

Environmental Assessment

Miner Creek and Little Lake Creek Culvert Removal Project

September 2010



***Montana Fish,
Wildlife & Parks***

Environmental Assessment MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. **Type of proposed state action:** Montana Fish, Wildlife & Parks (FWP) is proposing to provide funding for and implement a project to remove two undersized culverts, one in Miner Creek and one in Little Lake Creek, to enhance fish passage conditions in these two creeks. The existing culverts will be replaced with two simple farm bridges (12 feet long by 14 feet wide) constructed of wooden beams with pressure treated lumber for the deck. The bridges will be designed to pass light ranch equipment and are not engineered for weight.

2. **Agency authority for the proposed action:**
 - The FWP is required by law to implement programs that manage sensitive fish species in a manner that assists in the maintenance or recovery of those species, and that prevents the need to list species under 87-5-107 or the federal Endangered Species Act. Section 87-1-201(9)(a), M.C.A.

3. **Name of project: Miner Creek and Little Lake Creek Culvert Removal Project**

4. **Name, address and phone number of project sponsor (if other than the agency):**

5. **Anticipated Schedule:**
 Estimated Construction Commencement Date: October 2010
 Estimated Completion Date: October 2010
 Current Status of Project Design (% complete): 100% complete

6. **Location affected by proposed action (county, range and township):**
 This project sites are located on Miner Creek and Little Lake Creek, located approximately 3.5 miles north-northwest of the community of Jackson, MT within Township 5 South, Range 15 West, and Sections 8 and 17 in Beaverhead County. (See Attachment 1 of location map)

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

	<u>Acres</u>			<u>Acres</u>
(a) Developed:			(d) Floodplain	<u>0</u>
Residential	<u>0</u>			
Industrial	<u>0</u>		(e) Productive:	
(existing shop area)			Irrigated cropland	<u>0</u>
(b) Open Space/	<u>0</u>		Dry cropland	<u>0</u>
Woodlands/Recreation			Forestry	<u>0</u>

(c) Wetlands/Riparian Areas	<u><1</u>	Rangeland Other	<u>0</u> <u>0</u>
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8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits: The following permits are pending approval for the project:

<u>Agency Name</u>	<u>Permits</u>
Montana Fish, Wildlife & Parks and Beaverhead County Conservation District	124 Permit
Department of Environmental Quality	318 Authorization

(b) Funding:

<u>Agency Name</u>	<u>Funding Amount</u>
Montana Fish, Wildlife & Parks	\$21,000.00

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
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9. Narrative summary of the proposed action or project including the benefits and purpose of the proposed action:

Montana Fish, Wildlife & Parks is proposing to provide funding for and implement a project to remove two undersized culverts, one in Miner Creek and one in Little Lake Creek, to enhance fish passage conditions in these two creeks (Appendix 1). The existing culverts will be replaced with two simple farm bridges (12 feet long by 14 feet wide) constructed of wooden beams with pressure treated lumber for the deck. The bridges will be designed to pass small ranch equipment and are not engineered for weight. The culverts are three feet in width and the bankfull width of the creeks at these locations is approximately 5 feet (Appendix 2). The new bridges will not expand the existing footprint of disturbance as these culverts were used as stream crossing locations for ranch equipment. The creek at both locations will be restored to its natural morphology in terms of width and depth. Any fill or armoring material (large rocks and the car bodies in Miner Creek) will be removed from the creek and disposed of outside the floodplain.

The project will lead to improved fish passage in Miner Creek and Little Lake Creek and will improve the hydrological energetics of the creek. The project complements five projects associated with improving fish passage dynamics in the Miner Creek system already completed by the landowner with partial funding provided by the USDA Natural Resources Conservation Service Environmental Quality Incentives Program (Appendix 3). The landowner has entered into a ten year conservation agreement with MFWP and the U.S. Fish and Wildlife Service as part of the Candidate Conservation Agreement with Assurances for Fluvial Arctic Grayling in the Upper Big Hole River (Big Hole Grayling CCAA). The conservation agreement or site-specific plan requires, in part, that the

landowner address all potential fish passage issues on their property. The funding for these projects comes from the State Wildlife Grant Program and the associated match of dollars from Montana Fish, Wildlife & Parks license sales.

Miner Creek and Little Lake Creek are tributaries to the Big Hole River. Recent fish population surveys on these creeks show that they are dominated by brook trout (*Salvelinus fontinalis*) with low densities of brown trout, mountain whitefish, rainbow trout and burbot. It is hoped that as these and future fish passage projects are completed in this part of the watershed, Arctic grayling will migrate into these creeks.

10. Alternatives:

Alternative A: No Action

If no action is taken, these culverts will remain in place and fish passage in these two creeks will not improve. Species of fish that spawn during the spring, like Arctic grayling, when instream flows and water current velocities are usually highest will likely not be able to access habitats upstream of these two culverts.

