



# Montana Fish, Wildlife & Parks

1400 South 19<sup>th</sup> Ave  
Bozeman, MT 59718  
January 6, 2010

To: Beaverhead County Commissioners  
Governor's Office, Mike Volesky, State Capitol, Room 204, PO Box 200801, Helena, MT 59620-0801  
Environmental Quality Council, State Capitol, Room 106, PO Box 201704, Helena, MT 59620-1704  
Dept. of Environmental Quality, Metcalf Building, PO Box 200901, Helena, MT 59620-0901  
Dept. of Natural Resources & Conservation, PO Box 201601, Helena, MT 59620-1601  
Montana Fish, Wildlife & Parks:  
Director's Office      Parks Division      Lands Section      FWP Commissioners  
Fisheries Division      Legal Unit      Wildlife Division Design & Construction  
MT Historical Society, State Historic Preservation Office, PO Box 201202, Helena, MT 59620-1202  
MT State Parks Association, PO Box 699, Billings, MT 59103  
MT State Library, 1515 E. Sixth Ave., PO Box 201800, Helena, MT 59620  
James Jensen, Montana Environmental Information Center, PO Box 1184, Helena, MT 59624  
Janet Ellis, Montana Audubon Council, PO Box 595, Helena, MT 59624  
George Ochenski, PO Box 689, Helena, MT 59624  
Swenson Ronald B, PO Box 7080, Santa Cruz Ca 950617080  
Blacktail Meadows Inc, PO Box 121, Dillon Mt 597250121  
Rehm Willard A, 965 E Parkview Ct, Dillon Mt 597253255  
Southwestern Montana Family YMCA, 75 Swenson Way, Dillon      Mt 597252424  
Morstein/Boka Enterprises LLC, PO Box 1334, Dillon Mt 597251334  
Elliot Wallace E, 1300 Mt Highway 91 N, Dillon Mt 597259515

Ladies and Gentlemen:

The enclosed Environmental Assessment (EA) has been prepared for proposed maintenance activities at Blacktail Meadows Fishing Access Site (FAS) which is a pond providing angling opportunities for those 14 years of age and younger. Montana Fish, Wildlife & Parks (FWP) proposes to remove an overgrowth of cattails along the bank of the pond because current cattail growth impedes children's ability to fish Blacktail Meadows kids fishing pond.

Montana Fish, Wildlife & Parks invites you to comment on the attached proposal. If requested, FWP will schedule and conduct a public meeting on this proposed project. Public comment will be accepted until 5:00 p.m. on February 5, 2010. Comments should be sent to the following:

Blacktail Meadows FAS Proposed Cattail Mitigation  
Montana Fish, Wildlife & Parks  
1400 South 19th  
Bozeman MT 59718-5496

Or emailed to: [tgarrett@mt.gov](mailto:tgarrett@mt.gov).

Sincerely,

Gerald Walker  
Region Three Parks Manager

**Draft**  
**Environmental Assessment**  
**BLACKTAIL MEADOWS FISHING ACCESS SITE**  
**PROPOSED CATTAIL MITIGATION**



January 2010



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

**Blacktail Meadows FAS Proposed Cattail Mitigation  
Draft Environmental Assessment  
MEPA, NEPA, MCA 23-1-110 CHECKLIST**

**PART I. PROPOSED ACTION DESCRIPTION**

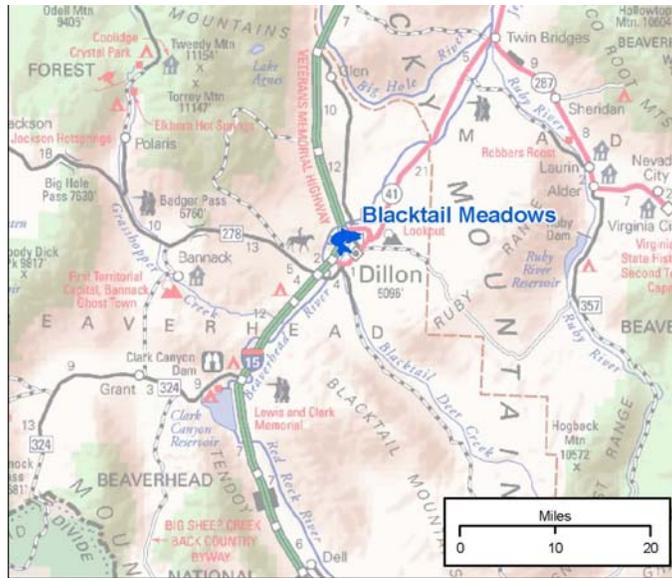
1. **Proposed state action:** Montana Fish, Wildlife & Parks (FWP) proposes to remove an overgrowth of cattails along the bank of the kids fishing pond at Blacktail Meadows Fishing Access Site (FAS) near Dillon. The removal of cattails would provide easier access for children since it has become difficult to cast beyond the overgrowth of cattails along the bank of the pond. FWP has partnered with Beaverhead Outdoor Association (BOA) for the creation and ongoing maintenance of this site. Fishing at this site is limited to youth 14 years of age and under.
  
2. **Agency authority for the proposed action:** The 1977 Montana Legislature enacted statute 87-1-605 which directs FWP to acquire, develop, and operate a system of fishing accesses. FWP has the authority to develop outdoor recreational resources in the state per 23-2-101 MCA: *“for the purpose of conserving the scenic, historic, archaeological, scientific, and recreational resources of the state and providing their use and enjoyment, thereby contributing to the cultural, recreational, and economic life of the people and their health.”*

Furthermore, state statute 23-1-110 MCA and ARM 12.2.433 guides public involvement and comment for the improvements at state parks and fishing access sites, which this document provides. ARM 21.8.602 requires FWP to consider the wishes of users and the public, the capacity of the site for development, environmental impacts, long-range maintenance, protection of natural features and impacts on tourism as these elements relate to development or improvement to fishing access sites or state parks. This document will illuminate the facets of the proposed project in relation to this rule. See Appendix 1 for HB 495 qualification.

