COAL CREEK RESTORATION PROJECT

DRAFT ENVIRONMENTAL ANALYSIS
MEPA/NEPA CHECKLIST

MISSION. Montana Fish, Wildlife & Parks, through its employees and citizen commission, provides for the stewardship of the fish, wildlife, parks, and recreational resources of Montana, while contributing to the quality of life for present and future generations

All Montanans have the right to live in a clean and healthful environment. This brief environmental analysis is intended to provide an evaluation of the likely impacts to the human environment from proposed actions of the project cited below. This analysis will help Montana Fish, Wildlife & Parks to fulfill its oversight obligations and satisfy rules and regulations of both the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA). The project sponsor has a responsibility to ensure that all impacts have been addressed. Some effects may be negative; others may be positive.

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed action:

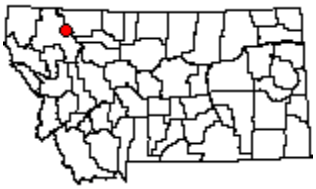
Development	_____
Renovation	_____
Maintenance	_____
Land Acquisition	_____
Equipment Acquisition	_____
Other (Describe)	___X___ Improving fish habitat for adult and juvenile westlope cutthroat trout and bull trout by adding large wood to a previously altered section of the South Fork of Coal Creek.

2. Project sponsor:
Montana Fish, Wildlife & Parks (FWP)
490 North Meridian Rd
Kalispell, MT 59901

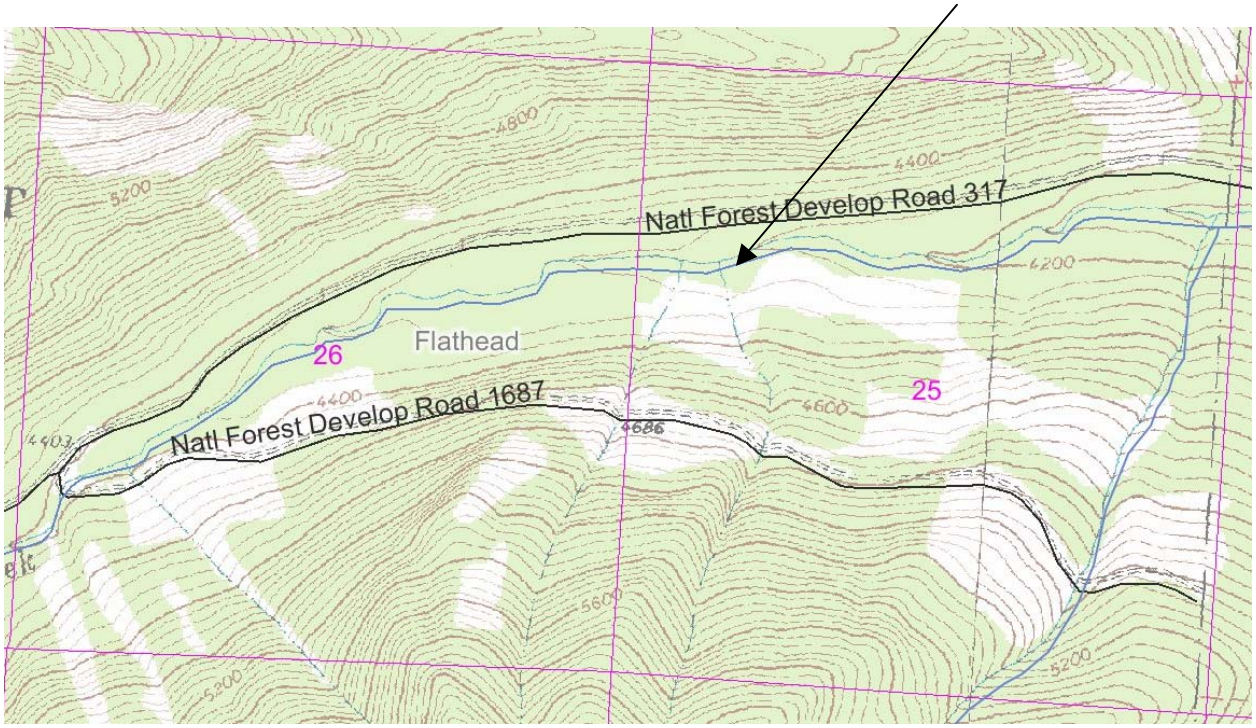
3. Anticipated timeline:

Estimated construction/commencement date: June 15, 2008
Estimated completion date: September 1, 2008
Current status of project design (% complete): 100% complete

4. Location affected by proposed action:
Flathead County, Section 25 and 26, T34N, R22W



Portion of Coal Creek affected by the proposed project.



