

March 15, 2004
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
Gallatin Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Madison-Gallatin Chapter Trout Unlimited, P.O. Box 52, Bozeman, MT 59771
Whirling Disease Foundation, P.O. Box 327, Bozeman, MT 59771
Confluence Consulting, Inc., P.O. Box 1133, Bozeman, MT 59771
Anna Collins-Proper, 1085 Hamilton Road, Belgrade, MT 59714
Rick and Jayne Keller, 500 Hamilton Road, Belgrade, MT 59714
Earl Kraft, 3727 Hamilton Road, Belgrade, MT 59714
Jim McMillin, 3950 Dry Creek Road, Belgrade, MT 59714
Tom Milesnick, 5805 Dry Creek Road, Belgrade, MT 59714
Harry Piper, 1260 Sunny Bear Drive, Bozeman, MT 59715
Nick Savko, 6055 Ross Peak Way, Belgrade, MT 59714
Gary Stoner, 3876 Dry Creek Road, Belgrade, MT 59714
Madline Taylor, 531 Penwell Bridge Road, Belgrade, MT 59714
Bruce Taylor, 531 Penwell Bridge Road, Belgrade, MT 59714
George VanDelinder, 275 Hamilton Road, Belgrade, MT 59714

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 to a project calling for the restoration of degraded 4.8-mile reach of Thompson Creek, a tributary to the East Gallatin River. The intent of the project is to enhance water quality, improve spawning, rearing and adult habitat for salmonids, provide improved thermal conditions for fish and improve the vegetative community within the riparian corridor. The proposed project site is located on property owned by multiple landowners approximately 3 miles north of the town of Belgrade in Gallatin County.

Please submit any comments that you have by 5:00 P.M., April 15, 2004 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

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Thompson Creek Channel Restoration 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 providing funding for 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 restoration of a degraded 4.8-mile reach of Thompson Creek, a tributary to the East Gallatin River. This project would involve excavating a deeper channel and then using the excavated material to significantly narrow the channel by constructing new banks and point bars. The project also calls for stabilizing eroding stream banks, constructing hardened livestock crossings, fencing portions of the riparian corridor, and planting native riparian shrubs along the stream margin. The intent of this project is to restore the condition of an important spring creek tributary to the East Gallatin River that has been damaged by past land use practices. The project site is located on properties owned by multiple landowners approximately 3 miles north of the town of Belgrade in Gallatin County (Attachment 1).

I. Location of Project: This project will be conducted on a 4.8-mile reach of Thompson Creek located approximately 3 miles north of the town of Belgrade in Gallatin County. The stream reach can be described as being located between Township 1 North, Range 5 East, Section 30 and Township 1 North, Range 4 East, section 13.

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 fisheries habitats” by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on private and public lands. This proposed project would help meet this goal.

Thompson Creek is a spring creek that has the potential for providing a significant quantity of spawning and rearing habitat for trout residing in the East Gallatin River. Restoring this potential habitat could lead to a significant increase in the recruitment of young rainbow trout and brown trout to the river, resulting in a higher quality recreational fishery. However, Thompson Spring Creek has been damaged by past livestock management practices, resulting in an over-widened and shallow channel that has lost the ability to transport its sediment load. Currently, adult trout populations in the stream appear to be limited by a lack of pool habitat while spawning and recruitment are severely limited by smothering deposits of fine sediment. Within the degraded reach, the bankfull width averages 3 to 4 times greater than in reference reaches, with the bed of the channel covered with a layer of fine sediment ranging from 0.6 to 1.3 feet deep. Native woody shrubs are absent along many reaches of the stream, contributing to lateral instability of the stream channel and additional sediment loading into the active channel.

III. Scope of the Project:

The project proposes to restore a 25,500-foot degraded reach of Thompson Creek from Penwell Bridge to the confluence with the East Gallatin River. Channel restoration will involve excavating fine sediments from the existing bed to expose a clean gravel substrate and selectively excavating pools. The excavated