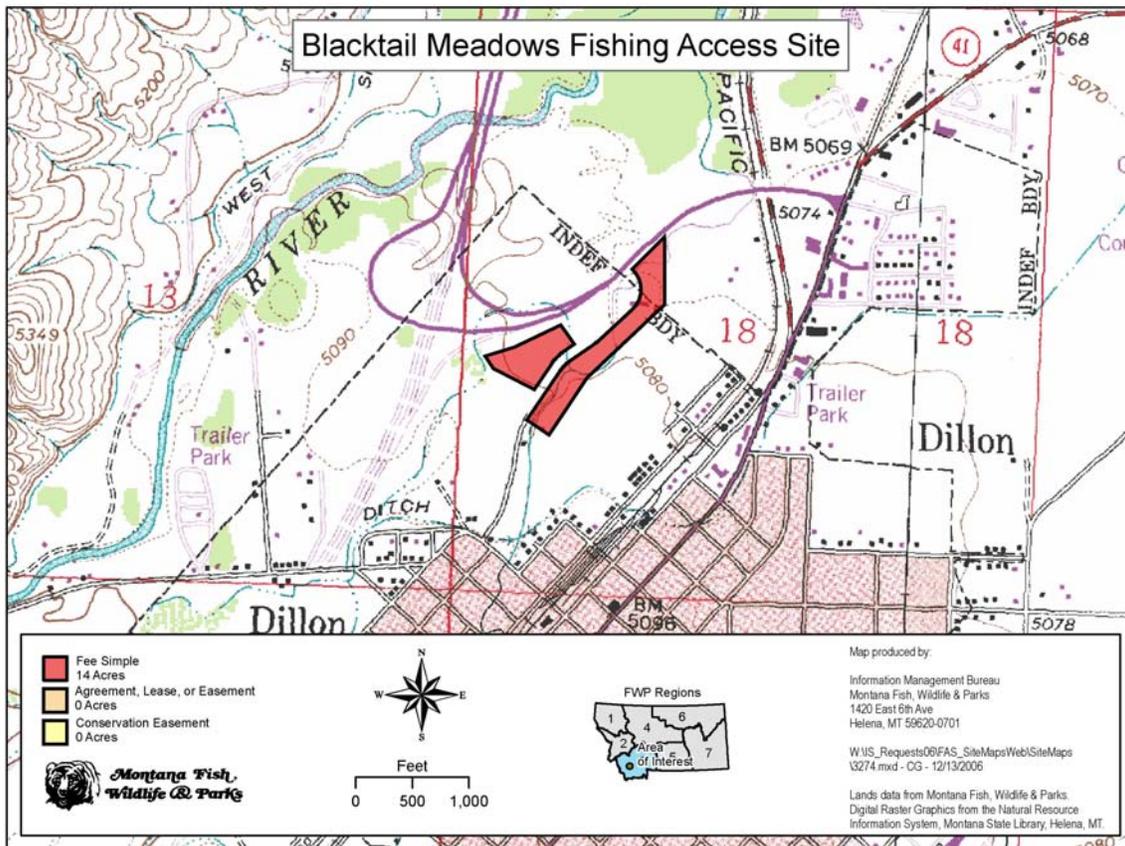
3. **Project sponsor:**  
Montana Fish, Wildlife & Parks  
1400 South 19th  
Bozeman MT 59718  
(406) 994-4042
  
4. **Anticipated Timeline:**  
Public Comment Period: January 2010  
Decision Notice Published: February 2010  
Estimated Construction Commencement Date: March 2010  
Estimated Completion Date: March 2010
  
5. **Location:** The fishing access site is in Beaverhead County, Dillon city limits, Blacktail Meadows Subdivision, Township 7 South, Range 8 West, Section 18, SE $\frac{1}{4}$  NW $\frac{1}{4}$  and N $\frac{1}{2}$  SW $\frac{1}{4}$ . The site totals 14 acres. The site can be reached

from Interstate 15 Exit #63 on the north edge of Dillon; turn south on Swenson Way and travel approximately 1/3 mile to the pond.

**Figure 1: Blacktail Meadows FAS Highway Map**



**Figure 2: Blacktail Meadows FAS Parcel Map**



**6. Project size:**

	<u>Acres</u>		<u>Acres</u>
(a) Developed:		(d) Floodplain/Riparian	<u>&lt; 1</u>
Residential	<u>0</u>		
Industrial	<u>0</u>	(e) Productive:	
		Irrigated cropland	<u>0</u>
(b) Open Space/Woodlands/Recreation	<u>&lt; 1</u>	Dry cropland	<u>0</u>
		Forestry	<u>0</u>
(c) Riparian Wetlands Areas	<u>0</u>	Rangeland	<u>0</u>
		Other	<u>0</u>

The entire parcel is in the 100-year Floodplain Zone A (per FEMA Map database).

**7. Local, State or Federal agencies with overlapping or additional jurisdiction:**

- (a) **Permits:** All appropriate permits will be acquired prior to the proposed work.
 

Beaverhead County	Floodplain Permit
Montana Dept. of Environmental Quality	318 Short Term Water Quality Standard for Turbidity
US Corps of Engineers	404 Federal Clean Water Act
- (b) **Funding:**

MT FWP FAS Account:	\$ 3,000
Beaverhead Outdoor Association:	\$ 1,000
RE Miller & Sons Excavating:	donating staff and equipment for the removal
- (c) **Other Overlapping or Additional Jurisdictional Responsibilities:**

State Historic Preservation Office (SHPO) clearance for cultural and historic resources (See Appendix 4 for SHPO Concurrence letter.)

