

# RECLAMATION

*Managing Water in the West*

## Recreation Master Plan Goose Bay Planning Area

Draft Environmental Assessment

Canyon Ferry Reservoir, Montana



U.S. Department of the Interior  
Bureau of Reclamation  
Great Plains Region  
Montana Area Office  
Billings, Montana

September 2009

## **Mission Statements**

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

# **Recreation Master Plan Goose Bay Planning Area**

## **Draft Environmental Assessment**

### **Canyon Ferry Reservoir, Montana**

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Bureau of Reclamation  
Great Plains Region  
Montana Area Office  
Billings, Montana**

**September 2009**



# Acronyms and Abbreviations

|                 |   |
|-----------------|---|
| BIA             | Bureau of Indian Affairs                |
| BLM             | Bureau of Land Management               |
| CFR             | Code of Federal Regulations             |
| CO              | carbon monoxide                         |
| CXT®            | outdoor toilet (product type)           |
| EA              | environmental assessment                |
| EPA             | U.S. Environmental Protection Agency    |
| ESA             | Endangered Species Act                  |
| FWS             | U.S. Fish and Wildlife Service          |
| ITAs            | Indian Trust Assets                     |
| NEPA            | National Environmental Policy Act       |
| NO <sub>2</sub> | nitrogen dioxide                        |
| NPS             | National Park Service                   |
| MFWP            | Montana Fish, Wildlife and Parks        |
| µg/L            | micrograms per liter                    |
| MNHCP           | Montana Natural Heritage Center Program |
| OHV             | off-highway-vehicle                     |
| O&M             | operations and maintenance              |
| Planning Area   | Goose Bay Planning Area                 |
| Pub. L.         | Public Law                              |
| Reclamation     | Bureau of Reclamation                   |
| RFP             | Request for Proposal                    |
| RMP             | Recreation Master Plan                  |
| RV              | recreational vehicle                    |
| SHPO            | State Historic Preservation Office      |
| TMDL            | total maximum daily load                |
| WMA             | Wildlife Management Area                |
| Working Group   | Canyon Ferry Working Group              |
| WROS            | Water Recreation Opportunity Spectrum   |



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# 1.0 PURPOSE AND NEED

## 1.1 Introduction

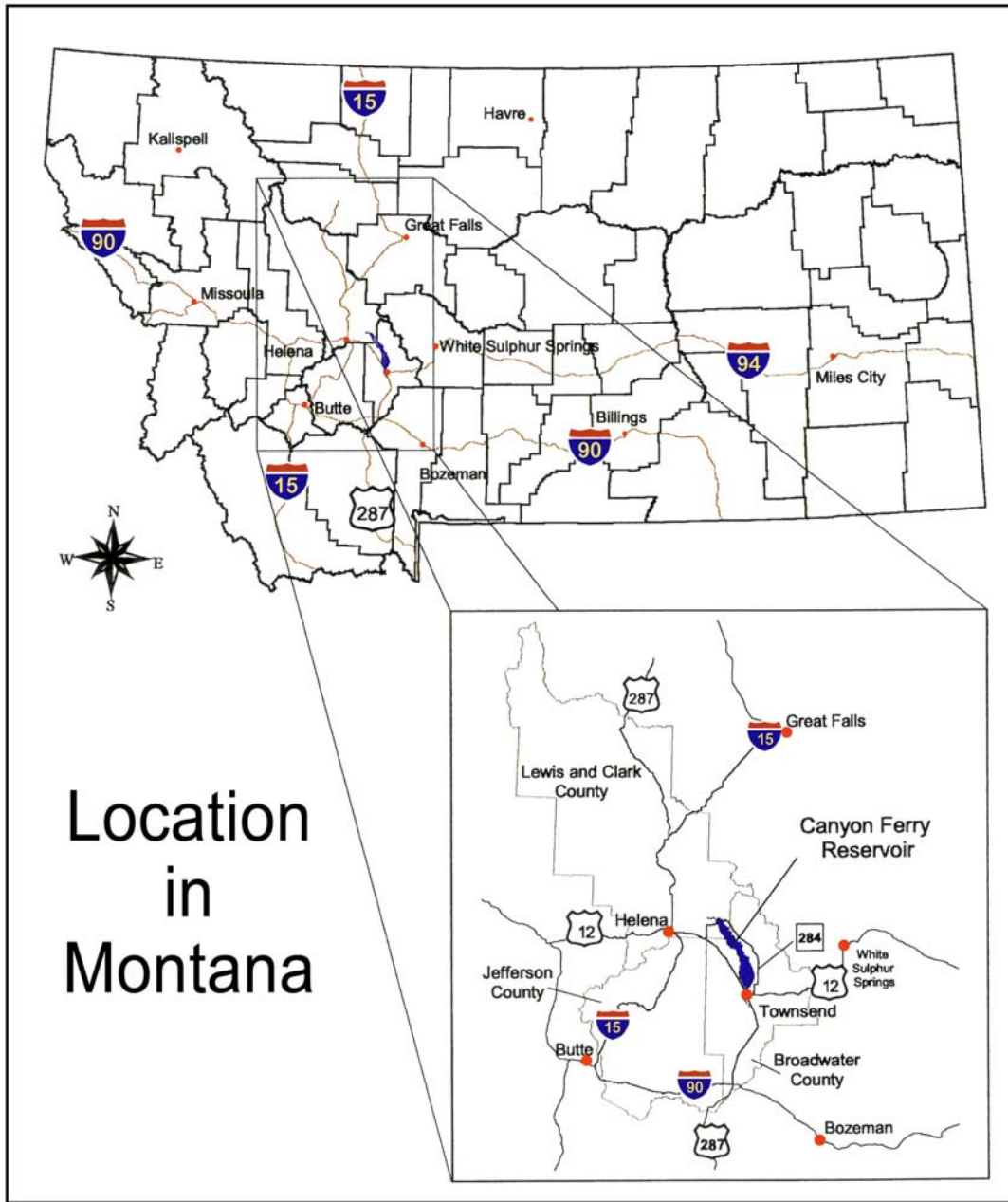
This draft environmental assessment (EA) was prepared by the Bureau of Reclamation (Reclamation) with the assistance of a private consultant to describe and assess the environmental consequences that are likely to occur from implementing the findings and results of the Recreation Master Plan (RMP) for the Goose Bay Marina area and adjacent Reclamation lands on the east side of Canyon Ferry Reservoir. Refer to figure 1 for the location of Canyon Ferry Reservoir within the State of Montana. The Goose Bay Marina area and adjacent Reclamation lands are hereafter referred to as the Planning Area. The Planning Area is located approximately 10 miles south-southeast of Canyon Ferry Dam and adjacent to the reservoir. The RMP will take into consideration the existing recreation opportunities and identify possible future opportunities, facilities, and services that could be provided by Reclamation and/or a concessionaire. The financial viability of developing certain opportunities, facilities, and services will also be assessed in the RMP planning process.

This EA was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended; the Council on Environmental Quality regulations implementing NEPA; and Reclamation's draft *NEPA Handbook* dated 2000 and its NEPA Policy, ENV PO3. Reclamation is the lead agency for the preparation of this document and has direct jurisdiction of the lands adjacent to Canyon Ferry Reservoir.

## 1.2 Background and Location

The Canyon Ferry Unit of the Pick-Sloan Missouri Basin Program was authorized by the Flood Control Act of December 22, 1944, Public Law (Pub. L.) 534. The Canyon Ferry Unit is a multipurpose Federal water resource project that makes important contributions to electrical power, flood control, the municipal water supply, and irrigation. The passage of the Canyon Ferry Reservoir, Montana Act of 1998 (Title X, Pub. L. 105-277), provided Reclamation with specific authority to plan, develop, operate, and maintain recreation and fish and wildlife resources as part of the Canyon Ferry Unit.

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Location  
in  
Montana

Figure 1.—Location of Canyon Ferry Reservoir.

Canyon Ferry Reservoir is situated on the Missouri River in west-central Montana. Part of the reservoir is located in the far southwestern portion of Lewis and Clark County, and the remainder of the reservoir lies within the northern part of Broadwater County. The entire reservoir area consists of 9,360 acres of land and 96 miles of shoreline that are under the jurisdiction of Reclamation.

The reservoir area also has 33,500 water surface acres at elevation 3797 feet, extending upstream about 19 miles from the Canyon Ferry Dam to where the Missouri River enters the reservoir at its southern end. The reservoir area provides visitors with a diversity of recreation opportunities including, among other things, camping, day use, boating, and fishing. Primarily Reclamation, three concessionaries, Montana Fish, Wildlife and Parks (MFWP), and Broadwater County provide the recreation opportunities. Refer to figure 3 for a map showing Canyon Ferry Reservoir and the many developed recreation areas and for more detailed information on the recreation resources at Canyon Ferry Reservoir.

The nearest Montana population centers are Townsend, about 3 miles south; Helena, 15 miles northeast; and East Helena, about 12 miles northwest of Canyon Ferry Reservoir. Most of the visitors come from within a 120-mile radius of the reservoir, including the towns of Great Falls, Butte, Missoula, and Bozeman.

The three concession operations are Kim's Marina, located in the northeastern portion of Canyon Ferry Reservoir; Yacht Basin Marina, located in the northwestern portion of the reservoir; and Goose Bay Marina, located between the north and south ends of the reservoir on the eastern shoreline. Yacht Basin and Kim's Marina concession contracts have recently been awarded; however, the Goose Bay Marina contract will expire on July 14, 2010. However, the contract will be amended by Reclamation to expire on December 31, 2010, to allow the current concessionaire to complete the 2010 season.

Prior to the expiration date of the Goose Bay Marina concession contract, Reclamation is required to prepare a Request for Proposal (RFP) for a new concession operation. Reclamation will solicit bids from the public for the development and operation of this new concession. The existing concessionaire and other private individuals, corporations, etc., will be allowed to respond to the RFP. Reclamation will then select the best proposal.

The preparation of the Goose Bay RMP is the last part of Reclamation's overall Canyon Ferry Reservoir commercial services planning strategy. To date, Reclamation has completed the *Commercial Services Plan and Financial Feasibility Evaluation, Canyon Ferry Reservoir, December 2004* and *Potential Infrastructure Alternatives, Facilities and Services for the Kim's Marina Concession Area, October 2008*. The commercial services planning strategy is

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intended to provide information on the types of commercial facilities and services that are necessary and appropriate at the reservoir and to establish effective ways to plan for and manage those facilities and services.

The Planning Area includes both lands that are currently managed by Reclamation for land resource purposes, including dispersed recreation, and lands managed for developed recreation by the current concessionaire at Goose Bay Marina. The acres within the Planning Area consist of 227 land acres and 56 water surface acres. Reclamation manages 161 land acres within the Planning Area, while the existing concessionaire manages 66 land acres and the 56 water surface acres that have been designated for use by the concessionaire. Refer to figure 2 for the location of the RMP Planning Area at Canyon Ferry Reservoir. The area currently managed by the concessionaire is crosshatched, while the Reclamation-managed area is left blank. (**Note:** Figure 2 does not show the 56 water surface acres that are available to the concessionaire.)

### **1.3 Federal Action**

Preparation and implementation of the RMP is a Federal action that is intended to direct the development of public outdoor recreation opportunities and facilities within the Goose Bay Marina concession area and selected Reclamation lands immediately north of the marina and adjacent to the reservoir. NEPA requires Federal agencies to consider the possible impact(s) of a Federal action on the environment before implementing it. Therefore, an appropriate level of planning and environmental analysis was used to develop the RMP/EA.

### **1.4 Purpose and Need for Action**

The purpose of developing the RMP is to ensure that the most appropriate public opportunities, facilities, and services are provided within the defined Planning Area and to determine if those opportunities, facilities, and services are financially feasible to be developed, operated, and maintained by a concessionaire and/or Reclamation.

The RMP is needed to:

- Evaluate the existing concession operation to determine if existing opportunities, facilities, goods, and services are necessary and appropriate and, if not, provide recommendations for change once the existing concession operation expires.

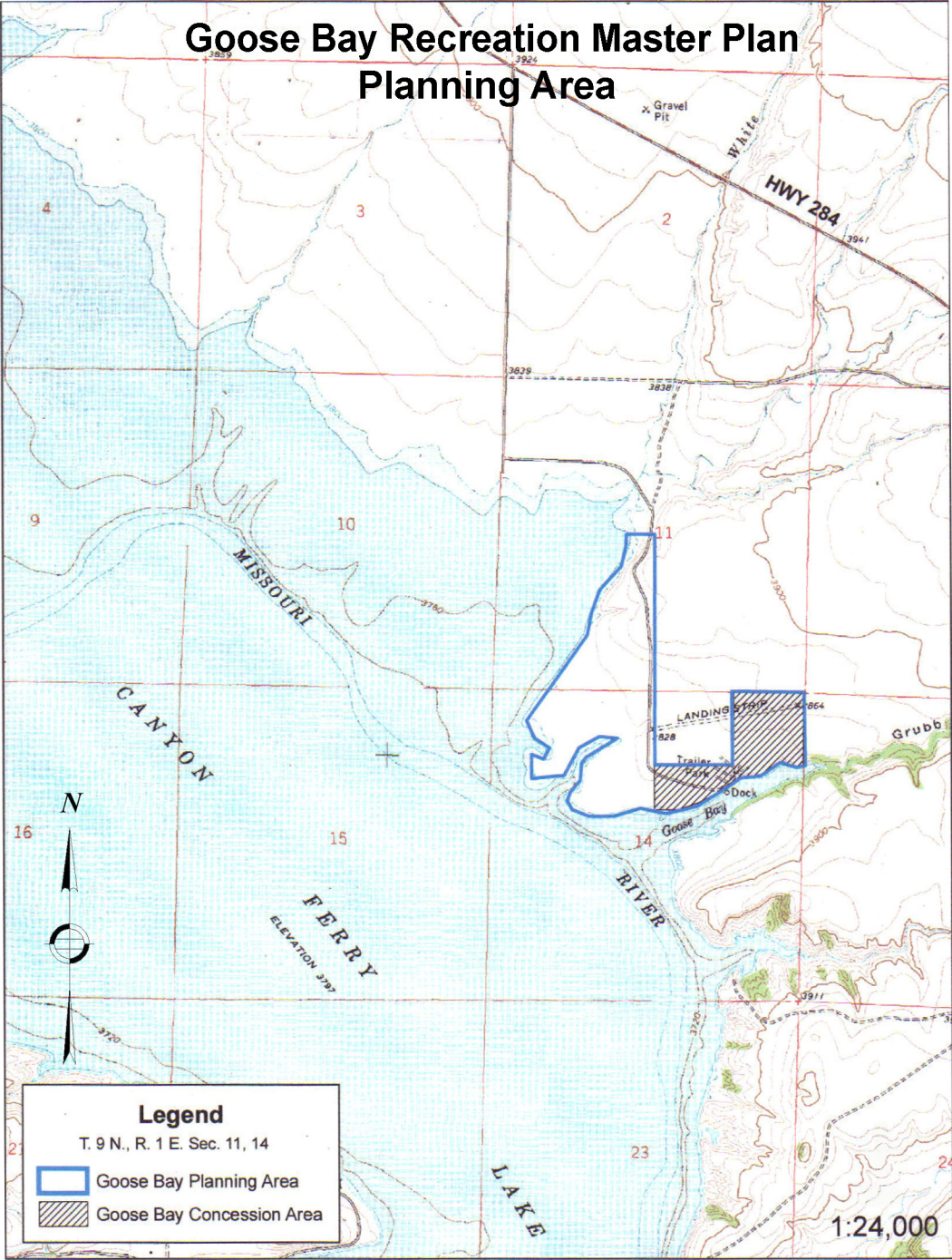


Figure 2.—Location of the RMP Planning Area.

