Montana Fish, Wildlife & Parks

Region 2 Headquarters
3201 Spurgin Road
Missoula, MT 59804-3101
August 11, 2009

Governor's Office, Attn: Mike Volesky, PO Box 200801, Helena, MT 59620-0801
Environmental Quality Council, PO Box 201704, Helena, MT 59620-1704
*Dept. of Environmental Quality, PO Box 200901, Helena, MT 59620-0901
*Dept. of Natural Resources & Conservation, POB 201601, Helena, MT 59620-1601
*Montana Fish, Wildlife & Parks:
Website, Commission Secretary, Division Secretaries, Regional Office Managers, Region 2 Information Officer, Karen Zackheim, Paul Valle
*State Historic Preservation Office, PO Box 201202, Helena, MT 59620-1202
*MT State Library, PO BOX 201800, Helena, MT 59620-1800
Jim Jensen, MT Environmental Information Center, POB 1184, Helena, MT 59624-1184
*Region 2 FWP Citizen Advisory Committee members
*Seeley Lake Water District
*Seeley-Clearwater Resource Council
*Missoula Conservation District
*Bob Fullerton, Dept. of Natural Resources & Conservation
*Rob Kingery, Dept. of Natural Resources & Conservation
*Seeley Lake Ranger District, Lolo National Forest
*Lolo National Forest
*Wade Fredenberg, Creston National Fish Hatchery, US Fish & Wildlife Service
*Emailed notice of EA's availability

Dear Interested Citizen:

The enclosed Draft Environmental Assessment (EA) has been prepared for the Rainy Lake Fish Barrier Modification/Maintenance Project. FWP proposes to modify the tailwater elevation below the dam by approximately 1 foot and reinforce wing walls on the dam to help maintain dam integrity until plans for a new structure or major modifications to the existing structure are developed. The structure was constructed on the Clearwater River (north of Seeley Lake, Missoula County) in 1964.

This draft EA is available for review in Helena at FWP's Headquarters, the State Library and the Environmental Quality Council. It also may be obtained from Region 2 FWP Headquarters at the above address, or viewed on FWP's Internet website http://fwp.mt.gov ("Recent Public Notices").

Comments will be accepted until 5:00 pm on August 27, 2009, and should be mailed to Ladd Knotek at the address above (phone 406-542-5506) or emailed to lknotek@mt.gov. If you have questions, please contact Ladd Knotek.

Sincerely,

Mack Long
Regional Supervisor

ML/sr

Draft
Environmental Assessment

Selective Fish Passage Enhancement and Maintenance at Rainy Dam

August 2009

Montana Fish, Wildlife & Parks

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

PART I. PROPOSED ACTION DESCRIPTION

1. Proposed state action:

Montana Fish, Wildlife & Parks (FWP) proposes to construct a log and rock check structure (10-14 inches high) below the Rainy Dam to enhance upstream fish passage of migratory trout while maintaining an obstruction to the upstream movement of nonnative, invasive fish species. Recent research at the site has demonstrated that the dam is a partial barrier to upstream movement of bull trout (*Salvelinus confluentus*) and westslope cutthroat trout (*Oncorhynchus clarki lewisi*), while completely impassible to non-salmonid species such as northern pike (*Esox lucius*). The proposed project is intended to deepen the tailwater pool below Rainy Dam and enhance the ability of native trout to move over the structure. Minor maintenance of the wing walls is also planned in conjunction with the project. This will involve placing angular boulders behind and at the base of the wing walls to provide additional stability. The proposed action is considered an interim measure to enhance native salmonids passage while permanent designs are developed for the Rainy Dam location.

2. Agency authority for the proposed action:

Under MCA 87-1-701 and other statutes, the State of Montana (Montana Fish, Wildlife & Parks) is authorized to engage in fish restoration and management projects. In addition, Rainy Dam is owned by the State of Montana. Surrounding lands are owned and managed by the Lolo national Forest, a partner on the proposed project.

3. Name of project: Rainy Dam Selective Fish Passage Enhancement

4. Project sponsor:

Montana Fish, Wildlife & Parks
3201 Spurgin Road
Missoula, MT 59804
406-542-5506

5. Estimated Schedule of Events:

Estimated Construction/Commencement Date: Sept 2009
Estimated Completion Date: By November 2009
Current Status of Project Design: 80% complete

6. Location:

Rainy Dam is located approximately 200 yards downstream of the Rainy Lake outlet, approximately 12 miles NW of the town of Seeley Lake (Missoula County) at T18N, R16W, Section 11.

