MONTANA FISH, WILDLIFE AND PARKS
FISHERIES DIVISION

Environmental Assessment of the Construction of a Fish Barrier on Cottonwood Creek, Beartooth Wildlife Management Area

PART I: PROPOSED ACTION DESCRIPTION

A. Type of Proposed Action: Native species protection.

B. Agency Authority for the Proposed Action:

87-1-702. Powers of department relating to fish restoration and management. The department is hereby authorized to perform such acts as may be necessary to the establishment and conduct of fish restoration and management projects as defined and authorized by the act of congress, provided every project initiated under the provisions of the act shall be under the supervision of the department, and no laws or rules or regulations shall be passed, made, or established relating to said fish restoration and management projects except they be in conformity with the laws of the state of Montana or rules promulgated by the department, and the title to all lands acquired or projects created from lands purchased or acquired by deed or gift shall vest in, be, there remain in the state of Montana and shall be operated and maintained by it in accordance with the laws of the state of Montana. The department shall have no power to accept benefits unless the fish restoration and management projects created or established shall wholly and permanently belong to the state of Montana, except as hereinafter provided.

C. Estimated Commencement Date: June 1010

D. Name and Location of the Project: Construction of a Fish Barrier on Cottonwood Creek, Beartooth Wildlife Management Area.

The proposed project site is located in Lewis and Clark County approximately 9 miles direct line from the town site of Wolf Creek, Montana (Latitude/Longitude 46.9485°N, 111.8994°W. T14N, R2W, Sec19, Figure 1). The proposed project site is located on the Beartooth Wildlife Management Area managed by Montana Fish, Wildlife & Parks (FWP).

E. Project Size (acres affected)

1. Developed/residential – 0 acres
2. Industrial – 0 acres
3. Open space/Woodlands/Recreation – 0 acres
4. Wetlands/Riparian – 200 to 300 meters of stream
5. Floodplain – 0 acres
6. Irrigated Cropland – 0 acres
7. Dry Cropland – 0 acres
8. Forestry – 0 acres
9. Rangeland – 0 acres