**8. Narrative summary of the proposed action:**

**Need and Benefits:** FWP is proposing to remove an overgrowth of cattails along the southern and western bank at the Blacktail Meadows FAS. Since the FAS is a kids fishing pond for children 14 years and younger, the overgrowth of cattails makes it difficult for the children to cast past the vegetation. By removing some of the cattails, it will be easier for children to cast into the pond to fish.

**Existing Environment:** The kids fishing pond is a man-made pond for youth anglers and supports fishing for rainbow trout. The pond also contains longnose suckers, white suckers, and carp. Total angling pressure at the FAS was estimated in 2007 at just over 1100 fishing days, about the same as the 2005 survey. FWP stocks the pond with rainbow trout twice a year.

The property consists of intermountain grassland dominated by riparian trees, primarily narrowleaf cottonwood but also Colorado Spruce, Russian olive, and green ash, and shrubs including willows, Rocky Mountain juniper, Canada red chokecherry, western serviceberry, red osier dogwood and woods roses, as well as various grasses, sedges and cattails. There are established areas of Canada thistle and spotted knapweed, and Beaverhead County Weed District has identified some houndstongue and hoary cress whitetop. Beaverhead County

Weed District estimates weed infestation on approximately 2% of the parcel. See Appendix 2 for FWP 2007 Weed Inventory.

**Proposed Improvements and Management:** FWP would have the overgrowth of cattails removed primarily along the south and west sides of the pond where access with equipment would be easiest and would minimally impact the site. FWP has partnered with Beaverhead Outdoor Association (BOA) for the creation and ongoing maintenance of this site. The project cost is estimated at \$4,500. FWP is contributing \$3000, and the BOA is contributing \$1000 to the project. RE Miller & Sons Excavating has offered their services for the removal of the cattails and will write off the remaining \$500.

Cattail removal may be an on-going maintenance issue for this kids fishing pond and will depend on this initial removal of cattails and the rate of re-growth in the future.

The BOA is in the process of preparing an application for a community pond grant. If additional funding becomes available through the grant for the cattail removal, FWP may use a greater portion of the FAS funding for additional weed control. FWP will continue to follow FWP's Statewide Integrated Noxious Weed Management Plan to control the existing weeds on the parcel.

**9. Alternatives:**

**Alternative A: No Action**

If no action were taken, the cattails along the bank at Blacktail Meadows FAS would continue to spread and would continue to prevent youth fishing at the site from being easily able to cast into the pond or land the fish once caught along the bank in the areas where there is an overgrowth of cattails.

Taking no action may impact the number of youths able to successfully cast and may impact the number of youth visitors at this site over time as the cattails spread. Additionally, taking no action may decrease the satisfaction of the youth anglers if not able to cast successfully to catch fish.

**Preferred Alternative B: Proposed Action - FWP Removes the Overgrowth of Cattails along the bank at the FAS.**

In the preferred alternative, FWP would remove some of the overgrowth of cattails along the bank at Blacktail Meadows FAS. Not all cattails will be removed but will take place primarily along the south and west sides of the pond.

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

All necessary state and federal permits would be obtained. Adherence to the FWP Statewide Integrated Noxious Weed Management Plan and required application records would be submitted to the Montana Department of Agriculture.

## **PART II. ENVIRONMENTAL REVIEW CHECKLIST**

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

### **A. PHYSICAL ENVIRONMENT**

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

- 1b. The proposed work may temporarily disrupt the soil during the removal of the cattails but will stabilize naturally over time. The proposed action would take place during the winter when the ground is likely frozen and the displacement of soils would be minimized.

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

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

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

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

2. <u>AIR</u> Will the proposed action result in:	IMPACT *				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	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.)		NA				

2a. The proposed removal of the cattails may result in temporary amounts of dust generated by the equipment used. FWP and RE Miller & Sons Excavating will follow the Best Management Practices (BMP's) during all phases of work. See Appendix 5 for BMP's.

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

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

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

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3. <u>WATER</u> 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			3a.
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. ****For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		NA				
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.)		NA				

3a. The proposed work would temporarily result in turbidity during the removal of the cattails but will not effect the water quality. Required permits for water disturbances would be obtained prior to the initiation of any cattail extraction.

The entire parcel is in the 100-year floodplain, Zone A, per the FEMA map database.

\* 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. <b>VEGETATION</b> Will the proposed action result in?	IMPACT *				Can Impact Be Mitigated*	Comment Index
	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				
b. Alteration of a plant community?			X		YES	4b.
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		YES	4e.
f. ****For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		NA				

- 4b. This property consists of intermountain grassland interspersed with riparian trees primarily narrowleaf cottonwood, but also Colorado spruce, Russian olive and green ash and riparian shrubs including willow, Rocky Mountain juniper, Canada red chokecherry, serviceberry, and wood roses, as well as various grasses, sedges and cattails. Areas of overgrown cattail vegetation would be removed during the project, but some portions of cattails will remain along the shoreline. However, the proposed work should positively impact vegetation overall, allowing room for growth of other desirable vegetation. This site is an old hayfield with brome and orchard grasses. The pond is man-made to encourage youth angling.
- 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 property to be acquired.
- 4e. There are established areas of Canada thistle and spotted knapweed, and Beaverhead County Weed District also identified some houndstongue and hoary cress whitetop. All of these are category one noxious weeds. The Beaverhead County Weed District estimates weed infestation at approximately 2% of the parcel. FWP would continue weed management in adherence with the Statewide Integrated Noxious Weed Management Plan using an integrated approach including chemical, biological, and mechanical methods. Weed management will facilitate the restoration of desirable vegetation and should prevent the spread of weeds. See Appendix 2 for the FWP Weed Inventory.