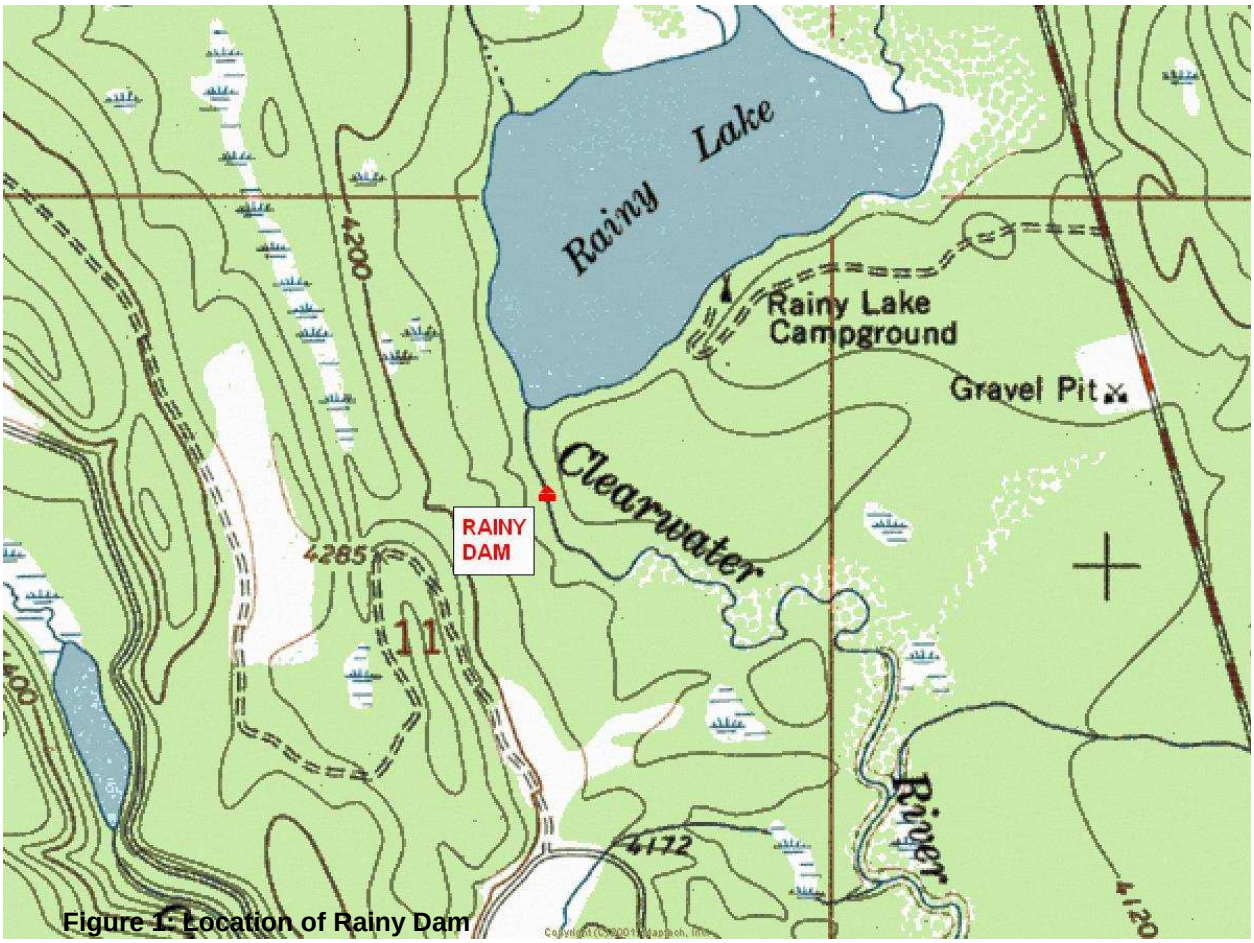


Figure 1: Location of Rainy Dam

7. Project size:

	Acres		Acres
(a) Developed:		(d) Floodplain	0.25
Residential	0		
Industrial	0	(e) Productive:	
		Irrigated cropland	0
(b) Open Space/ Woodlands/Recreation	0.25	Dry cropland	0
		Forestry	0
(c) Wetlands/Riparian Areas	0.25	Rangeland	0
		Other	0

8. Permits, Funding and Overlapping Jurisdictional Responsibilities:

(a) Permits: All required permits will be secured prior to construction.