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- Evaluate what opportunities, facilities, goods, and services within the Planning Area should be provided by the concessionaire and/or Reclamation.
- Collect an appropriate level of information so that Reclamation can prepare a financial feasibility evaluation of proposed developments.
- Ensure that there is an appropriate mix of recreation opportunities, facilities, and services that satisfy an identified public need.
- Identify the appropriate amount of capital investment needed to supply the opportunities, facilities, goods, and services identified in the RMP.
- Ensure that the recreation opportunities identified in the RMP that are to be developed and managed by a concessionaire are financially feasible and allow the concessionaire to make a reasonable profit over the term of a new concession contract.
- Ensure that Reclamation makes financially sound business decisions in developing the recreation resources within the Planning Area in cooperation with the concessionaire and in the public interest.
- Provide Reclamation decisionmakers with pertinent information that will allow for the preparation of an RFP and subsequent evaluation of bid proposals submitted by the public for the development and management of a new concession operation within the Planning Area.

## **1.5 Public Involvement**

Preliminary public scoping meetings were conducted in Townsend, Montana, on February 18, 2009, and Helena, Montana, on February 19, 2009, to solicit preliminary comments, ideas, and recommendations for future development within the Planning Area. Paid newspaper advertisements and a news release were used to announce the public meetings. Prior to the public meetings, the advertisements and news release were submitted to the following newspapers for publication:

Helena Independent Record, Helena, Montana  
The Townsend Star, Townsend, Montana  
Bozeman Daily Chronicle, Bozeman, Montana  
The Montana Standard, Butte, Montana  
Great Falls Tribune, Great Falls, Montana

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A letter dated February 3, 2009, was mailed to 207 individuals, groups, congressional representatives, organizations, and local, county, State, and Federal entities announcing the public meetings and to solicit comments during the 60-day comment period. Refer to attachment A for a reproduced copy of the letter announcing the public meetings without the enclosure showing the Planning Area. Refer to figure 2 for the location of the Planning Area. The Canyon Ferry Working Group (Working Group) mailing list was used for this public involvement effort. The list is comprised of individuals who have expressed an interest in the management of Canyon Ferry Reservoir.

An overview of the Planning Area and known planning issues were presented to meeting attendees. A PowerPoint presentation was shown that identified possible facilities and services that might be addressed in the RMP. Approximately 20 individuals attended the public meeting on February 18, and approximately 19 individuals attended the meeting on February 19. Comments were recorded on flip charts, provided by individuals on comment sheets handed out at the meetings, and by emails to the consultant. In total, there were approximately 107 separate comments/suggestions received during this scoping period. The official comment period ended March 15, 2009.

This draft EA is being provided for public review and comment for a 60-day period (October 15 through December 15, 2009). The EA will also be posted online and will be available in libraries and Reclamation offices. A limited number of hard copy versions of the RMP/EA will be distributed to those individuals or entities who request one. During the 60-day public review period, Reclamation will host one informal public meeting to discuss the RMP/EA. This public meeting will be held in Townsend, Montana, the night of Wednesday, November 4 at the Forest Service meeting room, 414 South Front Street from 7:00 p.m. to 9:00 p.m. Public comments and concerns will be taken into consideration, as appropriate, when the RMP is finalized. Refer to the Recreation section, “3.8.1 Affected Environment,” for a summary of public issues and concerns related to the Planning Area.





## 2.0 DESCRIPTION OF ALTERNATIVES

This chapter describes the alternatives that were formulated during the preparation of the RMP for the Planning Area. NEPA calls for the consideration and evaluation of a range of reasonable alternatives that meet the purpose and need for the proposed Federal action while minimizing or avoiding environmental impacts. As stated in chapter 1, the proposed Federal action is to prepare and implement an RMP for the Planning Area.

As part of the planning process, there were four action alternatives considered in the RMP. The action alternatives prescribe a variety of changes in the way the Planning Area would be managed in the future. In addition to action alternatives, NEPA requires consideration of a No Action Alternative that describes the management of the Planning Area absent implementation of the Federal action (i.e., the RMP).

The alternatives formulated include:

- No Action Alternative (Alternative A)
- Less Development/Partnered Management (Alternative B)
- Less Development/Single Concession Management (Alternative C)
- More Development/Partnered Management (Alternative D)
- More Development/Single Concession Management (Alternative E)

### 2.1 Alternative A – No Action

Under **Alternative A**, Reclamation would issue a new concession use authorization following Reclamation's policy, directives and standards, and guidelines for concessions management. Reclamation is required to issue a RFP to solicit bids from the public. The number and type of facilities, goods, and services within the Planning Area would essentially remain the same. No new facilities would be constructed to meet demand or identified trends in outdoor recreation. The visitation would continue to increase at Canyon Ferry Reservoir and within the Planning Area without the benefit of additional facility construction. Due to the increased visitation, existing facilities would likely deteriorate over time due to overuse by the public. However, through the issuance of a new concession contract upon expiration of the existing contract, Reclamation would ensure that identified public health and safety concerns were corrected.

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Reclamation would continue to manage the lands and facilities within the Planning Area that are not currently being managed by the existing concessionaire (i.e., 161 land acres, dispersed camping area with no designated sites, and three CXT® toilets<sup>1</sup>). The public would continue to use the area for uncontrolled and unmanaged off-highway vehicle (OHV) use. The area managed by Reclamation would continue to offer the public a Semi Primitive recreation experience as described in Reclamation's 2004 *Water Recreation Opportunity Spectrum Users' Guidebook* (WROS).<sup>2</sup>

Prior to the expiration of the existing concession contract, Reclamation would advertise for a new concession opportunity at Goose Bay, evaluate the submitted proposals, and enter into a new concession contract with the individual or company with the best proposal. The selected concessionaire would operate and maintain the same number and types of facilities, goods, and services that currently exist in the Goose Bay Marina Area. Pursuant to WROS, the recreation experience within the immediate vicinity of the concession operation would continue to be classified as Rural Developed.

The facilities, goods, and services provided and managed by the concessionaire in the concession area (i.e., 66 land acres and 56 water surface acres) would not change from what it is today. The facilities, goods, and services would consist of the following:

- Five docks with 76 boat slips (3 new docks and 2 old docks).
- Convenience store.
- Boat, trailer, and camper storage area.
- Fuel system and dockside gasoline for boats and automobiles.
- Rental of 58 partial service recreational vehicle (RV) campsites with electric and water hookups.
- Rental of no-service camping areas on both sides of boat ramp.

---

<sup>1</sup> CXT® is a registered company name that provides, among other things, toilets that can be equipped to customer needs and connected to water, sewer or septic, and electric, or self-contained toilets that do not require water, sewer, or electric.

<sup>2</sup> The WROS is a recreation inventory tool that provides planners and managers with a framework and procedure for making better decisions for conserving a spectrum of high quality and diverse water recreation opportunities. There are six recreation spectrums described in the guidebook: Urban, Suburban, Rural Developed, Rural Natural, Semi Primitive, and Primitive. Each spectrum offers the recreating public a different recreation experience.

- Thirty-one long-term mobile home sites.
- One shower and toilet building with two toilets and two showers.
- One dump station.
- One CXT® toilet (**Note:** The CXT® toilet was provided by Reclamation, but is maintained by the concessionaire).
- One storage building.

The facilities and services provided and managed by Reclamation within the concession area would consist of the following:

- Boat launch ramp.
- Parking lot.
- Two CXT® toilets.

The facilities provided and managed by Reclamation that are outside the concession area would consist of the following:

- Undesignated camping area.
- Three CXT® toilets at undesignated camping area.

## **2.2 Action Alternative B – Less Development/ Partnered Management**

Under **Alternative B**, Reclamation would advertise and select the best-qualified concessionaire to manage the concession area. The solicitation process for advertising and selecting a concessionaire for the Planning Area would incorporate the results and findings of the RMP to ensure that the concession operation offers the public the appropriate facilities, goods, and services that are financially feasible. The incoming concessionaire and Reclamation would share management of the Planning Area. Partnered management requires that the concessionaire manage the existing concession area. Additional facilities would be constructed by the concessionaire to replace or supplement existing facilities as described in Alternative A. In addition, Reclamation would construct facilities within the concession area and turn management and operations and maintenance (O&M) of those facilities to the concessionaire. Title to Reclamation developed facilities and other improvements would be vested with the United States.

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Within the existing concession area, camping immediately east of the boat ramp and proposed store would be eliminated. Camping immediately west of the boat ramp and the proposed group picnic shelter, and the courtesy dock would also be eliminated.

Reclamation would continue to manage the lands within the Planning Area and construct new facilities and make improvements to the area it currently manages. Management and O&M of this area would solely be the responsibility of Reclamation. Pursuant to WROS, the recreation experience offered to the public in this part of the Planning Area would change from a Semi Primitive classification to a Rural Natural experience.

Pursuant to WROS, the concession area would continue to offer the visiting public a Rural Developed recreation experience.

Under this alternative, the concessionaire would provide the following new facilities, goods, and services within the existing concession area and provide O&M, as appropriate:

- One additional well.
- One additional sewage facility.
- One new store near the boat ramp with limited commodities such as ice, bait tackle, beverages, food service, dock, and fuel. (**Note:** The existing store would remain and offer the same goods and services as it currently offers.)
- Four park-model mobile cabins (two with utilities and two without).
- Additional RV sites (one more loop of 18 with full services to include sewage).
- Mobile home and RV electrical hookups that are compliant with existing codes. (**Note:** The concessionaire will assume responsibility for the electrical system to mobile homes and campsites and will improve and standardize electrical hookups to county code and Reclamation requirements.)
- Improved and upgraded shower building.
- Laundry facilities.
- Two new docks to replace two old docks and provide improved access.

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- Make the existing dump station more available for public use through signage and advertising.
- One designated buoyed swim beach, covered and wind-protected picnic tables, and BBQ grills.

Under this alternative, Reclamation would provide the following facilities, goods, and services within the existing concession area and turn O&M over to the concessionaire:

- One group picnic shelter with electric and water that is wind protected and insect screened.
- One covered handicapped fishing pier.
- One courtesy dock near boat ramp.
- Potential assistance with concessionaire for expanded or new septic system.

Under this alternative, Reclamation would provide the following new facilities and/or improvements within the portion of the Planning Area it currently manages and O&M those facilities and improvements accordingly:

- Two designated areas for camping but no designated individual sites. Some areas within the prime designated areas would allow group camping for up to four camper units per site.
- Off-highway barriers and signs.
- Fire rings.
- Picnic tables, some with and some without weather shelters (i.e., wind and sun protection).
- One road closure.
- Strategically located and view-screened dumpster trash receptacles.
- One Iron Ranger fee collection station at the entrance to each camping loop.
- Campground host site located near each Iron Ranger with water and electrical hookups and septic tank.

- Two wells to serve the two campground hosts and two camping loops.
- Three group picnic shelters with wind/sun protection that are screened for insects.
- Interpretive sign with Lewis and Clark theme.

## **2.3 Action Alternative C – Less Development/ Single Concession Management**

Under **Alternative C**, Reclamation would advertise and select the best-qualified concessionaire to manage the entire Planning Area. The solicitation process for advertising and selecting a concessionaire for the Planning Area would incorporate the results and findings of the RMP to ensure that the concession operation offers the public the appropriate facilities, goods, and services that are financially feasible. The incoming concessionaire and Reclamation would share in the development of the Planning Area. The same facilities would be constructed by the concessionaire and Reclamation to replace or supplement existing facilities as described in Alternative B. All O&M of constructed facilities and management of the area would be the responsibility of the concessionaire.

As described in Alternative B, camping immediately east of the boat ramp and proposed store would be eliminated. Camping immediately west of the boat ramp and the proposed group picnic shelter, and the courtesy dock would also be eliminated.

Pursuant to WROS, the recreation experience would be the same as provided under Alternative B (i.e., the area within the existing concession boundary would continue to be Rural Developed while the lands outside of the existing concession boundary would be Rural Natural).

The facilities, goods, and services provided under this alternative are the same as those described in Alternative B. Following is a summary of the facilities, goods, and services that would be provided by the concessionaire and/or Reclamation. The concessionaire would have full responsibility for O&M of all facilities. Under this alternative, the concessionaire would provide the following new facilities, goods, and services within the existing concession area and provide O&M, as appropriate:

- One additional well.
- One additional sewage facility.

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- One new store near the boat ramp with limited commodities such as ice, bait tackle, beverages, food service, dock, and fuel. (**Note:** The existing store would remain and offer the same goods and services as it currently offers.)
- Four park-model mobile cabins (two with utilities and two without).
- Additional RV sites (one more loop of 18 with full services to include sewage).
- Mobile home and RV electrical hookups that are compliant with existing codes. (**Note:** The concessionaire will assume responsibility for the electrical system to mobile homes and campsites and will improve and standardize electrical hookups to county code and Reclamation requirements.)
- Improved and upgraded shower building.
- Laundry facilities.
- Two new docks to replace two old docks and provide improved access.
- Make the existing dump station more available for public use through signing and advertising.
- One designated buoyed swim beach, covered and wind/sun-protected picnic tables, and BBQ grills.

Under this alternative, Reclamation would provide the following new facilities, goods, and services within the existing concession area and turn O&M over to the concessionaire:

- One group picnic shelter with electric and water that is wind protected and insect screened.
- One covered handicapped fishing pier
- One courtesy dock near the boat ramp.
- Assistance with concessionaire for expanded or new septic system.