\* 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>** 5. FISH/WILDLIFE</b> Will the proposed action result in:	<b>IMPACT *</b>				<b>Can Impact Be Mitigated *</b>	<b>Comment Index</b>
	<b>Unknown *</b>	<b>None</b>	<b>Minor *</b>	<b>Potentially Significant</b>		
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				5f.
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				5g.
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.)		NA				
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.)		NA				

The proposed work would have no bearing on the game and non-game species that frequent the property and is not considered critical habitat for any species according to FWP Region 3 wildlife biologists Craig Fager and Claire Gower and fisheries biologist Jim Olsen. According to Native Species Biologist Claire Gower, the removal of cattails should not permanently deteriorate wildlife habitat - it may reduce the number of songbirds/amphibians utilizing the immediate area initially after removal, but nothing that would be considered as a detrimental and/or a permanent change in habitat quality.

5f. A search of the Natural Resources Information System provided by the Montana Natural Heritage Program (MNHP) showed that no endangered species are in the vicinity of the property but identified four species of concern discussed in more detail below. Neither the FWP wildlife biologists nor the fisheries biologist for the area has any concerns with the proposed acquisition impacting fish and wildlife in the area.

Swainson's Hawk is listed as sensitive by the U.S. Bureau of Land Management (BLM) and is in Tier 1 of the FWP Comprehensive Fish and Wildlife Conservation Strategy (CFWCS) and S3B/G4 by MNHP. The ranking by MNHP indicates the breeding population of this species is potentially at risk of extirpation in the state and uncommon but not rare globally. Swainson's hawks are common in the Dillon area.

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

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

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

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

Ferruginous Hawk is listed as sensitive by the US BLM and is in Tier 1 of the FWP Comprehensive Fish and Wildlife Conservation Strategy (CFWCS) and S3B/G4 by MNHP. The ranking by MNHP indicates the breeding population of this species is potentially at risk of extirpation in the state and uncommon but not rare globally. Ferruginous hawks are common in the Dillon area.

Pygmy Rabbit is listed as sensitive by the US BLM and are in Tier 1 of the FWP Comprehensive Fish and Wildlife Conservation Strategy (CFWCS) and S3/G4 by MNHP. The ranking by MNHP indicates the species is potentially at risk of extirpation in the state and uncommon but not rare globally. There is no pygmy rabbit habitat on the Blacktail Meadow FAS. Pygmy rabbits are common in sagebrush environments just across from Interstate 15.

Gray wolves are listed as delisted and monitored in the Northwest Montana recovery area by USFWS, Sensitive by USFS, and Special Status by BLM, in Tier 1 of the FWP Comprehensive Fish and Wildlife Conservation Strategy (CFWCS) and S3/G4 by MNHP. The ranking by MNHP indicates the species is potentially at risk of extirpation in the state and uncommon but not rare globally. In 2002, wolves met the recovery criteria set by the USFWS and are therefore biologically recovered. The gray wolf was officially delisted from the federal Endangered Species Act as of May 4, 2009. Montana's state laws, regulations, and management plan replace federal regulations. Gray wolves are protected and managed as a Montana species in need of management. According to Mike Ross, FWP Wolf Biologist, there are no known packs in this area. The proposed cattail removal will have no impact on wolves. The wolf population in southwestern Montana is strong, and wolves may pass through just about any area including this site.

Please see Appendix 3 Montana Natural History Program (MNHP) Native Species Report for more information on these species. Tier I of the FWP CFWCS is the greatest conservation need. Montana Fish, Wildlife & Parks has an obligation to use its resources to implement conservation actions that provide direct benefit to these species. Species identified in this section have included the tier level to help identify those in greatest need of conservation.

Other more common wildlife species that occur in the immediate vicinity of the Blacktail Meadow FAS include white-tailed deer, mule deer, beaver, otter, muskrats, mink, raccoon, and skunk. On rare occasion, moose, black bears, and mountain lions move through the riparian habitat. A wide variety of resident and migrant bird species use or move through the area on a seasonal basis to include bald eagles, golden eagles, osprey, great blue herons, Canada geese, ducks, and numerous songbirds. These species may not be common within this parcel but may use the parcel seasonally.

- 5g. The land is currently used by the public for wildlife viewing, picnicking and hiking, and the fishing pond is used by youth anglers. The cattail removal should not negatively impact or stress fish or wildlife populations. The project will impact some muskrat and mink habitat, but it is a man-made stocked pond for the specific purposes of promoting kids fishing.

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

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

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

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

## B. HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Increases in existing noise levels?			X		YES	6a/b.
b. Exposure of people to severe or nuisance noise levels?			X		YES	6a/b.
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/b. During the removal of the cattails, the construction equipment would cause a temporary increase in noise levels. Proximity to the highway would likely mask any increase in noise level at the site. If construction noise levels exceed a level deemed unsafe, all workers would be required to wear proper ear protection. FWP and RE Miller & Sons Excavating will follow the Best Management Practices during construction to minimize risks. See Appendix 5 for the BMP's.

7. <u>LAND USE</u> 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. 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				

The proposed action would not alter or interfere with the productivity or profitability of the existing land use. Anglers 14 years of age and younger may currently use the fishing pond. The property has been used some by the general public for picnicking, hiking, and wildlife viewing. FWP would continue to allow all these activities. The property is designated for day-use only. The land is intermountain grassland dominated by riparian trees and shrubs that serves as important habitat for a variety of mammals, bird species and fish.

The proposed project will be completed during the winter when usage levels of the FAS are low.

\* 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. <b>RISK/HEALTH HAZARDS</b>	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Will the proposed action result in:	Unknown *	None	Minor *		
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. ***For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		NA				

8a. FWP manages weeds in adherence with the Statewide Integrated Noxious Weed Management Plan using an integrated approach including chemical, biological, and mechanical methods. The use of herbicides would be in compliance with application guidelines and conducted by people trained in safe handling techniques. Weeds would also be controlled using mechanical or biological means in certain areas to reduce the risk of chemical spills or water contamination.

9. <b>COMMUNITY IMPACT</b>	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Will the proposed action result in:	Unknown *	None	Minor *		
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				

The proposed work removing some of the overgrowth of cattails along the bank is designed to provide recreation access for youth anglers. Public access and current recreation activities at the FAS would likely continue although there will be temporary disruption during the removal of the cattails along the bank where the equipment will be working.

