Draft
Environmental Assessment

Moore's Creek Riparian Grazing and Water Quality Enhancement Project

January 14, 2015

Madison Conservation District

Montana Fish, Wildlife & Parks

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife & Parks
Moore's Creek Riparian Grazing and Water Quality Enhancement Project

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 restoration of Moore's Creek through the Goggins Ranch, directly north of the town of Ennis. This project will improve water quality and fish habitat in a stream immediately adjacent to and connected with Fletchers Channel of the Madison River. The intent of the project is to construct fencing and watering facilities to address the health of Moore's Creek water quality, to improve the health & vigor of the riparian area and stream channel, and to enhance livestock operations through increased management efficiency. This project will allow the stream channel to adjust to a more natural state and provide habitat for wild fish through in-stream improvements and a robust riparian plant community.

Draft Environmental Assessment
CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action:
Riparian pasture fencing, livestock watering gaps and hardened crossings.

2. Agency authority for the proposed action:
One goal within FWP's six-year operations plan for the fisheries program is to "restore and enhance degraded fisheries habitats" by implementing habitat restoration projects and administering the FFIP to restore important habitats on private and public lands. This proposed project would help meet this goal. Both water quality and stream function are expected to improve with this project.

3. Name, address and phone number of project sponsor (if other than the agency):
Madison Conservation District
Box 606
Ennis, MT 59729
406.682.3181

4. Anticipated Schedule:
Estimated Construction Commencement Date: Spring 2015
Estimated Completion Date: Fall 2015

Current Status of Project Design (% complete): 85

5. Location affected by proposed action (county, range and township – included map):

The project location is in Madison County, T5S R1W. Map attached.

6. Project size -- estimate the number of acres that would be directly affected that are currently:

	Acres		Acres
(a) Developed:		(d) Floodplain	17.48
Residential	0		
Industrial	1.37	(e) Productive:	
(existing shop area)		Irrigated cropland	0
(b) Open Space/	0	Dry cropland	52
Woodlands/Recreation		Forestry	0
(c) Wetlands/Riparian	5.84	Rangeland	0
Areas		Other	9.45

8. Permits, Funding & Overlapping Jurisdiction.

(a) Permits: permits will be filed at least 2 weeks prior to project start.

Agency Name	Permits
Madison Conservation District	310 (MT Natural Streambed and Land Preservation Act)
Department of Environmental Quality	318 (turbidity; generally issued with the 124)
Madison County	Floodplain

(b) Funding:

Agency Name	Funding Amount
Northwestern Energy	$25,877.28
Future Fisheries	$10,478.40
Madison River Foundation	$1,000.00
MCD/NRCS	$700.00
Landowner	$1,409.53
Volunteers (CD or MRF)	$600.00

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name	Type of Responsibility
DNRC	602 Notice of Completion of Groundwater Development

9. Narrative summary of the proposed action:

The goal of the project is to improve the health of the stream through a new grazing management plan and establishment of riparian plant species. Through the installation of the project infrastructure and new grazing management along the stream, the stream will be provided a rest period to improve the vegetation along the stream, and reduce the impacts seen by current use.

Natural recruitment of willows within the fenced stream corridor is anticipated after implementation of changes to grazing management, however, project managers plan to establish supplemental plantings of locally sourced willows.
The area will allow for better utilization by the livestock through a rest-rotation grazing program as recommended by MCD/NRCS staff and managed by the ranch. The area will be monitored closely for response in order to demonstrate effectiveness and project success.
The project coordinators anticipate that the completed work will provide an opportunity for resident fish populations to prosper, through established cover, improved habitat, and sediment reduction.

10. Description and analysis of reasonable alternatives:

Alternative A: No Action

Alternative B: Proposed Action

This project is designed to install riparian fencing, hardened crossings, water gaps, and a well and tanks on the pastures and corrals along 3200 feet of Moore's Creek. Permanent 2 or 3 wire electric fence will be installed along 3200 feet of stream channel to create a 20-foot buffer either side of the stream. Top height of the wire will not exceed 42 inches above the ground, and the bottom wire will be at least 18 inches above the ground. A well and pipeline will be installed to provide fresh water to 2 rubber tire tanks, which will provide a water source for the existing fenced pastures east of the homestead. There will be 2 water gaps to allow access for livestock to water from the stream in areas where livestock are rotated through. A single hardened crossing will be constructed near the existing corrals to prevent sediment from entering the stream during crossings.