5. Project size: Estimate the numbers of acres that would be directly affected that are currently:

(a) Developed:
residential..... 0 acres
industrial..... 0 acres

(b) Open Space/Woodlands/Recreation: Approximately 1 acre of previously burned forest will be used to collect 70 to 90 trees of various diameters and lengths.

(c) Wetlands/Riparian Areas: Approximately 1 to 1.5 acres will be affected during in-stream work (1800 ft. of South Fork Coal Creek).

(d) Floodplain: 1 to 1.5 acres

(e) Productive:
irrigated cropland... 0 acres
dry cropland..... 0 acres
forestry..... 0 acres
rangeland ..... 0 acres
other ..... 0 acres

6. Narrative summary of the proposed project:

Background

Coal Creek is an important bull trout spawning and rearing tributary to the North Fork Flathead River (Fraley and Shepard 1989; Deleray et al.1999). Recent redd count surveys indicate declines in the Coal Creek bull trout population, while other neighboring populations have experienced stable or increasing trends in population abundance. Where dozens of redds were typically observed in Coal Creek and South Coal in the 1980s, the number is now regularly in single digits, a situation that has persisted since at least 1997 (Weaver et al. 2006). In part to help explain this decline, a channel survey and sediment source survey was completed in 2003 in the Coal Creek Drainage by FWP, to be compared to a similar survey conducted in 1988 for the same drainage. These surveys show that the existing channel has several areas that have been affected by past land management activities. Thirty to forty years ago, clear-cut logging occurred in the riparian area in a portion of the South Fork of Coal Creek. Large equipment was used to consolidate several braided, meandering channels into single, straightened channels at several points in the harvest unit. These actions resulted in habitat degradation through the loss of woody debris and the loss of future potential for debris recruitment, destabilization of the existing channel, and high sediment loads being transferred downstream.

Project

The South Fork of Coal Creek passes through a series of old timber harvest units downstream from its confluence with Mathias Creek. During logging operations, heavy equipment was used in the riparian zone to consolidate and straighten portions of this reach. At the present time, large woody debris (LWD) is generally limited or nonexistent, and the potential for future debris recruitment is poor. This section of creek has become a high-energy boulder/cobble run, with little sediment storage capacity and no habitat complexity for holding spawning gravel and rearing fish.

The proposed restoration project would include reestablishing large woody debris aggregates (log jams), channel spanning logs, and single log veins. A recent burn area (2006) adjacent to the creek could provide an excellent and nearby donor source for LWD. LWD will have a wood diameter ranging from 17 inches to 30 inches dbh, a length ranging from 25 feet to 50 feet, and will include root wads when possible. Wood will be collected from the nearby donor site and transported by helicopter to the stream channel at specific sites. A spyder (small, specialized) backhoe will be used to rearrange wood pieces in the stream channel. These structures will dissipate stream energy by deflecting flows, and by promoting sediment deposition and sediment sorting to create spawning gravels for adult bull trout and holding waters for rearing juvenile bull trout and other native fish species. These structures will create pools and complex lateral channel margin habitats favorable to fish.

7. Alternatives:

Alternative 1: No Action by FWP

Recent surveys of bull trout spawning sites and juvenile population estimates in the Coal Creek Drainage have shown declines in the bull trout population since the 1990s. Estimated abundance and density have fluctuated greatly in the South Fork Coal Creek monitoring section. This fluctuation may be due to the unstable nature of the channel throughout this area. (For more information see the Flathead Lake and River System Fisheries Status Reports; Deleray et al. 1999; Weaver et al. 2006). If no action were taken, lack of channel complexity, spawning gravels, and large wood in the South Fork of Coal Creek could continue to limit production and survival of bull trout and other native fishes, potentially compromising population persistence.