\* 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 *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
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				10b.
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. **Define projected revenue sources		X				
f. **Define projected maintenance costs.						10f.

10b. FWP pays property taxes in an amount equal to that of a private individual and that will not change.

10f. Annual maintenance costs are expected to average \$1500 per year including litter removal, caretaker work, latrine pumping, and weed control. Maintenance costs are part of the Parks Operations and Maintenance budget.

Costs to remove the overgrowth of cattails are estimated at \$4,500. FWP is contributing \$3,000, and the BOA is contributing \$1,000 to the project. RE Miller & Sons Excavating has offered their services for the removal of the cattails and will write off the remaining \$500.

Cattail removal may be an on-going maintenance issue for this kids fishing pond and would depend on the response of the remaining cattails and the rate of re-growth if management of the cattails is required in the future.

\* 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>** 11. AESTHETICS/RECREATION</b>	<b>IMPACT *</b>				<b>Can Impact Be Mitigated *</b>	<b>Comment Index</b>
	<b>Unknown *</b>	<b>None</b>	<b>Minor *</b>	<b>Potentially Significant</b>		
<b>Will the proposed action result in:</b>						
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				11c.
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.)		NA				

11c. The public access to the area would continue and potentially be enhanced if the proposed work to remove the overgrowth of cattails is conducted and will continue to be a destination for picnicking, hiking, wildlife viewing, and fishing. Fishing at the pond during the winter is limited when the cattail removal would take place. Inconveniences to youth anglers at the FAS would be minimal since the FAS is not heavily used when snow and ice are present. The FAS is a man-made pond to promote kids fishing, however the cattail removal may impact visitors that like to watch or photograph blackbirds or other cattail affiliated species although not all cattails will be removed. The Department of Commerce Tourism Report has been submitted but not received back as of this publication. The work will not proceed until it has been received.

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

No groundbreaking activities that could disturb cultural resources are going to be initiated as part of the proposed work. If cultural materials are discovered during the project, work would cease and SHPO will be contacted for a more in depth investigation. See Appendix 4 for the SHPO clearance.

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

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

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

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

## SIGNIFICANCE CRITERIA

13. <u>SUMMARY EVALUATION OF SIGNIFICANCE</u>  Will the proposed action, considered as a whole:	IMPACT *				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 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.)		NA				
g. ****For P-R/D-J, list any federal or state permits required.		NA				

The proposed action to remove some of the overgrowth of cattails at Blacktail Meadows FAS would have no negative cumulative effects on the physical and human environments. When considered over the long-term, the proposed action poses significant positive effects towards continued youth access to this kids fishing pond near Dillon.

\* 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.

## **PART III. NARRATIVE EVALUATION AND COMMENT**

The proposed action will have no negative cumulative effects on the physical and human environments. When considered over the long-term, the proposed action poses significant positive effects towards the public youth's continued access to this kids fishing pond near Dillon. The benefits of the removal of the overgrowth of cattails described in Alternative B best meet the objectives of FWP managing these important resources to assure the safety of visitors as well as resource protection, enhancement, and maintenance.

The minor impacts that were identified in the previous section are small in scale and will not influence the overall environment of the immediate area. The natural environment will continue to exist to provide habitat to migratory and permanent wildlife species and will continue to be open to the public youth for access for fishing and the general public for hiking, picnicking, and wildlife viewing. The proposed work would have minimal impact on the local wildlife species that frequent the property and would have a neutral impact on the fishery since the youth already uses the FAS for angling and it is a man-made pond stocked by FWP.

The environmental analysis focuses on the removal of some of the overgrowth of cattails along the bank at Blacktail Meadow FAS but will not remove all of the cattails. The proposed work would allow FWP to provide easier access to youth anglers casting into the fishing pond and retrieving fish along the bank at Blacktail Meadows FAS.

## **PART IV. PUBLIC PARTICIPATION**

### **1. Public Involvement:**

The public will be notified by way of legal notices in the Dillon *Tribune*, the Bozeman *Daily Chronicle*, Butte *Standard*, and the Helena *Independent Record* in addition to a statewide press release. A public notice will also be posted on the Fish, Wildlife & Parks web page: <http://fwp.mt.gov/publicnotices>. A direct mailing will be sent to adjacent landowners and interested parties. Additionally, copies will be available for public review at FWP Region 3 Headquarters. This level of public notice and participation is appropriate for a project of this scope having few minor impacts.

Public meetings to address questions for this EA can be arranged upon request within the comment period.

### **2. Duration of comment period.**

A 30-day comment period is proposed as appropriate for the scale of this project. The comment period will extend for 30 days following publication in area newspapers. Comments will be accepted until 5 pm February 5, 2010. Comments should be sent to Region 3 Fishing Access Site Manager Todd Garrett:

Mailed to: Blacktail Meadows FAS Proposed Cattail Mitigation  
Montana Fish, Wildlife & Parks  
1400 South 19th  
Bozeman MT 59718

Emailed to: [tgarrett@mt.gov](mailto:tgarrett@mt.gov)

## **PART V. EA PREPARATION**

- 1. Based on the significance criteria evaluated in this EA, is an EIS required? NO  
If an EIS is not required, explain why the EA is the appropriate level of analysis.**

Based upon the above assessment, which has identified a very limited number of minor impacts from the proposed action, an EIS is not required and an environmental assessment is the appropriate level of review.

