



# Land Protection Plan

*Blackfoot Valley  
Conservation Area Expansion*

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In accordance with the National Environmental Policy Act and U.S. Fish and Wildlife Service policy, a land protection plan has been prepared to analyze the effects of expanding the Blackfoot Valley Conservation Area in western Montana.

- The Blackfoot Valley Conservation Area Expansion Land Protection Plan describes the priorities for acquiring an additional 80,000 acres in conservation easements within an expanded project boundary of 824,024 acres.

*Note: Information contained in the maps within this document is approximate and does not represent a legal survey. Ownership information may not be complete.*

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# Abbreviations

<b>BMU</b>	bear management units
<b>CA</b>	conservation area
<b>CoCE</b>	Crown of the Continent Ecosystem
<b>DNRC</b>	(Montana) Department of Natural Resources and Conservation
<b>EA</b>	environmental assessment
<b>FONSI</b>	finding of no significant impact
<b>FTE</b>	full-time equivalent
<b>GNLCC</b>	Great Northern Landscape Conservation Cooperative
<b>GNP</b>	Glacier National Park
<b>GPS</b>	global positioning system
<b>LPP</b>	land protection plan
<b>MBTRT</b>	Montana Bull Trout Restoration Team
<b>MEA</b>	Millennium Ecosystem Assessment
<b>MFIS</b>	Montana Fisheries Information System
<b>MFWP</b>	Montana Fish, Wildlife and Parks
<b>MTNHP</b>	Montana Natural Heritage Program
<b>NCDE</b>	Northern Continental Divide Ecosystem
<b>NEPA</b>	National Environmental Protection Act
<b>NHPA</b>	National Historic Preservation Act
<b>NWRS</b>	National Wildlife Refuge System
<b>PCTC</b>	Plum Creek Timber Company
<b>PFW</b>	Partners for Fish and Wildlife
<b>PIF</b>	Partners in Flight
<b>RU</b>	Recovery Unit
<b>Service</b>	U.S. Fish and Wildlife Service
<b>SHC</b>	strategic habitat conservation
<b>TNC</b>	The Nature Conservancy
<b>USFS</b>	U.S. Forest Service
<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>USGS</b>	U.S. Geological Survey
<b>WPA</b>	Waterfowl Production Area



# 1 Introduction



*Sandhill cranes in forest opening.*

The Blackfoot Valley Conservation Area (CA), formally the Blackfoot Valley Wildlife Management Area (see chapter 1, Issues Not Selected for Detailed Analysis, Nomenclature), is one of the last undeveloped, low elevation river valley ecosystems in western Montana. It is part of the Crown of the Continent ecosystem (CoCE), which includes the larger Columbia Basin and Upper Missouri/Yellowstone Rivers watersheds (figure 1).

Within the CoCE, an exceptional diversity of wetland types occurs including: major riparian areas, smaller riparian tributaries, glacial prairie potholes, lakes, bogs, fens, swamps, and boreal peatlands. The lowlands support over 170 different species of wetland plants.

In the Blackfoot Valley, wetland densities exceed 100 basins per square mile. The project area includes over 34,000 miles of rivers, creeks, and streams. Along the elevation gradient, large expanses of fescue grasslands phase into alpine meadows or sagebrush steppe, which then transition into montane forests consisting of white pine, Douglas-fir, and ponderosa pine. These transitional zones of valley floors to montane forests are extremely important to fish and wildlife.

The continued presence of this large expanse of intact habitat and historical wildlife corridors will benefit federal trust species such as grizzly bear, gray wolf, wolverine, pine marten, and Canada lynx; migratory birds such as harlequin ducks, red-necked grebes, Brewer's sparrow, black tern, olive-sided flycatcher, peregrine falcons, greater sandhill cranes, and trumpeter swans; and fish such as bull trout. The Blackfoot Valley CA provides excellent habitat for black bear, elk, mule deer, white-tailed deer, moose, mountain lion, bobcat, coyote, wolverine, fisher, and a wide variety of small mammals.



*Trumpeter swan.*



Figure 1. Crown of the Continent ecosystem.

## PROJECT DESCRIPTION

The Blackfoot Valley CA easement project is a landscape conservation strategy to protect one of the last undeveloped, low-elevation river valley ecosystems in western Montana (see figure 2). The U.S. Fish and Wildlife Service (Service) will expand the existing boundary of the Blackfoot Valley Conservation Area from 165,000 to 824,024 acres. The Blackfoot Valley provides a vital habitat corridor between existing U.S. Forest Service (USFS) boundaries, Bureau of Land Management properties, state wildlife management areas, Service waterfowl production areas, Nature Conservancy easements, Service conservation easements, and Partners for Fish and Wildlife (PFW) projects. A protection project based on obtaining conservation easements began in the Blackfoot Valley in 1994, and it has experienced a great deal of support and success. There is new opportunity in the Blackfoot River Valley for easements that lie outside of the existing boundary. The expansion involves the acquisition of up to an additional 80,000 acres of conservation easements from willing sellers on private land within the watershed. The project also continues to complement other components of a broad partnership known as the “Blackfoot Challenge.”

The Blackfoot Valley CA project area encompasses an 824,024 acre ecosystem that includes portions of Missoula, Powell, and Lewis and Clark counties (see figure 2). The parts of these counties make up the Blackfoot River watershed in western Montana. The watershed is bordered to the east by the Continental Divide, to the south by the Garnet Mountains, to the north by the Bob Marshall and Lincoln-Sagegoat wilderness areas, and to the west by the Rattlesnake Wilderness Area.

The watershed is located at the southern edge of the CoCE, a 10 million acre area of the Northern Rocky Mountains that extends north into Canada and includes Waterton-Glacier International Peace Park, Canada’s Castle Wilderness, the Bob Marshall-Great Bear-Sagegoat Wilderness Complex, parts of the Flathead and Blackfeet Indian Reservations, Bureau of Land Management lands and significant acreage of state and private lands. The watershed provides critical connections between the CoCE and the Selway/Bitterroot ecosystem to the south. The center of the project area lies about 55 miles east of Missoula.

## ISSUES

Public involvement was initiated for the proposed expansion of the conservation easement project in the Blackfoot Valley Conservation Area in May 2010. A media contact list was compiled and news releases and factsheets were developed and distributed to media outlets, local organizations, elected officials, and interested parties. The news releases and

factsheets described the proposed expansion of the conservation easement project, and announced an open house to gather input from the public. Personal outreach efforts were made with county commissioners and other persons of interest.

Scoping was conducted during a public open house, on May 19, 2010; 7-9 p.m. at the Ovando School, 108 Birch Street, in Ovando, Montana. The purpose of scoping was to seek input from the public regarding the proposed expansion of the conservation easement project, and to identify the issues that needed to be addressed in the planning process. Fifteen people attended the open house. Five individuals, two agencies, and two organizations provided comments during the scoping period.

Many of the comments received addressed the need for a balance between natural and cultural systems. The two main categories of commonly expressed issues and concerns were biological and socioeconomic.

## ***BIOLOGICAL ISSUES IDENTIFIED DURING SCOPING***

The biological issues mentioned were

- the impacts of habitat fragmentation due to residential development;
- concerns about the effect of habitat fragmentation on wildlife habitat and water resources.

### **Wildlife Habitat**

Habitat fragmentation is a concern not only in the Blackfoot Valley, but also in other areas of Montana. Given the current strong market for scenic western properties, especially when cattle prices are low, there was concern that ranches in the Blackfoot Valley will be vulnerable to sale and subdivision for residential and commercial development.

Housing development, and the associated infrastructure, can disrupt wildlife migration patterns. Nesting raptors and grassland bird species may be especially vulnerable to habitat fragmentation in the Blackfoot Valley.

Riparian habitat loss due to development was a key concern. Riparian habitat is a key component to grizzly bear movement between the mountains and valley. Livestock grazing and ranching practices tend to be compatible with grizzly bears, which move unimpeded up and down riparian corridors. Riparian areas also provide nest sites for many species of migratory birds that may be negatively impacted by development.

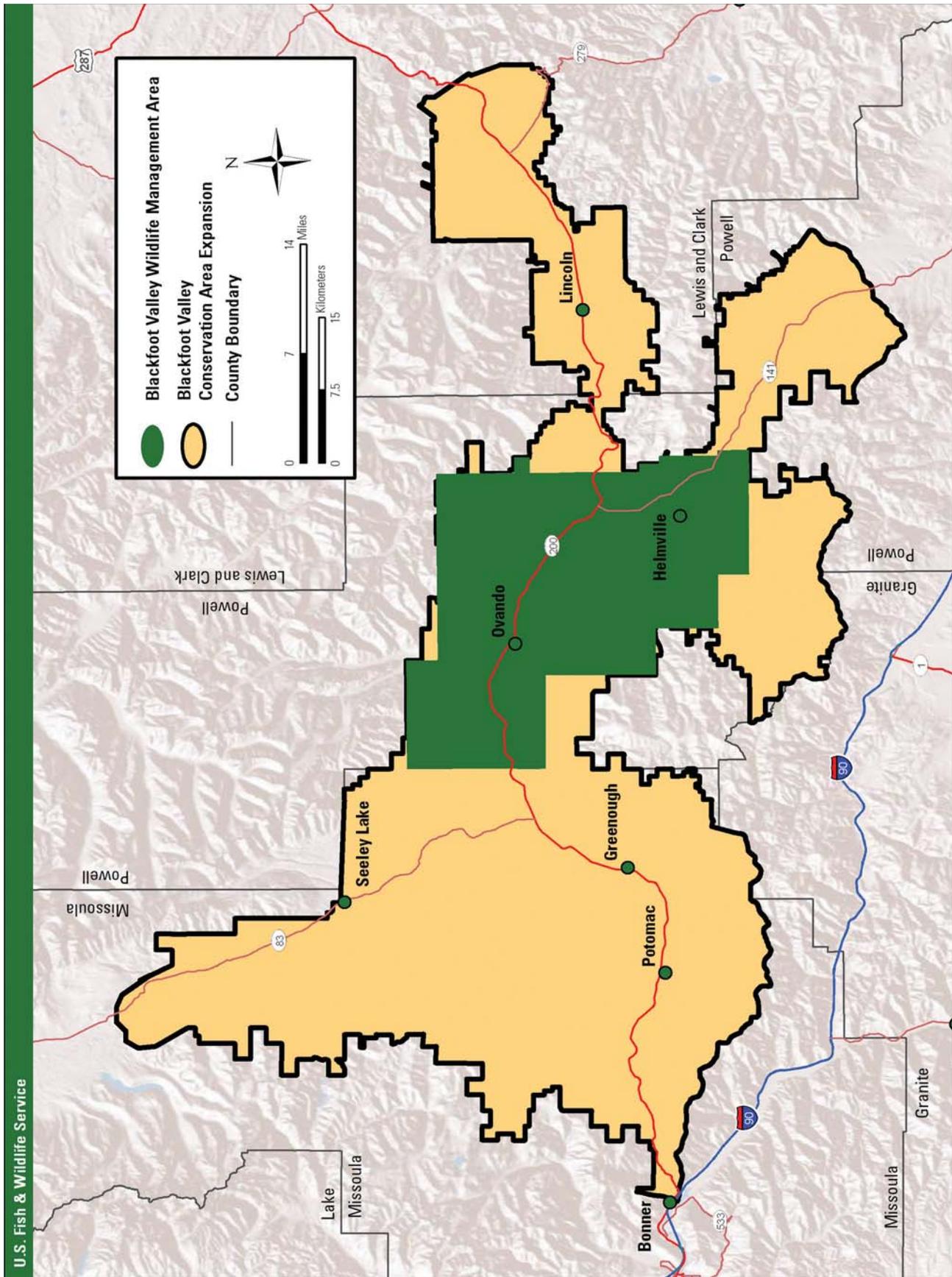


Figure 2. Blackfoot Valley Conservation Area expansion project area.