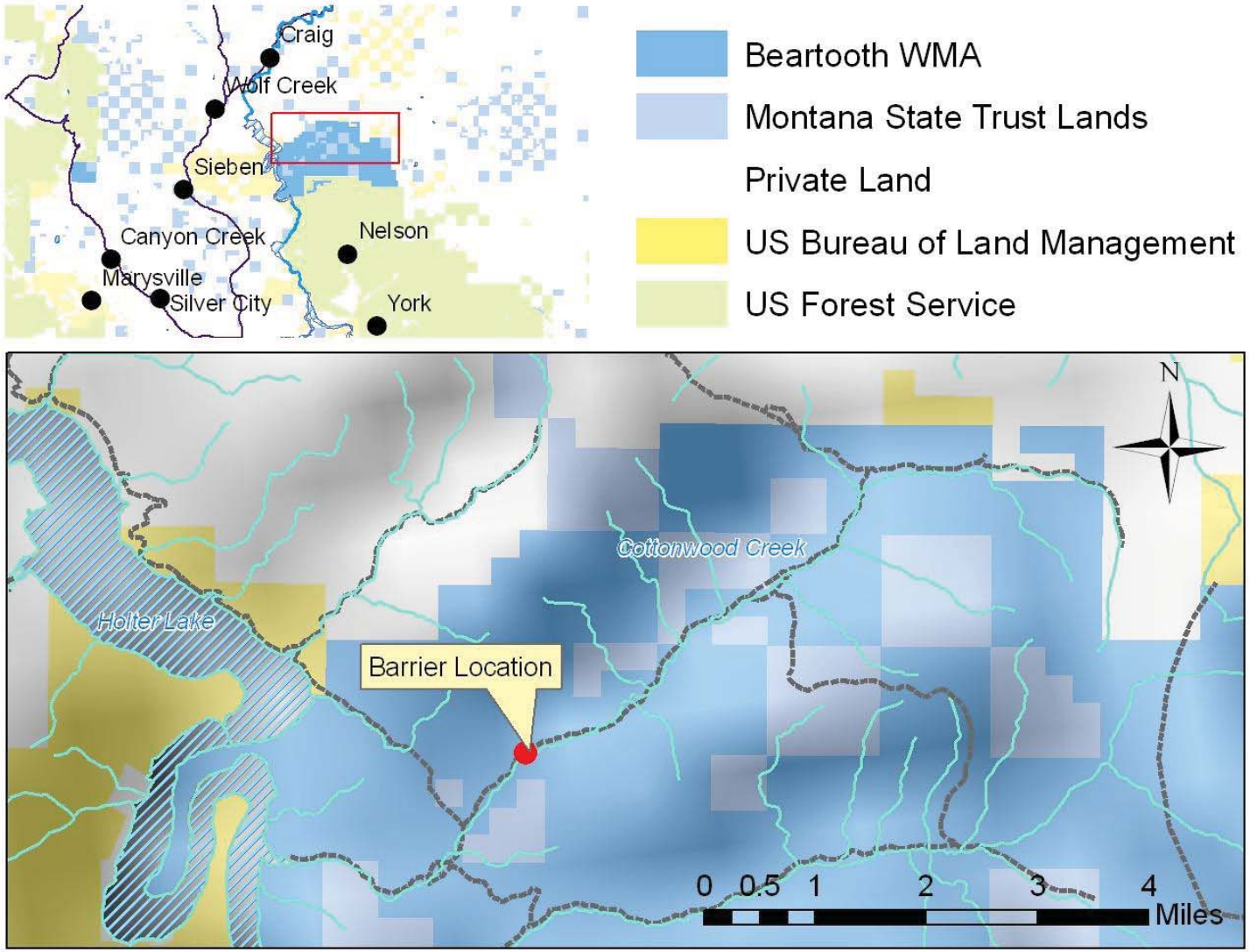

Figure 1. Map of the project area

F. Narrative Summary of the Proposed Action and Purpose of the Proposed Action

Genetically pure westslope cutthroat trout (WCT) occupy about 8% of their historical range in the western United States and less than 4% of their historical range in northcentral Montana within the Missouri River Drainage. The primary threats to WCT are hybridization with rainbow trout and competition with brook trout. The Upper Missouri Drainage in Montana currently supports 19 genetically pure populations of WCT (44 miles of stream; less than 3% of historically occupied habitat). Most of these remaining populations of pure WCT are isolated by barriers to non-native fishes (e.g. waterfalls or dry channel). In addition, projects which involve re-introduction of WCT generally require removal of non-native fish above natural or constructed barriers. Re-introduction of WCT into previously occupied habitats will be necessary to ensure the continued survival of WCT in the upper Missouri Drainage and elsewhere.

In 2000, a concrete fish barrier was constructed (EA, FWP, 2000) on Cottonwood Creek in an effort to restore WCT to approximately 8 miles of stream. Multiple piscicide treatments (EA, July 23, 2002 and August 15, 2007, FWP) and electrofishing efforts were necessary to completely remove non-native brook trout upstream of the constructed fish barrier.

In 2009, approximately 5,000 WCT eggs were collected from Threemile Creek and Whites Gulch (EA, April 17, 2009), fertilized, and hatched in remote site incubators near the headwaters of Cottonwood Creek. This WCT transfer expanded the total length of stream holding WCT in the Upper Missouri drainage from less than 44 miles to a total of 52 miles of stream (an increase of approximately 20 percent). In addition, the replication of pure WCT from donor streams helps in preserving their genetic legacy. Should donor stocks be lost due to fire or drought they can then be re-founded from fish obtained from the newly restored Cottonwood Creek population.

The original barrier is functioning but a risk of passing brook trout and rainbow trout around its sides under high spring run-off events. <u>This project if implemented would involve removal of the old barrier and replacement with a larger barrier effective at very high flows</u>. The transfer of Threemile Creek WCT was initiated prior to barrier replacement because of concerns related to a transfer of land ownership on Threemile Creek and an associated loss of security.