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

Pam Boggs  
EA Coordinator  
PO Box 200701  
Helena, MT 59620-0701  
[pboggs@mt.gov](mailto:pboggs@mt.gov)

Todd Garrett  
FAS Manager  
1400 South 19th.  
Bozeman, MT 59718  
(406) 994-6987  
[tgarrett@mt.gov](mailto:tgarrett@mt.gov)

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

Beaverhead County Weed District

Montana Department of Commerce – Tourism

Montana Fish, Wildlife & Parks  
Director's Office – Legal Unit  
Fish and Wildlife Division  
Fisheries Bureau  
Wildlife Bureau  
Parks Division

Montana Natural Heritage Program – Natural Resources Information System (NRIS)

State Historic Preservation Office (SHPO)

### **Appendices**

- 1 HB 495 Project Qualification Checklist
- 2 FWP County Weed Inventory
- 3 Montana Natural Heritage Program (MNHP) Native Species Report
- 4 SHPO Concurrence Letter
- 5 FWP Best Management Practices (FWP)

**APPENDIX 1**  
**HB495 PROJECT QUALIFICATION CHECKLIST**

Date November 23, 2009

Person Reviewing Pam Boggs

Project Location: Blacktail Meadows FAS T7S, R8E, section 18 in Beaverhead County

**Description of Proposed Work:** Montana Fish, Wildlife & Parks is considering a removing some of the overgrowth of cattails along the bank at Blacktail Meadows FAS near Dillon, MT.

The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under HB 495 rules. (Check all that apply and comment as necessary.)

- [ ] **A. New roadway or trail built over undisturbed land?**  
Comments: No new roadways or trails.
- [ ] **B. New building construction (buildings <100 sf and vault latrines exempt)?**  
Comments: No new construction.
- [Y] **C. Any excavation of 20 c.y. or greater?**  
Comments: Cattail removal may require excavation over 20 cubic yards.
- [ ] **D. New parking lots built over undisturbed land or expansion of existing lot that increases parking capacity by 25% or more?**  
Comments: No new parking lot.
- [Y] **E. Any new shoreline alteration that exceeds a doublewide boat ramp or handicapped fishing station?**  
Comments: Some cattails will be removed along the shoreline.
- [ ] **F. Any new construction into lakes, reservoirs, or streams?**  
Comments: No new construction.
- [ ] **G. Any new construction in an area with National Registry quality cultural artifacts (as determined by State Historical Preservation Office)?**  
Comments: A cultural inventory was conducted and has been sent to SHPO for their concurrence. See Appendix 4 for SHPO clearance.
- [ ] **H. Any new above ground utility lines?**  
Comments: No new utility lines; will not interfere with existing utility lines in the area.
- [ ] **I. Any increase or decrease in campsites of 25% or more of an existing number of campsites?**  
Comments: No camping.
- [ ] **J. Proposed project significantly changes the existing features or use pattern; including effects of a series of individual projects?**  
Comments: No.

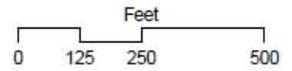
If any of the above are checked, HB 495 rules apply to this proposed work and should be documented on the MEPA/HB495 CHECKLIST. Refer to MEPA/HB495 Cross Reference Summary for further assistance.

# Appendix 2 FWP Weed Inventory



## Region 3 Blacktail Meadows FAS Weed Inventory 2008

-  Canada Thistle
-  Spotted Knapweed
-  Fishing Access Site



Map produced by:  
Montana Fish, Wildlife & Parks  
Information Management Bureau  
Helena, MT

Weed Data collected in 2008 using GPS technology by MT Dept of Agriculture. Fishing access site data from MT Fish, Wildlife & Parks, Helena, MT. Color aerial photo (2005) from the Natural Resource Information System, Montana State Library, Helena, MT.

W:\IS\_Requests\6101\_FAS\_WeedMaps2008\BlackTailMeadows.mxd - CR - 4/13/2009



## Appendix 3

### Sensitive Plants and Animals in the area of the Blacktail Meadows FAS near Dillon

#### Species of Concern Terms and Definitions

A search of the Montana Natural Heritage Program (MNHP) element occurrence database (<http://nris.mt.gov>) indicates no known occurrences of federally listed threatened, endangered, or proposed threatened or endangered plant species in the proposed project site. The search did indicate the project area is within habitat for Swainson's Hawk, Ferruginous Hawk, Pygmy Rabbit, and Gray Wolf. Please see the next page for more information on these species.

**Montana Species of Concern.** The term "**Species of Concern**" includes taxa that are at-risk or potentially at-risk due to rarity, restricted distribution, habitat loss, and/or other factors. The term also encompasses species that have a special designation by organizations or land management agencies in Montana, including: Bureau of Land Management Special Status and Watch species; U.S. Forest Service Sensitive and Watch species; U.S. Fish and Wildlife Service Threatened, Endangered and Candidate species.

#### ▼ **Status Ranks (Global and State)**

The international network of Natural Heritage Programs employs a standardized ranking system to denote global (**G** -- range-wide) and state status (**S**) (Nature Serve 2003). Species are assigned numeric ranks ranging from 1 (critically imperiled) to 5 (demonstrably secure), reflecting the relative degree to which they are "at-risk". Rank definitions are given below. A number of factors are considered in assigning ranks -- the number, size and distribution of known "occurrences" or populations, population trends (if known), habitat sensitivity, and threat. Factors in a species' life history that make it especially vulnerable are also considered (e.g., dependence on a specific pollinator).

#### **Status Ranks**

<b>Code</b>	<b>Definition</b>
<b>G1</b> <b>S1</b>	At high risk because of extremely limited and/or rapidly declining numbers, range, and/or habitat, making it highly vulnerable to global extinction or extirpation in the state.
<b>G2</b> <b>S2</b>	At risk because of very limited and/or declining numbers, range, and/or habitat, making it vulnerable to global extinction or extirpation in the state.
<b>G3</b> <b>S3</b>	Potentially at risk because of limited and/or declining numbers, range, and/or habitat, even though it may be abundant in some areas.
<b>G4</b> <b>S4</b>	Uncommon but not rare (although it may be rare in parts of its range), and usually widespread. Apparently not vulnerable in most of its range, but possibly cause for long-term concern.
<b>G5</b> <b>S5</b>	Common, widespread, and abundant (although it may be rare in parts of its range). Not vulnerable in most of its range.