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Under this alternative, Reclamation would provide the following new facilities and improvements within the Planning Area that it currently manages and turn O&M of facilities and improvements to the incoming concessionaire:

- Two designated areas for camping but no designated individual sites. Some areas within the prime designated areas would allow group camping for up to four camper units per site.
- Off-road barriers and signs.
- Fire rings.
- Picnic tables, some with and some without weather shelters (i.e., wind and sun protection).
- One road closure.
- Strategically located and view-screened dumpster trash receptacles.
- One Iron Ranger fee collection station at the entrance to each camping loop.
- Campground host site located near each Iron Ranger with water and electrical hookups and septic tank.
- Two wells to serve the two campground hosts and two camping loops.
- Three group picnic shelters with wind/sun protection and screened for insects.
- Campsites on the south side of Scooter Bay designated for campers with boats only.
- Interpretive sign with Lewis and Clark theme.

## **2.4 Action Alternative D – More Development/ Partnered Management**

Under **Alternative D**, Reclamation would advertise and select the best-qualified concessionaire to manage the existing concession area. The solicitation process for advertising and selecting a concessionaire would incorporate the results and findings of the RMP to ensure that the concession operation offers the public the appropriate facilities, goods, and services that are financially feasible. The incoming concessionaire and Reclamation would share in the development of the



concession area; however, the concessionaire would be responsible for future O&M of all constructed facilities within the concession area. Reclamation would be responsible for all construction activities and improvements and future O&M of all facilities within that portion of the Planning Area that it currently manages. In addition to several new facilities and improvements, Alternative D also includes the same facilities described in both Alternatives A, B, and C.

As described in Alternatives B and C, camping immediately east of the boat ramp and proposed store would be eliminated. Camping immediately west of the boat ramp and the proposed group picnic shelter, and the courtesy dock would also be eliminated.

Pursuant to WROS, the recreation experience within the concession area would be the same as provided under Alternative B (i.e., the area in the immediate vicinity of the concession area would continue to be Rural Developed). The lands outside the immediate vicinity of the concession area would change from a Rural Natural to Rural Developed. In other words, the entire Planning Area would now offer the public a Rural Developed recreational experience.

For clarification purposes, Alternative D would include the following new items as compared to Alternative C:

- New boat ramp lighting within the concession area.
- Wave suppression buoy line at the mouth of Goose Bay.
- Dump station in addition to the one already provided in the concession area.
- One fish cleaning station.
- Two campground loops with designated and numbered campsites with leveled pads.
- Small boat docks along the south side of Scooter Bay for boat tie-offs.
- Enclosed dry boat storage facility.
- New full-service store near the boat ramp that offers a variety of goods and services such as ice, bait tackle, beverages, food service, dock, and fuel. (**Note:** The existing store would be removed.)
- Hiking and biking trails.

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Under this alternative, the concessionaire would provide the following new facilities, goods, and services within the existing concession area and provide O&M, as appropriate:

- One additional well.
- One additional sewage facility.
- Enclosed boat storage facility.
- New full-service store near the boat ramp that offers a variety of goods and services such as ice, bait tackle, beverages, food service, dock, and fuel. (**Note:** The existing store would be removed.)
- Four park-model mobile cabins (two with utilities and two without).
- Additional RV sites (one more loop of 18 with full services to include sewage).
- Mobile home and RV electrical hookups that are compliant with existing codes. (**Note:** The concessionaire will assume responsibility for the electrical system to mobile homes and campsites and will improve and standardize electrical hookups to county code and Reclamation requirements.)
- Improved and upgraded shower building.
- Laundry facilities.
- Two new docks to replace two old docks and provide improved access.
- Make the existing dump station more available for public use through signing and advertising.
- One designated buoyed swim beach, covered and wind/sun-protected picnic tables, and BBQ grills.

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Under this alternative, Reclamation would provide the following new facilities, goods, and services within the existing concession area and turn O&M over to the concessionaire:

- One group picnic shelter with electric and water that is wind/sun protected and insect screened.
- Fish cleaning station.
- One covered handicapped fishing pier.
- One courtesy dock near the boat ramp.
- Potential assistance with concessionaire for expanded or new septic system.
- Boat ramp lighting.
- Wave suppression buoy line at the mouth of Goose Bay.

Under this Alternative, Reclamation would provide the following new facilities and/or improvements within that portion of the Planning Area it currently manages and provide all future O&M of those facilities and improvements:

- Two campground loops with designated and numbered campsites with leveled pads.
- Off-road barriers and signs.
- Fire rings.
- Picnic tables, some with and some without weather shelters (i.e., wind and sun protection).
- One road closure.
- Hiking and biking trails.
- Strategically located and view-screened dumpster trash receptacles.
- One Iron Ranger fee collection station at the entrance to each camping loop.
- Campground host site located near each Iron Ranger with water and electrical hookups.

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- Two wells to serve the two campground hosts and two new camping loops.
- Dump station.
- Three group picnic shelters with wind/sun protection that are screened for insects.
- Small boat docks along the south side of Scooter Bay for boat tie-offs.
- Interpretive sign with Lewis and Clark theme.

## **2.5 Action Alternative E – More Development/ Single Concession Management**

Under **Alternative E**, Reclamation would advertise and select the best-qualified concessionaire to manage the existing concession area. The solicitation process for advertising and selecting a concessionaire would incorporate the results and findings of the RMP to ensure that the concession operation offers the public the appropriate facilities, goods, and services that are financially feasible. The incoming concessionaire and Reclamation would share in the development of the concession area; however, the concessionaire would be responsible for future O&M of all constructed facilities within the concession area. Reclamation would be responsible for all construction activities and improvements within that portion of the Planning Area that it currently manages; however, O&M of those facilities and improvements would be the responsibility of the incoming concessionaire. The new facilities and improvements outlined in Alternative E and managed by the concessionaire are the same facilities and improvements described in Alternative D.

As described in Alternative D, camping immediately east of the boat ramp and proposed store would be eliminated. Camping immediately west of the boat ramp and the proposed group picnic shelter, and the courtesy dock would also be eliminated.

Pursuant to WROS, the recreation experience would be the same as provided under Alternative D (i.e., the entire Planning Area would provide a Rural Developed recreation experience).

Under this alternative, the concessionaire would provide the following new facilities, goods, and services within the existing concession area and provide O&M, as appropriate:

- One additional well.
- One additional sewage facility.
- Enclosed boat storage facility.
- New full-service store near the boat ramp that offers a variety of goods and services such as ice, bait tackle, beverages, food service, dock, and fuel. (**Note:** The existing store would be removed.)
- Four park-model mobile cabins (two with utilities and two without).
- Additional RV sites (one more loop of 18 with full services to include sewage).
- Mobile home and RV electrical hookups that are compliant with existing codes. (**Note:** The concessionaire will assume responsibility for the electrical system to mobile homes and campsites and will improve and standardize electrical hookups to county code and Reclamation requirements.)
- Improved and upgraded shower building.
- Laundry facilities.
- Two new docks to replace two old docks and provide improved access.
- Make the existing dump station more available for public use through signage and advertising.
- One designated buoyed swim beach, covered and wind/sun-protected picnic tables, and BBQ grills.

Under this alternative, Reclamation would provide the following new facilities, goods, and services within the existing concession area and turn O&M over to the concessionaire:

- One group picnic shelter with electric and water that is wind/sun protected and insect screened.
- Fish cleaning station.

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- One covered handicapped fishing pier.
- One courtesy dock near the boat ramp.
- Potential assistance with concessionaire for expanded or new septic system.
- Boat ramp lighting.
- Wave suppression buoy line at the mouth of Goose Bay.

Under this Alternative, Reclamation would provide the following new facilities and/or improvements within that portion of the Planning Area it currently manages and assign O&M responsibilities of those facilities and improvements to the concessionaire:

- Two campground loops with designated and numbered campsites with leveled pads.
- Off-road barriers and signs.
- Fire rings.
- Picnic tables, some with and some without weather shelters (i.e., wind and sun protection).
- One road closure.
- Hiking and biking trails.
- Strategically located and view-screened dumpster trash receptacles.
- One Iron Ranger fee collection station at the entrance to each camping loop.
- Campground host site located near each Iron Ranger with water and electrical hookups and septic tank.
- Two wells to serve the two campground hosts and two camping loops.
- Dump station.
- Three group picnic shelters with wind/sun protection that are screened for insects.

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- Campsites on the south side of Scooter Bay designated for campers with boats only.
- Small boat docks along the south side of Scooter Bay for boat tie-offs.
- Interpretive sign with Lewis and Clark theme.

Table 1.—Summary of alternatives

| New facilities/services              | Alt B: Less Development – Partnered Management | Alt C: Less Development – Single Concession Management | Alt D: More Development – Partnered Management | Alt E: More Development – Single Concession Management |
|--------------------------------------|--|--|--|--|
| New store                            |  |  | X  | X  |
| Satellite store                      | X  | X  |  |  |
| 1 well                               | X  | X  | X  | X  |
| 1 septic system                      | <b>X</b>                                       | <b>X</b>   | <b>X</b>                                       | <b>X</b>   |
| 1 RV camp loop (18 full service)     | X  | X  | X  | X  |
| Laundry                              | X  | X  | X  | X  |
| 4 park model cabins                  | X  | X  | X  | X  |
| Group pavilion                       | <b>X</b>                                       | <b>X</b>   | <b>X</b>                                       | <b>X</b>   |
| 2 replacement docks                  | X  | X  | X  | X  |
| 1 courtesy dock                      | <b>X</b>                                       | <b>X</b>   | <b>X</b>                                       | <b>X</b>   |
| 10 dry camps                         | X  | X  | X  | X  |
| Management of Reclamation campground |  | X  |  | X  |
| Enclosed dry boat storage            |  |  | X  | X  |
| Trail system                         |  |  | X  | X  |
| Handicapped fishing pier             | <b>X</b>                                       | <b>X</b>   | <b>X</b>                                       | <b>X</b>   |
| Swim beach                           | <b>X</b>                                       | <b>X</b>   | X  | <b>X</b>   |
| Boat ramp lighting                   |  |  | <b>X</b>                                       | <b>X</b>   |
| Wave suppression buoy line           |  |  | <b>X</b>                                       | <b>X</b>   |
| Fish cleaning station                |  |  | <b>X</b>                                       | <b>X</b>   |

Note: Items in red would be provided with financial assistance from Reclamation.

## 2.6 Alternatives Eliminated from Further Consideration

*Elimination of Goose Bay Marina.* Although there are diverse public opinions as to what types of recreation experiences should be provided within the Planning Area, there is public consensus that the Goose Bay Marina should remain and that some type of recreation opportunities should continue to be provided within the rest of the Planning Area. The existing marina has served the public for many years and has provided visitors the opportunity to participate in recreational activities at the southern end of the reservoir that would not otherwise be available to them. Because of the marina's location and access, primarily local residents use the Planning Area. Therefore, the alternative of not providing a marina at Goose Bay and the associated amenities that a marina would offer the public was not considered or analyzed in this EA.

*Establishment of an Off-Highway Vehicle Use Area.* Reclamation lands are closed to OHV use unless they are officially designated as open following a formal planning process and analysis (per 43 Code of Federal Regulations [CFR] 420). Due to the relatively small land base available for OHV use within the Canyon Ferry Reservoir and the Planning Area specifically, the close proximity to a valuable water source and potential environmental damage, potential conflict between recreation user groups participating in other recreation pursuits, and the fact that there is a OHV track and use area located nearby, the alternative of legalizing OHV use on Reclamation lands was not considered.



### **3.0 DESCRIPTION OF AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

This chapter describes the existing affected environment (existing condition of resources) and the most likely environmental impacts of the alternatives that are considered. There are four action alternatives that have been formulated for evaluation based on public input and professional judgment. In addition to the four action alternatives, a No Action Alternative is evaluated in which the scope of the facilities and services provided in the existing Goose Bay concession area does not change and the Reclamation-managed area remains with no substantial modifications. The No Action Alternative provides a basis for comparing the impacts that are anticipated to result from implementing an action alternative. The analysis of the alternatives is focused on the resource areas that may be impacted within the Planning Area.

It is assumed that visitation to Canyon Ferry Reservoir under all alternatives will continue to increase, including visitation within the Planning Area. It is also assumed that the proposed developments contemplated under each of the action alternatives will cause a moderate increase in the overall visitation beyond what the visitation would be without the provision of enhanced recreation opportunities within the Planning Area. The visitors who visit the area now and in the immediate future will simply have a more enjoyable recreation experience with the proposed new facility construction and improvements to the Planning Area.

It should be noted that the environmental impacts to the following resources that are associated with the implementation of any of the action alternatives are essentially the same. All the action alternatives propose to include the construction of new facilities and/or improvements to existing facilities. The differences in the impacts to the environmental resources are a result of the degree and scope of facility developments and improvements under each alternative.

It should also be noted that the impacts from Action Alternatives B and C are the same. The only difference between these two alternatives is Action Alternative B requires shared management of the Planning Area, and Action Alternative C requires that the entire Planning Area be managed solely by a concessionaire. Likewise, Alternatives D and E are the same, except Alternative D requires shared management while Alternative E requires concession management of the entire Planning Area.

## 3.1 Geology

### 3.1.1 Affected Environment

Four major geological units are found in the Canyon Ferry Reservoir area: Tertiary lakebeds, igneous formations, Quaternary alluvium, and sedimentary formations. Tertiary lakebeds are the most visible geologic unit in the Planning Area, with Quaternary alluvium occupying the drainages on the eastern shore of the reservoir.

Canyon Ferry Reservoir lands are part of the intermountain basin known as the Townsend Basin, a northwest-southeast trending valley between the Big Belt and Elkhorn Mountains. These mountains are considered to be subsidiary ranges of the Rocky Mountains. The Townsend Basin lies in a structural depression formed by the downwarping of pre-Cambrian and Cambrian Sedimentary formations. These ancient sedimentary rocks have been intruded by masses of granite rocks. The basin is partially filled with water-lain Tertiary volcanics and Quaternary alluvium.

The eastern shore encompassing the Planning Area occupies coalescing alluvial fans that rise gently eastward to their source in the Big Belt Mountains. These alluvial fans extend south to the town of Townsend. The northeastern shore of the reservoir in the vicinity of the dam abuts the west flank of the Big Belt Mountains. The oldest exposed rocks in this area are the pre-Cambrian sedimentary formations of the Big Belt Series.

### 3.1.2 Environmental Consequences

#### 3.1.2.1 *No Action Alternative (Alternative A)*

Under the No Action Alternative, there would be no impacts to the geologic resources within the Planning Area. No areas would be excavated or filled.

#### 3.1.2.2 *Action Alternative B – Less Development/Partnered Management*

Under Action Alternative B, except for the possible disturbance from site leveling, grading, and site modification, the geologic resources within the concession-operated portion of the Planning Area would not be impacted. Land within the concession area has already been disturbed through prior developments and use; therefore, no impacts to the geology would likely occur from implementation of this alternative above what might have already occurred. The actions contemplated for the remainder of the Planning Area will not require substantial site modification or disturbance to existing lands. The Planning Area is composed primarily of alluvium fans of the Quaternary age and consists of

thinner and finer textured material the closer you get to the valley floor. Design of new facilities and other improvements within the entire Planning Area would maintain the natural geology of the site to the extent practical.