Alternative 2: Habitat restoration (preferred alternative by FWP)

Add 15 to 20 LWD aggregates, single logs, and channel spanning logs to dissipate stream energy by deflecting flows, promoting sediment deposition and sediment sorting to create spawning gravels for adult bull trout and holding waters for rearing juvenile bull trout and other native fish species. These structures will create pools and complex lateral channel margin habitats favorable to fish. In-stream structures will closely resemble natural habitat arrays found in the upstream reference reach and will increase available bull trout spawning habitat. Enhanced channel complexity will improve the rearing capacity for juvenile bull trout and other native fish species.

This alternative will use low impact equipment to minimize disturbances to the riparian area. A helicopter will be used to gather and place trees along the stream bank and a spyder backhoe will then position the trees into specified locations.

8. Listing of each local, state or federal agency that has overlapping or additional jurisdiction:

(a) Permits		
Agency Name:	Permit:	Date Filed:
U.S. Army Corps of Eng.	Section 404 permit	August 6, 2007
Department of Environmental Quality	318 Authorization	July 18, 2007
Montana Fish, Wildlife & Parks	124 permit	August 14, 2007

(b) Funding	
Agency Name: Montana Fish, Wildlife & Parks	Funding Amount: $75,000

(c) Other Overlapping or Additional Jurisdictional Responsibilities	
Agency Name: United States Forest Service - Flathead	Type of Responsibility: Landowner

PART II. ENVIRONMENTAL CHECKLIST

The following discussion is focused upon the potential influences the Alternative B (Preferred action) would have on the existing environment. If Alternative A was implemented instead, the riparian area and stream flow through this historic bull trout spawning area would remain under-utilized by the species because it lacks the necessary habitat components these fish utilize during spawning and rearing. Additionally, without woody debris to slow down the creek's speed, bank erosion will increase and overall fishery habitat is likely to decline, which would negatively impact numerous nongame fish and other aquatic species.

PHYSICAL ENVIRONMENT.

1. LAND RESOURCES	IMPACT					
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Soil instability or changes in geologic substructure?			X			See below
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?			X		yes	See below
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	See below
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other		X				

A Spyder backhoe will be used to place large trees in complexes throughout the proposed project area. Downed trees with attached root wads that are outside of the stream channel would be the highest priority for use. Additional trees from the Sun Dog Fire (2006) area outside the riparian area would be pushed over with a spyder backhoe and flown by helicopter to the stream bank. While there may be concern with activities occurring within the riparian area, no trees will be removed from the riparian area. This activity essentially increases the rate at which trees would be recruited to the stream channel. During this process the soil will be disrupted, but only minor impacts to its productivity or stability will result. Existing undisturbed vegetation will remain around the site to resist erosion. A helicopter will be used to move wood from nearby timber stands to the stream channel to further minimize erosion and compaction of soil, and a spyder backhoe will be used to rearrange LWD after placement.

Construction will take place from July 15 through September 1 when water is lower. Turbidity is expected during construction; however, construction during low flows will minimize turbidity. The project is intended to increase LWD occurrence and sediment storage. Placement of wood will modify the stream channel to increase pool habitat formation, gravel storage, and sorting to benefit fish.

PHYSICAL ENVIRONMENT.

2. AIR **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))			X		yes	See below
b. Creation of objectionable odors?			X		yes	See below
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. Any discharge that will conflict with federal or state air quality regs?		X				
f. Other		X				

Air quality should not be adversely affected beyond the usual exhaust emissions and dust associated with small-scale construction activities. Exhaust emissions and the creation of objectionable odors would be limited to the short period of actual construction and would be substantially mitigated by the use of properly maintained equipment.

PHYSICAL ENVIRONMENT

3. WATER **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Discharge into surface water or any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity?			X		yes	See below
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		yes	See below
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?						
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. Effects to a designated floodplain?		X				
m. Any discharge that will affect federal or state water quality regulations?		X				
n. Other:		X				

Several measures will be implemented to reduce construction-related turbidity. Construction will take place during low flows. Excavation will be limited to precise locations, which will require minimal channel or stream bank disturbance. Where stream bank excavation is necessary and would likely generate turbidity, a gravel berm fronted with visquine will divert water from the immediate construction area. The project area will be monitored continuously over time as part of an existing routine sampling schedule. The proposed project is on undeveloped Forest Service land, so threats to people or property related to water hazards are not applicable. Stream channel alterations will be limited to where structures will be placed in the channel.

