July 13, 2015
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
Region 3 Bozeman
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Montana Wildlife Federation
Wayne Hadley, Deer Lodge MT
Madison Conservation District, Ennis MT
Montana River Action, Bozeman MT
U.S. Army Corps of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
John Sampson, Sheridan MT

Ladies and Gentlemen:

Enclosed is an Environmental Assessment (EA) prepared for the Future Fisheries Improvement Program (FFIP). The Program tentatively plans to provide partial funding to a project that would enhance an existing slough and ditch system by relocating a headgate, redirecting irrigation return flows, narrowing and deepening the channel, and realigning portions of the ditch and slough. The intent of the project is to improve wild brown trout and rainbow trout spawning, habitat for adult fish, water quality, and water quantity in the slough and Big Hole River, where there are few spawning tributaries. Smith Slough is a tributary to the Big Hole River located about 3.5 miles southwest of Twin Bridges in Madison County. Smith Ditch is connected to Smith Slough.

Please submit any comments by 5:00 P.M., August 12, 2015 to Montana Fish, Wildlife & Parks at the address listed above. The funding for this project through the FFIP is contingent upon approval being granted by the Fish & Wildlife 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,

Michelle McGree, Program Officer
Habitat Bureau
Fisheries Division
e-mail: mmcgree@mt.gov

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife & Parks
Smith Slough Spawning Enhancement

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in streams 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. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP is proposing to provide partial funding to a project calling for the enhancement of Smith Slough and Smith Ditch for the improvement of brown and rainbow trout spawning, rearing, and adult habitat. The intent of the project is to improve wild brown trout and rainbow trout spawning, habitat for adult fish, water quality, and water quantity in the slough/ditch complex and Big Hole River, where there are few spawning tributaries.

I. Location of Project:

The project site is located on Smith Slough and Smith Ditch, tributaries to the Big Hole River, within Township 4 South, Range 6 West, Section 6 in Madison County (Figure 1). It is located about 3.5 miles southwest of the town of Twin Bridges.

II. Need for the Project:

One goal within FWP's Statewide Fisheries Management Plan for the fisheries management program is to "restore and enhance degraded fisheries habitats." By implementing a habitat improvement project and creating/restoring important habitat on private land that benefits a public fishery, this proposed project would help meet this goal. Adult habitat, water quality, water quantity, and stream function are expected to improve with this project. Spawning and rearing habitat is limited on the Big Hole River, and this project could enhance the overall fishery through increased recruitment.

III. Scope of the Project:

This project involves a 2-mile-long slough channel of the Big Hole River (Smith Slough) and a 1-mile segment of the connected Smith Ditch. Smith Slough currently comes off the Big Hole River, where it is controlled by a headgate (Figure 2). Downstream of the headgate, the ditch/slough system is split in half and water is divided between the Smith Slough and the Smith Ditch. The ditch and slough run parallel for more than a mile before converging and discharging into the Big Hole River. This project would relocate the headgate and ditch, redirect irrigation

return flows away from the slough, narrow and deepen the channel, and realign portions of the ditch and slough. Approximately 1,600 feet of spawning area would be constructed in Smith Ditch by adding spawning gravel. Subsequently, a water management plan would be developed and fertilized eggs would be stocked to jump-start the fishery.

The total estimated cost for this project is $375,995. Of this total, the FFIP would be contributing up to $40,000. The remaining funds will come from other sources and from in-kind services:

Contributor	In-kind services	In-kind cash
Landowner		$300,995
DNRC 223 grant		$20,000
George Grant Chapter of Trout Unlimited		$5,000
TOTAL = $325,995		

IV. Environmental Impact Review Checklist:

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment

Project Title: Smith Slough Spawning Enhancement
Division/Bureau: Fisheries Division / Habitat Bureau (FFIP)
Description of Project: The FFIP tentatively plans to provide partial funding to a project calling for the enhancement of Smith Slough and Smith Ditch for the improvement of brown and rainbow trout spawning, rearing, and adult habitat.

A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture				X		
2. Air quality or objectionable odors				X		
3. Water quality, quantity and distribution (surface or groundwater)			X			X
4. Existing water right or reservation				X		
5. Vegetation cover, quantity and quality			X			X
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species				X		

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species			X			X

B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				X		
2. Land use				X		
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation				X		
8. Cultural and historic resources				X		X
9. Evaluation of significance				X		
10. Generate public controversy				X		

V. Explanation of Potential Impacts on the Physical Environment.

3. Water quantity, quality, and distribution.

This project would not interfere with water or property rights of adjacent landowners. It could improve water quality by reducing temperature, and it could improve water quantity through changes in irrigation practices in the slough. This would be done by replacing the existing diversion and headgate structure, narrowing and deepening over-widened sections of the slough channel, rerouting irrigation return flows away from the slough system, and converting from flood irrigation to a pivot system.