## Water Resources

Residential development in the Blackfoot Valley presents a potentially significant threat to the aquatic ecosystem. Housing developments can bring about sewage-derived nutrient additions to streams and lakes, additional wetland drainage, water diversion, and introduction of invasive species.

## ***SOCIOECONOMIC ISSUES IDENTIFIED DURING SCOPING***

Socioeconomic issues mentioned were

- the need to keep private land in private ownership;
- the impacts of conservation easements on local community centers and their ability to grow;
- public access for hunting or other recreational opportunities.

## Landownership and Land Use

There was concern that perpetual easements will negatively affect future generations of landowners. Specifically, the concern was that conservation easements will limit the choices of future landowners, even though they may have paid as much for the land as if it had no restrictions.

There was concern that perpetual easements will lower the resale value of the land.

There was concern that the selection process will favor landowners whose properties are larger in size over smaller, but biologically valuable, properties.

Concern also exists over “boxing in” rural communities which could limit the opportunity for development. Suggestions included the placement of a no-easement buffer around rural communities to ensure potential growth.

## Public Use

The public’s right to use or access lands encumbered with a conservation easement was a concern. Landowners are concerned they will be forced to allow the public to access their land for hunting, fishing, or other recreational uses.

## ***ISSUES NOT SELECTED FOR DETAILED ANALYSIS***

There were two issues that were not analyzed, property tax and nomenclature.

## Property Tax

Historically, there has been concern about the amount of tax generated to the counties when land protection projects take place. Lands encumbered by a conservation easement remain in private

ownership. Property taxes paid by the landowner to the county are not affected.

Development of rural landscapes often leads to increased demand for services and higher costs to rural counties. There will generally be an offset of any perceived reduction in the tax base since the county will not incur the expense of providing services to rural developments. The use of conservation easements serves an additional function since easements preclude the necessity for county zoning in the project area.

## Nomenclature

During the scoping for this project, it became apparent that the name “Blackfoot Valley Wildlife Management Area” causes confusion among the public, local agencies, and organizations. Montana Fish, Wildlife and Parks (MFWP) commonly use the term “wildlife management area” to designate wildlife areas that are managed by the state. When both the Service and MFWP use this term, many people are confused about which agency is responsible for managing the area.

The naming of National Wildlife Refuge System (NWRS) units is an internal administrative action, and does not require an environmental analysis under the National Environmental Policy Act (NEPA). The planning team pursued a name change for this unit in a separate administrative process from the environmental assessment (EA) and land protection plan (LPP).

The team recommended the new name for this unit to be the “Blackfoot Valley Conservation Area” which is consistent with other easement projects in the NWRS. A memorandum from the Regional Director was submitted to the Director of the Service along with a Service Organization Code/Name Request Form for approval and concurrence. The name change was approved on September 30, 2010 (see appendix A, Name Change Request).

## **NATIONAL WILDLIFE REFUGE SYSTEM AND AUTHORITIES**

The mission of the National Wildlife Refuge System is to preserve a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. The Blackfoot Valley Conservation Area expansion project will be administered as part of the Refuge System in accordance with the National Wildlife Refuge System Administration Act of 1966 and other relevant legislation, executive orders, regulations, and policies.

Conservation of additional wildlife habitat in

the Blackfoot Valley region will also continue to be consistent with the following policies and management plans:

- Land and Water Conservation Fund Act (1965)
- Migratory Bird Treaty Act (1918)
- Endangered Species Act (1973)
- Bald Eagle Protection Act (1940)
- Migratory Nongame Birds of Management Concern in the U.S. (2002)
- U.S. Fish and Wildlife Act (1956)
- North American Waterfowl Management Plan (1994)

## RELATED ACTIONS AND ACTIVITIES

Landownership in the watershed is 54% federal (U.S. Forest Service, U.S. Fish and Wildlife Service, Bureau of Land Management), 10% state (Montana Department of Natural Resources and Conservation; Montana Fish, Wildlife and Parks; and University of Montana), 31% private, and 5% by corporate timber company (Plum Creek Timber Company). Most of the middle and high elevation forested lands within the watershed are administered by the USFS. Private lands are concentrated in the low elevation portions of the watershed. Landownership patterns in the watershed have changed in recent years due to large-scale transfers of Plum Creek Timber Company (PCTC) lands.

In 2002, the Blackfoot Challenge initiated a three-phase landscape-level effort to protect, restore, and enhance 37,000 acres of biologically significant wetlands (5,310 acres) and associated uplands (31,690 acres) for migratory birds and other wildlife species by 2015. The Blackfoot Watershed I, Montana Project was completed in 2007, resulting in protection, restoration, and enhancement of a total of 16,794 acres (3,027 acres of wetland and 13,767 acres of associated upland). The Blackfoot Watershed II, Montana Project is currently in progress.

In 2003, the Blackfoot Challenge and The Nature Conservancy (TNC) initiated the Blackfoot Community Project, which involved the purchase and resale of 89,215 acres of PCTC lands based on a community-driven disposition plan. The lands encompassed all PCTC lands from the Blackfoot River headwaters near Rogers Pass to the Clearwater drainage. Approximately 75% of the lands have been or will be transferred into federal or state ownership, and 25% into private ownership.

In 2008, the Nature Conservancy and the Trust for Public Land entered into another agreement with PCTC called the Montana Legacy Project, to purchase 312,500 acres of timberland in western Montana. As part of the Montana Legacy Project, a total of 71,754 acres in the Clearwater and Potomac valleys of the watershed will be purchased and

resold to public agencies and/or private buyers. The majority of these lands are intended to be resold to the USFS and Montana Department of Natural Resources and Conservation (DNRC).

In 2009, the Blackfoot Challenge and Trout Unlimited prepared a Blackfoot Sub-basin Plan for the Northwest Power and Conservation Council. The vision for the Blackfoot Sub-basin is for a place characterized by dynamic natural processes that create and sustain diverse and resilient communities of native fish and wildlife, and the aquatic and terrestrial habitats on which they depend, thereby assuring substantial ecological, economic, and cultural benefits. The efforts to conserve and enhance those natural resources will be implemented through a cooperative partnership between public and private interests that will seek to sustain not only those natural resources, but the rural way of life of the Blackfoot River Valley for present and future generations (Blackfoot Challenge and Trout Unlimited 2009). Expansion of the Service's easement project boundary supports and complements this vision.

## HABITAT PROTECTION AND THE EASEMENT ACQUISITION PROCESS

Habitat protection will occur through the purchase of conservation easements. It is the long-established policy of the Service to acquire minimum interest in land from willing sellers to achieve habitat acquisition goals.

The acquisition authority for the project is the U.S. Fish and Wildlife Act of 1956 (16 U.S.C.742 a-742j). The federal money used to acquire conservation easements is received from the Land and Water Conservation Fund, which is derived primarily from oil and gas leases on the outer continental shelf, motorboat fuel tax revenues, and sale of surplus federal property. There could be additional funds to acquire lands, waters, or interest therein through possible sources such as congressional appropriations and donations from nonprofit organizations.

The basic considerations in acquiring an easement interest in private land are the biological significance of the area, the biological requirements of wildlife species of management concern, existing and anticipated threats to wildlife resources, and landowner interest in the project. The purchase of conservation easements will occur with willing sellers only, and will be subject to available funding.

## CONSERVATION EASEMENTS

The easement program is a conservation tool, complementing other efforts in the area. Conservation easements are the most cost-effective and socially acceptable means to ensure protection of

important habitats within the project area.

Fee-title acquisition is not required for, nor is it preferable to conservation easements to achieve habitat protection. Fee-title acquisition will triple or quadruple the cost of land acquisition, add significant increases in management costs, and may not be accepted by landowners.

A strong and vibrant rural lifestyle, with ranching as the dominant land use, is one of the key components for ensuring habitat integrity and wildlife resource protection. Conservation easements are a viable means to protect wildlife values on a landscape scale.



## 2 Area Description and Resources

This chapter describes the biological, cultural, and socioeconomic resources most likely affected by expanding the Blackfoot Valley Conservation Area.

### BIOLOGICAL ENVIRONMENT

In this section climate; climate change; adaptation, mitigation, and engagement; responses to climate change; geologic resources; habitat; and wildlife of the Blackfoot Valley are discussed.

#### *CLIMATE*

The climate is generally cool and dry, but there is considerable variability corresponding to the east–west elevational gradient that greatly influences vegetation and habitat. The average maximum temperature is 54°F with the coldest minimum temperatures in January (5°F). July and August are the warmest months with an average high around 81°F and a low near 40°F. On average, the warmest month is July, and the coldest month is January. The highest recorded temperature was 99°F in 2003 and the lowest recorded temperature was -48°F in 1982.

The Blackfoot Valley receives between 12 and 16 inches annual precipitation, while western parts of the Flathead/Mission Valley tend to be drier. The Ovando area receives 17 inches average annual precipitation, with average annual snowfall of 79 inches.

#### *CLIMATE CHANGE*

Climate change is the pre-eminent issue for conservation in future decades. Current trends in climate change are expected to affect high mountain ecotypes and lower elevation, snowmelt-dependent watersheds, such as those found in the Blackfoot Valley CA project area, more acutely than some other landscape ecotypes.