### Sensitive Plants and Animals in the area of Blacktail Meadow FAS near Dillon

### 1. *Buteo swainsoni* (Swainson's Hawk)

Natural Heritage Ranks:

State: **S3B**

Global: **G4**

Federal Agency Status:

U.S. Fish and Wildlife Service:

U.S. Forest Service:

U.S. Bureau of Land Management: **Sensitive**

FWP CFWCS Tier: 1

One element occurrence of the Swainson's hawk was identified in the area to the north of the Blacktail Meadows FAS in 2000.

### 2. *Buteo regalis* (Ferruginous Hawk)

Natural Heritage Ranks:

State: **S3B**

Global: **G4**

Federal Agency Status:

U.S. Fish and Wildlife Service:

U.S. Forest Service:

U.S. Bureau of Land Management: **Sensitive**

FWP CFWCS Tier: 1

One element occurrence of the ferruginous hawk was identified in the area to the south of Blacktail Meadows FAS in 1984.

### 3. *Brachylagus idahoensis* (Pygmy Rabbit)

Natural Heritage Ranks:

State: **S3**

Global: **G4**

Federal Agency Status:

U.S. Fish and Wildlife Service:

U.S. Forest Service: **Sensitive**

U.S. Bureau of Land Management: **Sensitive**

FWP CFWCS Tier: 1

One element occurrence of the pygmy rabbit was identified in the proximate area in 1937.

### 4. *Canis lupus* (Gray Wolf)

Natural Heritage Ranks:

State: **S3**

Global: **G4**

Federal Agency Status:

U.S. Fish and Wildlife Service: **DM**

U.S. Forest Service: **Sensitive**

U.S. Bureau of Land Management: **Special Status**

FWP CFWCS Tier: 1

Two Element Occurrence data reported of wolves in 2006 and in 1908 in the proximate area of this parcel.

Information courtesy of Montana Natural Heritage Program.

*NOTE: FWP Wildlife Biologist Craig Fager notes that both Swainson's and Ferruginous Hawks are common in the Dillon area and that the FAS is not Pygmy Rabbit habitat, rather the rabbits prefer the sagebrush habitat across from the Interstate.*

## Appendix 4

# SHPO Concurrence Letter

Big Sky. Big Land. Big History.  
**Montana**  
**Historical Society**

*Historic Preservation  
Museum  
Outreach & Interpretation  
Publications  
Research Center*

December 21, 2009

Bardell Mangum  
FWP  
PO Box 200701  
Helena MT 59620-0701

RE: BLACKTAIL MEADOWS FAS. SHPO Project #: 2009121804

Dear Mr. Mangum:

I have conducted a cultural resource file search for the above-cited project located in Section 18, T7S R8W. According to our records there have been a few previously recorded sites within the designated search locale. In addition to the sites there have been a few previously conducted cultural resource inventories done in the areas. If you would like any further information regarding these sites or reports you may contact me at the number listed below.

Based on the previous inventory and work done in the area 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 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/PARKS/2009

225 North Roberts Street  
P.O. Box 201201  
Helena, MT 59620-1201  
(406) 444-2694  
(406) 444-2696 FAX  
[montanahistoricalsociety.org](http://montanahistoricalsociety.org)

**Appendix 5**  
**MONTANA FISH, WILDLIFE AND PARKS**  
**BEST MANAGEMENT PRACTICES FOR FISHING ACCESS SITES**

10-02-02

Updated May 1, 2008

**I. ROADS**

**A. Road Planning and Location**

1. Minimize the number of roads constructed at the FAS through comprehensive road planning, recognizing foreseeable future uses.
  - a. Use existing roads, unless use of such roads would cause or aggravate an erosion problem.
2. Fit the road to the topography by locating roads on natural benches and following natural contours. Avoid long, steep road grades and narrow canyons.
3. Locate roads on stable geology, including well-drained soils and rock formations that tend to dip into the slope. Avoid slumps and slide-prone areas characterized by steep slopes, highly weathered bedrock, clay beds, concave slopes, hummocky topography, and rock layers that dip parallel to the slope. Avoid wet areas, including seeps, wetlands, wet meadows, and natural drainage channels.
4. Minimize the number of stream crossings.
  - a. Choose stable stream crossing sites. "Stable" refers to streambanks with erosion-resistant materials and in hydrologically safe spots.

**B. Road Design**

1. Design roads to the minimum standard necessary to accommodate anticipated use and equipment. The need for higher engineering standards can be alleviated through proper road-use management. "Standard" refers to road width.
2. Design roads to minimize disruption of natural drainage patterns. Vary road grades to reduce concentrated flow in road drainage ditches, culverts, and on fill slopes and road surfaces.

**C. Drainage from Road Surface**

1. Provide adequate drainage from the surface of all permanent and temporary roads. Use outsloped, insloped or crowned roads, installing proper drainage features. Space road drainage features so peak flow on road surface or in ditches will not exceed their capacity.
  - a. Outsloped roads provide means of dispersing water in a low-energy flow from the road surface. Outsloped roads are appropriate when fill slopes are stable, drainage will not flow directly into stream channels, and transportation safety can be met.