Short-term increases in turbidity may occur during project construction. 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).

5. Vegetation cover, quantity and quality.

This project would involve stream reconstruction and headgate replacement, which could disturb vegetation in the immediate construction area. However, the disturbed areas would be revegetated using native materials. Long-term impacts are considered positive and would increase stream and riparian function.

7. Terrestrial and aquatic life habitats.

Construction activities that will affect terrestrial and aquatic life habitats will be short-term. Impacts would be confined to the construction areas and result from the channel reconstruction, headgate replacement, and addition of spawning gravel. Long-term, this project should increase aquatic habitats through increased spawning areas, adult habitat, and stream and floodplain health. Water temperature is expected to decrease, improving habitat throughout the project area.

10. Changes to abundance or movement of species.

The addition of spawning gravel to the Smith Ditch is expected to increase spawning and recruitment of rainbow trout and brown trout. An increase in the abundance of wild trout in the Big Hole River drainage would be considered a positive impact. The project location is within the lower Big Hole River, which has insufficient spawning areas that may be limiting recruitment of trout. Adult habitat would also improve, as this project could provide potential refuge for adult fish when there are low flows and high water temperatures in the Big Hole River.

VI. Explanation of Impacts on the Human Environment.

8. Cultural and historic resources.

No cultural or historical resource impacts are anticipated. However, the State Historical Preservation Office will be notified of this project and any potential concerns will be addressed.

VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects.

VIII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative.

If no funding is provided through the FFIP, either the applicant would have to seek additional sources of funding to complete the project or the existing section of the Smith Ditch and Smith Slough could remain as-is. If the project were not completed, the shortage of spawning areas would continue and there would be no additional adult fish

habitat created.

2. The Proposed Alternative.

The proposed alternative intends to provide partial funding through the FFIP to enhance wild brown and rainbow trout spawning, improve habitat for adult fish, reduce water temperature, and improve water quantity through irrigation upgrades and increased efficiency.

IX. Environmental Assessment Conclusion Section.

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

Madison Conservation District, Montana Department of Natural Resources and Conservation, US Army Corps of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None.

3. Is an EIS required? No.

We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish and Wildlife Commission, and funding will be contingent upon their approval. The EA will be distributed to all individuals and groups listed on the cover letter and will be published on the FWP webpage: **www.fwp.mt.gov**

5. Duration of comment period?

Public comment will be accepted through 5:00 PM August 12, 2015.

6. Person(s) responsible for preparing the EA.

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Contributors: Jim Olsen, Montana Fish, Wildlife & Parks, Confluence Consulting, Inc.

