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
Bruce Arthun, 1855 Highway 89 North, Wilsall, MT 59806

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 project calling for the replacement of an antiquated and failing irrigation diversion located on Cottonwood Creek, a tributary to the Shields River, with a new structure that does not leak and allows for upstream fish passage. This proposed project is located on a diversion owned by Bruce Arthun approximately four miles northeast of the town of Clyde Park 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
Cottonwood Creek Irrigation Diversion Improvement 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 to a project calling for the replacement of an antiquated and failing irrigation diversion located on Cottonwood Creek with a new structure that would eliminate the leakage of water and provide for upstream fish passage. The current diversion structure utilizes logs for a check dam, creating a barrier to upstream fish migration. The existing structure also allows for substantial water leakage into the canal when the ditch is not in operation, resulting in unnecessary dewatering of the stream channel. The project site is located on a diversion owned by Bruce Arthun approximately four miles northeast of the town of Clyde Park in Park County (Attachment 1).

I. Location of Project: This project will be conducted on Cottonwood Creek, a tributary to the Shields River, located approximately four miles northeast of the town of Clyde Park within Township 2 North, Range 9 East, Section 12 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 met this goal.

Cottonwood Creek supports a slightly hybridized population of Yellowstone cutthroat trout, a species of special concern in Montana, as well as brook trout, brown trout, and mottled sculpin. Currently, an old irrigation diversion on Cottonwood Creek is in disrepair, resulting in conditions that create an upstream fish passage barrier and allow for substantial water leakage into the ditch when not in operation, resulting in unnecessary dewatering of the stream channel. Replacing the antiquated existing structure with a new diversion would eliminate the fish passage barrier with the installation of a Denil style fish ladder, as well as the unnecessary ditch leakage with the installation of a new head gate.

III. Scope of the Project:

The project proposes to replace the existing irrigation diversion structure with a new check dam that incorporates a Denil style fish ladder. Additionally, a new head gate will be installed to replace the existing leaky head gate. This project is expected to cost $25,215.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $5,000.00. The Future Fisheries dollars would be used

to pay for materials and construction of the Denil fish ladder and a portion of the new head gate. Montana Department of Fish, Wildlife and Parks is in the process of developing a Yellowstone cutthroat trout conservation strategy in the Shields River watershed and this proposal would be considered a pilot project for the strategy.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Replacing the existing antiquated irrigation diversion with a new structure on Cottonwood Creek would provide for improved upstream passage for fish and would eliminate a source of unnecessary dewatering of the stream channel. These improvements are expected to benefit Yellowstone cutthroat trout and other aquatic species found in the stream.

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, the elimination of a leaky irrigation head gate is expected to enhance water use efficiency in Cottonwood Creek, a stream that has been chronically dewatered.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during project construction. The project is not expected to create any additional instability to the stream channel.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be slightly disturbed during the period of construction. This project site supports a healthy riparian vegetative community and, as a result, any vegetation disturbed by construction would be expected to recovery rapidly.

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 one to two week period.

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

Cottonwood Creek supports a slightly hybridized population of Yellowstone cutthroat trout, a species of special concern in Montana. Proposed improvements, including enhanced fish passage and a more efficient use of water are expected to benefit this Yellowstone cutthroat trout population.

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.

13. Locally adopted environmental plans & goals.

This proposed project would be a part of the Yellowstone cutthroat trout conservation strategy for the Shields drainage that currently is in development.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this antiquated irrigation diversion on Cottonwood Creek will continue to be a barrier to upstream fish migration and will continue to leak, resulting in further unnecessary dewatering of the stream channel.

2. The Proposed Alternative

The proposed alternative is designed to replace the existing irrigation diversion that is disrepair with a new diversion that would provide for upstream fish migration and would eliminate the leaky head gate, resulting in improved in-stream flow during the non-irrigation season.

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.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
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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 Cottonwood Creek Irrigation Diversion Improvement 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 the replacement of an antiquated and failing irrigation diversion located on Cottonwood Creek with a new structure that would eliminate the leakage of water and provide for upstream fish passage. The project site is located on a diversion owned by Bruce Arthun approximately 4 miles northeast of the town of Clyde Park 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			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 Carol Endicott, Montana Fish, Wildlife and Parks

Recommendation concerning preparation of EIS No EIS required.

EA prepared by: Mark Lere
Date: February 7, 2008