- b. For insloped roads, plan ditch gradients steep enough, generally greater than 2%, but less than 8%, to prevent sediment deposition and ditch erosion. The steeper gradients may be suitable for more stable soils; use the lower gradients for less stable soils.
  - c. Design and install road surface drainage features at adequate spacing to control erosion; steeper gradients require more frequent drainage features. Properly constructed drain dips can be an economical method of road surface drainage. Construct drain dips deep enough into the sub-grade so that traffic will not obliterate them.
2. For ditch relief/culverts, construct stable catch basins at stable angles. Protect the inflow end of cross-drain culverts from plugging and armor if in erodible soil. Skewing ditch relief culverts 20 to 30 degrees toward the inflow from the ditch will improve inlet efficiency.
  3. Provide energy dissipators (rock piles, slash, log chunks, etc.) where necessary to reduce erosion at outlet of drainage features. Cross-drains, culverts, water bars, dips, and other drainage structures should not discharge onto erodible soils or fill slopes without outfall protection.
  4. Route road drainage through adequate filtration zones, or other sediment-settling structures. Install road drainage features above stream crossings to route discharge into filtration zones before entering a stream.
- D. Construction/Reconstruction
1. Stabilize erodible, exposed soils by seeding, compacting, riprapping, benching, mulching, or other suitable means.
  2. At the toe of potentially erodible fill slopes, particularly near stream channels, pile slash in a row parallel to the road to trap sediment. When done concurrently with road construction, this is one method to effectively control sediment movement and it also provides an economical way of disposing of roadway slash. Limit the height, width and length of these “slash filter windrows” so not to impede wildlife movement. Sediment fabric fences or other methods may be used if effective.
  3. Construct cut and fill slopes at stable angles to prevent sloughing and subsequent erosion.
  4. Avoid incorporating potentially unstable woody debris in the fill portion of the road prism. Where possible, leave existing rooted trees or shrubs at the toe of the fill slope to stabilize the fill.
  5. Place debris, overburden, and other waste materials associated with construction and maintenance activities in a location to avoid entry into streams. Include these waste areas in soil stabilization planning for the road.
  6. When using existing roads, reconstruct only to the extent necessary to provide adequate drainage and safety; avoid disturbing stable road surfaces. Consider abandoning existing roads when their use would aggravate erosion.

E. Road Maintenance

1. Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.
2. Maintain erosion control features through periodic inspection and maintenance, including cleaning dips and cross-drains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from culverts.
3. Avoid cutting the toe of cut slopes when grading roads, pulling ditches, or plowing snow.
4. Avoid using roads during wet periods if such use would likely damage the road drainage features. Consider gates, barricades or signs to limit use of roads during wet periods.

II. RECREATIONAL FACILITIES (parking areas, campsites, trails, ramps, restrooms)

A. Site Design

1. Design a site that best fits the topography, soil type, and stream character, while minimizing soil disturbance and economically accomplishing recreational objectives. Keep roads and parking lots at least 50 feet from water; if closer, mitigate with vegetative buffers as necessary.
2. Locate foot trails to avoid concentrating runoff and provide breaks in grade as needed. Locate trails and parking areas away from natural drainage systems and divert runoff to stable areas. Limit the grade of trails on unstable, saturated, highly erosive, or easily compacted soils
3. Scale the number of boat ramps, campsites, parking areas, bathroom facilities, etc. to be commensurate with existing and anticipated needs. Facilities should not invite such use that natural features will be degraded.
4. Provide adequate barriers to minimize off-road vehicle use

B. Maintenance: Soil Disturbance and Drainage

1. Maintenance operations minimize soil disturbance around parking lots, swimming areas and campsites, through proper placement and dispersal of such facilities or by reseeded disturbed ground. Drainage from such facilities should be promoted through proper grading.
2. Maintain adequate drainage for ramps by keeping side drains functional or by maintaining drainage of road surface above ramps or by crowning (on natural surfaces).
3. Maintain adequate drainage for trails. Use mitigating measures, such as water bars, wood chips, and grass seeding, to reduce erosion on trails.
4. When roads are abandoned during reconstruction or to implement site-control, they must be reseeded and provided with adequate drainage so that periodic maintenance is not required.

### III. RAMPS AND STREAM CROSSINGS

#### A. Legal Requirements

1. Relevant permits must be obtained prior to building bridges across streams or boat ramps. Such permits include the SPA 124 permit, the COE 404 permit, and the DNRC Floodplain Development Permit.

#### B. Design Considerations

1. Placement of boat ramp should be such that boats can load and unload with out difficulty and the notch in the bank where the ramp was placed does not encourage bank erosion. Extensions of boat ramps beyond the natural bank can also encourage erosion.
2. Adjust the road grade or provide drainage features (e.g. rubber flaps) to reduce the concentration of road drainage to stream crossings and boat ramps. Direct drainage flow through an adequate filtration zone and away from the ramp or crossing through the use of gravel side-drains, crowning (on natural surfaces) or 30-degree angled grooves on concrete ramps.
3. Avoid unimproved stream crossings on permanent streams. On ephemeral streams, when a culvert or bridge is not feasible, locate drive-throughs on a stable, rocky portion of the stream channel.
4. Unimproved (non-concrete) ramps should only be used when the native soils are sufficiently gravelly or rocky to withstand the use at the site and to resist erosion.

#### C. Installation of Stream Crossings and Ramps

1. Minimize stream channel disturbances and related sediment problems during construction of road and installation of stream crossing structures. Do not place erodible material into stream channels. Remove stockpiled material from high water zones. Locate temporary construction bypass roads in locations where the stream course will have a minimal disturbance. Time the construction activities to protect fisheries and water quality.
2. Where ramps enter the stream channel, they should follow the natural streambed in order to avoid changing stream hydraulics and to optimize use of boat trailers.
3. Use culverts with a minimum diameter of 15 inches for permanent stream crossings and cross drains. Proper sizing of culverts may dictate a larger pipe and should be based on a 50-year flow recurrence interval. Install culverts to conform to the natural streambed and slope on all perennial streams and on intermittent streams that support fish or that provide seasonal fish passage. Place culverts slightly below normal stream grade to avoid culvert outfall barriers. Do not alter stream channels upstream from culverts, unless necessary to protect fill or to prevent culvert blockage. Armor the inlet and/or outlet with rock or other suitable material where needed.

4. Prevent erosion of boat ramps and the affected streambank through proper placement (so as to not catch the stream current) and hardening (riprap or erosion resistant woody vegetation).
5. Maintain a 1-foot minimum cover for culverts 18-36 inches in diameter, and a cover of one-third diameter for larger culverts to prevent crushing by traffic.