Agency Name	Permit	Date Filed/#
US Army Corps of Engineers	404	Pending
MT Fish, Wildlife & Parks	124	Pending
State Historic Preservation	Clearance/Review	7-29-09
MT Dept. of Environmental Quality (through FWP)	318 Authorization	Pending

(b) Funding:
Funding will be provided through Montana Fish, Wildlife & Parks' dam maintenance account. The estimated cost is less than $5,000.

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Lolo National Forest – Seeley Lake Ranger District
DNRC – Dam safety and inspections

9. Summary of the proposed action:

FWP proposes to construct a small check structure (10-14" high) just downstream of Rainy Dam in order to raise the tailwater pool elevation by 10-18". The structure would be created using logs and natural rock found at the site. The purpose of the action is to enhance the ability of native salmonids to jump over the dam, while maintaining an obstruction to the upstream movements of unwanted species such as northern pike, central mudminnow (*Umbra limi*) and pumpkinseed sunfish (*Lepomis gibbosus*) that are unable to jump and ascend vertical obstructions. The structure design would follow the standard cross-vein (weir) design (typicals available from FWP) that has been successfully implemented at numerous locations in the basin. Maintenance of the dam wing walls will also be completed by angular rock behind and at the base of the walls to enhance stability. The proposed action is considered an interim measure to enhance native salmonids passage while permanent designs are developed for the Rainy Dam location.

10. Alternatives:

Alternative A: No Action

The no action alternative would perpetuate the current situation at the site. The stability of Rainy Dam is currently acceptable, with the exception of minor erosion around the wing walls. The dam would continue to act as a barrier to the upstream movement of northern pike, central mudminnow, and other nonnative species that are not present in the upper watershed. However, the current conditions allow only partial upstream passage for native salmonids. Evaluation and development of alternatives, as well as securing funding for more permanent modifications or dam replacement will likely take several years.

Alternative B: Removal of Rainy Dam

Removal of Rainy Dam and restoration of an unobstructed river channel would alleviate concerns over upstream passage of native salmonids and concerns over the long-term stability of the structure. This alternative would not maintain the obstruction to upstream movement of nonnative fish species and would allow them access to Rainy Lake and the upper Clearwater watershed. Likely introduction of new nonnative fish species upstream of the dam is undesirable and problematic from a biological and fisheries management perspective.

Alternative C (Preferred): Enhance Interim, Selective Fish Passage

The preferred alternative would enhance the ability of native salmonids to jump over the dam, while maintaining an obstruction to the upstream movements of unwanted species such as northern pike, central mudminnow and pumpkinseed sunfish that are unable to jump and ascend vertical obstructions. Minor maintenance of the dam wing walls would also be completed while equipment was on site.

Alternative D: Retain Dam and Provide Unobstructed Fish Passage for All Fish Species at Rainy Dam by Installing a Fish Passage Facility (Fish Ladder)

Retaining the dam in it's current condition and providing unobstructed fish passage for all species by installing fish passage facilities (i.e, fish ladder) would meet the objective of passing native trout, but would not prevent the volitional upstream expansion of nonnative fish such as northern pike, central mudminnow and pumpkinseed sunfish. Maintenance of the dam's wing walls could also be completed in conjunction with this alternative. However, the likely introduction of new nonnative fish species upstream of the dam is undesirable and problematic from a biological and fisheries management perspective.

PART II. ENVIRONMENTAL REVIEW CHECKLIST

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

A. PHYSICAL ENVIRONMENT

1. LAND RESOURCES 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		1a	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				1c
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		1d	1d
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?			X			1e

1a: The project will help to stabilize the streambank downstream of the dam and the Rainy Dam structure. Localized, temporary instability may occur where the rock cross-vein is tied into the banks until vegetation becomes re-established. Impacts will be mitigated by revegetating disturbed sites immediately.

1c: No unique geological or physical features exist within the immediate project area. In addition, the Clearwater River channel in the project area was modified and channelized when the dam was installed.

1d: The project will reduce bank erosion and streambed sedimentation. However, temporary increases in sediment and turbidity will occur as the work is being completed. Impacts will be mitigated by working during base flow conditions and by limiting the time equipment is working in the stream and on streambanks.