Predictions regarding the specific effects of climate change in the Blackfoot Valley are in the early stages. Empirical data indicates that during the 20th century, the region has grown warmer, and in some areas drier. Annual average temperature has increased 1–3 degrees over most of the region. This seemingly modest increase masks much larger shifts in minimum winter temperatures (10°F) and maximum summer temperatures (7°F). In the “2007 Introduction to the Summary for Policy

Makers Synthesis Report,” the Intergovernmental Panel on Climate Change described that average air temperatures may rise by up to six degrees by the end of this century according to regionally downscaled models from the Pacific Northwest (USFWS 2009b).

Changes in temperature and precipitation are expected to decrease snowpack and will affect streamflow and water quality throughout the CoCE. Warmer temperatures will result in more winter precipitation falling as rain rather than snow throughout much of the region particularly in mid-elevation basins where average winter temperatures are near freezing. This will result in

- less winter snow accumulation;
- higher winter streamflows;
- earlier spring snowmelt;
- earlier peak spring streamflow and lower summer streamflows in rivers that depend on snowmelt (USFWS 2009b).

As glaciers and alpine snow fields melt and winters warm in Montana, specialized habitat for fish and wildlife species is expected to diminish. Snow conditions that facilitate hunting success for forest carnivores, such as Canada lynx, are now changing due to winter warming (Stenseth 2004). High elevation forest plants such as whitebark pine, an important food source for grizzly bears and other birds and mammals throughout the Crown of the Continent and Greater Yellowstone ecosystems (Kendall and Arno 1989), will also be negatively impacted by winter warming. Whitebark pine is susceptible to increased mortality as the incidence of drought, high elevation wildfire, and mountain pine beetle attacks, all associated with a warming climate, increase (Hanna et al. 2009).

This warming may also have impacts on grizzly bears. Important food resources are expected to decline as warming causes an increase in whitebark pine blister rust, reducing the availability of the pine to bears. This may result in shifts in foraging elevations and potential increase in grizzly bear conflict with humans and livestock.

According to Service Grizzly Bear Recovery Coordinator, Dr. Christopher Servheen, (University of Montana, Missoula, MT; personal interview, 11 June 2008) it is highly likely that grizzly bear delayed fall den entry dates and earlier spring emergence dates will begin occurring in Blackfoot Valley and

other portions of the CoCE as they have in the Greater Yellowstone area, related to climate change. This will also potentially increase the likelihood of human-caused mortality from increased encounters (Endangered Species Coalition 2009).

As late summer flows are affected by global warming, fewer rivers will be able to supply the ample cold water that is required by species such as bull trout. Bull trout distribution is expected to be negatively impacted by the heightened ambient air temperatures (Endangered Species Coalition 2009).

The impacts of climate change will extend beyond the boundaries of any single refuge or easement project and will therefore require large-scale, landscape-level solutions that extend throughout the CoCE. The collective goal is to build resilience in ecological systems and communities, so that, even as climate conditions change, the CoCE will continue to support its full range of native biodiversity and ecological processes. Building resilience includes maintaining intact, interconnected landscapes, and restoring fragmented or degraded habitats.

### **ADAPTATION, MITIGATION, AND ENGAGEMENT**

The Service's strategic response to climate change involves three core strategies: adaptation, mitigation, and engagement (USFWS 2009b).

Through adaptation, the impacts of climate change on wildlife can be reduced by conserving habitats expected to be resilient. Increased landscape connectivity is one of the most effective methods to help wildlife adapt to climate change. Large landscapes, especially those within mountains, and the ability to move between them, provide the best chances for plant and animal species, as well as ecosystems and ecological processes, to survive changing conditions. The ability to migrate to higher latitudes, higher elevations, or cooler exposures can make possible the successful adaptation of plants and animals. The Yellowstone to Yukon ecosystem, which includes the CoCE, is the most intact mountain ecosystem remaining on earth and is one of the world's few remaining areas with the geographic variety and biological diversity to accommodate the wide-scale adaptive responses that might allow whole populations of animals and plants to survive (Yellowstone to Yukon Conservation Initiative 2009).

One of the results of changing climates is the alteration of the habitats upon which wildlife depend. Wildlife will have to adapt to changes in habitat to survive. Protecting and linking contiguous blocks of unfragmented habitat will facilitate movement of wildlife responding to climate change.

Carbon sequestration forms one of the key elements of mitigation. The expansion of the Blackfoot Valley CA will protect forested areas from subdivision. Forests are critically important in the efforts to

remove carbon dioxide from the atmosphere and mitigate climate change. The carbon dioxide from the atmosphere is absorbed by trees through photosynthesis and stored as carbon in tree trunks, branches, foliage, and roots, with oxygen as a byproduct. The organic matter in forest soils, such as the humus produced by the decomposition of dead plant material, also acts to store carbon.

Engagement involves cooperation, communication, and partnerships to address the conservation challenges presented by climate change (USFWS 2009b). The Blackfoot Valley CA is located in an area that is designated as a high priority for conservation and linkage protection by many of our partners including Montana Fish, Wildlife and Parks; The National Fish and Wildlife Foundation; The Nature Conservancy; The Blackfoot Challenge; Trout Unlimited; The Mountain Land Reliance; and The Yellowstone to Yukon Initiative. Many of these organizations are involved in trans-boundary conservation, protecting and connecting habitat in the United States and Canada. Strong partnerships have already been developed to meet the challenges of climate change and wildlife resources.

Given the level of public and private partnerships focused on land protection within the Blackfoot Valley, this landscape is arguably one of the most promising large-scale opportunities remaining in North America for species resiliency and adaptation in the face of climate change.

### **GEOLOGICAL RESOURCES**

Glaciation strongly influenced the current watershed landscape as evidenced by numerous moraines and associated hummocky topography, glacial pothole lakes, and broad expanses of flat glacial outwash (Whipple et al. 1987, Cox et al. 1998). The watershed was subjected to two major periods of glaciation, the Bull Lake glaciation (~70,000 years ago) and the Pinedale glaciation (~15,000 years ago). During these periods, large continuous ice sheets extended from the mountains southward into the Blackfoot and Clearwater River Valleys (Witkind and Weber 1982). During the latter part of the Pleistocene Era, the Blackfoot Valley was further shaped by the repeated filling and catastrophic draining of Glacial Lake Missoula, a massive lake formed by a series of ice dams that impounded the Clark Fork River downstream of Missoula. In the Blackfoot Valley, Glacial Lake Missoula extended upstream as far as Clearwater Junction (Alt and Hyndman 1986).

When the glaciers receded, large deposits of glacial till, glacial outwash, and glacial lakebed sediments were left behind. These deposits cover much of the Blackfoot Valley floor, shaping the topography of the valley and the geomorphology of the Blackfoot River and the lower reaches of most tributaries. Glacial features evident on the landscape today include moraines, outwash plains, kame terraces, and

glacial potholes. The landscape between Clearwater Junction and Lincoln, for example, is characterized by alternating areas of glacial moraines and their associated outwash plains. In this area, ice pouring down from the mountains to the north spread out to form large ponds of ice several miles across, known as piedmont glaciers. Muddy melt water draining from these piedmont glaciers spread sand and gravel across the ice-free parts of the valley floor to create large outwash plains. The town of Ovando sits on one of these smooth outwash plains (Alt and Hyndman 1986).

## HABITAT

Geologic, hydrologic, and geographic features in the Blackfoot River watershed combine to produce a diversity of vegetation communities including prairie grasslands, sagebrush steppe, coniferous forest, and extensive wetland and riparian areas. Over 80% of the watershed is covered with mixed species conifer forests dominated by ponderosa pine, lodgepole pine, Douglas-fir, and western larch at the lower elevations, and subalpine-fir and spruce in the higher regions, especially on cool, moist, northerly aspects. The remaining portions of the watershed consist of native bunchgrass prairie (10%), agricultural lands (5%), and a combination of shrub lands, wetlands, lakes, and streams (5%). Less than 1% of the watershed is developed (Blackfoot Challenge 2005). The greatest source of biological diversity in the watershed arises from wetland features such as glacial lakes, vernal ponds, fens, basin-fed creeks, spring creeks, marshes, and riparian areas (USFWS 2009a). Lesica (1994) estimates that 600 vascular plant species occur within the watershed of which nearly 30% are associated with wetlands. The Blackfoot River watershed supports a number of rare plant communities. The three-tip sagebrush/rough fescue plant association is common in the Ovando area, yet found nowhere else in the world. The big sagebrush/rough fescue plant association, endemic to west- and north-central Montana, is common in the Kleinschmidt Flat area. Expanses of the Drummond's willow plant association occur in riparian swamps along Monture Creek and mud sedge, sharp bulrush, mannagrass, and fen peatland plant communities are unique to the area's glacial pothole wetlands (USFWS 2009a, MTNHP 2009b). According to Montana Partners in Flight (PIF 2000), the watershed contains all of the highest priority habitats for bird conservation in Montana. These habitats include mixed grassland, sagebrush steppe, dry (ponderosa pine/Douglas-fir) forest, riparian deciduous forest, and prairie pothole wetlands. The watershed also contains four of the seven community types in greatest need of conservation, according to Montana's Comprehensive Fish and Wildlife Conservation Strategy (MFWP 2005). These include grassland complexes, mixed shrub/grass associations, riparian and wetland communities, and mountain streams.

## WILDLIFE

The Blackfoot River watershed is one of the most biologically diverse and intact landscapes in the western United States. The watershed supports an estimated 250 species of birds, sixty-three species of mammals, five species of amphibians, six species of reptiles, and twenty-five species of fish (MTNHP 2009a)(see appendix B, List of Plants and Animals).

### Mammals

Because of its rural and largely intact nature, the watershed retains the full complement of large mammals, many of which have been extirpated from portions of their historic ranges. The Blackfoot River watershed provides excellent habitat for grizzly bear, black bear, elk, mule deer, white-tailed deer, mountain lion, Canada lynx, bobcat, gray wolf, coyote, wolverine, fisher, and a wide variety of small mammals.

### Amphibians and Reptiles

There are currently six reptile species in the Blackfoot Valley including common garter snake, eastern racer, northern alligator lizard, painted turtle, rubber boa, and terrestrial garter snake. (MTNHP 2009a)

There are currently five amphibians that have been documented in the Blackfoot Valley including Columbia spotted frog, long-toed salamander, Pacific tree frog, Rocky Mountain tailed frog, and western toad.