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

FFIP 20 YEAR AGREEMENT

MCD Landowner Agreement

PART II. ENVIRONMENTAL REVIEW CHECKLIST

The primary focus of the project is to provide environmental improvements to the health and function of Moore's Creek. Direct benefits anticipated include stabilization of riparian soils in streambanks, improvement in water quality through decreased sediment and fecal matter contribution to the stream, development of a robust and diverse riparian plant community, and enhancement of terrestrial and instream habitat for resident species.

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

A. 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				A1
2. Air quality or objectionable odors				X		
3. Water quality, quantity and distribution (surface or groundwater)		X				A3
4. Existing water right or reservation				X		
5. Vegetation cover, quantity and quality		X				A5
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats		X				A7
8. Unique, endangered, or fragile wildlife or fisheries species		X				A8
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of speices		X				A10

Comments:

A1. The project will restrict livestock streambank and riparian access to shorter durations than the currently unrestricted situation which causes streamside soils to slump into the stream. The controlled access will allow an opportunity for riparian vegetation to establish and flourish, stabilizing the streambanks and riparian soils.

A3. Moore's Creek is a 303d listed stream for *E. coli*. While there are likely upstream sources, unrestricted livestock access and unfiltered runoff in this section likely add to the problem.

A5. Riparian vegetation such as grasses and willows are expected to develop with the reduced livestock grazing and hoof shear.

A7. The project is expected to result in a more diverse and robust vegetation assemblage along the stream, which will provide habitat for more diverse and robust wildlife assemblage. The stream channel is expected to develop a more natural form and function with the improved riparian vegetation, providing proper habitat for aquatic organisms.

A8. Arctic grayling are known to occupy Fletchers Channel of the Madison River and Ennis Reservoir, the water bodies immediately downstream of Moore's Creek. Coupled with stream channel improvements completed by the downstream landowner, the habitat improvements brought by this project will provide an opportunity for grayling and other aquatic organisms to expand their distributions and habitat usages.

A10. See A7 and A8.

B. HUMAN ENVIRONMENT

Immediate benefits to the public include additional higher quality habitat for resident and migratory populations of fish in the immediate and downstream areas. Additional benefits include an excellent example of a grazing project located in a highly visible location, and a convenient site for lessons and service project focused on student classes and clubs. Volunteers from local organizations will be afforded the opportunity to put their monitoring skills to work in documenting the response to the restoration.

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					B2
3. Risk and/or health hazards				X		
4. Community impact	X					B4
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation		X				B7
8. Cultural and historic resources				X		
9. Evaluation of significance	X					B9
10. Generate public controversy				X		

Comments:

B2. There will be no change to the primary land use of the project area, but with the expected development of diverse terrestrial vegetation and aquatic habitat, the landowner will have the option of allowing public access for wildlife viewing and angling.

B4. The project is at a site that is highly visible along a major highway, and is being conducted on property owned by a well known agricultural family. Local elementary and high school classes are anticipating being involved in the project, with a wide array of monitoring and vegetation planting. Success of this project will be well publicized locally and may lead to additional private properties modifying their livestock management is a similar manner.

B7. The aesthetic values of the immediate area will be enhanced with the expected benefits of the project. Also, see comment B2.

B9. There are no expected negative impacts of the project. The worst case scenario is that the current condition is maintained.

PART III. NARRATIVE EVALUATION AND COMMENT

The project seeks to establish infrastructure and practices that provide multiple environmental and community benefits to the physical and human environment as described herein. An important part of the project is the completion of regular monitoring to quantify the results of the project, and to perform outreach opportunities to educate community members on the project details and benefits.

PART IV. PUBLIC PARTICIPATION

1. 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. Copies of this environmental assessment will be distributed to interested parties to ensure their knowledge of the proposed project. This level of public notice and participation is appropriate for a project of this scope having limited impacts, many of which can be mitigated.

2. Duration of comment period:

- The public comment period will extend for (30) thirty days. Written comments will be accepted until 5:00 p.m., February 17, 2015 and can be submitted to via the FWP Future Fisheries Improvement Program webpage (http://fwp.mt.gov/fishAndWildlife/habitat/fish/futureFisheries/) or the addresses below:

  Madison Conservation District
  PO Box 606
  Ennis, MT 59729

  Future Fisheries Improvement Program
  c/o Michelle McGree
  Montana Fish, Wildlife & Parks
  1420 East Sixth Avenue, P.O. Box 200701
  Helena, MT 59620
  (406) 444-2432
  mmcgree@mt.gov

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.

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.