Funding was provided by PPL Montana ($13,025) for design of the proposed new fish barrier on Cottonwood Creek. Mainstream Restoration, a consulting firm based in Bozeman, Montana, was contracted to complete design of the fish barrier. Design of the barrier is approximately 90% complete. The barrier would be constructed using pre-cast concrete box culverts rather than a poured concrete structure to reduce costs and simplify installation. A similar structure (Figure 2) has been constructed in Whites Gulch, a separate WCT protection project on a tributary to Canyon Ferry Reservoir. The engineers cost opinion for construction of the barrier on Cottonwood Creek is $85,197. Funding for construction of the barrier has been acquired from two competitive grant programs (Future Fisheries of Montana and PPL Montana)

Figure 2. Similar barrier design on White Gulch Creek.

PART II. ENVIRONMENTAL REVIEW

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		Yes	1b
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				

Comment 1a, 1b, 1d: If the proposed action is implemented, a fish barrier would be constructed just upstream of the old fish barrier (the old fish barrier would be removed). Construction activities would be limited to the immediate barrier construction area (i.e. within 200-300 meters of proposed structure; Figure 1). Heavy equipment necessary for construction would access the proposed barrier site on a road that parallels Holter Reservoir and on unimproved roads on the Beartooth Wildlife Management Area. All permits necessary to work in and around Cottonwood Creek would be obtained, including: Montana Stream Protection Act (SPA 124), Short-Term Water Quality Standard for Turbidity (318 Authorization), and Federal Clean Water Act (404) permits. Construction Best Management Practices (BMPs) to reduce erosion and sedimentation would be used and would include but may not be limited to the following measures:

- Temporary diversions for storm runoff of Cottonwood Creek flows would be constructed as specified and as needed to direct flows around the work area. Diversions would be designed, implemented, and maintained by the contractor in accordance with BMPs to control erosion and sediment release into Cottonwood Creek. BMPs may include, but are not limited to, temporary berms, cofferdams, sediment basins, ditches, silt fencing, straw bales, straw mulch, and erosion control matting.

- The contractor would plan and execute work to control and minimize surface runoff from cuts, fills, and other disturbed areas. The contractor would prevent sediment and/or sediment laden water from entering Cottonwood Creek to the extent practicable.

- All dewatering flows collected from open sumps or trenches or excavations would be routed through sediment retention structures prior to discharge into Cottonwood Creek.

- BMP measures would be installed along the margin of Cottonwood Creek prior to any earthwork which could release sediment to Cottonwood Creek. The BMPs would remain until vegetation is established. Disturbed areas would be mulched and seeded with a native plant mixture.

Cumulative Impacts: Impacts from construction of a fish barrier would be limited to the construction period and a short recovery period afterward. Accumulation of bedload immediately downstream of the barrier may need to be periodically (5 to 10 years) removed to maintain barrier effectiveness. If necessary, bedload removal would be accomplished with a backhoe or excavator. We do not expect the barrier structure to require maintenance or for the barrier to create other/future unforeseen impacts to land resources. We do not foresee any other activities in the basin that would add to impacts of the proposed action. A separate barrier and rotenone treatment project is planned for Elkhorn Creek (separate tributary to Holter Reservoir) approximately 4 miles direct distance from the proposed project (separate EA). Construction of both these projects may occur during the same time period to save costs of construction mobilization. Because of the distance between these projects and their locations in different drainages to Holter Reservoir, impacts would not be cumulative. Moreover, completing both these projects under the same time frame would limit the increased presence of construction personnel to one time period rather than consecutive years.

2. WATER 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	2a
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of flood water or other flows?		X				2c
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				See 2c
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				See 2c
l. Will the project affect a designated floodplain?		X				
m. Will the project result in any discharge that will affect federal or state water quality regulations? (Also see 2a)		X				

Comment 2a: There would be a temporary increase in turbidity during project construction. Turbidity would be minimized through the use of construction BMP's (see Comment 1a, 1b, 1d). Prior to construction all permits necessary to work in and around Cottonwood Creek would be obtained, including: Montana Stream Protection Act (SPA 124), Short-Term Water Quality Standard for Turbidity (318 Authorization), and Federal Clean Water Act (404) permits.