**3.1.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as for Action Alternative B since the same amount of excavation, grading, and/or site modification would occur under both alternatives.

**3.1.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would essentially be the same as Action Alternative C with a minor amount of additional site leveling associated with the campground improvements on the lands outside the concession area.

**3.1.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as for Action Alternative D since the same amount of excavation, grading, and/or site modification would occur under both alternatives.

**3.1.2.6 Cumulative Impacts**

No cumulative environmental affects have been identified.

**3.1.2.7 Mitigation**

Except for the effort to maintain the natural geology of the Planning Area during the design and construction of facilities and improvements, no additional mitigation measures have been identified.

## **3.2 Soils and Topography**

### **3.2.1 Affected Environment**

Information for this section was obtained from the Soil Survey of Broadwater County Area, Montana (Natural Resource Conservation Service, April 1977, formerly the Soil Conservation Service). Since the Planning Area is located entirely within Broadwater County, the soil associations located in Lewis and Clark and other areas within Broadwater County are not described or analyzed in this section.

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A soil association is a landscape that has a distinctive proportional pattern of soils. Each association normally consists of one or more major soils and at least one minor soil and is named for the major soil that is present. The soils within an association typically have a common management capability. Therefore, knowing the soil associations within the Planning Area are useful in planning for development of the facilities identified in the RMP. The slope of the surrounding landscape is an important consideration in developing recreation facilities. Disturbance of steep slopes is associated with potential erosion and/or slope failure.

From the Magpie Creek drainage south along the east shore of the reservoir to the Gurnett Creek drainage, the Amesha-Brocko-Mussel soil association dominates the landscape and is located on intermediate terraces and fans. Amesha soils consist of deep, well-drained soils formed in strongly calcareous, stratified alluvium. The permeability of this type of soil is moderate, and runoff is medium to slow. Where the surface soil is loam or silt loam, the hazard of blowing soil is rated as severe; otherwise, it is considered to be moderate.

The Goose Bay Campground on the north side of the bay appears to be located on a narrow band of Scravo cobbly loam. Scravo soils are used primarily for range, while the Amesha soils are typically used for dry land winter wheat, some irrigated crops, and range. The Amesha soils transition to the steeply sloping loam soils on the terrace edges along the shoreline. In this transition from land to the edge of the water, runoff is rapid, and the chance of erosion is high.

### **3.2.2 Environmental Consequences**

#### **3.2.2.1 No Action Alternative (Alternative A)**

Under the No Action Alternative, overall trends in soil erosion within the Planning Area would continue. OHV use would continue, resulting in erosion, sedimentation, and dust generation. Some soil impacts from general recreation use would continue and be unavoidable.

#### **3.2.2.2 Action Alternative B – Less Development/Partnered Management**

Under Action Alternative B, exposure of soils to wind and water would be reduced by the control of OHV use within the Planning Area and by the better designation of human use areas. Some soil impacts from an increase in general recreation use within the Planning Area would likely occur, but be unavoidable. There may be some minor increase in soil erosion during construction, but it will be minimal and short term.

**3.2.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as Action Alternative B.

**3.2.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would be the same as Action Alternative C, except that the degree of impact to the soil and topographic resources would be slightly more due to increased facility construction at the campgrounds and the construction of trails, etc.

**3.2.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as for Action Alternative D.

**3.2.2.6 Cumulative Impacts**

No cumulative impacts have been identified.

**3.2.2.7 Mitigation**

Careful design and proper maintenance of constructed facilities and improvements, roads and public use areas, and control of OHV use would minimize soil erosion under all of the action alternatives.

## **3.3 Water Resources**

### **3.3.1 Affected Environment**

#### **3.3.1.1 Groundwater**

Underlying the Townsend Valley is a large, confined aquifer composed of Quaternary and Tertiary deposits. The aquifer supplies water primarily for domestic and irrigation use within the valley. Deep percolation from rainfall and snowmelt recharges the aquifer in the mountain ranges surrounding the valley. Perennial streams, irrigation canals and laterals, and seepage from irrigation water recharge the groundwater within the valley.

Well record data from the Montana Department of Environmental Quality show that wells on the east side of Canyon Ferry Reservoir are generally 100 feet deep or less with a yield of 10 to 40 gallons per minute. On the west side of the reservoir, the well depths are generally 100 to 400 feet with a yield of 10 to

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45 gallons per minute. Well depths in the vicinity of the recreation sites are generally less than 100 feet, except for Hellgate, where two wells exceed 100 feet (Reclamation, 2003).

The wells for the recreation areas around the reservoir are considered to be noncommunity, public water supplies and, therefore, require testing on a monthly basis for bacterial contamination. Reclamation conducts monthly tests on these wells, but only when the facilities are open for public use. Occasional evidence of high levels of coliform bacteria has occurred; however, chlorinating the water or temporarily shutting down the affected well has mitigated the problem. Wells are sampled monthly by Reclamation when the facilities are open to the public (typically mid-May to early September).

**3.3.1.2 Surface Water**

The Missouri River is the primary source of inflow to Canyon Ferry Reservoir. There are 11 perennial streams that also provide inflow; however, in the spring and summer months, most of the water from the streams is diverted for irrigation, and only a small amount reaches the reservoir. It is likely that a small amount of inflow to the reservoir is from gravel aquifers beneath the reservoir.

Water quality in the reservoir is generally suitable for the propagation of cold-water fish, safe for water sports, and potable after adequate filtration and treatment. The water flowing into the reservoir is a productive, calcium-bicarbonate type; hard and nutrient rich; and has a high phosphorous level. The pH, dissolved oxygen content, and water temperature produce conditions favorable to cold-water fisheries. The salinity of the surface water is low, and aside from arsenic, heavy metals are not a problem because of their low concentration and high alkalinity of the reservoir water.

Arsenic and phosphorous occur naturally in the reservoir and are considered the two primary contaminants. Soil and water in southwest Montana are particularly rich in phosphorous. Even though this natural fertility sets the stage for good blue ribbon trout fishing in streams, it also contributes to the nutrient load in the reservoir. The combination of phosphorous and nitrogen with hot, dry, and still conditions in the summer months have resulted in algae blooms, some of which are toxic. Aside from periodic decreases in the esthetics along the shoreline, the major water quality problem caused by the algae is its periodic toxicity.

Arsenic is carried to the Missouri River via the Madison river, a tributary that receives large amounts of arsenic-bearing thermal water from Yellowstone National Park. Total recoverable arsenic concentrations measured in the Missouri River near Toston have typically ranged from 10 to 50 micrograms per liter ( $\mu\text{g/L}$ ), exceeding the State's ambient water standard for human health of 20  $\mu\text{g/L}$  approximately half the time, but below the State's maximum acute arsenic level

of 340 µg/L and maximum chronic level of 150 µg/L for aquatic life. Typical background levels for arsenic in stream water is 2 to 5 µg/L. Arsenic levels averaged over 20 µg/L at several places at Canyon Ferry Reservoir. In the Missouri River below Canyon Ferry Dam, arsenic concentrations have ranged from 20 to 35 µg/L (Reclamation, 2003).

Streamflow alteration, metals, nutrients, and suspended solids were designated as parameters of concern for the Missouri River above the reservoir. Several tributaries entering the reservoir were listed as water quality impaired by the State under Section 303(d) of the Federal Clean Water Act. Designating a water body as impaired requires the State to set a priority for determining the total maximum daily load (TMDL) of a pollutant that the water body can receive and still meet water quality standards set for the designated uses of the water body. However, the State has set a low priority for developing TMDLs for the reservoir and the streams entering the reservoir. The State will develop a comprehensive program for the prevention, abatement, and control of water pollution, as mandated by the Clean Water Act and the Montana Water Quality Act.

### **3.3.2 Environmental Consequences**

#### **3.3.2.1 No Action Alternative (Alternative A)**

Under the No Action Alternative, the current water use and treatment practices would continue as they are today. There would likely be an increase in the amount of groundwater used from the existing well as visitation continues to increase; however, given the relatively small amount of pumping that would occur, the detectable impact to the groundwater in the area would be minimal.

The high nutrient load entering the reservoir will likely continue to produce algae blooms during hot, dry, and still conditions in the summer, some of which may be toxic. Increased visitation will increase the possibility for pollution from motorboat fuels, runoff from roads, and parking areas, and the disposal of unregulated substances such as the discharge of human waste from RVs and watercraft.

#### **3.3.2.2 Action Alternative B – Less Development/Partnered Management**

Under Action Alternative B, the impacts to groundwater and surface water would be less than the impacts associated with the No Action Alternative. The construction of an additional sewage treatment facility and placement of additional trash receptacles within the Planning Area would help reduce potential impacts to the water resources. Nutrient loading, elevated arsenic levels, low dissolved oxygen discharges, and the occurrence of algae blooms in the reservoir would likely continue.

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Water use for recreational and domestic use would likely increase slightly under this alternative, but any impacts from increased use of groundwater would be minimal. There would be temporary impacts to surface water due to potential soil erosion from construction activities within the Planning Area; however, those impacts would be minimal and short term. In addition, some impacts may occur to the surface water during construction of the new docks (i.e., temporary increases in suspended turbidity) due to the drilling of holes for installation of anchors as well as any underwater excavation that may be necessary.

Best management practices such as placement of silt barriers during construction would lessen the impact that erosion could have on the water resources.

**3.3.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as those for Action Alternative B.

**3.3.2.4 Action Alternative D – More Development/Partnered Management**

Impacts associated with Action Alternative D on the ground and surface water would be similar to the impacts of Action Alternative C. With the installation of an additional dump station within the Planning Area than was considered in Action Alternative D, there would potentially be less of an impact to surface water quality from the dumping of illegal waste. The installation of a fish cleaning station would help to lessen any impacts to water quality that would normally occur.

Nutrient loading, elevated arsenic levels, low dissolved oxygen discharges, and the occurrence of algae blooms in the reservoir would likely continue.

**3.3.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as Action Alternative D.

**3.3.2.6 Cumulative Impacts**

There would be no cumulative impacts resulting from implementation of any of the alternatives.



### **3.3.2.7 Mitigation**

Best management practices would be implemented during the construction of facilities and improvements to prevent undue erosion.

## **3.4 Air Quality**

### **3.4.1 Affected Environment**

Minor sources of air pollution at Canyon Ferry Reservoir consist of vehicular traffic, home heating, and mine exploration activities. On occasion, the east shore is subject to dust storms, especially in exposed areas that have highly erodible soils. The exposed areas include roads, plowed fields, and exposed reservoir flats during a low water year. These dust storms occurred primarily in the spring and were once a health risk to the residents of Townsend.

Reclamation, in cooperation with the MFWP, has been able to mitigate some of the negative impacts from the dust storms by constructing wildlife ponds in the southern part of the reservoir. Since the construction of the ponds in the mid-1960s, the frequency and magnitude of the dust storms has decreased and reduced the negative impacts to Townsend residents.

Air quality is determined by ambient concentrations of pollutants that are known to have harmful effects on human health and the environment. The U.S. Environmental Protection Agency (EPA) has developed national ambient air quality standards for six common criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), ozone, sulfur dioxide, and lead.

When compared to other counties throughout the United States, and according to the Broadwater County Scorecard, the county ranks as one of the cleanest/best counties and falls well within the standards for the six common pollutants mentioned above.

According to the Lewis and Clark County Scorecard, the county ranks among the dirtiest/worst counties when compared to other counties within the United States. The East Helena Area within Lewis and Clark County is considered a nonattainment area for failing to meet the national ambient air quality standard for lead and sulfur dioxide. The pollution sources in East Helena and Helena may contribute minor amounts of sulfur dioxide and particulate (lead or trace elements); however, the distance from the Planning Area likely does not contribute to any negative air quality impacts to the Canyon Ferry Reservoir area.

Under the EPA General Conformity Rule, established under the Clean Air Act (Section 176(c)(4)), Federal actions must conform to the initiatives established in the applicable State Implementation Plan. The General Conformity Rule ensures that the actions taken by Federal agencies in nonattainment and maintenance areas meet national standards for air quality. The General Conformity Rule includes *de minimis* levels that establish a threshold level for each criteria pollutant. If threshold levels might be exceeded for a targeted pollutant, a conformity determination must be performed to determine whether or not the State Implementation Plan for that particular pollutant will be violated (EPA, 2009).

In addition, to complying with the General Conformity Rule regarding CO maintenance, another concern regarding CO emissions is the potential for CO poisoning attributed to activities occurring on or in the water near the rear of boats with motors, areas where idling boats congregate in large numbers, or during activities associated with body surfing immediately at the rear of the boat. CO concentrations can also occur in the cabins or other enclosed areas of older boats.

### **3.4.2 Environmental Consequences**

#### **3.4.2.1 No Action Alternative (Alternative A)**

Minor air pollution from vehicle traffic and adjacent home heating and mine exploration will continue under the No Action Alternative. Dust storms will continue, especially in exposed areas that have highly erodible soils. The gradual increase in visitation over time will result in increases in dust pollution from vehicles using the Planning Area, minimal increases in exhaust pollution from increased watercraft use of the reservoir, and increased campfire use. However, the increase in visitation and greater use of the area will not likely cause air quality to exceed any threshold levels for targeted pollutants.

#### **3.4.2.2 Action Alternative B – Less Development/Partnered Management**

The impacts associated with Action Alternative B would be the same as the No Action Alternative, except that the proper maintenance of roads within the Planning Area would help to alleviate potential impacts caused by dust from increased vehicle traffic. The measures to control OHV use would also reduce the potential impacts to air quality. It is likely that there will be temporary impacts to air quality during construction activities; however, the impacts would be minimal and short term.

#### **3.4.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as Action Alternative B.

**3.4.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would be the same as Action Alternative C.

**3.4.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as Action Alternative D.

**3.4.2.6 Cumulative Impacts**

No cumulative impacts have been identified.

**3.4.2.7 Mitigation**

No mitigation measures have been identified.

