is expected to reduce mortality by eliminating fish entrainment. Additionally, enhancing upstream fish passage is expected to restore connectivity between German Gulch and Silver Bow Creek. Currently, water quality issues in this reach of Silver Bow Creek preclude fish survival during the summer months, making fisheries benefits associated with proposed improvements in fish passage marginal. However, ongoing clean-up efforts in Silver Bow Creek are expected to create suitable habitat conditions in the future. The potential for non-native rainbow trout to pioneer into German Gulch likely will occur as Silver Bow Creek is restored and, as a result, there will be a future need to protect the genetic integrity of the existing westslope cutthroat trout population. Enhancing upstream fish passage at the Spangler diversion will not threaten the genetic integrity of the westslope cutthroat trout population since this structure currently only acts as a partial upstream migration barrier. As Silver Bow Creek becomes habitable to salmonids and the potential for rainbow trout moving into the area increases, future plans call for construction of a permanent barrier approximately one mile upstream of the diversion. Eliminating entrainment of fish from this irrigation diversion and improving upstream fish passage are expected to enhance fish populations in German Gulch Creek and possibly enhance fish populations in Silver Bow Creek in future years.

2. Water quantity, quality and distribution.

The fish screen will be installed during the non-irrigation season when the ditch is shut down. Short-term increases in turbidity may occur during installation of the bypass pipe. Additionally, the proposed channel work to improve upstream fish passage also will be conducted in the dry. To minimize turbidity, 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 124 permit (Stream Protection Act) will be obtained from the Missoula office of Montana Fish, Wildlife and Parks and the U.S. Army Corp of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit).

3. Geology and soil quality, stability and moisture.

Soils along the ditch bank and existing bypass channel would be disturbed during the construction, but would stabilize following re-vegetation efforts. Re-vegetation efforts call for re-seeding disturbed areas with native grasses.

4. Vegetation cover, quantity and quality.

Vegetation cover would be disturbed along the ditch bank and modified bypass channel during the period of construction. Proposed re-vegetation efforts would act to mitigate these disturbances.

5. Aesthetics.

Aesthetics would be adversely impacted during construction due to ground disturbance and the presence of heavy equipment. In the long term, aesthetics would not be adversely affected.

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

Installation of the fish screen will eliminate entrainment of fish into the diversion and is expected to enhance the resident westslope cutthroat trout population by reducing mortality in German Gulch Creek. German Gulch supports and genetically pure population of westslope cutthroat trout.

7. Historic and archaeological sites

This fish screen would be installed within the existing ditch and installation would cause only minimal ground disturbance. The existing head gate structure would remain untouched. As a result, there is a very low likelihood that cultural properties could be 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.

7. Access to & quality of recreational activities.

This fish screen is expected to enhance fish populations in German Gulch Creek. As a result, this project is expected to improve the recreational fishery that this water body provides.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the diversion on German Gulch Creek will continue to entrain downstream migrating fish and upstream fish passage will continue to be partially blocked.

2. The Proposed Alternative

The proposed alternative calls for installing a self-cleaning fish screen in the Spangler irrigation diversion. The intent of the project is to decrease entrainment of downstream migrating fish into the canal system and improve upstream fish passage, thereby enhancing a genetically pure population of westslope cutthroat trout residing in the stream.

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 FRIMA review panel for Montana. 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 webpage: fwp.mt.gov.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on October 19, 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 German Gulch Diversion Fish Screen Project

Division/Bureau Fisheries Division -Future Fisheries Improvement
 Description of Project Montana Fish, Wildlife and Parks is proposing to provide partial funding, via a grant from the U.S. Fish and Wildlife Service's Fisheries Restoration and Irrigation Mitigation Act, towards a project calling for the installation of a self-cleaning fish screen into the Spangler diversion located on German Gulch Creek. German Gulch is a tributary to Silver Bow Creek. The proposed project additionally calls for modifying an existing bypass channel to enhance upstream fish passage around the diversion. The intent of the project is to significantly reduce entrainment mortality and restore upstream fish passage to benefit a genetically pure westslope cutthroat trout population.

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 Mile High Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office, Natural Resource Damage Program

Individuals or groups contributing to this EA Ron Spoon, Montana Fish, Wildlife and Parks; Josh Vincent, George Grant Chapter Trout Unlimited

Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere
Date: September 19, 2006