Alternative B: Proposed Action

Under the proposed action, the two culverts will be removed and replaced with simple farm bridges. Access to upstream habitats will be enhanced and the project will complement other fish passage projects completed recently by the landowner. The completion of these projects will allow the landowner to remain in compliance with the existing site-specific plan completed as part of the Big Hole Grayling CCAA. Other components of the completed site-specific plan include conservation actions to enhance instream flows by reducing irrigation diversions when instream flow levels in the Big Hole River drop below established triggers, improve the management of livestock grazing in riparian habitat and identify grayling entrained within the irrigation ditches associated with the property.

PART II. ENVIRONMENTAL REVIEW CHECKLIST

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

A. PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. **Soil instability or changes in geologic substructure?			X		Yes	1a.
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		X				
c. **Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			X		Yes	1d.
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other:						

Comment 1a. Soils at the location of the projects may be disturbed during removal of the culverts and the construction of the small farm bridges. However, the impact will be limited and localized and have only temporary minor impact that will cease after installation. The area will be reseeded with a native grass mix .

Comment 1d. Short-term increases in turbidity will occur during project construction. To minimize this dynamic, construction will occur at low flows and the operation of equipment in the stream channel will be minimized to the extent practical. A 124 permit (Stream Protection Act) will be obtained from FWP and a 318 Permit will be issued by FWP in compliance with DEQ standards.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

2. <u>AIR</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. **Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)		X				
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. ***For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regs? (Also see 2a.)		X				
f. Other:						

The proposed action is not expected to alter ambient air quality in the affected area.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

3. <u>WATER</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. *Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X		Yes	3a.
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. ****For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		X				
m. ***For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		X				
n. Other:						

Comment 3a. Short-term increases in turbidity will occur during project construction. To minimize this dynamic, construction will occur at low flows and the operation of equipment in the stream channel will be minimized to the extent practical. A 124 permit (Stream Protection Act) will be obtained from FWP and a 318 Permit will be issued by FWP in compliance with DEQ standards.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

4. <u>VEGETATION</u> Will the proposed action result in?	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X			4e.
f. ****For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		X				
g. Other:						

Comment 4e. The project will include ground disturbing activities that may result in the establishment of noxious weeds. The potential for this dynamic to occur will be recognized and reduced by cleaning vehicles and equipment entering and leaving the project site. Also, only certified weed-free mixes will be used for reseeding of disturbed areas.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

** 5. FISH/WILDLIFE Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. ****For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)		X				
i. ***For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)		X				
j. Other:						

The proposed action is not expected to change the diversity or movements of wildlife in the affected area. The removal of the undersized culverts will improve fish passage with Mill Creek and Little Lake Creek.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

B. HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Increases in existing noise levels?			X		Yes	6a.
b. Exposure of people to serve or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other:						

Comment 6a. The proposed action includes the use of heavy equipment that may temporarily increase existing noise levels. All equipment will have properly functioning noise reduction equipment to limit the level of increase in noise.

7. <u>LAND USE</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Other:						

The proposed action will not change the use of the land by the property owner.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

8. <u>RISK/HEALTH HAZARDS</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. ***For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		X				
e. Other:						

The proposed removal of the culverts and installation of a 2 new farm bridges will not create any new hazards for the property owner.

9. <u>COMMUNITY IMPACT</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other:						

The proposed removal of the culverts and installation of a 2 new farm bridges will not create any community impacts.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. **Define projected revenue sources		X				
f. **Define projected maintenance costs.		X				
g. Other:						

The landowner will be responsible for the maintenance costs for the new bridges after their installation.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

** 11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?			X		Yes	11b.
c. **Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)		X				
d. ***For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		X				
e. Other:						

Comment 11b. The proposed action would negatively affect aesthetics during project construction because of ground disturbance and the presence of heavy equipment. These negative effects would be relatively short term since the project is expected to be completed over approximately a two day period.

12. <u>CULTURAL/HISTORICAL RESOURCES</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. **Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. ****For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)	X					12d.
e. Other:						

Comment 12d. If any cultural artifacts are identified or disturbed during the construction of this project, all ground breaking activities will be halted and the State Historic Preservation Office will be contacted immediately for guidance on how to proceed with the project. The project sites are extremely small and construction of the farm bridge will not expand the existing footprint of disturbance created by the existing culverts.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

SIGNIFICANCE CRITERIA

13. <u>SUMMARY EVALUATION OF SIGNIFICANCE</u> Will the proposed action, considered as a whole:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. ***For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		X				
g. ****For P-R/D-J, list any federal or state permits required.						13g.

Comment 13g. Federal or State Permits Required: 124 Permit issued by FWP; Department of Environmental Quality - 318 Authorization issued by FWP.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

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2. **Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:** None

PART III. NARRATIVE EVALUATION AND COMMENT

Addressed in Part I and Part II.

PART IV. PUBLIC PARTICIPATION

1. **Public Involvement:**

The public will be notified through publication in The Dillon Tribune and The Montana Standard and through contact with the local watershed and sports groups. This EA will also be published on the Montana Fish, Wildlife & Parks web page (<http://fwp.mt.gov/default.html>).