## **3.5 Vegetation**

### **3.5.1 Affected Environment**

Four distinct vegetative groups are present within the Canyon Ferry Reservoir area (Reclamation, 2003). The four vegetative groups and primary locations are:

1. **Upland Game Shrub** – There are two upland game shrub types that are present in the northern portion of the reservoir area: the big sage-brush/blue wheatgrass habitat type and the mountain mahogany/blue bunch wheatgrass habitat type.
2. **Coniferous Forest** – Two coniferous forest habitat types are present within the Canyon Ferry Reservoir area: the Ponderosa Pine/blue bunch wheatgrass habitat type and the Douglas-fir/rough fescue habitat type. Both types are present on the north and northeast portions of the shoreline from Magpie Bay on the east to the Lewis and Clark-Broadwater County line on the west side of the reservoir.
3. **Grassland** – The grassland component is composed of two habitat types, one vegetative type, and two pasture types. Most of the grassland area is composed of the needle-and-thread, blue gram habitat and dominates the central and southern portions of the reservoir. Meadows at the north end of the reservoir are primarily of the blue-bunch wheatgrass habitat type. The introduced grassland vegetation type is present around the reservoir in drainage areas at the interface between riparian corridors and upland

vegetation types. The two pasture types are primarily at the south end of the reservoir area within and adjacent to the Wildlife Management Area (WMA).

4. **Riparian Vegetation** – There are two dominant riparian vegetation types that occupy most of the riparian areas around the reservoir: narrow-leaved cottonwood and sandbar willow. Three types that occupy small areas are quaking aspen, cattail, and bulrush. All the riparian areas are highly disturbed, as witnessed by the abundance of introduced pasture grasses and noxious weeds. The largest riparian area is at the southern end of the reservoir where the Missouri River enters the reservoir. Other major riparian areas include the drainages of Confederate Gulch and Beaver, Duck, and Magpie Creeks. The constructed ponds and islands on the east and west sides of the reservoir at the south end also support abundant riparian vegetation.

#### **3.5.1.1 Species of Concern**

There were no species of concern observed within the Planning Area; however, one sensitive plant, rabbit crazyweed, is known to occur in the reservoir area. It likely occurs on the west side of the reservoir in the Ponderosa Pine habitat area, but is unlikely to occur within the Planning Area. Ute ladies tresses are known to occur within Broadwater County, but none have been recorded within the Planning Area (i.e., Township 9 North, Range 1 East) (Montana Natural Heritage Center Program [MNHCP], 2009). There are only 12 known occurrences of Ute ladies tresses in Montana at locations within Beaverhead, Broadwater, Gallatin, Jefferson, and Madison Counties (Montana Department of Transportation, 2006). Although the Planning Area contains likely habitat for Ute ladies tresses (i.e., wetlands and flood plains), it is unlikely that they occur because they have not been identified by MNHCP as being in the Goose Bay Area.

#### **3.5.1.2 Wetlands**

Most of the wetlands occur adjacent to the shoreline and were established as a result of the construction of the dam. More recently established wetlands are associated with the constructed ponds in the WMA area at the southern end of the reservoir. Long-established wetlands are associated with the Missouri River at the southern end of the reservoir and perennial streams such as Duck Creek.

#### **3.5.1.3 Weeds**

Fourteen noxious weed species populations are known to exist within the reservoir area boundary. A population is a unique aggregation of individual plants of the same species that is spatially separated from other populations of the same or different species by approximately 150 feet. Seven noxious weeds (Canada thistle [*Cirsium arvense*], Dalmatian toadflax, houndstonque

[*Cynoglossum officinale*], spotted knapweed [*Centaurea biebersteinii*], field bindweed [*Convolvulus arvensis*], leafy spurge [*Euphorbia esula*], and perennial pepperweed [*Lepidium latifolium*]) were abundant, each infesting more than 100 acres. Five noxious weeds (Russian knapweed [*Acroptilon repens*], whitetop [*Cardaria draba*], diffuse knapweed, common tansy [*Tanacetum vulgare*], and yellow toadflax [*Linaria vulgaris*]) were less abundant, each infesting 1–25 acres. Tamarisk and oxeye daisy [*Leucanthemum vulgare*] were rare, each infesting less than or equal to 0.01 acre (Reclamation, 2005 – 2006).

The noxious weed populations in the vicinity of the Planning Area and the affected acres (designated as less than or greater than 5 acres) are Russian Knapweed, < 5 acres; Whitetop, < 5 acres; Spotted knapweed, < 5 acres; Canada thistle, > 5 acres; Field bindweed, > 5 acres; Leafy spurge, < 5 acres; Perennial pepperweed, < 5 acres; and Dalmatian toadflax, < 5 acres. Please note that there may be more than one distinct population of each weed species totaling less than or more than 5 acres within the Planning Area.

### 3.5.2 Environmental Consequences

#### 3.5.2.1 No Action Alternative (Alternative A)

Recreationists and OHV use currently adversely impact the grassland within the Planning Area. Uncontrolled OHV use would continue to destroy vegetation and randomly spread noxious weeds throughout the Planning Area. Recreationists would continue to trample existing vegetation in and adjacent to campsites that they randomly select. OHV use and other dispersed recreation activities such as dispersed camping within the Planning Area would continue to expand under this alternative. Most of the negative effects would occur on upland shrub and grassland, although riparian areas along riparian corridors and adjacent to the reservoir could be adversely impacted.

#### 3.5.2.2 Action Alternative B – Less Development/Partnered Management

The impacts associated with Action Alternative B would be less than those identified in the No Action Alternative. The designation of camping areas, closure of one road, off-road barriers and signs and better management of OHV use would have a positive effect on vegetation resources (i.e., the spread of noxious weeds and the destruction of vegetation by OHVs would be eliminated). The trampling of vegetation by the public would likely continue in and adjacent to designated campsites, but would be greatly reduced in most areas. There are no known or identified species of concern within the Planning Area; therefore, no impacts to those species will occur.

**3.5.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as Action Alternative B.

**3.5.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would be similar to the impacts of Action Alternative C, except this alternative proposes additional facility construction, including the development of hiking and biking trails. This would have a direct affect on upland shrub vegetation. The spread of noxious weeds would likely decrease. However, by avoiding sensitive vegetation habitats and implementation of some the action items in this alternative (i.e., road closure, barriers and signs, and designated camping loops with designated sites), the expected net affect on vegetation would be positive.

**3.5.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as Action Alternative D.

**3.5.2.6 Cumulative Impacts**

Vegetation resources would continue to decline as use increases over time. Grassland and upland shrub vegetation would be most affected, but none of the alternatives would radically alter any of the existing vegetation types. Implementation of any of the action alternatives would likely help prevent the spread of noxious weeds.

**3.5.2.6 Mitigation**

No mitigation measures have been identified.

## **3.6 Fish and Wildlife**

### **3.6.1 Affected Environment**

#### **3.6.1.1 Fish**

Fisheries at Canyon Ferry Reservoir are managed by the MFWP. The existing sport fishery consists primarily of walleye, yellow perch, rainbow trout, brown trout, and burbot (ling). The relative abundance of rainbow trout and yellow perch has increased for the second consecutive year. The MFWP stocked 287,644 rainbows during the spring, summer, and fall of 2007. Rainbows were stocked in certain locations to minimize predation by walleye. The increase in the

relative abundance of rainbows is a function of increased survival of larger-sized fish during the stocking periods. To increase fish habitat, the MFWP placed Christmas tree structures in the reservoir during 2007. Some structures were placed on the ice before it melted and by helicopter shortly after the ice had melted (MFWP, 2009a).

Angling pressure at the reservoir typically is among the highest in the State of Montana. Angling pressure over the last 10 years has often exceeded 90,000 angler days per year. According to the 2007 MFWP survey that was conducted at Canyon Ferry Reservoir, the recreating public logged 116,096 angler days. During the 2007 summer season (March to February), there were 83,346 angler days recorded. During the winter season (October through February), there were 32,750 angler days recorded (MFWP, 2009b).

During 2007, the MFWP also conducted an angler satisfaction survey and an angler crowding survey. The results of both surveys indicated that the public was not satisfied with the fishery at the reservoir and that crowding was a problem (MFWP, 2009c).

The major goal, as stated in the *Upper Missouri River Reservoir, Fisheries Management Plan, 2000 – 2009*, is to maintain a cost-effective, multispecies fishery that will sustain the current level of angler use during both winter and summer fishing seasons (MFWP, 2009d).

### **3.6.1.2 Wildlife**

Canyon Ferry Reservoir provides a wide variety of habitats for an array of wildlife species; however, the habitats for practical reasons can be divided into two distinct groups. The first habitat group encompasses the reservoir shoreline and adjacent uplands and the tributaries leading into the reservoir. The second habitat group encompasses the south end of the reservoir and the WMA managed by the MFWP.

The MFWP management strategy for the WMA is to provide productive habitat for a diversity of wildlife species and to provide for consumptive and nonconsumptive use of those resources. MFWP emphasis has been on improving habitat to maximize waterfowl production and provide opportunities for hunters.

Management emphasis outside the WMA has consisted of constructing boundary fencing primarily on the east side of the reservoir to control OHV use, trespass livestock grazing, and other uses that are considered to be inconsistent with wildlife management.

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**Big Game Species** – Big game species that occur within the reservoir area consist of mule deer, white-tailed deer, antelope, moose, and elk. Mule deer and white-tailed deer are found throughout the reservoir area, although the population of each species varies depending on habitat quality and quantity. Elk infrequently use the reservoir area. When they are present, it is usually on the west side of the reservoir during hard winters. Moose are found in the WMA at the south end of the reservoir.

**Waterfowl** – A variety of waterfowl species are found throughout the reservoir area, but are concentrated in the WMA. The number of geese has increased significantly since 1961 due to the nesting habitat created by the pond and island complex. The duck population has increased more slowly because they have specific nest cover requirements that are lacking on many of the islands and because of predation. The most common ducks found at the reservoir are mallards, redheads, and gadwalls. Both ducks and geese gather at the WMA before spring and fall migrations. Areas around the reservoir that are outside the WMA serve mainly as staging areas that attract waterfowl during spring and fall.

**Upland Game Species** – Pheasants are found around the reservoir where there is suitable habitat; however, their population is considered to be low. Hungarian partridge and sharptail grouse are occasionally found around the reservoir, but habitat that is more favorable to partridge is primarily found in the grain fields east of the reservoir. Merriam's wild turkeys may infrequently be found at the north end of the reservoir where the habitat is considered to be suitable for turkeys (i.e., Ponderosa pine and grassland). However, cabin sites and private housing developments that decrease available habitat occupy most of the north end of the reservoir.

**Raptors** – There are a variety of raptors that frequent the reservoir area. The most common raptors observed are the Bald eagle, osprey, and red-tailed hawk. Prairie falcons, Golden eagles, Great-horned owls, Northern harriers, and American kestrels, as well as Ferruginous, Swainsons, Coopers, and Sharp-shinned hawks have been observed at the reservoir.

The number of eagles present at the reservoir seems to be dependent on the number of spawning kokanee salmon in the area below the dam.

**Furbearers, Small Mammals, Reptiles, and Amphibians** – Beaver are known to occupy areas that have suitable habitat that includes Duck Creek, Confederate Gulch, Magpie Creek, and Beaver Creek. Raccoons and mink also occupy these same areas. Coyote populations are stable, while fox have increased with the increase in agriculture in the area and the human control of coyotes.



**Species of Concern** – Pursuant to the *U.S. Fish and Wildlife Service (FWS), Endangered, Threatened, Proposed and Candidate Species, May 2009*, there are no wildlife species listed for Broadwater County. Refer to attachment B for the FWS 2009 species list by county.

In May of 2009, the Gray wolf in Montana was delisted from the FWS species list. However, Montana's State law, regulations, and wolf management plan replace the Federal regulations. Gray wolves are protected and managed as a Montana species in need of management (MFWP, 2009a). The Gray wolf exhibits no particular habitat preference except for the presence of native ungulates within its territory on a year-round basis. Wolves establishing new packs in Montana have demonstrated greater tolerance of human presence and disturbance than previously thought characteristic of this species (State of Montana, 2009b). Although Gray wolves inhabit many different counties in Montana, including Lewis and Clark County, Broadwater County is not listed as a county where wolves have been observed. Therefore, it is unlikely that Gray wolves occur within the boundaries of the Planning Area.

The Canada lynx generally occur in subalpine forests in stands composed of pure lodgepole pine but also mixed stands of subalpine fir, lodgepole pine, Douglas-fir, grand fir, western larch, and hardwoods (State of Montana, 2009a). Due to the lynx preference for a certain type of habitat, it is doubtful that they occur within the Planning Area.

### **3.6.2 Environmental Consequences**

#### **3.6.2.1 No Action Alternative (Alternative A)**

Under the No Action Alternative, there would be no impacts to the fish resources at Canyon Ferry Reservoir. As with other alternatives, recreation use is likely to increase in the future, thus increasing fishing pressure. The MFWP is aware of this gradual increase in visitation and fishing pressure and manages the fisheries resources at the reservoir accordingly.

The wildlife resources under this alternative would be impacted by the increase in visitation. When the level of recreation use exceeds the carrying capacity of existing facilities and public use areas, use will overlap into adjacent land areas. This will negatively affect upland vegetation areas and its associated wildlife. Uncontrolled OHV use and dispersed camping will continue to increase as visitation increases and negatively affect the wildlife habitat and associated wildlife species within the Planning Area.

**3.6.2.2 Action Alternative B – Less Development/Partnered Management**

The impacts associated with Action Alternative B would be less than those identified in the No Action Alternative. The construction of new facilities and other improvements would have a negative affect on wildlife resources due to a decrease in available habitat. However, the designation of camping areas, closure of one road, off-road barriers and signs, and better management of OHV use would have a positive effect on the wildlife resources when compared to the No Action Alternative. There are no known or identified endangered, threatened, proposed, candidate species, or species of concern located within the Planning Area; therefore, no impacts to those species will occur.

With increased visitation, fishing pressure would increase slightly, but the increase would have little impact to the reservoir fishery due to the management strategy of the MFWP.

**3.6.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as Action Alternative B.

**3.6.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would be greater than wildlife impacts under Action Alternative C. Increased facility development, including walking/hiking and biking trails, would decrease wildlife habitat and associated wildlife species. However, the impacts would be partially offset by the designation of camping areas, closure of one road, off-road barriers and signs, and better management of OHV use.

As with Action Alternatives B and C, fishing pressure would increase slightly, but would have little impact on the overall fishery at the reservoir.

**3.6.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as Action Alternative D.

**3.6.2.6 Cumulative Impacts**

It is assumed that recreation use at Canyon Ferry will increase in the future regardless of whether or not any of the alternatives are implemented. Wildlife resources may be negatively impacted as a result of increased facility development, but also because increased visitation may tend to push certain wildlife species to areas outside the Planning Area.

### **3.6.2.7 Mitigation**

No mitigation measures have been identified.

## **3.7 Land Use**

### **3.7.1 Affected Environment**

The 9,360 acres of land and the 33,500 water surface acres were acquired as part of the Canyon Ferry Unit of the Pick-Sloan Missouri Basin Program. The total of approximately 42,500 acres is under the overall jurisdiction of Reclamation. The reservoir area is within Lewis and Clark and Broadwater Counties. The Planning Area is located totally within Broadwater County.