1e: Rainy dam is a small wood crib structure that does not create a significant impoundment or impact a large reach of stream upstream of the site (due to relatively high gradient and channel confinement). DNRC engineers expressed concern that a small check structure constructed downstream of the dam may enhance erosion potential behind wing-walls. Stabilization with rock is intended to mitigate any enhanced erosion. No private property, infrastructure or areas of high public use exist downstream of the structure on the Clearwater River.

* 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. 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			2a
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				

2a: A minor amount of emissions from construction equipment exhaust will be emitted for a short time during the project period.

* 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. 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			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			3c
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.)		n/a				
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.)		n/a				

3a: Short-term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the creek channel will be minimized to the extent practical. All required permits/authorizations would be obtained prior to construction.

3c: The construction of the cross-vein structure will raise the depth of the dam tail-race pool by approximately 10-14" (low water) to approximately 18" (high flow) and possibly higher during a rare flood event. These changes will only occur in the immediate dam vicinity.

* 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. 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				4c
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?		X				
f. ****For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		n/a				

4a: Live native green trees will be selected from areas close to the project location for placement in the structure if adequate rock is not available. The number of trees required for the project and individual tree selection are not expected to have long-term adverse impacts on local plant communities as analyzed by the USFS.

4c: A search of the Montana Natural Heritage Program's (MNHP) species of concern database found no vascular or non-vascular plants of significance within the boundaries of the project area. The project was reviewed and cleared by a USFS botanist.

* 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				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				5c
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				5e.
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				5f
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				

5a. Project is being implemented to enhance native fish and native fish habitat, particularly for bull trout and westslope cutthroat trout.

5c. A stated objective of the project is to maintain Rainy Dam in place as a barrier to the upstream expansion of nonnative invasive species such as northern pike, central mudminnow and pumpkinseed sunfish.

5e. As referenced earlier, the primary objectives of the project are to enhance the ability of native salmonids to ascend (jump) over Rainy Dam, while maintaining the dam as a barrier to the upstream expansion of nonnative invasive species that cannot jump over, such as northern pike, central mudminnow and pumpkinseed sunfish.

5f: A search of the Montana Natural Heritage database revealed 9 species of concern in the vicinity of the project area. Species of concern include gray wolf (endangered status), grizzly bear (threatened status), Canada lynx (threatened status), wolverine, fisher, bald eagle (threatened status), black-backed woodpecker, bull trout (threatened status) and westslope cutthroat trout. FWP does not expect terrestrial species or their habitats to be negatively affected by the proposed project. The project is intended to benefit migratory bull trout and westslope cutthroat trout.

* 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. 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			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				

6a: There will be an increase in noise near the project site from equipment used to do the work. This will only occur for approximately 3 days during project construction.

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				
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				

* 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. 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				
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				

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				

* 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. 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 use of any energy source?		X				
e. **Define projected revenue sources						10e
f. **Define projected maintenance costs.						10f

10e: The proposed project will be paid for with FWP base budget funding (license dollars) allocated for maintenance dams owned by FWP.

10f: Future maintenance costs are expected to be minimal and should not be different than existing maintenance associated with Rainy Dam.

* 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. 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				
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. ***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				

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				
d. ****For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)		X				

12a: Based on consultation with the Montana State Historic Preservation Office (SHPO), there is a low likelihood that cultural properties will be impacted. Should cultural materials be inadvertently discovered during this project, FWP will notify SHPO.

* 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. 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? (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.)		n/a				
g. ****For P-R/D-J, list any federal or state permits required.		n/a				

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

All state and federal permits will be obtained by FWP. The project construction will be completed by a private contractor skilled in stream work and directed by FWP and US Forest Service staff. The private contractor will be selected in accordance with the State's purchasing procedures.

PART III. NARRATIVE EVALUATION AND COMMENT

The proposed action is not expected to have negative cumulative effects on the physical and/or human environments. The minor impacts identified in the previous sections are most likely to occur in relation to the construction phase of the project. There are no lasting negative effects anticipated in relation to this project. The proposed actions are interim measures designed to lessen impacts to native migratory trout while more permanent modifications or reconstruction of Rainy Dam are formulated.

The proposed project would utilize the least intrusive construction techniques whenever possible to limit short-term effects associated with the project. Once completed, the proposed structural changes will not noticeably change the riparian environment or aesthetics of the surrounding viewshed. Rainy Dam is a small wood crib dam that poses minimal threat to public safety or significant environmental disturbance should it fail. The major considerations involved with the maintenance, modification and long-term plans for this structure involve fisheries management and containment of invasive species.