PHYSICAL ENVIRONMENT. .

4. VEGETATION	IMPACT				Can Impact Be Mitigated	Comment Index
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X		yes	See below
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		yes	See below
f. Effects to wetlands or prime and unique farmland?		X				
g. Other:		X				

Trees will be taken from surrounding forestlands to be used for LWD arrays. No trees will be removed from the riparian area; some trees in the riparian area will be rearranged to have more contact with the river channel. Downed trees with root wads that are outside of the stream channel will be the highest priority of use and second will be trees from the nearby Sun Dog Fire area. Riparian vegetation will be removed and reused at the specific LWD structure locations when ground disturbance is necessary. Any excavation affecting the riparian vegetation will be removed and replanted after LWD arrays are built. A helicopter and a spyder backhoe will be used to transport trees to further minimize the disturbance of vegetation.

Noxious weeds are a concern anytime soil is disturbed. The Spyder backhoe will be clean and free of weeds. Normal site maintenance will allow identification of any developing problems in time for appropriate remedial actions to prevent serious harm.

PHYSICAL ENVIRONMENT.

5. FISH/WILDLIFE	IMPACT				Can Impact Be Mitigated	Comment Index
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant		
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. Adverse effects to threatened/endangered species or their habitat?		X				
i. Introduction or exportation of any species not presently or historically occurring in the affected location?		X				
j. Other:		X				

The proposed project is intended to improve habitat for bull trout and other fish species in the South Fork of Coal Creek. In-stream work will be done between July 15 and September 1 to protect bull trout eggs and fry and will be completed prior to bull trout spawning. Turbidity effects are expected to be short-term and will not affect aquatic habitat. Over time, the LWD arrays are expected to increase pool habitat frequency, increase distribution of spawning substrate, create sediment storage, and aid in energy dissipation. All project goals are expected to benefit spawning and rearing fish. Fisheries and wildlife biologists evaluated the potential impacts this project would have on grizzly bears and other threatened or endangered species, cavity nesters, and old growth nesters. Based on a biological assessment done by the Forest Service, this project would have no effect on these resources and a “not likely to adversely affect” determination on Grizzly Bear (Forest Service decision memo, June 18, 2007).

During the time the habitat restoration is taking place, it is likely terrestrial and aquatic game and nongame species will move away from the immediate area until the construction equipment is removed and noise levels return to normal levels.

HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Increases in existing noise levels?			X		yes	See below
b. Exposure of people to severe or nuisance noise levels?			X		yes	See below
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:		X				

Nuisance noise levels should not exceed those expected from normal equipment uses during similar construction activities and will end when the project is complete. Use of properly maintained equipment will mitigate this effect. No electrical risk or problem with electrical interference is expected. The project is located in an undeveloped area behind a Forest Service gate; therefore, exposure of people to severe or nuisance noise levels should be extremely minimal.

HUMAN ENVIRONMENT.

7. LAND USE Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. A conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. A conflict with any existing land use, the presence of which would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on, or relocation of, residences?		X				
e. Compliance with existing land policies for land use, transportation, and open space?		X				
f. Increased traffic hazards, traffic volume, or speed limits or effects on existing transportation facilities or patterns of movement of people and goods?		X				
g. Other:		X				

No conflicts with other land uses are expected. The area is located on Forest Service land and behind a locked gate.

HUMAN ENVIRONMENT

8. RISK/HEALTH HAZARDS	IMPACT				Can Impact Be Mitigated	Comment Index
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant		
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	See below
b. Effects on existing emergency response or emergency evacuation plan or create need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. Disturbance to any sites with known or potential deposits of hazardous materials?			X		yes	See below
e. The use of any chemical toxicants?		X				
f. Other:		X				

All equipment will be well maintained and cleaned of hydraulic fluids and similar contaminants prior to use in construction. A petroleum spill kit will also be available on-site to contain any spill should it occur. No additional chemicals are applied or otherwise used during implementation of this project. Construction activities all occur in remote locations. Risks to human health are limited primarily to potential physical injury to workers during actual construction. This potential is reduced by pretreatment safety and response instruction and training that each worker involved will be required to understand. First aid kits will be readily accessible on-site. A satellite phone will also be available for emergency use.