material, in conjunction with borrowed sod mats, would then be used to build new stream banks and narrow the width of the channel (Attachment 2). Design dimensions will be based on reference reaches and bankfull flow as it increases in a downstream direction. An estimated 7,886 cubic yards of fine sediment will be excavated and re-arranged in a manner that will result in a proper channel configuration. Gravel excavated from the pools will be used to create a base for the new stream banks and borrowed sod will be placed on top to form the new bank line (Attachment 2). Fine sediment placed behind the newly formed bank line will be vegetated with native wetland species where enough fill material exists. In reaches where fill material is short, backwater areas will be left open providing for shallow, open-watered habitat for waterfowl. Eroding stream banks will be stabilized by armoring the toe of the bank with transplanted sod mats. All work will be accomplished with a tracked excavator operating from the stream bank. To test the efficacy of planting willow sprigs along the stream margin, two selected banks will be sprigged with several species of native willow from waters edge to four feet above the water surface. Additional riparian fencing, livestock water gaps and hardened livestock crossings, in conjunction with grazing management plans, will be used to improve and protect the riparian vegetative community. This project is expected to cost \$230,668.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$90,000.00.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Restoring the existing over-widened, shallow and silt-laden channel to a more narrow and deep Rosgen “E” channel type is expected to create a healthier habitat for aquatic life. Aquatic life would benefit from improved environmental diversity, improved spawning and rearing habitat and a more constant “fish friendly” water temperature. A healthier aquatic habitat is expected to enhance salmonid recruitment to the East Gallatin River, as well as resident fish populations in the spring creek. Habitat for riparian dependent wildlife also would be improved by planting riparian shrubs and by providing better management of livestock grazing within the riparian corridor through fencing and the development of proper grazing plans.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. 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 will be obtained from the local conservation district and the U.S. Army Corp of Engineers will be contacted to determine the need to meet 404 provisions of the Clean Water Act.

In the long term, this project is expected to improve water quality and water temperatures in Thompson Creek by reducing sources of sediment being entrained into the channel and by enhancing the capacity of the channel to transport its bed load. The construction of a more narrow and deep channel is expected to produce stable water temperatures that are more representative of a

typical Montana spring creek.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during construction of the new channel, but would quickly stabilize following proposed re-vegetation efforts. Re-vegetation efforts would involve placement of salvaged sod and seeding with native sedges and grasses, as well as sprigging native willow. Overall, the project is expected to improve channel stability by restoring proper channel function and by incorporating proper grazing management within the riparian corridor.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover, primarily non-native grasses, would be disturbed during the period of construction. However, proposed re-vegetation efforts, in conjunction with implementing proper livestock grazing management plans, would result in an overall improvement to the riparian vegetation.

5. Aesthetics.

In the short term, aesthetics would be adversely impacted due to the on-site construction activities. In the long term, aesthetics would be enhanced by restoring an over-widened and shallow reach of stream to a healthier and more natural stream environment. In addition, the riparian vegetative community would be enhanced by riparian plantings and by improved grazing management through the use of appropriate grazing management plans.

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

Spring creeks are a valuable and limited resource in Montana, providing a combination of clean, productive water, relatively constant temperatures and stable flows. This project calls for restoring a degraded spring creek to a more healthy and natural stream environment.

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.

The East Gallatin River supports a very popular recreational fishery. The intent of the project is to improve habitat conditions and recruitment of salmonids to both Thompson Creek and the East Gallatin River. As a result, the recreational fishery in the river is expected to improve. The recreational fishery in the spring creek also is expected to improve, although public access is

limited to the utilization of Montana's stream access law. Several of the property owners involved with this project currently charge anglers a fee to fish Thompson Creek.

13. Locally adopted environmental plans and goals.

The Thompson Creek Watershed Group has been formed to initiate a large-scale restoration effort intended to improve degraded conditions on Thompson Creek. Goals identified by the Watershed Group include: control sources of nutrients and sediment; reduce current sediment impairments in the stream channel; and improve habitat for all life stages for trout.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this reach of Thompson Creek will remain over-widened, shallow and laden with fine sediment. Aquatic habitat will remain over-simplified, water temperatures will continue to be unstable and fish populations will remain suppressed. In addition, this reach of stream will continue to provide only minimal recruitment of salmonids to the East Gallatin River. Recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired.

2. The Proposed Alternative

The proposed alternative is designed to restore a 25,500-foot over-widened and shallow reach of stream by constructing a more narrow and deep channel. This alternative would greatly improve the diversity of aquatic habitat in the stream and control sources of fine sediment and nutrients into the active channel. The intent of the project is to improve spawning, rearing and adult habitat for salmonids, provide improved thermal conditions for fish and improve the vegetative community within the riparian corridor. This alternative would improve fish and wildlife habitat, aesthetics and water quality within the project area and would be expected to increase trout populations both in the spring creek and in the East Gallatin River.

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 April 15, 2004.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
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Montana Department of Fish, Wildlife and Parks
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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 Thompson Creek Channel Restoration 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 restoration of a degraded 4.8-mile reach of Thompson Creek, a tributary to the East Gallatin River. The intent of the proposed project is to restore the condition of an important spring creek tributary to the East Gallatin River that has been damaged by past land use practices. The project site is located on property owned by multiple landowners approximately 3 miles north of the town of Belgrade in Gallatin 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			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 Gallatin Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office, Thompson Creek Watershed Group

Individuals or groups contributing to this EA Confluence Consulting, Inc.

Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere
Date: February 20, 2004