*Garter snake.*

### Fish

There are currently twelve native fish species and thirteen nonnative fish species in the Blackfoot Valley watershed, as well as several hybrid salmonids (MFIS 2009).

## Migratory and Other Birds

The Blackfoot River watershed also provides high quality breeding, nesting, migratory, and wintering habitat for a diversity of bird species. Wetland complexes in the watershed provide important breeding habitat for twenty-one species of waterfowl: northern pintail, mallard, lesser scaup, wood duck, redhead, ring-necked duck, canvasback, American wigeon, Canada goose, green-winged teal, blue-winged teal, cinnamon teal, northern shoveler, gadwall, common goldeneye, Barrow's goldeneye, harlequin duck, bufflehead, hooded merganser, common merganser, red-breasted merganser, and ruddy duck.

During the nesting season in 1995, 1996, and 1997, the University of Montana Wildlife Cooperative Unit and the Service conducted breeding-bird productivity studies in three separate properties within the Blackfoot Valley watershed, including the Blackfoot Waterfowl Production Area (WPA). Nest success (measured by the Mayfield method) for upland nesting waterfowl, including pintail, mallard, and lesser scaup, was found to be 49, 30, and 45 percent, respectively (Fondell and Ball 1997). These nest success estimates are some of the highest in North America for upland nesting ducks. Fondell and Ball (1997) stated that "Because the [Ovando] Valley is relatively undisturbed, these estimates may reflect nest success over large areas of the watershed."



USFWS

*Blackfoot Waterfowl Production Area.*

Brood surveys of northern shoveler, gadwall, American wigeon, cinnamon and blue-winged teal, canvasback, redhead, ring-necked, ruddy, and Barrow's goldeneye ducks in 1995 and 1996 on the Blackfoot Valley WPA averaged sixty-three broods on five wetlands totaling 104 acres, or 0.62 broods per acre, with pre-fledge brood sizes of 5.2 in 1995, and 5.9 in 1996, which is higher than brood sizes reported in studies conducted at Freezeout Lake Wildlife Management Area and at Benton Lake National Wildlife Refuge on the east side of the Continental Divide (Fondell and Ball 1997). This high productivity is due to the large expanses of relatively

undisturbed native grassland in association with wetland habitat, a coyote-dominated predator base, and a high concentration of glaciated wetlands.

Breeding waterfowl pair counts have indicated relatively high pair densities per square section for redhead and canvasback ducks. Redhead duck numbers over the past 15 years have averaged twelve pairs per section and canvasback ducks have averaged nine pairs per section.

## Species of Special Concern

According to the Montana Natural Heritage Program database (MTNHP 2009a) there are forty-one animal species of concern in the Blackfoot River watershed. These include invertebrates, birds, fish, mammals, reptiles, and amphibians. Eight of the fourteen bird species ranked by Montana Partners in Flight (PIF 2000) as Level I priority species in the state are found in the watershed: common loon, trumpeter swan, harlequin duck, Columbian sharp-tailed grouse, black-backed woodpecker, flammulated owl, olive-sided flycatcher, and brown creeper.

Black terns are considered a species of special concern by the Service in region 6 and on the Montana Priority Bird Species List, they are listed at a Level II which dictates that Montana has a high responsibility to monitor the status of this species, and design conservation actions. The Blackfoot River watershed hosts the largest black tern colony documented in Montana.

The Blackfoot River watershed supports western Montana's largest population of Brewer's sparrow, one of the highest priority songbirds in Montana (Casey 2000). This sagebrush obligate was the most abundant breeding species found at sagebrush sites on the Blackfoot and Kleinschmidt Waterfowl Protection Areas during Service productivity surveys in 1996 (Fondell and Ball 1997). The long-term viability of Brewer's sparrows in Montana will depend on the maintenance of large stands of sagebrush in robust condition (PIF 2000).

The watershed is perhaps also the best breeding and nesting area for the long-billed curlew in western Montana. This species is declining nationally and has been identified as a priority in both the shorebird and Partners in Flight conservation plans. Local surveys on Kleinschmidt Flat in 1997 found thirty-one pairs on 3,840 acres, or greater than eight pairs per 1,000 acres. Production was not monitored, but many broods were noted. This species is highly reliant on grassland nesting habitat, and will also nest in sagebrush steppe, and relies more heavily on wetlands during migration. Small population size and negative population trends, combined with threats of habitat degradation on both breeding and wintering grounds, make the long-billed curlew a high conservation priority (National Audubon Society 2007).



Mike Parker/USFWS

*Long-billed curlew.*

Federally listed animal species found in the Blackfoot River watershed include the threatened bull trout, grizzly bear, gray wolf, and Canada lynx (see appendix C, List of Endangered and Threatened Species). The gray wolf was delisted from endangered status in March 2009, and relisted in August 2010. The bald eagle was delisted from threatened status in July 2007. The fisher, a candidate for listing occurs in the watershed (USFWS 2009c). The relationship of the watershed to Endangered Species Act planning units is as follows:

#### Bull Trout

For listing purposes, the Service divided the range of bull trout into distinct population segments and twenty-seven recovery units (RU). The Blackfoot River watershed lies within the Clark Fork River RU and the Upper Clark Fork Recovery Subunit. Within this subunit, the watershed has been identified as a core recovery area (USFWS 2002). The watershed has been proposed as critical habitat within the Clark Fork River drainage (USFWS 2010).

Within the watershed, bull trout densities are very low in the upper Blackfoot River, but increase downstream of the North Fork. Streams that appear to be particularly important for the spawning of migratory bull trout include Monture Creek, the North Fork Blackfoot River, Copper Creek, Gold Creek, Dunham Creek, Morrell Creek, the West Fork Clearwater River, and the East Fork Clearwater River. Bull trout spawner abundance is indexed by the number of identifiable female bull trout nesting areas (redds). Data indicate that Monture Creek has an upward trend from ten redds in 1989 to an average of fifty-one redds in subsequent years (Pierce et al. 2008). The North Fork also shows an upward trend from eight redds in 1989 to an average of fifty-eight redds between 1989 and 2008. The Copper Creek drainage (including Snowbank Creek)

has experienced a resurgence of bull trout redds—from eighteen in 2003 to 117 in 2008—since the 2003 Snow Talon Fire. The total number of redds counted in these three streams (Monture Creek, North Fork, and Copper Creek) increased from thirty-nine in 1989 to 217 in 2000. With the onset of drought, bull trout redd counts then declined to 147 in 2008. These changes are attributed to protective regulations first enacted in 1990, restoration actions in spawning streams during the 1990s and a period of sustained drought between 2000 and the present (Pierce et al. 2008).

#### Grizzly Bear

Grizzly bears are currently listed as a federally threatened species in the Northern Continental Divide Ecosystem (NCDE)(USFWS 2009c). Many scientists recognize the grizzly bear as an “umbrella species,” as the preservation and management of good-quality grizzly bear habitat will benefit many wildlife resources and plants. Grizzly bears require large amounts of land to roam in search of food and mates. The population numbers of grizzly bears are a publicly and scientifically recognized indicator of the health of many ecosystems. The NCDE is an area of the northern Rocky Mountains with large blocks of protected public land containing some of the most pristine and intact environments found in the contiguous United States. The NCDE supports the largest population of grizzly bears in the lower 48 states. Despite dramatic losses of habitat throughout North America, the grizzly bear has maintained a presence in Montana and occurs in portions of the Blackfoot Valley watershed. The watershed is the southern boundary for the NCDE grizzly bear recovery zone. The Grizzly Bear Recovery Plan (USFWS 1993) includes most of the watershed as suitable or occupied habitat.

The U.S. Geological Survey (USGS) Northern Divide Grizzly Bear Project, designed to estimate population size and distribution, confirmed the presence of twenty-nine individual grizzly bears in the Blackfoot River watershed in 2003 and 2004. The USGS estimates that at least forty bears are present during all or part of the year in the watershed (USGS 2004). In recent years, grizzly bear activity has increased in the watershed. This area appears to be an important habitat link for grizzly bears that are re-colonizing historical ranges to the south. Maintaining habitat connectivity is critical for maintaining sustainable subpopulations of grizzly bears within the southern portion of the Northern Continental Divide Ecosystem.

Grizzly bears breed, forage, and migrate throughout the watershed and den above 6,500 feet. They move from high mountain elevations to lower valley bottoms to forage seasonally for available food. Lakes, ponds, fens, and spring-fed creeks, common in portions of the valley floor, provide excellent bear habitat. Additionally, the vegetation found



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*Collared grizzly bear movement data is used to assess populations.*

along certain reaches of the Blackfoot River and its tributaries provide bears with cover, food, and natural movement corridors.

### Canada Lynx

The Canada Lynx Recovery Outline categorized lynx habitat and occurrence within the contiguous United States as (1) core areas, (2) secondary areas, and (3) peripheral areas. Core areas are defined as the areas with the strongest long-term evidence of the persistence of lynx populations. Core areas have both persistent verified records of lynx occurrence over time and recent evidence of reproduction. Six core areas and one “provisional” core area are identified within the contiguous United States. The Blackfoot River watershed is located within the Northwestern Montana/Northeastern Idaho Core Area (Ruediger et al. 2000). The watershed is a stronghold for the Canada lynx in the northern Rocky Mountains. Based on ongoing research in the upper and middle Blackfoot areas, lynx populations appear stable, although low reproductive rates are characteristic of this population. Since 1998, over eighty lynx have been monitored in the watershed, providing information on habitat use, reproduction, mortality, and movement. This research has shown that the watershed contains some of the most critical habitat for lynx in the continental United States. Large, intact spruce/subalpine fir forests above 4,000 feet in the watershed provide high quality habitat for lynx and for snowshoe hares, which are a primary lynx food source. Regenerating forest stands are often used as foraging habitat during the snow-free months while older, multi-storied stands serve as denning

and year-round habitat (Blackfoot Challenge 2005).

### Northern Rocky Mountain Gray Wolf

The Northern Rocky Mountain Gray Wolf Recovery Plan established three recovery zones in Montana, Idaho, and Wyoming. The Blackfoot River watershed is in the Northwest Montana Recovery Area (USFWS 1987). In March 2009, the Service removed the gray wolf from the list of threatened and endangered species in the western Great Lakes; the northern Rocky Mountain states of Idaho and Montana; and parts of Washington, Oregon, and Utah (USFWS 2009c). As of 2009, Montana Fish, Wildlife and Parks confirmed the presence of four resident wolf packs and estimates that at least twenty-five to thirty-five wolves inhabit the watershed. In August 2010, the gray wolf was relisted as an endangered species.