HUMAN ENVIRONMENT.

9. COMMUNITY IMPACT Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
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:		X				

No community impacts are expected. The project area is in a remote area of the North Fork of the Flathead River Drainage and behind locked gates. The closest communities/towns are approximately 40 miles away. The few vehicles that will be entering the area will not create traffic hazards and will be limited to the number of trips in and out of the locked gate.

HUMAN ENVIRONMENT

10. PUBLIC SERVICES/TAXES/UTILITIES Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. 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 so, specify:		X				
b. Effects on the local or state tax base and revenues?		X				
c. 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. Increased use of any energy source?		X				
e. Other.		X				
Additional information requested:						
f. Define projected revenue sources.	Montana Fish, Wildlife & Parks/BPA budget funds					
g. Define projected maintenance costs.	$3,000					

The project will not affect public services, taxes or utilities. Funding for this work is provided by BPA and administered through FWP budgets.

HUMAN ENVIRONMENT.

11. AESTHETICS/RECREATION	IMPACT				Can Impact Be Mitigated	Comment Index
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant		
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				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report)		X				
d. Adverse effects to any designated or proposed wild or scenic rivers, trails, or wilderness areas?		X				
e. Other:		X				

The project will be designed to restore LWD assemblages that emulate natural habitat arrays found upstream and in other North Fork tributary drainages. No meaningful effect on local aesthetics or recreation is anticipated.

HUMAN ENVIRONMENT

12. CULTURAL/HISTORICAL RESOURCES	IMPACT				Can Impact Be Mitigated	Comment Index
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant		
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?		X				
b. Physical changes that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. Adverse effects to historic or cultural resources?		X				
e. Other:		X				

Forest archeologists have no records of prehistoric history on the project site. In the event that archeological material is encountered during the implementation of this project, work will be halted in the vicinity of the finds until they can be inspected and assessed by an archeologist.

HUMAN ENVIRONMENT.

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources, which 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. Have organized opposition or generate substantial public controversy?		X				
Additional information requested:						
g. List any federal or state permits required.	124 Permit – FWP Section 404 – US Army Corps of Engineers 318 Authorization – MT Department of Environmental Quality Decision memo – Flathead National Forest					

Adverse effects from construction should be minor and easily mitigated when the work is completed. No substantial controversy concerning this project is anticipated, now or in the future.

PART III. ENVIRONMENTAL CHECKLIST CONCLUSION SECTION

1. Discuss the cumulative and secondary effects of this project as a whole:

Cumulative and secondary impacts will be beneficial to fish species. In time, this project will provide long-term benefits for bull trout and westslope cutthroat trout. The LWD arrays are expected to increase pool habitat frequency, increase distribution of spawning substrate, create sediment storage, and aid in energy dissipation. There will be no harmful effects from this project on the quality of the human environment.

2. Based on the significance criteria evaluated in this Environmental Checklist (Part II), is an EIS required?

YES _____

NO ___X__

If an EIS is not required, explain why the current checklist level of review is appropriate.

The current checklist addresses all concerns for this type of a project. This level of review is sufficient level of review for the scope and size of this project.

3. Public involvement for this project:

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- Two public notices in each of these papers: *Helena Independent Record* and *The Daily Inter Lake*
- Direct mailing to interested parties
- Public notice on the Fish, Wildlife & Parks web page: htpp://fwp.mt.gov

Copies will be available for public review at FWP Region 1 Headquarters.

4. Duration of comment period:

The public comment period will extend for (30) thirty days. Written comments will be accepted until 5:00 p.m., April 23, 2008, and can be mailed to the address below.

Coal Creek Restoration Project
Montana Fish, Wildlife & Parks
Region 1 Headquarters
290 N. Meridian Road
Kalispell, MT 59901

Or e-mail comments to: jtohtz@mt.gov

5. List of agencies consulted during preparation of this environmental checklist:

US Fish and Wildlife Service – notification
USFS Flathead – Decision memo
MT Dept. of Environmental Quality
U.S. Army Corps of Engineers
Tribal Consultations:
Blackfeet Nation
Confederated Salish and Kootenai Tribe
Kootenai Tribe of Idaho

6. Preparer of this environmental assessment: Durae D. Belcer

7. Date submitted: March 24, 2008

Literature Cited

Deleray, M., L. Knotek, S. Rumsey, and T. Weaver 1999. Flathead Lake and River fisheries status report. Montana Department of Fish, Wildlife & Parks, Kalispell.