2. Person(s) responsible for preparing the EA:

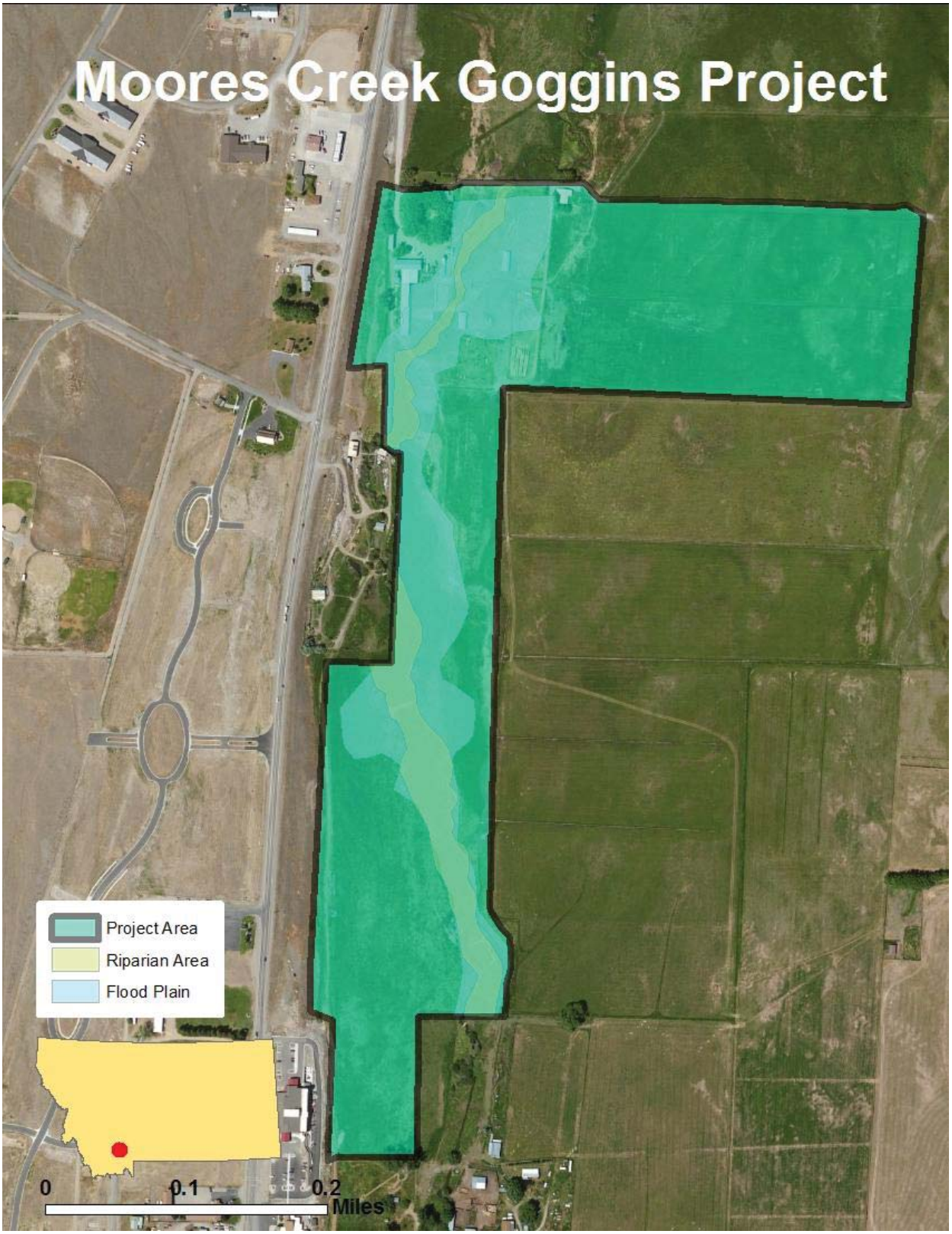
Pat Clancey
Fisheries Biologist
PO Box 1336
Ennis, MT 59729
pclancey@mt.gov

Sunni Heikes-Knapton
Madison Watershed Coordinator
PO Box 606
Ennis, MT 59729
sunni@madisoncd.org

3. List of agencies or offices consulted during preparation of the EA:

NRCS
Madison Conservation District, Ennis

Project Location



Project Layout

Goggins Property Moore's Creek: Northern project area

1300 ft Stream Channel Length electric fence preferred

1380 ft buried pipe ••••••••

1 well

2 tanks (10 foot?)

1 water gap

1 Hardened Crossing

Goggins Property Moore's Creek: Southern project area

1900 ft Stream Channel Length electric fence preferred

1 water gap