## CULTURAL RESOURCES

The Service has a trust responsibility to American Indian tribes that includes protection of the tribal sovereignty and preservation of tribal culture and other trust resources.

Currently, the Service does not propose any project, activity, or program that would result in changes in the character of, or adversely affect, any historical cultural resource or archaeological site. When such undertakings are considered, the Service takes all necessary steps to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The Service pursues compliance with Section 110 of the NHPA to survey, inventory, and evaluate cultural resources.

## SOCIOECONOMIC ENVIRONMENT

The Blackfoot River watershed includes the communities of Lincoln, Helmsville, Ovando, Seeley Lake, Greenough, Potomac, and Bonner, and spans portions of Missoula, Powell, and Lewis and Clark counties. There are approximately 8,100 people and 2,500 households in the watershed. In this 1.5 million-acre watershed, this amounts to less than one person per square mile. The population is spread throughout the valley, with population densities reaching 300 people per square mile in Seeley Lake, Potomac, and Bonner. The middle and high elevation portions of the watershed remain largely undeveloped. In 1995, between 8% and 18% of the current residents of the watershed had their primary residence located out of state (Blackfoot Challenge 2005).

Most of the rural population is involved in ranching and livestock production. Hunting of a wide variety of game species occurs on private lands. A seasonal influx of tourists are attracted to the Blackfoot Valley for opportunities to bird-watch, mountain-bike,

horseback ride, backpack, camp, canoe, fish, and view archeological and paleontological resources.

### ***AGRICULTURAL RESOURCES***

The economy of the Blackfoot Valley is largely agrarian. Large cattle ranches dominate the private lands within the project area. The population is sparse and towns are small and widely-scattered.

### ***LANDOWNERSHIP***

Landownership in the watershed is 54% federal (U.S. Forest Service, U.S. Fish and Wildlife Service, Bureau of Land Management), 10% state (Montana Department of Natural Resources and Conservation; Montana Fish, Wildlife and Parks; and University of Montana), 31% private, and 5% by corporate timber company (Plum Creek Timber Company) (see figure 3, map of landownership). Most of the middle and high elevation forested lands within the watershed is administered by the USFS. Private lands are concentrated in the low elevation portions of the watershed. Landownership patterns in the watershed have changed in recent years due to large-scale transfers of PCTC lands. Project areas where a mosaic of private and public ownership exist are under the greatest threat and are in most need of conservation protection.

### ***PROPERTY TAX***

Currently, landowners pay property taxes on their private lands to the counties. The Blackfoot Valley CA expansion is a conservation easement project; the land does not change hands and, therefore, the property taxes paid by the landowner to the county are not affected. No changes to the tax base are anticipated.

### ***PUBLIC USE AND WILDLIFE-DEPENDENT RECREATIONAL ACTIVITIES***

Hunting and fishing are very popular throughout the project area. Hunting for a variety of wildlife includes waterfowl, upland game birds, elk, moose, deer, black bear, bighorn sheep, mountain lion, and furbearers. Private landowners often give permission for hunting and fishing on their land. Public access to conservation easement lands will remain under the control of the landowner.

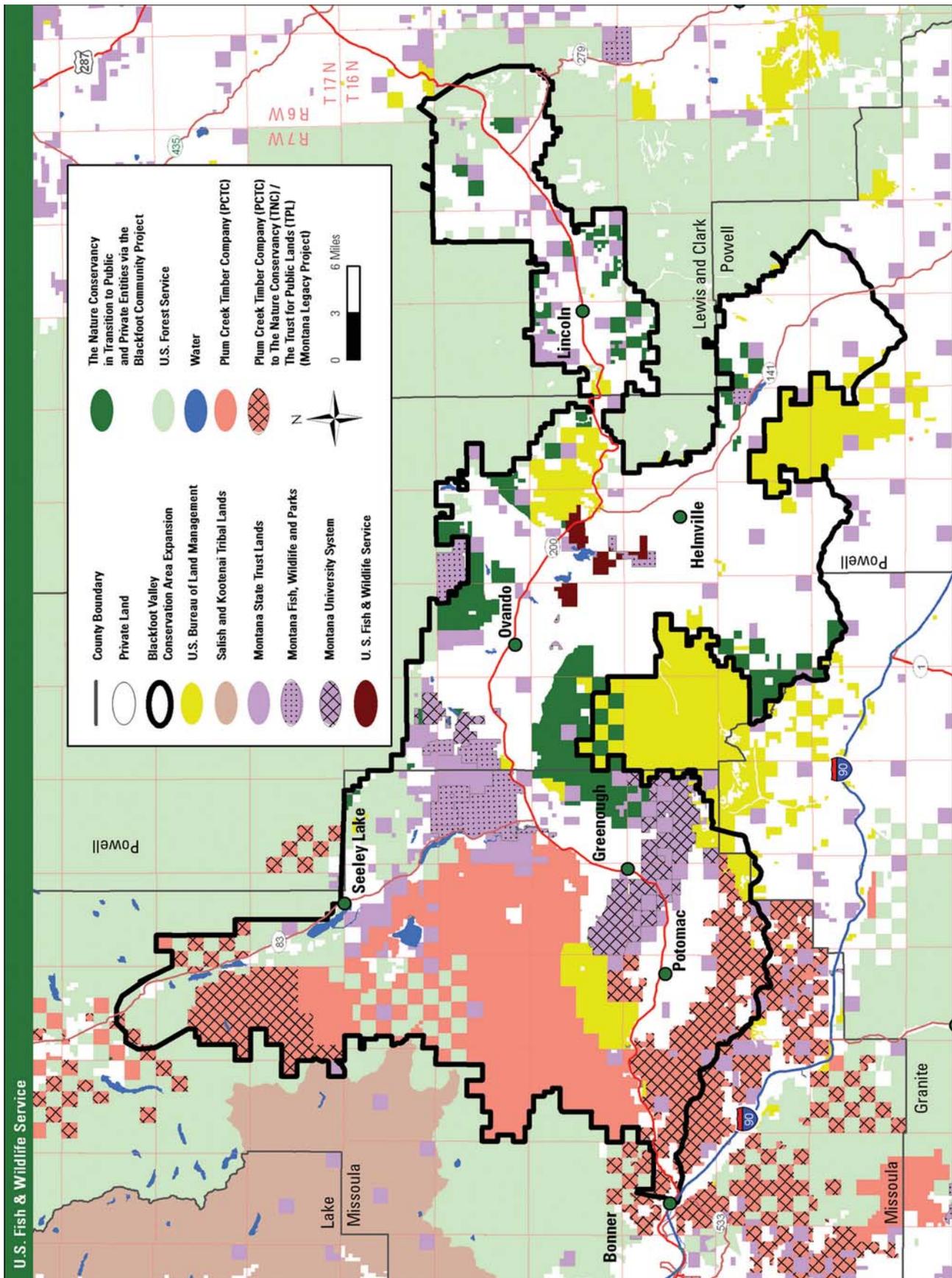


Figure 3. Landownership in the Blackfoot Valley Conservation Area project area.

# 3 Threats to and Status of Resources

This chapter discusses the effects of expanding the Blackfoot Valley Conservation Area.

## EFFECTS ON THE BIOLOGICAL ENVIRONMENT

The expansion of the Blackfoot Valley CA has a variety of effects on wildlife habitat, and water and soil resources.

### ***WILDLIFE HABITAT***

Expanding the Blackfoot Valley CA will provide for the conservation of up to an additional 80,000 acres of important habitat on private land. This project will help maintain the uniqueness of the Blackfoot Valley and complement conservation efforts of the MFWP, TNC, and other federal and state agencies.

The fact that the Blackfoot Valley remains biologically and ecologically intact is a tribute to the area's ranchers and residents, who have long recognized what this unique and important landscape represents for ranching and wildlife. The project aims to ensure habitat for wildlife remains intact in perpetuity and, by doing so, strengthen the ranching heritage of the Blackfoot Valley.

Conservation easements within the Blackfoot Valley CA will help alleviate habitat fragmentation issues. Key biological linkages will facilitate wildlife movement and provide for wildlife habitat requirements. The potential for human-wildlife conflicts will be greatly reduced and resiliency in response to climate change will be maintained.

Compatible agricultural practices such as livestock grazing or haying will continue, while sodbusting (breaking of native rangeland) will be prohibited. Easements will maximize the connectivity with other protected lands and decrease the negative impacts of habitat fragmentation on migratory birds (Owens and Myers 1972).

### ***WATER RESOURCES***

Water resources on the up to 80,000 additional acres will be protected from increased nonpoint source pollution from residential subdivision, commercial development, and draining of wetlands, all of which are prohibited under the easement project.

The landowner will continue to own and control water rights.

## EFFECTS ON THE SOCIOECONOMIC ENVIRONMENT

Landownership and land use, the value of intact ecosystems, oil and gas exploration and development, wind energy development, public use and economic effects on the socioeconomic environment are discussed.

### ***LANDOWNERSHIP AND LAND USE***

While many western Montana valleys are experiencing rapid population growth, the rate of population growth in the Blackfoot Valley watershed remains modest. The population in the watershed is projected to increase to approximately 8,680 by 2010 (Blackfoot Challenge 2005). Much of the population increase is attributable to immigration from other states. New residents are attracted to the area because of its outstanding scenic beauty, intact landscapes, abundance of wildlife, recreational opportunities, rural character, and proximity to the urban centers of Missoula and Helena.

### ***VALUE OF INTACT ECOSYSTEMS***

Humans influence every ecosystem on earth, leading to impairment of natural ecosystem structure and function (MEA 2005). Converting native land to row crop agriculture, suppressing fire, diverting water flow, increasing nutrient and toxic pollution, altering global precipitation patterns and gas concentration, and homogenizing and lowering global biodiversity are a few of the ways humans have altered ecosystems. North American forests, savannas, and grasslands have experienced substantial losses, whereas woody savanna, shrubland, and desert areas have expanded because of desertification and woody expansion into grasslands (Wali et al. 2002), inevitably leading to changes in ecosystem function (Dodds et al. 2008).

Conserving native land cover is an important component of maintaining ecosystem structure and function. Under the easement acquisition project, native forest habitats will remain intact, continuing to provide ecosystem goods and services to landowners and local communities. Ecosystem

services include (1) soil erosion control, (2) water supply, (3) biodiversity, and (4) carbon sequestration. The project will help protect valuable ecosystem services (see figure 4). Furthermore, it will prevent the prohibitively high cost of restoration.