Fraley, J.J., and B.B. Shepard. 1989. Life history ecology and population status of migratory bull trout (Salvelinus confluentus) in the Flathead Lake and River System, Montana. Northwest Science 63:133-143.

Weaver, T., M. Deleray, and S. Rumsey 2006. Flathead Lake and river system fisheries status report. Montana Department of Fish, Wildlife & Parks, Kalispell.

GLOSSARY OF TERMS

Affected Environment – The aspects of the human environment that may change as a result of an agency action.

Alternative – A different approach to achieve the same objective or result as the proposed action.

Categorical Exclusion – A level of environmental review for agency action that do not individually, collectively, or cumulatively cause significant impacts to the human environment, as determined by rulemaking or programmatic review, and for which an EA or EIS is not required.

Cumulative Impacts – Impacts to the human environment that, individually, may be minor for a specific project, but when considered in relation to other actions, may result in significant impacts.

Direct Impacts – Primary impacts that have a direct cause and effect relationship with a specific action, i.e., they occur at the same time and place as the action that causes the impact.

Environmental Assessment (EA) – The appropriate level of environmental review for actions that either do not significantly affect the human environment or for which the agency is uncertain whether an environmental impact statement (EIS) is required.

Environmental Assessment Checklist – An EA checklist is a standard form of an EA, developed by an agency for actions that generally produce minimal impacts.

Environmental Impact Statement (EIS) – A comprehensive evaluation of the impacts to the human environment that likely would result from an agency action or reasonable alternatives to that action. An EIS also serves a public disclosure of agency decision-making. Typically, an EIS is prepared in two steps. The Draft EIS is a preliminary detailed written statement that facilitates public review and comment. The Final EIS is a completed, written statement that includes a summary of major conclusions and supporting information from the Draft EIS, responses to substantive comments received on the Draft EIS, a list of all comments on the Draft EIS, and any revisions made to the Draft EIS and an explanation of the agency's reasons for its decision.

Environmental Review – An evaluation, prepared in compliance with the provisions of MEPA and the MEPA Model Rules, of the impacts to the human environment that may result as a consequence of an agency action.

Human Environment – Those attributes, including but not limited to biological, physical, social, economic, cultural, and aesthetic factors that interrelate to form the environment.

Long-Term Impact – An impact, which lasts well beyond the period of the initial project.

Mitigated Environmental Assessment – The appropriate level of environmental review for actions that normally would require an EIS, except that the state agency can impose designs, enforceable controls, or stipulations to reduce the otherwise significant impacts to below the level of significance. A mitigated EA must demonstrate that: (1) all impacts have been identified, (2) all impacts can be mitigated below the level of significance, and (3) no significant impact is likely to occur.

Mitigation – An enforceable measure(s), designed to reduce or prevent undesirable effects or impacts of the proposed action.

National Environmental Policy Act (NEPA) – The federal counterpart of MEPA that applies only to federal actions.

No-Action Alternative – An alternative, required by the MEPA Model Rules for purposes of analysis, that describes the agency action that would result in the least change to the human environment.

Public Participation – The process by which an agency includes interested and affected individuals, organizations, and agencies in decision-making.

Record of Decision – Concise public notice that announces the agency's decision, explains the reason for that decision, and describes any special conditions related to implementation of the decision.

Scoping – The process, including public participation, that an agency uses to define the scope of the environmental review.

Secondary Impacts – Impacts to the human environment that are indirectly related to the agency action, i.e., they are induced by a direct impact and occur at a later time or distance from the triggering action.

Short-Term Impact – An impact directly associated with a project that is of relatively short duration.

Significance – The process of determining whether the impacts of a proposed action are serious enough to warrant the preparation of an EIS. An impact may be adverse, beneficial, or both. If none of the adverse impacts are significant, an EIS is not required.

Supplemental Review – A modification of a previous environmental review document (EA or EIS) based on changes in the proposed action, the discovery of new information, or the need for additional evaluation.

Tiering – Preparing an environmental review by focusing specifically on narrow scope of issues because the broader scope of issues was adequately addressed in previous environmental review document(s) that may be incorporated by reference.