PART IV. PUBLIC PARTICIPATION

1. Public Involvement:

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

- One public (legal) notice in each of these newspapers: *Missoulian, Helena Independent Record, Seeley Swan Pathfinder.*
- Direct mailing to adjacent landowners and interested parties;
- The EA will be posted on the FWP web page (*http://fwp.mt.gov*) under "Recent Public Notices."
- The EA will be available at FWP Region 2 Headquarters.

This level of public notice and participation is deemed appropriate for a project of this scope having few minor impacts.

2. Duration of comment period.

The public comment period will extend for 15 days following the publication of the legal notice in area newspapers (November 6, 2008). Written comments will be accepted until 5:00 p.m. August 27, 2009 and can be mailed to the address below:

Rainy Dam Project
Montana Fish, Wildlife & Parks
Region 2 Headquarters
3201 Spurgin Road

Missoula, MT 59804
Or email comments to Ladd Knotek at lknotek@mt.gov or phone comments to him at 406-542-5506.

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.

Based upon the above assessment, which has identified a limited number of minor impacts associated with the proposed action, an EIS is not required because this environmental assessment provides an appropriate level of review and analysis.

2. **Person responsible for preparing the EA:**

W. Ladd Knotek
Fisheries management Biologist
Montana Fish, Wildlife & Parks
3201 Spurgin Road
Missoula, MT 59804
406-542-5506

3. **Agencies consulted during preparation of the EA:**
Lolo National Forest – Seeley Lake Ranger District
Montana Fish, Wildlife & Parks:
-Parks Division
-Wildlife Division
-Fisheries Division
Montana Department of Natural Resources & Conservation
Montana State Historic Preservation Office – (SHPO)
Montana Natural Heritage Program – Natural Resources Information System (NRIS)
Missoula County – Conservation District & Flood Plain Administrator

APPENDICES

A. State Historic Preservation Office Letter
B. Design description, typicals and project site photos.

APPENDIX A: STATE HISTORIC PRESERVATION OFFICE REPORT

From: Murdo, Damon
Sent: Thursday, July 30, 2009 8:32 AM
To: Knotek, Ladd
Subject: RE: Rainy Dam Project

July 30, 2009

Ladd Knotek
Fisheries Mgmt. Biologist
FWP

RE: RAINY DAM TROUT ENHANCEMENT PROJECT. SHPO Project #: 2009072907

Dear Mr. Knotek:

I have conducted a cultural resource file search for the above-cited project located in Section 11, T18N R16W. According to our records there have been no previously recorded sites within the designated search locales. The absence of cultural properties in the area does not mean that they do not exist but rather may reflect the absence of any previous cultural resource inventory in the area, as our records indicated none.

It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are to be altered and are over fifty years old we would recommend that they be recorded and a determination of their eligibility be made.

As long as there will be no disturbance or alteration to structures over fifty years of age we feel that there is a low likelihood cultural properties will be impacted. We, therefore, feel that a recommendation for a cultural resource inventory is unwarranted at this time. However, should structures need to be altered or if cultural materials be inadvertently discovered during this project we would ask that our office be contacted and the site investigated.

If you have any further questions or comments you may contact me at (406) 444-7767 or by e-mail at dmurdo@mt.gov <mailto:dmurdo@mt.gov>. Thank you for consulting with us.

Sincerely,

Damon Murdo
Cultural Records Manager
State Historic Preservation Office

File: FWP/FISH/2009

APPENDIX B: PROJECT DESIGN DESCRIPTION, TYPICALS AND PROJECT SITE PHOTOS

Part 1. Installation of Rock and Log Cross-Vein 35 ft Dowstream of Rainy Dam

Specifications: One cross-vein will be installed at the riffle crest downstream of the Rainy Dam spillway. The vein will be installed at a throat elevation that is ~10-14 inches higher than the current bed elevation. The vein will be built using large rock (min 36″ diameter). Large trees (>16″ diameter) may be incorporated if practicable. Footer rocks will be keyed below max scour depth.