**OIL AND GAS EXPLORATION AND DEVELOPMENT**

The easement project will not preclude oil and gas exploration or development on private land. Typically, conservation easements do not affect subsurface estates (oil and gas deposits) because the Service only acquires rights associated with surface ownership. In many places where the subsurface estate has been severed from surface ownership, including those in the Blackfoot Valley, the landowner does not own the subsurface rights; this means that the easement that the Service acquires from the landowner is junior to the subsurface rights.

In instances where a landowner owns both the surface and the subsurface estate, the Service will treat oil and gas development as a permitted use and provide for such development in the easement document. Easements will contain reasonable surface stipulations for such actions as revegetation of disturbed areas, access, and site reclamation.

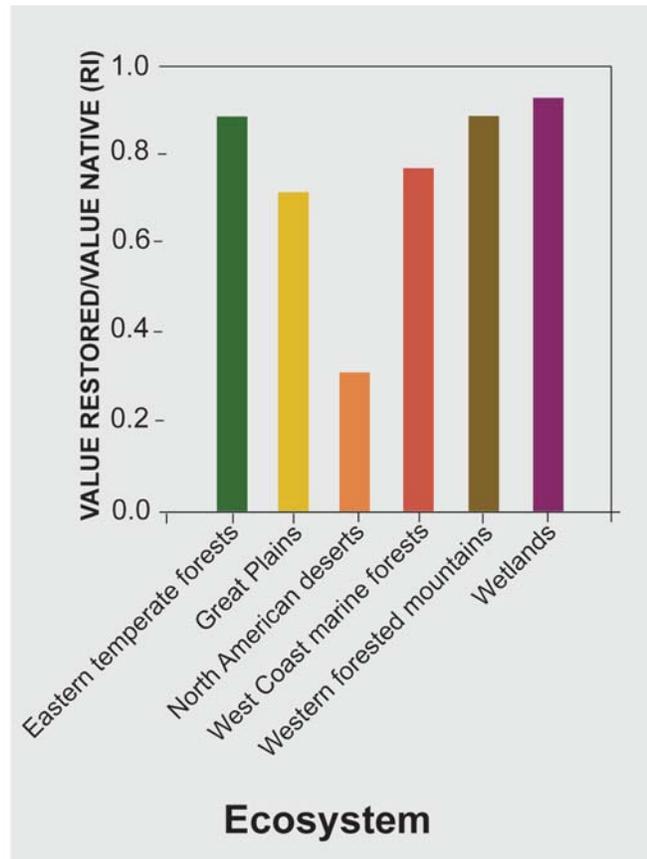
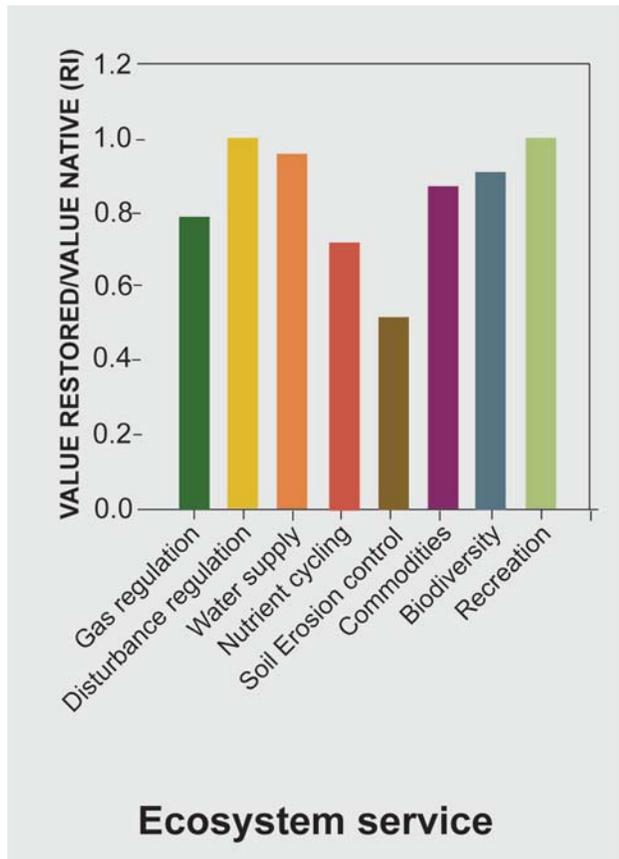
**WIND ENERGY DEVELOPMENT**

Wind development within the Blackfoot Valley CA will not occur on conservation easements due to restrictions on wind development. This reduces fragmentation within the Valley from the placement of towers and associated infrastructure development. This improves wildlife corridors’ integrity throughout the valley. Restricting wind towers also prevents mortality from direct strikes of towers by migratory birds and other avian wildlife species.

**PUBLIC USE**

Conservation easements purchased on private tracts will not change the landowner’s right to manage public access to their property.

Under the expanded easement project private landowners will continue to retain full control over their property rights, including allowing or restricting hunting and fishing on their lands. This is different from the MFWP’s block management program, where participating landowners are paid to provide hunters access to their private lands.



**Figure 4. Relative native and restored benefits of ecosystem goods and services.**

The relative value, RI, is determined as the ratio of estimated benefits derived from native and restored acreages per year. (Source: Dodds et al. 2008)

## ECONOMIC EFFECTS

Increases in employment, annual operating expenditures, and easement purchases will contribute to the economic activity that the easement project generates in the study area. According to Service staff, new employment associated with the expansion of the Blackfoot Valley CA will add 1.67 full-time equivalents (FTEs) to a total employment of 3.5 FTEs. New employment totals \$91,518 in salaries or an approximate average of \$54,801 per new employee. Assuming employees spend 79 percent of their earnings locally, the direct socioeconomic impacts of increased employment at Blackfoot Valley CA is \$72,299 annually.

The project will add approximately \$19,848 in operating expenditures associated with landowner management, employee training, and travel expenses. These funds are spent on local goods and services and therefore directly impact the economy in the area.

The direct economic impacts of easement acquisitions are more difficult to attribute as it is less obvious where landowners may spend this income. In the Blackfoot Valley CA, easements are worth an estimated \$64,000,000. The total direct economic impacts related to the Blackfoot Valley CA for the project are estimated at \$219,390, an increase of \$92,147 over baseline.

The socioeconomic impact of visitor expenditure is not included in this analysis as historic public visitor data at conservation areas is not available and visitor increases due to public awareness of conservation activities is difficult to quantify.

Table 1 presents a summary of annual operating costs and salaries associated with the economic impacts.

**Table 1. Summary of annual operating costs and salaries associated with the economic impacts in the Blackfoot Valley Conservation Area expansion.**

	<i>Current Impacts</i>	<i>Project Impacts</i>
Salaries	\$108,196	\$127,243
Operations	\$19,047	\$38,895
Total Impacts	<b>\$127,243</b>	<b>\$219,390</b>
Increase above baseline		<b>\$92,147</b>

As shown above, the total direct economic impacts related to the Blackfoot Valley CA expansion are estimated at \$92,147.

## UNAVOIDABLE ADVERSE IMPACTS

No direct or indirect unavoidable adverse impacts to the environment will result from the easement project, and it will not result in unavoidable adverse impacts on the physical or biological environment. The selection of an approved boundary will not, by itself, affect any aspect of landownership or values.

## IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

There will not be any irreversible or irretrievable commitments of resources associated with the conservation easement project. Once easements are acquired, irreversible and irretrievable commitments of funds to protect these lands (such as expenditures for fuel and staff for monitoring) will exist.

## SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

The conservation easement project will maintain the long term biological productivity of the Blackfoot Valley watershed, and increase protection of endangered and threatened species and the protection of biological diversity.

The nation will gain the additional protection of one of the last undeveloped, low-elevation river valley ecosystems and the fish and wildlife species that depend on it for future generations of Americans. The public will gain long term opportunities for wildlife dependent recreational activities.

## CUMULATIVE IMPACTS

Cumulative impacts are defined by National Environmental Policy Act policy as the impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR § 1508.7).

This section describes the cumulative impacts that may result from the combination of expected actions of the project, together with other biological and socioeconomic conditions, events, and developments.

## PAST ACTIONS

Landownership in the watershed is 54% federal (U.S. Forest Service, U.S. Fish and Wildlife Service, Bureau of Land Management), 10% state (Department of Natural Resources and Conservation; Montana Fish, Wildlife and Parks; and University of Montana), 31% private, and 5% by corporate timber company (Plum Creek Timber Company). Most of the

middle and high elevation forested lands within the watershed are administered by the USFS. Private lands are concentrated in the low elevation portions of the watershed. Landownership patterns in the watershed have changed in recent years due to large-scale transfers of PCTC lands.

In 2002, the Blackfoot Challenge initiated a three-phase landscape-level effort to protect, restore, and enhance 37,000 acres of biologically significant wetlands (5,310 acres) and associated uplands (31,690 acres) for migratory birds and other wildlife species by 2015. The Blackfoot Watershed I, Montana Project was completed in 2007, resulting in protection, restoration, and enhancement of a total of 16,794 acres (3,027 acres of wetland and 13,767 acres of associated upland). The Blackfoot Watershed II, Montana Project is currently in progress.

In 2003, the Blackfoot Challenge and The Nature Conservancy initiated the Blackfoot Community Project, which involved the purchase and resale of 89,215 acres of PCTC land based on a community-driven disposition plan. The area encompassed all PCTC land from the Blackfoot River headwaters near Rogers Pass to the Clearwater drainage. Approximately 75% of the lands have been or will be transferred into federal or state ownership, and 25% into private ownership.

In 2008, the Nature Conservancy and the Trust for Public Land entered into another agreement with PCTC called the Montana Legacy Project, to purchase 312,500 acres of timberland in western Montana. As part of the Legacy Project, a total of 71,754 acres in the Clearwater and Potomac valleys of the watershed will be purchased and resold to public agencies and private buyers. The majority of these lands are intended to be resold to the USFS and Montana Department of Natural Resources and Conservation.

In 2009, the Blackfoot Challenge and Trout Unlimited prepared a Blackfoot Sub-basin Plan for the Northwest Power and Conservation Council. The vision for the Blackfoot Sub-basin is for a place characterized by dynamic natural processes that creates and sustains diverse and resilient communities of native fish and wildlife, and the aquatic and terrestrial habitats on which they depend, thereby assuring substantial ecological, economic, and cultural benefits. The efforts to conserve and enhance those natural resources will be implemented through a cooperative partnership between public and private interests that will seek to sustain not only those natural resources, but the rural way of life of the Blackfoot River valley for present and future generations (Blackfoot Challenge and Trout Unlimited 2009).