Reclamation has entered into an agreement with the MFWP for management of the WMA located at the south end of the reservoir. The MFWP has the responsibility to manage public use and the wildlife resources within the WMA. The WMA includes dust abatement dikes with waterfowl nesting habitat, land for wildlife production, about 1,000 acres of agricultural leases, irrigation canals, and access roads. The MFWP has several divisions within its organization, including the Enforcement Division, which is responsible for enforcing State boating, hunting, fishing, and snowmobile laws and regulations on Canyon Ferry Reservoir lands that are under the primary jurisdiction of Reclamation.

Reclamation has a 10-year agreement with Broadwater County to manage part of the Silos Recreation Area at the southwest part of the reservoir for public recreation. While Reclamation retains primary jurisdiction of the Silos Recreation Area, Broadwater County is authorized to operate and maintain existing facilities, collect and retain user fees, develop new facilities, and develop and operate commercial services in the area covered by the agreement.

The Montana Aeronautics Division of the Montana Department of Transportation has a use authorization to operate a public airport on Reclamation lands just north of the Silos Recreation Area. The disposition of the airport remains to be determined. The Montana Aeronautics Division, Montana National Guard, and the Broadwater County Commissioners, as well as local land developers, would like to have the airport remain open.

Canyon Ferry Reservoir provides water for the Helena Valley west of the reservoir for the primary purposes of supplying irrigation and municipal water for Helena, Montana. The Helena Valley Irrigation District is responsible for O&M of the distribution facilities beyond the point of delivery by Reclamation.

Three concessionaires have agreements with Reclamation to operate commercial businesses at the reservoir and to provide recreation opportunities for the public.

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The remaining lands are managed solely by Reclamation and are primarily used for public outdoor recreation purposes and open space with the following exceptions:

- Canyon Ferry Dam and powerplant.
- Offices and residential buildings at Canyon Ferry Village.
- Legalized uses that have been granted by Reclamation or a managing partner through the issuance of use authorizations.
- Cabin sites.
- Buildings associated with the management of the reservoir area.

For the most part, the lands under the jurisdiction of Reclamation are surrounded by private lands consisting of residential uses at the north and south ends of the reservoir, private commercial businesses near Yacht Basin Marina and Silos Campground, and primarily ranching and farming on both the east and west sides along with a limited number of second home developments. Private development on the east side of reservoir and the Planning Area has been limited because there is little demand in the area and the lack of available water. Ultimately, as private land around the reservoir is developed for residential use, the visual character of the landscape will likely change to a landscape that is more suburban in nature.

The Bureau of Land Management (BLM) has jurisdiction of lands adjacent to Reclamation lands primarily on the west side of the reservoir and north of Beaver Creek and White Earth Recreation Area. The State of Montana also has several parcels of land that border the reservoir area. In addition, there are U.S. Forest Service lands located several miles north-northeast of Canyon Ferry Reservoir.

### **3.7.2 Environmental Consequences**

#### **3.7.2.1 No Action Alternative (Alternative A)**

Under the No Action Alternative, the land uses and associated impacts within the Planning Area would not change. A concession use authorization for Goose Bay would be issued, and the concession would offer the same facilities, goods, and services that are available at this time. Recreation use would continue to increase. The lands outside the concession area would continue to be used for OHV use, dispersed camping, and the normal activities that occur in an area that offers dispersed recreation opportunities (i.e., hiking, wildlife observation, etc.) Depending on the rate of growth and demand, it is expected that private land surrounding Canyon Ferry Reservoir would continue to be developed for

residential and/or commercial uses. The use of Federal land managed by BLM is not expected to change; however, it may experience greater visitation as surrounding private lands are developed.

**3.7.2.2 Action Alternative B – Less Development/Partnered Management**

Under Action Alternative B, the impacts would be the same, except visitation would likely increase at a faster rate than the No Action Alternative. The increase in visitation would result from recreation facility construction and other improvements that would be made within the Planning Area. OHV use within the Planning Area would decrease as a result of the action items that would be implemented under this alternative (i.e., road closure, OHV barriers, and posting of signs). However, visitation to adjacent Reclamation lands within Canyon Ferry Reservoir may increase due to the relocation of those recreationists who wish to have a more dispersed and unconfined recreation experience. As the visitation increases within the Planning Area, adjacent BLM lands may also experience a slight increase in use, especially dispersed recreation use.

**3.7.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as those for Action Alternative B.

**3.7.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would be the same as those for Action Alternative C, except the Planning Area may experience a moderate increase in visitation due to the additional recreation facilities and improvements that would be implemented under this alternative as compared to those facilities and improvements that would be completed under Action Alternative C.

**3.7.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as those for Action Alternative D.

**3.7.2.6 Cumulative Impacts**

With the loss of the Planning Area for dispersed and unconfined recreation activities, visitors may seek other public lands to participate in those types of recreation experiences.

### **3.7.2.7 Mitigation**

No mitigation measures have been identified.

## **3.8 Recreation**

### **3.8.1 Affected Environment**

Canyon Ferry Reservoir offers a variety of recreation opportunities for the visiting public to enjoy. The total visitation at the reservoir for 2008 was 327,699 and has increased steadily over the years (Reclamation, 2009c). The recreation facilities are primarily operated and maintained by Reclamation and other entities. Under an agreement with Reclamation, there are three concessionaires that offer recreation-related goods and services to the public. The MFWP also offers hunting and wildlife viewing opportunities to the public. The MFWP has an agreement with Reclamation to operate and maintain a wildlife area at the south end of the reservoir. Reclamation has also entered into an agreement with Broadwater County for management of certain lands within the Silos Recreation Area. Refer to figure 3 for the location of major developed recreation areas within the Canyon Ferry Reservoir area. The map also shows the location of the three concession areas.

The reservoir has 33,500 water surface acres with 96 miles of shoreline and 9,360 land acres. All of the water surface acres and 1,000 developed land acres are open for public use. The remaining 8,360 land acres are undeveloped, but offer dispersed recreation opportunities such as wildlife observation, hiking, and photography.

The primary developed facilities include 11 campgrounds with 233 campsites, 11 day use areas, 6 picnic sites, 11 boat launch ramps, and 9 swim beaches. There is no fee charged for entry into the reservoir area, but 7 of the 11 campgrounds charge a camping fee for use of facilities. There are also five group use areas with shelters that can be reserved for a fee from May through September on a first-come, first-served basis (Reclamation, 2009b).

Yacht Basin Marina is located at the northwest portion of the reservoir and offers a variety of goods and services, including a boat ramp, boat moorings and rentals, gas, groceries, lodging, restaurant, snack bar, and telephone. The Yacht Basin Marina also manages the Chalet group use area.

Kim's Marina is located at the northeast side of the reservoir and provides a boat ramp, boat rentals and moorings, campsites for a fee with full hookups, dump station, gas, groceries, laundry facilities, lodging, propane, restaurant, snack bar, showers, and telephone.

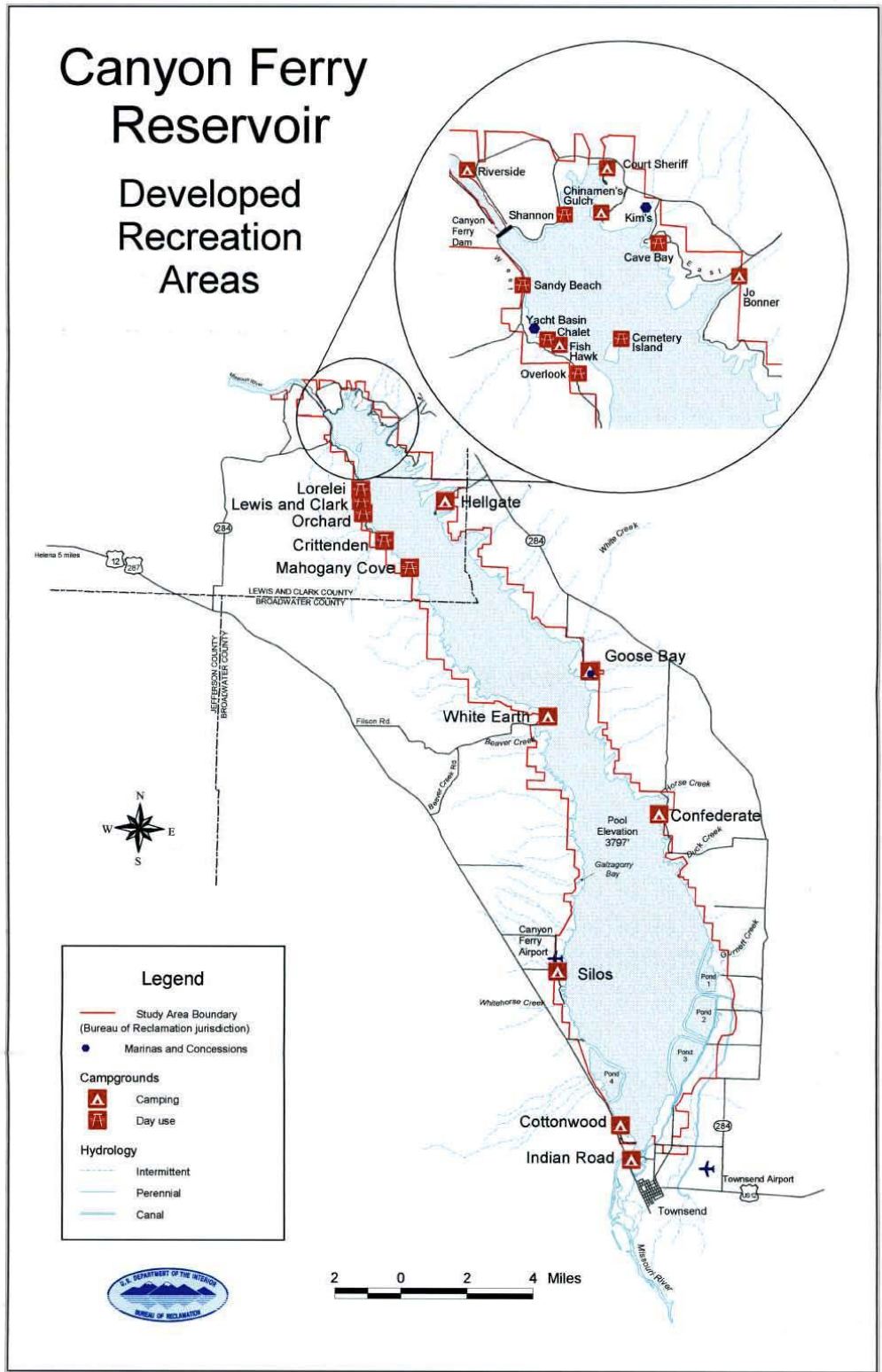


Figure 3.—Location of major developed recreation areas.

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Goose Bay Marina is located on the east side of the reservoir off of State Highway 284. Services and facilities at the marina include a boat ramp, boat slips and connecting dock, marina fuel service, store, restroom facilities, RV campsites with full hookups, dry storage, and 31 mobile home sites.

Pursuant to the draft *Canyon Ferry Shoreline Management Plan* (Reclamation 2008), Reclamation lands adjacent to the Goose Bay Marina have been categorized as undeveloped/limited access. By definition, undeveloped areas provide dispersed recreation opportunities and provide valuable riparian and upland game habitat for a variety of upland game birds, waterfowl, deer, antelope, and other wildlife species. Although established roads access some undeveloped areas, motorized access is typically prohibited to reduce user conflicts and protect natural resources. Hunting and trapping are permitted in undeveloped areas as regulated by the MFWP.

The lands within Canyon Ferry Reservoir and the Planning Area are closed to OHV use pursuant to 43 CFR, Part 420. According to the CFR, all Reclamation lands are closed to OHV use unless the lands are officially designated as open. No formal process has ever been initiated for legally opening reservoir lands to OHV users; therefore, all lands under the jurisdiction of Reclamation at the reservoir are currently closed to OHVs. Visitors are currently illegally using Reclamation lands for OHV use, especially along the eastern shore from Confederate Bay to Canyon Ferry Dam, as well as along the western shore north of Silos Recreation Area (Reclamation, 2003).

To assist in determining the overall affected recreation environment, it is important to understand what the public perceives the existing environment to be. In 2003, Reclamation contracted with University of Montana for completion of a recreation survey for Canyon Ferry Reservoir to obtain visitor characteristics and profiles, user preferences, and visitor satisfaction with facilities and services. Some of the results of the survey during the summer recreation season (May to September) are summarized below (Dovorak, et al, 2004):

- Most of the visitors were Montana residents.
- Nonresident visitors came mainly from Washington, Arizona, and Idaho.
- Less than one-third of the visitors were visiting the reservoir for the first time.
- The primary reasons for visiting particular recreation sites were:
  - ⇒ Close to home.
  - ⇒ Good fishing.
  - ⇒ Scenic beauty.



- Overall, visitors were satisfied with their trip to a particular site.
- Visitors were generally satisfied with conditions at the overnight and day use sites, especially campsite and picnic areas, maintenance of facilities, cleanliness of area, privacy, natural features, and opportunities to view wildlife.
- The majority of visitors to most sites thought that additional facilities were needed, and suggestions included showers, electrical hookups, dump stations, dock maintenance, and restrooms.
- In general, visitors did not mind seeing various recreation types and resource uses at the reservoir (e.g., canoes, water skiers, boat anglers, etc.); however, jet skiing was disliked the most among visitors who encountered them, followed by shoreline development.

The majority of the respondents (45 to 70% depending on the site surveyed) to the 2004 survey expressed a need for more facilities. This is approximately 10-20 percent higher than a survey conducted in 1995 by the University of Montana. The facility needs cited most for summer visitors included showers, restrooms, electrical hookups, dump stations, and dock maintenance. Fall/winter visitors cited the need for restrooms and boat ramps. This differs from 1995 when visitors wanted covered picnic tables most, followed by RV facilities and dump stations, beach areas, running water, and docks. As the results of the survey indicate, visitors were very satisfied with their visit to the reservoir and the condition of existing facilities and opportunities. However, the survey results did indicate that additional facilities were needed at the reservoir.

Overall, the recreation activities with the highest percent of participation levels at Canyon Ferry Reservoir in 2003-04 were swimming, fishing, and auto/RV camping. Other activities with high participation levels included boating and sailing. These findings are consistent with national, regional, and State findings and trends that are shown in the RMP, appendix F.

It is important to understand what the public perceives the recreation condition to be within the Planning Area. Following are some of the comments provided by the general public from the 2004 recreation survey regarding the condition of the Planning Area:

- Goose Bay has a lot of potential – current concessionaires will never make major improvements.
- Needs to be managed better. Nobody obeys the no-wake in the bay, and the campground, bathrooms, boat docks, and walkways could use some improvements.