Comment 2c: The gradient of the stream at the proposed barrier location is steep enough to prevent a significant impoundment of water. Loss of water to evaporation because of the barrier would be negligible and would not affect downstream water users. The barrier is designed to survive flood flows estimated to have a recurrence interval of 100 years.

Cumulative Impacts: The proposed action of barrier construction would have a short term and localized impact on water quality because of increases in turbidity (suspended sediment) in Cottonwood Creek. These impacts would attenuate through time and would not impact the productivity of fisheries resources. Accumulation of bedload immediately downstream of the barrier may need to be periodically (5 to 10 years) removed to maintain barrier effectiveness. If necessary, bedload removal would be accomplished with a backhoe or excavator. Necessary permits (124, 318) would be obtained prior to removal of accumulated bedload. We do not foresee any other activities in the basin that would add to impacts of the proposed action.

3. AIR **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		No	3a
b. Creation of objectionable odors?			X		No	3b
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. Will the project result in any discharge which will conflict with federal or state air quality regs?		X				

Comment 3a and 3b: During construction, the use of heavy equipment and generators would impact air quality in the vicinity of the fish barrier. These impacts would be limited to the periods of construction (1 to 2 weeks) and the immediate construction area.

Cumulative Impacts: A separate barrier and rotenone treatment project is planned for Elkhorn Creek (separate tributary to Holter Reservoir) approximately 4 miles direct distance from the proposed project (separate EA). Construction of both these projects may occur during the same time period to save costs of construction mobilization. Because of the distance between these projects impacts would not be cumulative. However, even if the effects were cumulative, we do not anticipate impacts would be considerable. Moreover, completing both these projects under the same time frame would limit the increased presence of construction personnel and equipment to one time period rather than consecutive years.

4. VEGETATION **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			4a

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. Will the project affect wetlands, or prime and unique farmland?		X				

Comment 4a: During barrier construction there would be a localized impacts to vegetation at the proposed barrier site (see Land Resources). Impacts during construction would be limited to staging areas and ground adjacent to the barrier (within 200 to 300 meters). After construction, this area would be scarified, mulched, and reseeded with a native plant mix. In addition, woody and/or herbaceous riparian species would be planted near the barrier to help stabilize banks and camouflage the barrier structure.

Comment 4e: Temporary and localized disturbance to the ground during construction may create an environment conducive to noxious weed recruitment and growth. In addition, machinery and equipment used during the project may inadvertently carry noxious weeds to the project site. Proposed mitigation includes: 1) Washing all equipment and vehicles before entry onto the Beartooth Wildlife Management Area; removal of mud, dirt, and plant parts from project equipment before moving into project area; 2) inspection of the project area for noxious weeds annually for three years after the project is completed. If noxious weeds are found in the project area after project completion, manual or biological removal of weeds, including bagging and appropriate disposal would be implemented. Inspections would continue for at least 3 years after weeds are no longer observed.

Cumulative Impacts: Impacts to vegetation from barrier construction would be short term and minor. We do not expect the proposed action to result in other actions that would create cumulative impacts to vegetation in Cottonwood Creek. Nor do we foresee any other activities in the basin that would add to impacts of the proposed action. As such there are no cumulative impacts to vegetation related to construction of the fish barrier on Cottonwood Creek.

5. <u>FISH/WILDLIFE</u> **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			5a
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		Yes	5g
h. 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. Will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)		X				

Comment 5a: The proposed action will not result in deterioration of fish and wildlife habitat. Fish habitat was necessarily reduced for brook trout and rainbow trout when the original barrier and piscicide removal project was initiated in 2000. The amount of habitat reduction for these two species is negligible. The addition of habitat for WCT will have a positive impact and will likely reduce extinction risks of WCT in general and specifically for donor WCT populations. Some wildlife habitat will be locally impacted for the short period of time during construction. These localized and short term impacts will not impact the long term survival and reproduction of any wildlife species on the Beartooth Wildlife Management Area.