2. **Duration of comment period, if any.**

The public comment period for this proposed action is from September 15, 2010 to 5:00 pm on October 15, 2010. Written comment can be mailed or e-mailed to:

Peter Lamothe
Montana Fish, Wildlife & Parks
730 N. Montana St.
Dillon, MT 59725
E-mail: plamothe@mt.gov

PART V. EA PREPARATION

1. **Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)?** 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 no significant impacts based upon the criteria at ARM 12.2.431 to determine the significance of an impact. Therefore, an EIS is not warranted.

2. **Name, title, address and phone number of the person(s) responsible for preparing the EA:**

Peter Lamothe – Fisheries Biologist
730 N. Montana St., Dillon, MT 59725
406-683-2287

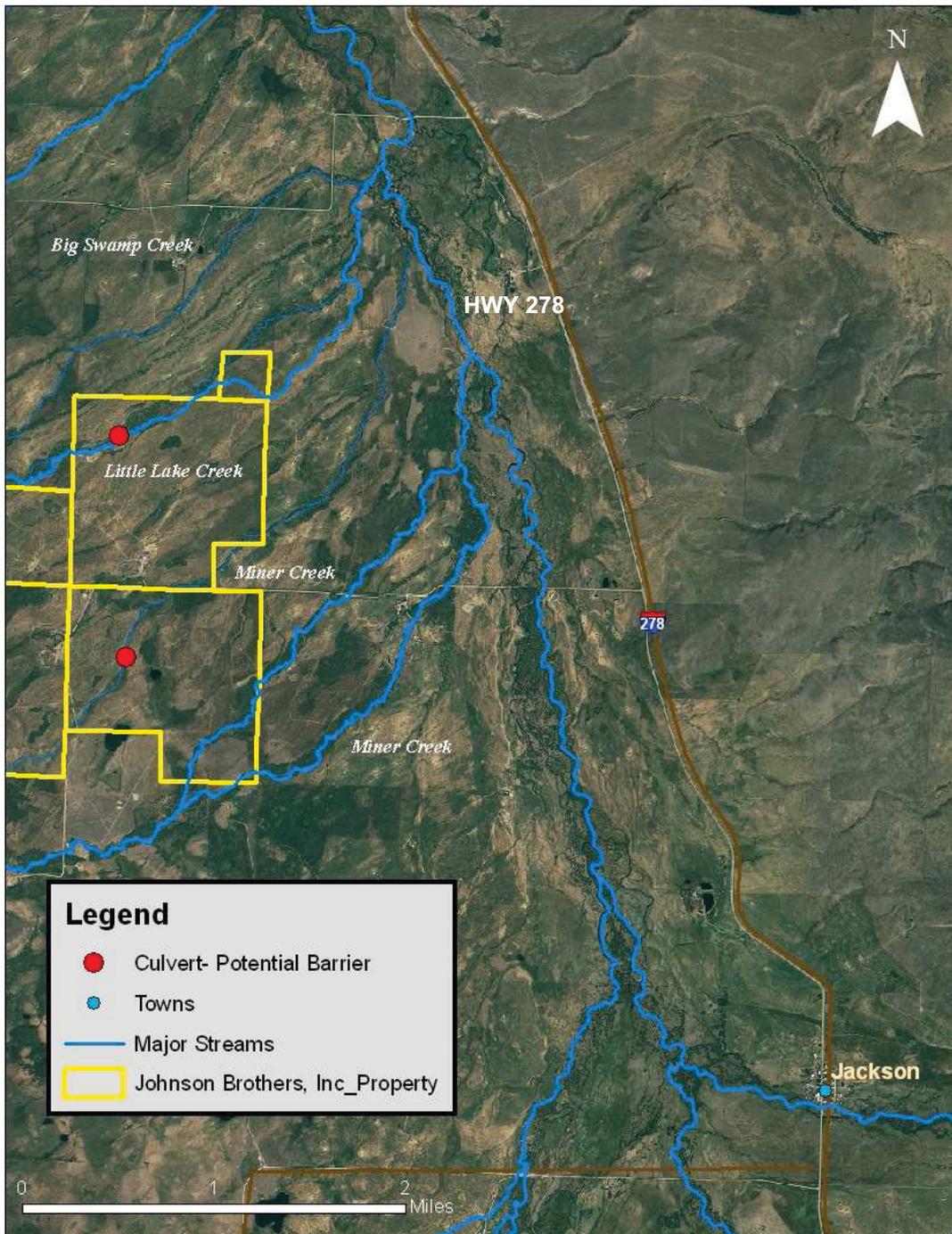
3. **List of agencies consulted during preparation of the EA:**

Montana Fish, Wildlife & Parks – Fisheries Division
Legal Bureau

APPENDICES:

1. Location map of the proposed action.
2. Photographs of the culverts to be removed as part of the project.
3. Location map of recent fish passage related projects completed by the landowner.

Appendix 1. Location map of the proposed action.



Appendix 2. Photographs of the culverts to be removed as part of the project.



Culvert in Miner Creek



Little Lake Creek Culvert

Appendix 3. Location map of recent fish passage related projects completed by the landowner.