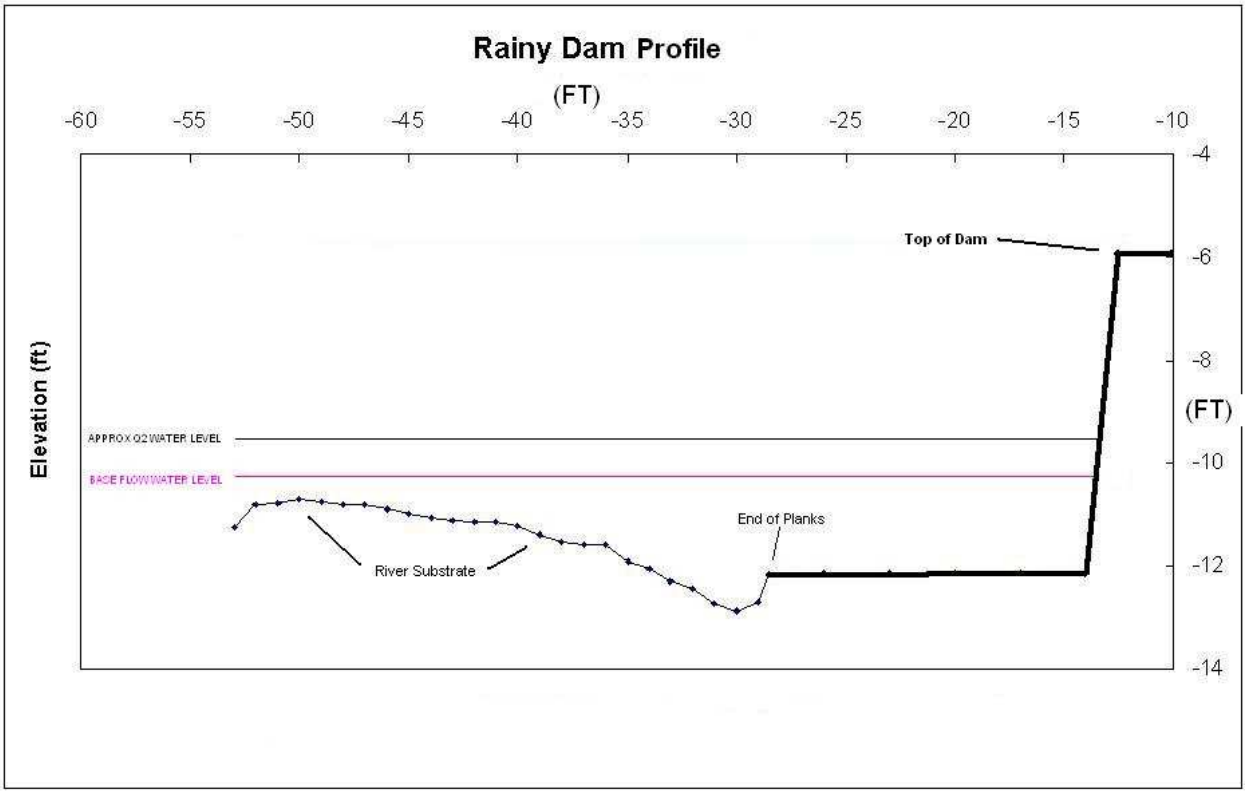
Cross-vein wings will be positioned at a 30-35 degree angle relative to the bank line and a downward slope of 6%-8% towards the center of the stream. Logs and rocks would be anchored well into the stream banks at or above the Q2 elevation. The elevation of the 'throat' or center of the structure would be controlled using large boulders set just higher than the current streambed elevation. The throat and log wings would be stabilized with footer rocks (downstream side) and filter fabric with stream substrate (upstream side) to reduce erosion and settling potential.

Typical completed cross-vein applications

Part 2. Maintenance - Installation of Rock Rip Rap to Stabilize Rainy Dam Wing Walls

Specifications: Class III and IV angular rip rap (3-4 ft mean diameter) will be collected onsite from several locations near

the stream channel and within 100 yds of the dam. Rip rap will be installed at a 1.5:1 slope behind and in front of existing wing-walls, and keyed in a minimum of 2.5 ft (below maximum scour depth) at the toe. Total rip rap installed will not exceed 10 cy on each wing wall and will not extend into the channel more than 3 ft as to not affect channel capacity. See photo for placement locations.


Rainy Dam Profile
(FT)
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-4
-6
-8
-10
-12
-14
(FT)
Elevation (ft)
Top of Dam
APPROX Q2 WATER LEVEL
BASE FLOW WATER LEVEL
End of Planks
River Substrate