Comment 5g: The fish barrier would likely take between one to two weeks to complete. During construction, noise levels at the immediate barrier area would be elevated. In addition, there would be some transfer of equipment, materials and personnel to the barrier construction site. All construction activities would occur during baseflow (mid to late summer) after most breeding and nesting seasons and prior to hunting seasons. Early spring construction may be considered if pre spring run-off conditions are good, with low flows, dry roads, and the project does not interfere with breeding or nesting of wildlife species.

Cumulative Impacts: Impacts to fish and wildlife from barrier construction would be short term and minor. We do not expect the proposed action to result in other actions that would create cumulative impacts to fish and wildlife resources near Cottonwood Creek. We do not foresee any other activities in the basin that would add to impacts of the proposed action. As such there are no cumulative impacts to non-target organisms related to construction of the fish barrier on Cottonwood Creek. A separate barrier and rotenone treatment project is planned for Elkhorn Creek (separate tributary to Holter Reservoir) approximately 4 miles direct distance from the proposed project (separate EA). Construction of both these barrier projects may occur during the same time period to save costs of construction mobilization. Because of the distance between these projects and the locations in separate drainages, impacts would not be cumulative. Moreover, completing both these projects under the same time frame would limit the increased presence of construction personnel to one time period rather than consecutive years.

B.HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS **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		No	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				

Comment 6a: During construction (one to two weeks) there would be heavy equipment operating in the immediate area near the proposed barrier on the Beartooth Wildlife Management Area. There would also be some movement of equipment, materials, and supplies along the road that parallels Holter Reservoir and on unimproved roads of the Beartooth Wildlife Management Area.

Cumulative Impacts: Increases in noise from the barrier construction would be short term and minor. We do not expect the proposed action to result in other actions that would create increased noise in the Cottonwood Creek stream corridor. A separate barrier and rotenone treatment project is planned for Elkhorn Creek (separate tributary to Holter Reservoir) approximately 4 miles direct distance from the proposed project (separate EA). Construction of both these barrier projects may occur during the same time period to save costs of construction mobilization. Because of the distance between these projects and the locations in separate drainages, impacts would not be cumulative. Moreover, completing both these projects under the same time frame would limit the increased presence of construction personnel to one time period rather than consecutive years.

7. LAND USE **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				7a
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		Yes	7c
d. Adverse effects on or relocation of residences?		X				

Comment 7a and 7c: The Beartooth Wildlife Management Area is managed to optimize habitat for fish and wildlife resources while providing for public recreation, including hiking, horseback riding, fishing, and hunting. Barrier construction would be implemented after spring runoff (approximately mid June) and prior to archery hunting season (September 5th) to minimize conflicts with recreationists. Early spring construction may be considered if pre spring run-off conditions are good with low flows, dry roads, and the project does not interfere with breeding or nesting of wildlife species. Construction activities would be limited to a 1 to 2 week period. During this time, access by hikers, anglers, and horseback riders would likely not be limited as long as safety was not compromised.

Cumulative Impacts: Impacts on land use from construction of the fish barrier would be short term and minor. We do not expect the proposed action to result in other actions that would impact land use in the Cottonwood Creek stream corridor. We do not foresee any other activities in the basin that would add to impacts of the proposed action. As such there are no cumulative impacts related to land use from the proposed construction of the barrier on Cottonwood Creek.

8. RISK/HEALTH HAZARDS **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		Yes	8a
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. Will any chemical toxicants be used?		X				

Comment 8a: During construction of the fish barrier, BMP's will be implemented to minimize fuel or oil spills by construction personnel.