## **PRESENT ACTIONS**

Within the CoCE, areas that were not suitable for homesteading and settlement were designated as federal lands. Settlers selected the milder and fertile valleys. These areas are currently under the greatest developmental pressure. Because of these threats and pressures, the Service has defined three priority project areas within the CoCE which will (1) maintain biological diversity related to wildlife values; (2) link together existing protected areas; (3) preserve existing wildlife corridors; and (4) protect the large, intact, functioning ecosystem, while maintaining the rural character and agricultural lifestyle of western Montana. The Land and Water Conservation Fund and potential conservation partners will provide funding for these efforts. Table 2 shows the proposed acquisition acreage, type of acquisition tool, focal species, and key partners for each of the three project areas, Blackfoot Valley Conservation Area expansion, Rocky Mountain Front Conservation Area expansion, and Swan Valley Conservation Area.

### **Economic Effects of Present Actions**

Combining the effects of Service employment (\$228,177) and operations (\$22,123), the total baseline economic activity generated by the conservation areas in the 12-county region is approximately \$250,300 annually.

If all three conservation area proposals (two expansions, one new area) occur, as described in Table 2, total operational expenditures will increase by \$64,423. A total of 5.01 new FTE employees will be hired at a combined salary of \$274,554. Assuming 79 percent of salaries are spent within the impact region, there will be an additional \$216,897 in direct economic impacts to the study area. The increased operational (\$64,423) and employment (\$216,897) expenditures added to baseline direct economic activity (\$250,300) yields a total direct economic impact of \$531,620 annually, which is an increase of \$281,320 from current baseline impacts.

### **Other Present Actions by the Service**

The Partners for Fish and Wildlife Program continues to develop strong partnerships with private landowners in the Blackfoot Valley through the implementation of habitat restoration and management projects on private lands. Strong partnerships have also developed with a variety of agencies and organizations jointly involved to accomplish similar objectives through restoration and protection projects. Habitat restoration efforts currently focus on wetlands, streams, native grasslands, and riparian areas. Typical projects include wetland restoration, riparian corridor enhancement (revegetation), instream restoration,

**Table 2. Summary of the project proposal for the Crown of the Continent ecosystem.**

<i>Project Area</i>	<i>Proposed Project Area</i>	<i>Potential New Acreage</i>	<i>Type of Acquisition Tool</i>	<i>Focal Species</i>	<i>Key Partners</i>
Blackfoot Valley Conservation Area expansion	Expand existing area from 165,000 acres to 824,024 acres	80,000 acres	Conservation easement	Grizzly bear, Canada lynx, bull trout, westslope cutthroat trout, migratory birds	Private landowners, The Blackfoot Challenge, The Nature Conservancy, Trout Unlimited
Rocky Mountain Front Conservation Area expansion	Expand existing area from 561,700 acres to 918,000 acres	125,000 acres	Conservation easement	Grizzly bear, migratory birds, long-billed curlew, Sprague's pipit, McCown's longspur	Private landowners, The Nature Conservancy, The Conservation Fund, Richard King Mellon Foundation
Swan Valley Conservation Area	New proposed area of 187,400 acres	11,000 acres	Conservation easement and limited fee title (less than 1,000 acres)	Grizzly bear, Canada lynx, bull trout, migratory birds: Lewis' woodpecker, black tern, trumpeter swan, olive-sided flycatcher	Private landowners, The Nature Conservancy, Trust for Public Lands, Swan Valley Ecosystem Center, Plum Creek Timber Company, Vital Ground, Trout Unlimited, Northwest Connections

and the development of grazing systems to rejuvenate native grasslands.

Several grant programs administered by the Division of Ecological Services, are available to tribes, states, and individual private landowners, for projects that benefit federally listed, proposed, or candidate species. The Blackfoot Valley provides an opportunity for the Service to collaborate with many public and private partners to conserve endangered species.

Conservation easements will protect and maintain the integrity of the Blackfoot Valley's unique complex of wetland, grassland, and riparian habitats and their diverse complement of fish, wildlife, and plants. These easements will also provide a vital link or protected habitat corridor between the existing protected "biological anchors" including the Blackfoot Community Project, Bob Marshall and Lincoln-Scapegoat wilderness areas, and Service fee title and conservation easements.

The easement project will have long term positive impacts on wildlife habitat and result in the long term conservation of migratory birds, threatened and endangered species, native plants, and the overall biological diversity of the Blackfoot Valley CA project area and the CoCE.

### ***REASONABLY FORESEEABLE FUTURE ACTIONS***

Based on past conservation successes within the Crown of the Continent ecosystem, we anticipate nonprofit organizations continuing to promote and secure conservation easements on additional private lands. It is likely the bulk of the nonprofit work involving conservation easements will be in partnership with the Service's goal of protecting 216,000 additional acres within the Crown of the Continent ecosystem.

### **Missoula and Lewis and Clark Counties Open Space Bonds**

Two counties (Missoula and Lewis and Clark counties) within the Crown of the Continent ecosystem have established bonds with over \$5,000,000 apiece dedicated to protecting private lands, while keeping the land in private ownership and on the tax rolls. Future partnerships to protect private land and the associated fish and wildlife resources are expected to occur with the Service under this initiative.

### **The Nature Conservancy of Montana Blackfoot Community Project**

On July 27, 2010, The Nature Conservancy of Montana announced their recent purchase of 18,000 acres in the Blackfoot Valley as part of an ongoing conservation effort. The land, in the North Chamberlain area, was purchased from the Plum Creek Timber Company as part of the Blackfoot Community Project. The purpose of the acquisition is to shelter portions of Chamberlain, Bear, and

Pearson creeks which feed into the Blackfoot River, and are important spawning areas for westslope cutthroat trout. The area also provides important habitat for wildlife such as Canada lynx, grizzly, black bear, and a number of game species. The Nature Conservancy has purchased more than 70,000 acres from PCTC and, working cooperatively with The Blackfoot Challenge and many public and private partners, permanently protected these lands. Additional purchases are expected in the future under this ongoing conservation initiative (The Nature Conservancy of Montana 2010).

# 4 Project Implementation

This chapter provides a general description of the operations and management of the Blackfoot Valley CA project area.

## LAND PROTECTION OPTIONS

Two alternatives were considered for the environmental assessment, no-action and the chosen alternative, acquiring conservation easements in the Blackfoot Valley to expand the conservation area.

## ACTION AND OBJECTIVES

The analysis and documentation was prepared by a combination of field and regional Service staff, along with partners (see appendix D). After completion and publication of an environmental assessment and after conducting a public comment period, the proposed alternative of acquiring additional conservation easements was chosen. The project was found to have no significant impacts on the quality of the environment, thus a finding of no significant impact (FONSI) has been completed and signed (see appendix E). Appendix F is the environmental action statement, appendix G is the environmental compliance certificate, and appendix H is the section 7 biological evaluation. Director's approval memorandums are appendix I.

The Service will expand the existing boundary of the Blackfoot Valley Conservation Area from 165,000 acres to 824,024 acres. Up to 80,000 acres of conservation easements will be acquired under this project. No fee-title acquisition will be considered as part of this project. The Service has standard conservation easement agreements that have been used successfully in other easement conservation areas of the United States. With appropriate modifications, the Service will use similar language and terms, and will develop a standard document for the conservation easements to minimize confusion, facilitate enforcement, and provide the necessary level of protection for the resources.

The easement project relies on voluntary involvement by landowners. The project does not involve fee-title acquisitions. Landowner management practices such as grazing will continue on the land included in the easement contract. All land within an easement remains in private ownership and, therefore, property tax and grassland management activities such as invasive plant and tree control, grazing, and burning will remain the

responsibility of the landowner. Public access, including hunting, also remains under the control of the landowner.

The easement project will be managed by staff located at the Benton Lake National Wildlife Refuge Complex. The Service staff will be responsible for monitoring and administering all easements on private land. Monitoring will consist of annually reviewing land status in meetings with the landowners or land managers to ensure that the stipulations of the conservation easement are being met. The Service's role is to monitor the purchased easements to ensure that landowners comply with the easement agreement so that the property does not undergo subdivision, commercial or industrial development, or conversion of native habitat. Photo documentation will be used at the time the easements are established as part of a documentation of baseline conditions.

Conservation easements are the most cost-effective, politically acceptable means to ensure protection of critical habitats that occur within the project area. Although habitat protection through fee-title acquisition is preferable in some locations, it is not required and is not preferable to conservation easements in the Blackfoot Valley region. Fee-title acquisition will triple or quadruple the cost of land acquisition in addition to adding significant increases in long-term management and operational costs for the Service. The Service views a strong and vibrant rural lifestyle, of which ranching is the dominant land use, as one of the key components to ensure habitat integrity and wildlife resource protection. The Service views conservation easements as a viable means to protect wildlife values on a landscape-scale.

## ACQUISITION ALTERNATIVES

The Service will acquire conservation easements principally by using funds appropriated under the Land and Water Conservation Act, which derives funds from royalties paid for by offshore oil and gas leasing. Such funds are intended for land and water conservation projects. These funds are not derived from general taxes. Funding is subject to annual appropriations by Congress for specific acquisition projects.

Funding from other sources may also be used within the project area. Management activities associated with easements may be funded through

other sources, such as TNC, PFW, and other private and public partners. The Service will also consider accepting voluntary donations for easements.

## STRATEGIC HABITAT CONSERVATION

Strategic habitat conservation (SHC) involves an ongoing cycle of biological planning, conservation design, conservation delivery, outcome-based monitoring, and assumption-based research. SHC uses science to focus conservation in the right places (USFWS 2008).

In 2004, the U.S. Fish and Wildlife Partners for Fish and Wildlife program led a statewide, strategic habitat conservation planning effort for focusing work in Montana. The state was divided into three broad geographic regions based on similar habitat types. Within each region, priority federal trust species and guilds were identified. The Montana Habitat and Population Evaluation Team office then assisted with gathering and creating spatially explicit models and data sets for priority trust resources. In addition, the scientific-based planning efforts of partner agencies and conservation

organizations were incorporated. These include the “Strategic Habitat Conservation Report” prepared by the National Ecological Assessment Team, the “Upper Missouri/Yellowstone/Upper Columbia River Ecosystem Team Focus Area Plan,” the “Montana Partners Program 1999 Focus Area Plan,” “Montana’s Comprehensive Fish and Wildlife Conservation Strategy Plan,” and The Nature Conservancy of Montana’s “Statewide Conservation Plan.” Seven stakeholder meetings were held to gather input from other partners to identify focus areas, and to develop an appropriate conservation strategy. The “2007 Montana Step-down Strategic Plan” identified geographic focus areas, habitat accomplishment targets, and benefit to federal trust species. The comprehensive process ultimately produced ten conservation focus areas for Montana. The Blackfoot Valley CA is within these identified focus areas.