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- Goose Bay is fine the way it is.
- Everything is good, and we come to this site because we have fun here and there are no fees to camp.
- The more development any place has takes away from the experience nature can offer. Making areas more accessible brings more people, and is counterproductive.
- Stronger rules are needed.
- Too much dust in the area.
- Much more could have been done over the years to enhance Goose Bay Marina (e.g., grass, water, picnic tables, etc.)
- The new government boat ramp and, finally gasoline, have made this place one of the best on the lake.
- Handicapped facilities are needed.
- The campground is unkempt, there are no trees to speak of, no grass, and the sewer system is always plugged up.
- For our needs, this is sufficient. Hope they spray the weeds.

Overall, the public surveyed in 2004 perceived the Goose Bay area as having potential for enhancing the recreation opportunities in the Planning Area; however, the existing facilities are in need of repair. Some respondents felt that more management was necessary within the Planning Area, while others believed that the area should be left as it is today.

During the public scoping meetings that were held to solicit comments on the proposed RMP, the following summarizes some of the major concerns and issues collected during those meetings (Public Comment Summary and Analysis Report) (Reclamation, 2009d):

- There is too much uncontrolled use within the Planning Area.
- Keep the trailers that are currently on site at the Goose Bay Marina.
- Trailers are out of compliance with certain codes.
- The Planning Area should remain somewhat primitive and managed but not overdeveloped.

- OHVs are an environmental, fire, and safety problem and need strict controls.
- A range of opportunities and camping experiences should be provided.
- Developed campsites are needed.
- A sewage and grey water dump station should be provided.
- Access to the Planning Area should be controlled and enforced.
- Facilities that are accessible for persons with disabilities should be provided.
- Group use and day use shelters are needed.
- Additional facilities are needed, including a swim beach and fish cleaning station.
- The Planning Area should be managed solely by a concessionaire.

## **3.8.2 Environmental Consequences**

### **3.8.2.1 No Action Alternative (Alternative A)**

Except for possible minor construction activities that would be associated with public health and safety issues, no new facilities or improvements are expected to be developed within the Planning Area, and future recreation demand would not be met. Visitors would not be impacted by the issuance of a new concession contract for Goose Bay.

The Goose Bay Concession Area would continue to provide the same facilities, goods, services, and the visitor experience it currently offers the public. Reclamation would continue to provide the same facilities and opportunities it currently provides within the Planning Area. As visitation increases for all recreation activities at Canyon Ferry Reservoir and within the Planning Area, and existing facilities reach their capacity limits, available sites and facilities would likely deteriorate over time from overuse. The quality of the recreation experience would decline for most users, and conflicts between different recreation users would continue.

Existing Reclamation practices would allow dispersed and uncontrolled recreation use to continue, including the continued use of certain lands within the Planning Area for OHV use.

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As visitation increases over time, recreation users that use the Planning Area may experience a feeling of overcrowding and seek other places within or outside the Canyon Ferry Reservoir Area to enjoy their recreation pursuits.

Pursuant to WROS, the recreation experience in the concession area would continue to be a Rural Developed experience. The WROS experience within the Planning Area managed by Reclamation would continue to be classified as a Semi Primitive experience.

**3.8.2.2 Action Alternative B – Less Development/Partnered Management**

In the long term, it is expected that visitation to the Planning Area would increase slightly more with the implementation of the action items proposed under this alternative as compared to the No Action Alternative. The public demand for additional facilities within the Planning Area would be met. It is assumed that there would be a slight increase in watercraft use under this alternative as compared to the No Action Alternative. As use increases, those individuals that experience a feeling of overcrowding will likely seek other places to participate in their recreation activities. However, any decrease of visitation due to overcrowding would be offset by increased visitation that would be expected from the construction of new facilities and other improvements.

As a result of the items proposed under this alternative, OHV users and others who prefer an uncontrolled and unconfined recreation experience would be displaced to other areas outside the Planning Area. Adjacent BLM lands, as well as U.S. Forest Service lands located to the northeast of Canyon Ferry Reservoir, may experience an increase in OHV and other recreation uses on their lands. The curtailment of OHV use in the Planning Area would reduce the potential for conflicts between OHV users and other recreation users that are participating in other activities.

Short-term impacts would occur as a result of construction activities and would cause a temporary inconvenience for recreationists. A determination would be made on what areas within the Planning Area, if any, may close during construction. Efforts would be implemented that would protect visitor health and safety during construction.

Pursuant to WROS, the recreation experience within the concession area would remain classified as a Rural Developed experience, while the WROS classification for lands currently under Reclamation management would change from a classification of Semi Primitive to a Rural Natural classification.

**3.8.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as Action Alternative B.

**3.8.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would mostly be the same as those for Action Alternative C, except that visitation would increase slightly over Alternative C. With increased facility development and improvements under Alternative D, the public would have more facilities and site amenities and, therefore, visitors seeking a more developed recreation area would have a more enjoyable recreation experience. There is also a potential for the additional development to displace visitors who prefer a more undeveloped, dispersed recreation experience.

With the construction of an additional boat ramp in Scooter Bay, watercraft use of the reservoir may increase faster than under Action Alternative B.

The WROS classification of the concession area would remain a Rural Developed experience, while the remainder of the Planning Area would change from a Rural Natural experience to Rural Developed.

**3.8.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as those for Action Alternative D.

**3.8.2.6 Cumulative Impacts**

The cumulative impacts of controlling unauthorized uses and restricting some public access to designated areas might be the displacement of visitors who desire an unconfined and uncontrolled recreation experience. Visitor use is likely to increase at Canyon Ferry Reservoir, which would possibly increase visitor conflicts and resource damage if use is not controlled and monitored.

**3.8.2.7 Mitigation**

Facility construction would complement the surrounding landscape, as practical, and would follow strict design and construction criteria, guidelines, and standards.

The health and safety of the public would be protected during construction of facilities.

### 3.9 Socioeconomic Resources

#### 3.9.1 Affected Environment

As stated earlier, Canyon Ferry Reservoir is located within the boundaries of Broadwater and Lewis and Clark Counties. The city of Helena, State capitol of Montana, is approximately 15 miles west of the reservoir, and the town of Townsend is located at the southernmost end of the reservoir. Table 2 shows the population from the 2000 census, current population, and the projected population for 2010 for both counties.

Table 2.—Population of Broadwater and Lewis and Clark Counties

|                        | 2000 census | July 2009 <sup>1</sup> | 2010                |
|------------------------|-------------|------------------------|---------------------|
| Broadwater County      | 4,385       | 4,590                  | 5,000 <sup>2</sup>  |
| Lewis and Clark County | 55,716      | 59,998                 | 63,316 <sup>3</sup> |

<sup>1</sup> <[http://www.city-data.com/county/Lewis\\_and\\_Clark\\_County-MT.html](http://www.city-data.com/county/Lewis_and_Clark_County-MT.html)> and <[http://www.city-data.com/county/Broadwater\\_County-MT.html](http://www.city-data.com/county/Broadwater_County-MT.html)>.

<sup>2</sup> *Broadwater County Growth Policy Plan, 2003.*

<sup>3</sup> Lewis and Clark County, 2004.

Broadwater County’s population has grown substantially since 1970, from 2,500 to nearly 4,600 in 2009. The county experienced a significant increase during the 1990s of 1,067 people. The increase from 3,318 to the 2000 census population of 4,385 was 32 percent, the third highest in Montana, behind Ravalli and Gallatin Counties. Townsend grew by 14 percent between 1990 and 2000 (Broadwater County, 2003).

The population of Lewis and Clark County grew more rapidly than the State as a whole during the last decade, increasing by 17.3 percent between 1990 and 2000, representing a 1.7 percent annual growth rate (Lewis and Clark County, 2004).

The primary industries providing employment in Broadwater County are (1) agriculture, forestry, fishing and hunting, and mining (17%); (2) education, health, and social services (15.6%); and (3) construction (10.5%). The primary industries providing employment in Lewis and Clark County are (1) education, health, and social services (18.9%); (2) public administration (17.2%); and retail trade (10.8%).

Both Broadwater County and Lewis and Clark County are racially homogenous when compared to other areas of the United States. The racial percentages of both counties are shown in table 3.

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Table 3.—Racial percentages in Broadwater and Lewis and Clark Counties

|                        | <b>White/<br/>non-Hispanic</b> | <b>American<br/>Indian</b> | <b>Two or more<br/>races</b> | <b>Hispanic</b> |
|------------------------|--------------------------------|----------------------------|------------------------------|-----------------|
| Broadwater County      | 96.1%                          | 2.0%                       | 1.0%                         | 1.3%            |
| Lewis and Clark County | 94.4%                          | 3.1%                       | 1.6%                         | 1.5%            |

In summary, and based on the trends over the last 2 decades, it is likely that the population in both counties will continue to grow at a moderate rate with jobs remaining in the sectors mentioned above. The racial makeup of the population will likely remain homogenous, with white/non-Hispanic being the predominant racial category.

### **3.9.2 Environmental Consequences**

#### **3.9.2.1 No Action Alternative (Alternative A)**

Under the No Action Alternative, there would be minimal impacts to the regional economy. Any slight change in the economy would be attributed to the slight increase in visitation that is likely to occur in the future.

#### **3.9.2.2 Action Alternative B – Less Development/Partnered Management**

Under Action Alternative B, there would a slight increase in jobs in the region; however, those jobs would be temporary and short term and would be filled from the local workforce. The population of Broadwater and Lewis and Clark Counties would not change as a result of the actions considered in Alternative B. If facility construction within the Planning Area created any permanent jobs, those jobs would only occur during the first year of operation; thereafter, no new jobs would be created. Created jobs, if any, would continue to be supported by the greater level of recreation-related expenditures in the area. While a few individuals and firms may benefit from any increases in jobs, these increases would have little impact on the region’s overall economy.

The racial makeup of the region would not change as a result of implementing the action items in Alternative B.

#### **3.9.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as those for Action Alternative B.

**3.9.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would be similar to Action Alternative C, except facility construction and other improvements to the Planning Area under this alternative may result in an increase in temporary jobs during construction and possibly an increase in permanent jobs in the region. However, any job creation would have little effect on the overall regional economy.

**3.9.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as Action Alternative D.

**3.9.2.6 Cumulative Impacts**

No cumulative impacts have been identified.

**3.9.2.7 Mitigation**

No adverse impacts are expected; therefore, mitigation is not needed or required.

## **3.10 Heritage Resources**

### **3.10.1 Affected Environment**

Both intensive and nonintensive heritage resource surveys have been conducted at Canyon Ferry Reservoir since the mid-1940s. Most of these surveys were undertaken to comply with one or more of the Federal laws and regulations that direct Federal agencies to manage heritage resources and consider the effects of certain actions on prehistoric and historic remains.

Pursuant to Federal regulations and laws, detailed information on the actual location of heritage resources is not public information. Not all heritage resources receive the same level of protection. Following is a breakdown of how heritage resources are protected (Reclamation, 2009a):

- Sites that are on or have been determined eligible for listing on the *National Register of Historic Places* receive the highest level of protection. Damage to these types of properties must be avoided or mitigated through a formal process.
- Sites that have not had a “determination of eligibility” for the *National Register* require a determination before they can be disturbed by a Federal action.



- Sites that have been determined “not eligible” for the *National Register* are not considered to be “historic properties” and do not require consideration.

Prior to construction of the Canyon Ferry Dam and Reservoir, the River Basin Survey of the Smithsonian Institution conducted heritage resource work at the reservoir. In addition, the University of Montana and the National Park Service (NPS) conducted reconnaissance level (nonintensive) archeological surveys of the proposed location of the reservoir. After the reconnaissance surveys, Montana State University tested and/or excavated sites that would eventually be flooded by the reservoir.

During the 1980s, several archeological surveys sponsored by the NPS and Reclamation were conducted at the reservoir. A Class III inventory (intensive) for prehistoric and paleontological resources was conducted pursuant to a contract issued by Reclamation (Greiser, S.T., et al., 1983). Numerous historic, prehistoric, and paleontological sites were recorded around the reservoir, many of which are now inundated. In 1987, a contract issued by Reclamation for analysis of a collection of artifacts from the reservoir revealed that the Missouri River in the area of the reservoir was inhabited or used intermittently for at least 10,000 years (Greiser, S.T., et al., 1987).

Since the 1980s, heritage resource surveys have focused on reservoir lands that would be impacted by recreation use. In 2008, Reclamation contracted with John Brumley for a Class III survey of White Earth, Hellgate, and Goose Bay Campgrounds. The presence or absence of heritage resources within the Planning Area was recorded, if appropriate. If the actions contemplated in the Goose Bay RMP have the potential to negatively impact any identified heritage resources, Reclamation will implement the most appropriate protection measure.

### **3.10.2 Environmental Consequences**

#### **3.10.2.1 No Action Alternative (Alternative A)**

Under the No Action Alternative, heritage resources would be protected and managed at the minimum level required by law. Heritage resources within the Planning Area and adjacent to it have been identified. These heritage resource sites have either been determined to be “not eligible” for the *National Register*; recommended for the *National Register*, but no determination has been made; or not recommended yet, with more field work required before a recommendation could be made and a determination requested. Visitors who might visit the area could impact these sites.

**3.10.2.2 Action Alternative B – Less Development/Partnered Management**

The impacts associated with Action Alternative B are similar to the impacts of the No Action Alternative with a few exceptions. This alternative provides for increased recreation facility construction and other improvements within the Planning Area. Although no cultural resources are anticipated to be discovered or disturbed during construction, contractors would be required to cease any land-disturbing activities in the immediate vicinity and notify Reclamation immediately if any artifacts are discovered during earthwork. If heritage resources are found, the sites will be evaluated and receive the appropriate level of protection consistent with Federal laws and regulations.

**3.10.2.3 Action Alternative C – Less Development/Single Concession Management**

The impacts associated with Action Alternative C would be the same as those for Action Alternative B.

**3.10.2.4 Action Alternative D – More Development/Partnered Management**

The impacts associated with Action Alternative D would be the same as those for Action Alternative C.

**3.10.2.5 Action Alternative E – More Development/Single Concession Management**

The impacts associated with Action Alternative E would be the same as those for Action Alternative D.

**3.10.2.6 Cumulative Impacts**

Slow erosion over time has the potential to completely destroy an archeological site. Increased visitation may disturb existing vegetation, increase erosion, and could ultimately destroy heritage resources. Direct impacts, such as artifact collection, vandalism, and excavation might occur as visitation increases within the Planning Area.

**3.10.2.7 Mitigation**

Mitigation may include avoidance of identified heritage sites, excavation, detailed recordation of the attributes of the site, or development of interpretation initiatives specific to heritage resources. Specific mitigation measures will be developed on a case-by-case basis, with consultation as required by the National Historic Preservation Act and other statutes.