9. COMMUNITY IMPACT **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		No	9e

Comment 9e: During construction (one to two weeks) there would be heavy equipment operating in the immediate area near the proposed barrier on the Beartooth Wildlife Management Area. There would also be some movement of equipment, materials, and supplies along the road that parallels Holter Reservoir and on unimproved roads on the Beartooth Wildlife Management Area roads.

10. PUBLIC SERVICES/TAXES/UTILITIES **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 used of any energy source?		X				
e. Define projected revenue sources		X				
f. Define projected maintenance costs		X				

11. AESTHETICS/RECREATION **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		Yes	11a
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report)		X				
d. Will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c)		X				

Comment 11a: Because of the size of the drainage, a large structure would be required to effectively block non-native fishes from moving upstream during high flows. The concrete structure would be visible from the trail currently used by recreationists. Potential mitigation would include plantings of riparian species (e.g. willows, dogwoods) to camouflage the barrier. Despite intensive riparian re-vegetation there will be period of time (1-3 years) when the structure would be visible from the road.

Cumulative Impacts: Impacts to aesthetics from barrier construction would last for several years. We do not expect the proposed action to result in other actions that would impact recreation/aesthetics in the Cottonwood Creek stream corridor. We do not foresee any other activities in the basin that would add to impacts of the proposed action. As such there are no cumulative impacts to recreation/aesthetics from the proposed construction of the fish barrier on Cottonwood Creek.

12. CULTURAL/HISTORICAL RESOURCES **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				12a
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				12c
d. Will the project affect historic or cultural resources?		X				

Comment 12a: A cultural/historical survey including consideration of archaeological resources and Native American culture has been completed at the project site. No potentially impacted cultural resources were identified near the proposed area of construction. The proposed action of barrier construction would have no impact on any potential cultural sites in the Cottonwood Creek watershed.

Comment 12c: The project site is located near several Native American tribes. Cultural officers for tribes which would have interest in this project will be consulted prior to the completion of any decision making process.

13. SUMMARY EVALUATION OF SIGNIFICANCE **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?		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				13d
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. Is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e)		X				
g. List any federal or state permits required.						13g

Comment 13d: This project does not establish a precedent or likelihood that additional projects with significant environmental effects would be proposed. An additional WCT restoration project is planned for Elkhorn Creek; approximately 4 miles direct line from this proposed project. The Elkhorn Creek project is far enough away to not be considered linked to this project. Though both projects have the same objective (WCT restoration) their initiation was based on opportunity and need rather than a comprehensive plan. We are not planning any additional WCT restoration projects on the Beartooth Wildlife Management Area other than those disclosed.

Comment 13g: The following permits would be required for construction of the proposed fish barrier:

SPA 124 Permit - Montana Stream Protection Act (FWP)
318 Authorization - Short-Term Water Quality Standard for Turbidity (Montana DEQ)
404 Permit - Federal Clean Water Act (Corps of Engineers)

PART III. ALTERNATIVES

Alternative 1 – No Action

The no action alternative would be to maintain the current fish barrier in Cottonwood Creek. During spring run-off in some years the current barrier passes water around its sides. Should enough brook trout or rainbow trout pass the current barrier, the transferred population of native WCT would be put at risk of displacement by brook trout and/or hybridization with rainbow trout. Prior piscicide treatments (4 total) would have been for naught and overall security of WCT in the Upper Missouri basin would be decreased, particularly the genetic component from the donor populations.

Alternative 2 – Proposed Action

The proposed action involves replacing the current fish barrier in Cottonwood Creek with a fish barrier that will protect the newly restored WCT population under extreme high flow conditions.

The predicted benefits of Alternative 2 include:

- Protection of approximately 8 miles of restored native WCT inhabited stream from upstream movement of non native fishes.
- Reduction in the risk of potential listing under the Endangered Species Act.

Prepared by: David Moser Date: _2/19/2010____

Submit written comments to: Montana Fish, Wildlife & Parks
c/o Cottonwood Creek Barrier EA Comments
4600 Giant Springs Rd.
Great Falls, MT 59405

Comment period is 30 days. Comments must be received by: _5:00 PM April 4, 2010__