FIGURE 1

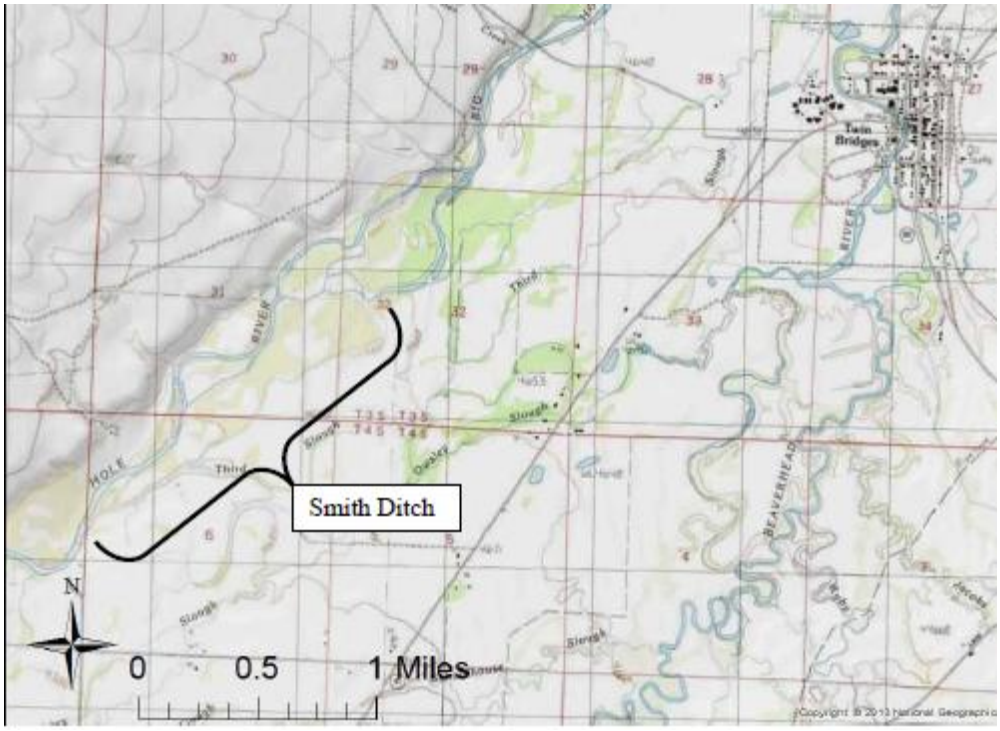
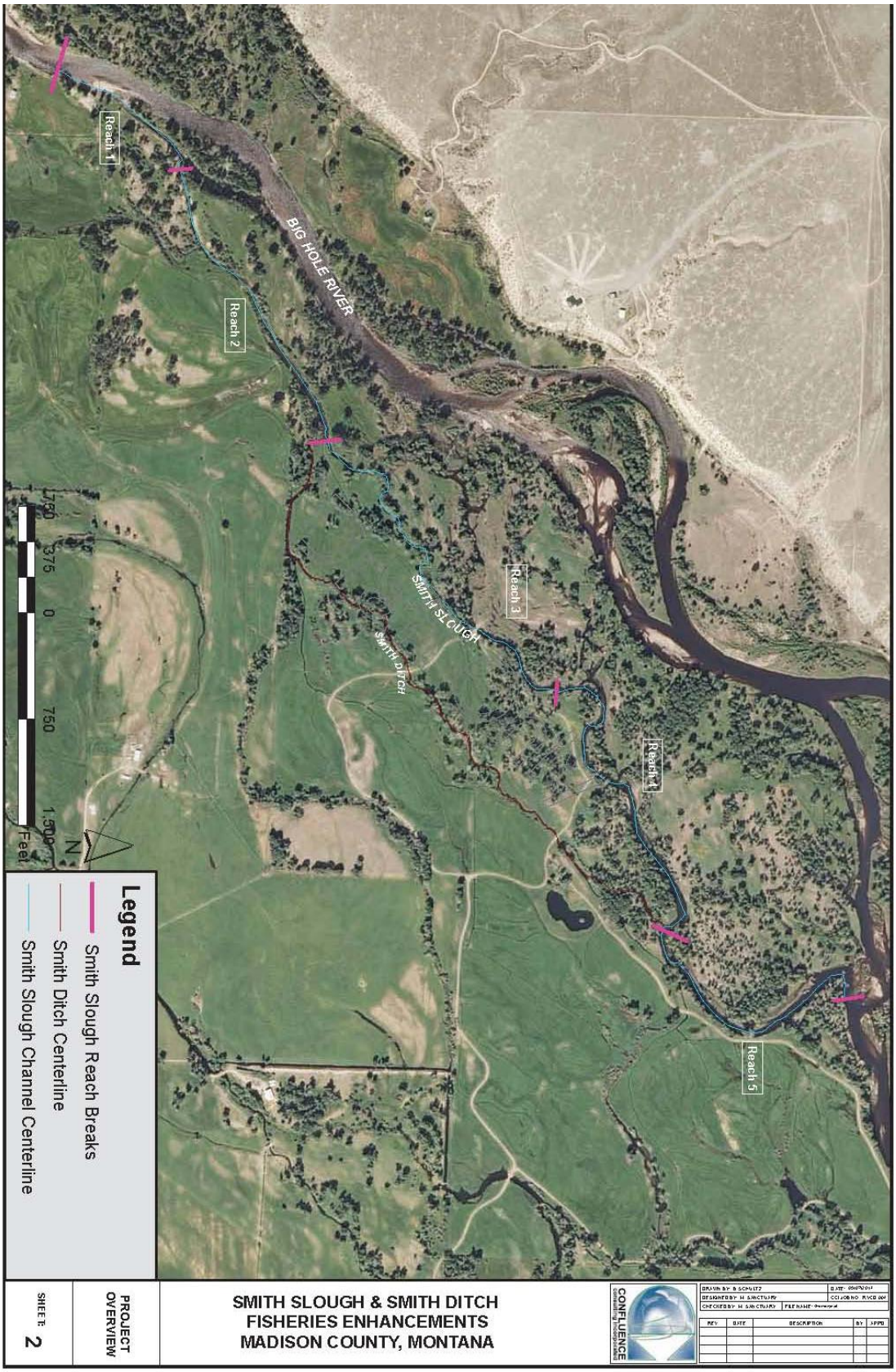


FIGURE 2


Reach 1
Reach 2
Reach 3
Reach 4
Reach 5
BIG HOLE RIVER
SMITH SLOUGH
Smith Ditch
Legend
Smith Slough Reach Breaks
Smith Ditch Centerline
Smith Slough Channel Centerline
0
375
750
1,500
Feet
N
SMITH SLOUGH & SMITH DITCH
FISHERIES ENHANCEMENTS
MADISON COUNTY, MONTANA
PROJECT OVERVIEW
SHEET #
2
CONFLUENCE