## 4.0 CONSULTATION AND COORDINATION

In February of 2003, Reclamation completed a comprehensive Canyon Ferry Reservoir Resource Management Plan and Environmental Assessment. As part of the planning process, Reclamation inventoried all environmental resources and factors for the land and water areas at Canyon Ferry Reservoir that were under the jurisdiction of Reclamation. The management actions outlined in the resource management plan involved future plans to expand and enhance the recreation opportunities at the reservoir while protecting and enhancing the natural resources throughout the entire reservoir area.

As part of the planning process, Reclamation conducted an appropriate level of public involvement and initiated the following agency consultation and coordination activities:

- Reclamation collected information necessary to complete consultation as required by Section 106 of the National Historic Preservation Act and its implementing regulations. Section 106 consultations with the State Historic Preservation Office (SHPO) and Indian Tribes was completed during the public review periods. No response was received from Indian Tribes or SHPO during the public review periods.
- Reclamation consulted with the FWS as required by the Fish and Wildlife Coordination Act and the Endangered Species Act (ESA). The FWS provided a list of listed and proposed endangered and threatened species that may be present in the Canyon Ferry Reservoir area. Copies of the draft and final resource management plan were provided to the FWS, and no response was received. At that time, Reclamation determined that the alternatives in the resource management plan would have no affect on listed, proposed, or candidate ESA species.
- Reclamation sent letters to Native American Tribes who are currently in the area, or who historically used the area requesting identification of Indian Trust Assets (ITAs) and Indian sacred sites. The letters were sent to the Tribal Chairpersons and Tribal Cultural Committees or staff and the associated Bureau of Indian Affairs (BIA) offices. The BIA Rocky Mountain Region Office had no comments. The Shoshone Tribe in Wyoming indicated that they probably had no ITAs or Indian sacred sites at the reservoir. No other comments were received. Copies of the draft and final resource management plan were sent to all Tribes and the BIA, and no comments were received on the document.

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As a result of the previous consultation efforts with appropriate agencies and Indian Tribes, and after analysis of the environmental impacts, Reclamation has determined that this Federal action will have no affect on ESA species, ITAs, or Indian sacred sites, and that there is no need to initiate formal agency consultation and coordination.

## 5.0 REFERENCES

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## **Attachment A**

### **Public Announcement Letter**







IN REPLY REFER TO:

# United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Montana Area Office

P.O. Box 30137

Billings, Montana 59107-0137

February 2, 2009



MT-224  
LND-8.00

Subject: Future Recreation-Related Opportunities, Facilities, and Services at Goose Bay Marina

Dear Interested Party:

The Bureau of Reclamation is seeking public input regarding future recreation-related opportunities, facilities, and services at Goose Bay Marina. The contract for operation of the Goose Bay Marina concession area expires on July 14, 2010. In preparation for advertising a new, long-term concession contract, a public process and comprehensive planning effort is being conducted to develop a Goose Bay Recreation Master Plan and Environmental Assessment. Through the planning process, the public will have the opportunity to assist Reclamation in defining the future concession and recreation opportunities that should be provided, either by Reclamation, by a concessionaire, or both within the Goose Bay Planning Area (see enclosed map).

Aukerman, Haas & Associates, a consulting firm that specializes in water-based recreation planning, will be assisting Reclamation with this endeavor. Public meetings will be held in Townsend on February 18, 2009, at the Library - Community Room located at 201 N. Spruce Street, and in Helena on February 19, 2009, at the Montana Association of Counties building meeting room located at 2717 Skyway Drive. Both meetings will be from 7:00 p.m. to 9:00 p.m. The contractor and Reclamation staff will be available during the meetings to facilitate discussion, answer questions, and listen to ideas and recommendations. Comments will be accepted at the meetings, or they can be submitted either by mail to Aukerman, Haas & Associates, Attn: Bob Aukerman, 729 Duke Sq., Fort Collins, Colorado 80525, or by e-mail to [baukerman@comcast.net](mailto:baukerman@comcast.net). We request that comments be submitted no later than March 15, 2009.

Before including your address, phone number, e-mail address, or other personal identifying information in your comments, please be advised that your entire comment, including your personal identifying information, may be made publicly available at any time. We will honor any requests that personal identifying information be withheld from public review to the extent permissible by law; however, we may be required to make personal identifying information available to the public in an administrative record or in response to a Freedom of Information Act request.

For additional information and updates regarding this public involvement process, please contact Stephanie Valentine at 406-247-7311 or visit our website at <http://www.usbr.gov/gp/mtao>. We look forward to working collectively with you to help shape the future of public recreation at Canyon Ferry Reservoir.

Sincerely,

/s/

Jeff Baumberger, Manager  
Resource Management Division

Enclosure



## **Attachment B**

### **U.S. Fish and Wildlife Service 2009 Species List by County**





# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
 ECOLOGICAL SERVICES  
 MONTANA FIELD OFFICE  
 585 SHEPARD WAY  
 HELENA, MONTANA 59601  
 PHONE (406) 449-5225, FAX (406) 449-5339

## ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES\* Endangered Species Act

May 2009

C = Candidate  
 LT = Listed Threatened  
 LE = Listed Endangered  
 PCH = Proposed Critical Habitat  
 CH = Designated Critical Habitat  
 XN = Experimental non-essential population

\*Note: Generally, this list identifies the counties where one would reasonably expect the species to occur, not necessarily every county where the species is listed

| County/Scientific Name              | Common Name         | Status |
|-------------------------------------|---------------------|--------|
| <b>BEAVERHEAD</b>                   |                     |        |
| <i>Spiranthes diluvialis</i>        | Ute Ladies' Tresses | LT     |
| <b>BIG HORN</b>                     |                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>BLAINE</b>                       |                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon     | LE     |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>BROADWATER</b>                   |                     |        |
| <i>Spiranthes diluvialis</i>        | Ute Ladies' Tresses | LT     |
| <b>CARBON</b>                       |                     |        |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT, CH |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>CARTER</b>                       |                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>CASCADE</b>                      |                     |        |
| No listed Species                   |                     |        |
| <b>CHOUTEAU</b>                     |                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon     | LE     |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>CUSTER</b>                       |                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon     | LE     |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern | LE     |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <i>Grus americana</i>               | Whooping Crane      | LE     |
| <b>DANIELS</b>                      |                     |        |
| <i>Grus americana</i>               | Whooping Crane      | LE     |

| County/Scientific Name              | Common Name         | Status |
|-------------------------------------|---------------------|--------|
| <b>DAWSON</b>                       |                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon     | LE     |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern | LE     |
| <i>Grus americana</i>               | Whooping Crane      | LE     |
| <b>DEER LODGE</b>                   |                     |        |
| <i>Salvelinus confluentus</i>       | Bull Trout          | LT, CH |
| <b>FALLON</b>                       |                     |        |
| <i>Grus americana</i>               | Whooping Crane      | LE     |
| <b>FERGUS</b>                       |                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon     | LE     |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>FLATHEAD</b>                     |                     |        |
| <i>Salvelinus confluentus</i>       | Bull Trout          | LT, CH |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear        | LT     |
| <i>Silene spaldingii</i>            | Spalding's Campion  | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT, CH |
| <b>GALLATIN</b>                     |                     |        |
| <i>Spiranthes diluvialis</i>        | Ute Ladies' Tresses | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT, CH |
| <b>GARFIELD</b>                     |                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon     | LE     |
| <i>Charadrius melodus</i>           | Piping Plover       | LT, CH |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern | LE     |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>GLACIER</b>                      |                     |        |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear        | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT, CH |
| <i>Salvelinus confluentus</i>       | Bull Trout          | LT, CH |
| <b>GOLDEN VALLEY</b>                |                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>GRANITE</b>                      |                     |        |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT, CH |
| <i>Salvelinus confluentus</i>       | Bull Trout          | LT, CH |
| <b>HILL</b>                         |                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>JEFFERSON</b>                    |                     |        |
| <i>Spiranthes diluvialis</i>        | Ute Ladies' Tresses | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT     |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>JUDITH BASIN</b>                 |                     |        |
| No Listed Species                   |                     |        |

| County/Scientific Name              | Common Name                          | Status |
|-------------------------------------|--------------------------------------|--------|
| <b>LAKE</b>                         |                                      |        |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear                         | LT     |
| <i>Howellia aquatilis</i>           | Water Howellia                       | LT     |
| <i>Silene spaldingii</i>            | Spalding's Campion                   | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx                          | LT, CH |
| <i>Salvelinus confluentus</i>       | Bull Trout                           | LT, CH |
| <b>LEWIS AND CLARK</b>              |                                      |        |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear                         | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx                          | LT, CH |
| <i>Salvelinus confluentus</i>       | Bull Trout                           | LT, CH |
| <i>Mustela nigripes</i>             | Black-footed Ferret                  | LE     |
| <b>LIBERTY</b>                      |                                      |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret                  | LE     |
| <b>LINCOLN</b>                      |                                      |        |
| <i>Acipenser transmontanus</i>      | White Sturgeon (Kootenai River Pop.) | LE     |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear                         | LT     |
| <i>Silene spaldingii</i>            | Spalding's Campion                   | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx                          | LT, CH |
| <i>Salvelinus confluentus</i>       | Bull Trout                           | LT, CH |
| <i>Howellia aquatilis</i>           | Water Howellia                       | LT     |
| <b>MADISON</b>                      |                                      |        |
| <i>Spiranthes diluvialis</i>        | Ute Ladies' Tresses                  | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx                          | LT     |
| <b>McCONE</b>                       |                                      |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon                      | LE     |
| <i>Charadrius melodus</i>           | Piping Plover                        | LT, CH |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern                  | LE     |
| <i>Mustela nigripes</i>             | Black-footed Ferret                  | LE     |
| <i>Grus americana</i>               | Whooping Crane                       | LE     |
| <b>MEAGHER</b>                      |                                      |        |
| No Listed Species                   |                                      |        |
| <b>MINERAL</b>                      |                                      |        |
| <i>Lynx canadensis</i>              | Canada Lynx                          | LT     |
| <i>Salvelinus confluentus</i>       | Bull Trout                           | LT, CH |
| <b>MISSOULA</b>                     |                                      |        |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear                         | LT     |
| <i>Howellia aquatilis</i>           | Water Howellia                       | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx                          | LT, CH |
| <i>Salvelinus confluentus</i>       | Bull Trout                           | LT, CH |
| <i>Coccyzus americanus</i>          | Yellow-billed cuckoo (western pop.)  | C      |
| <b>MUSSELSHELL</b>                  |                                      |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret                  | LE     |
| <b>PARK</b>                         |                                      |        |
| <i>Lynx canadensis</i>              | Canada Lynx                          | LT, CH |

| County/Scientific Name              | Common Name                         | Status |
|-------------------------------------|-------------------------------------|--------|
| <b>PETROLEUM</b>                    |                                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon                     | LE     |
| <i>Mustela nigripes</i>             | Black-footed Ferret                 | LE     |
| <b>PHILLIPS</b>                     |                                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon                     | LE     |
| <i>Charadrius melodus</i>           | Piping Plover                       | LT, CH |
| <i>Mustela nigripes</i>             | Black-footed Ferret                 | LE, XN |
| <i>Grus americana</i>               | Whooping Crane                      | LE     |
| <b>PONDERA</b>                      |                                     |        |
| <i>Charadrius melodus</i>           | Piping Plover                       | LT     |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear                        | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx                         | LT, CH |
| <b>POWDER RIVER</b>                 |                                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret                 | LE     |
| <b>POWELL</b>                       |                                     |        |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear                        | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx                         | LT, CH |
| <i>Salvelinus confluentus</i>       | Bull Trout                          | LT, CH |
| <b>PRAIRIE</b>                      |                                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon                     | LE     |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern                 | LE     |
| <i>Grus americana</i>               | Whooping Crane                      | LE     |
| <i>Mustela nigripes</i>             | Black-footed Ferret                 | LE     |
| <b>RAVALLI</b>                      |                                     |        |
| <i>Salvelinus confluentus</i>       | Bull Trout                          | LT, CH |
| <i>Coccyzus americanus</i>          | Yellow-billed cuckoo (western pop.) | C      |
| <b>RICHLAND</b>                     |                                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon                     | LE     |
| <i>Charadrius melodus</i>           | Piping Plover                       | LT, CH |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern                 | LE     |
| <i>Grus americana</i>               | Whooping Crane                      | LE     |
| <b>ROOSEVELT</b>                    |                                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon                     | LE     |
| <i>Charadrius melodus</i>           | Piping Plover                       | LT, CH |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern                 | LE     |
| <i>Grus americana</i>               | Whooping Crane                      | LE     |
| <b>ROSEBUD</b>                      |                                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret                 | LE     |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern                 | LE     |
| <b>SANDERS</b>                      |                                     |        |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear                        | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx                         | LT     |
| <i>Salvelinus confluentus</i>       | Bull Trout                          | LT, CH |
| <b>SHERIDAN</b>                     |                                     |        |
| <i>Charadrius melodus</i>           | Piping Plover                       | LT, CH |
| <i>Grus americana</i>               | Whooping Crane                      | LE     |



| County/Scientific Name              | Common Name         | Status |
|-------------------------------------|---------------------|--------|
| <b>SILVER BOW</b>                   |                     |        |
| <i>Salvelinus confluentus</i>       | Bull Trout          | LT     |
| <b>STILLWATER</b>                   |                     |        |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT, CH |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>SWEET GRASS</b>                  |                     |        |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT, CH |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>TETON</b>                        |                     |        |
| <i>Ursus arctos horribilis</i>      | Grizzly Bear        | LT     |
| <i>Lynx canadensis</i>              | Canada Lynx         | LT, CH |
| <b>TOOLE</b>                        |                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>TREASURE</b>                     |                     |        |
| No Listed Species                   |                     |        |
| <b>VALLEY</b>                       |                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon     | LE     |
| <i>Charadrius melodus</i>           | Piping Plover       | LT, CH |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern | LE     |
| <i>Grus americana</i>               | Whooping Crane      | LE     |
| <b>WHEATLAND</b>                    |                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <b>WIBAUX</b>                       |                     |        |
| <i>Scaphirhynchus albus</i>         | Pallid Sturgeon     | LE     |
| <i>Sterna antillarum athalassos</i> | Interior Least Tern | LE     |
| <i>Grus americana</i>               | Whooping Crane      | LE     |
| <b>YELLOWSTONE</b>                  |                     |        |
| <i>Mustela nigripes</i>             | Black-footed Ferret | LE     |
| <i>Grus americana</i>               | Whooping Crane      | LE     |