The preparation of this project area land protection plan addresses the four key elements of SHC (1) planning, (2) design, (3) delivery, and (4) monitoring and research (see figure 5).

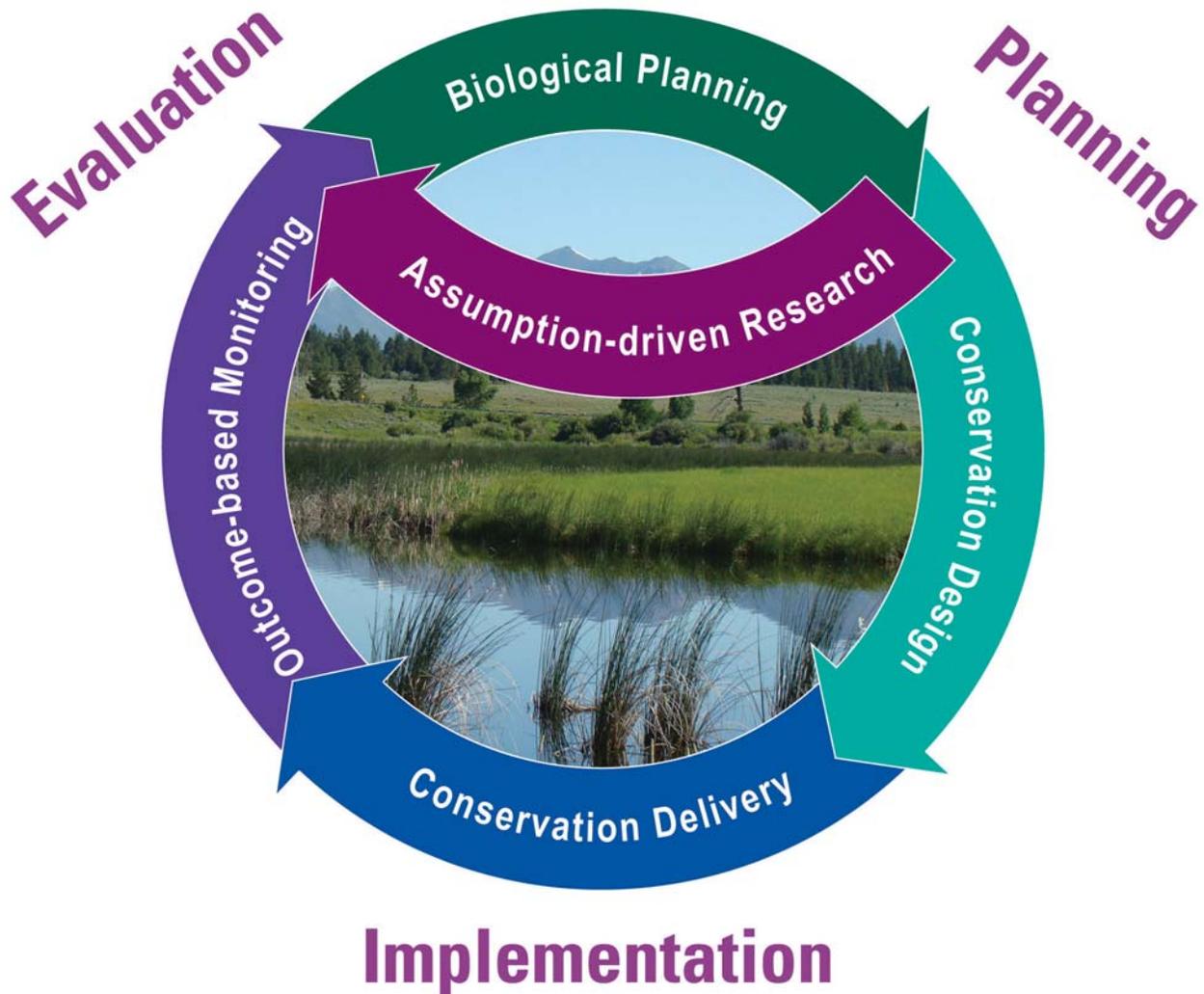


Figure 5. The basic strategic habitat conservation cycle.

## BIOLOGICAL PLANNING

According to the Montana Natural Heritage Program database (MTNHP 2009a) there are forty-one animal species of concern in the Blackfoot River watershed. These include invertebrates, birds, fish, mammals, reptiles, and amphibians. Federally listed animal species found in the Blackfoot River watershed include the threatened bull trout, grizzly bear, Canada lynx, and the endangered gray wolf.

### Focal Species

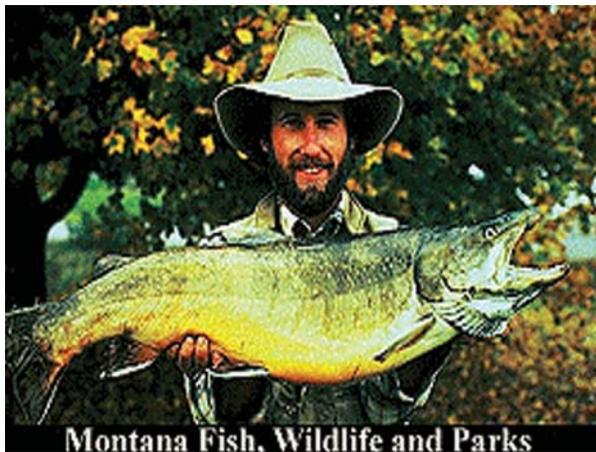
In order to strategically conserve habitat within the Blackfoot Valley, the Service chose to focus on the grizzly bear, bull trout, and Canada lynx. These species were chosen because they are federal trust resources, they represent the variety of key habitats and capture the needs of several other species in the Blackfoot Valley, and there is sufficient information about them to develop a land protection plan.

### Population Objectives

Because each of the focal species for the Blackfoot Valley is protected under the Endangered Species Act, specific mission-based population objectives have been defined that correspond to the species' recovery.

### Bull Trout

The Blackfoot River core area lies within the Clark Fork RU. For the Blackfoot River core area, the total adult bull trout abundance, distributed among local populations, must exceed 1,000 fish, and adult bull trout abundance must exceed 2,500 (USFWS 2002). Trend criteria will be met when the overall bull trout population in the Clark Fork RU is accepted, under contemporary standards of the time, as stable or increasing, based on at least 10 years of monitoring data.



*Bull trout.*

### Grizzly Bear

The Blackfoot Valley lies within the NCDE recovery zone. The Grizzly Bear Recovery Plan (USFWS 1993) specifies multiple thresholds that must be maintained before the grizzly bear population in the NCDE can be considered recovered. The threshold for the NCDE is ten females with cubs inside Glacier National Park (GNP) and twelve females with cubs outside GNP, over a running 6-year average, both inside the recovery zone and within a 10-mile area immediately surrounding the recovery zone, excluding Canada. Twenty-one of twenty-three bear management units (BMUs) occupied by females with young form a running 6-year sum of verified sightings and evidence, with no two adjacent BMUs unoccupied; and known human-caused mortality not to exceed 4 percent of the population estimate, based on the most recent 3-year sum of females with cubs. Furthermore, recovery cannot be achieved without occupancy in the Mission Mountains portion of the ecosystem.

### Canada Lynx

Several preliminary objectives have been identified in the lynx recovery effort. The one most relevant to the Blackfoot Valley CA is ensuring that sufficient habitat is available to accommodate the long-term persistence of immigration and emigration between each core area and adjacent populations in Canada or secondary areas in the United States (USFWS 2005).

### Limiting Factors

For wide-ranging species, such as grizzly bears, unplanned development leads to loss of habitat connectivity within the project area and, on a larger scale, between the CoCE and other historical or potential ranges. Riparian zones, for example, provide excellent habitat and cover for bears moving throughout the watersheds, but they are also among the most desired locations for building (USFS 2003). An increase in development also leads to more frequent conflicts between bears and people due in large part to the increased presence of bear attractants. Human garbage, dog food, and bird seed can condition and habituate bears, leading to more interactions and conflicts with people. These factors can lead to human-caused grizzly bear mortality, which in turn results in a decrease in grizzly bear reproduction and a loss of population and genetic viability. More than 17% of the NCDE is private land and an estimated 71% of bear-human conflicts and bear deaths occur on these private lands (Dr. Christopher Servheen, Grizzly Bear Recovery Coordinator, University of Montana, Missoula, MT; personal interview, 11 June 2008). Minimizing attractants on private lands and limiting subdivision are keys to reducing this threat to grizzly bears.

Canada lynx move between boreal habitats in Canada and the contiguous United States. Immigration of lynx from Canada plays a vital role in sustaining lynx in the contiguous United States (McKelvey et al. 2000). It is essential that landscape connectivity between lynx habitats and populations in Canada and the contiguous United States be maintained. Lynx movements may be negatively influenced by high traffic volume roads that bisect suitable habitat (USFWS 2005).

Ultimately, unmanaged growth and residential sprawl may be one of the biggest threats to the recovery of bull trout in the Clark Fork RU as well. The entire RU holds many of the attributes that increasingly attract people seeking relief from the urban environment. Human population growth in western Montana and northern Idaho has accelerated. The way in which this growth is managed, and our ability to limit the impacts of growth, in particular on bull trout spawning and rearing streams, is pivotal to the success of bull trout recovery effort (USFWS 2002).

Increasing human populations have a direct impact on all of the other categories of risk that affect bull trout. Both legal and illegal angling (poaching) have direct impacts on bull trout populations, despite the implementation of restrictive fishing regulations and strong educational efforts. The problem of illegal take of bull trout is intensified in stream corridors where roads provide access to highly visible (and therefore vulnerable) spawning stocks (USFWS 2002).

### Key Habitats for Protection

The USGS estimates that at least forty bears are present during all or part of the year in the watershed. In recent years, grizzly bear activity has

increased in the watershed. Based on collared bear locations, the eastern portion of the Blackfoot Valley, in particular, appears to be an important habitat link for grizzly bears that are recolonizing historic ranges to the south (James J. Jonkel, Montana Bear Manager, region 2, USFWS; personal interview, 10 May 2010). Maintaining habitat connectivity provides grizzly bears access to breeding, shelter, and foraging habitat which is critical for maintaining sustainable subpopulations within the southern portion of the NCDE.

Extensive population surveys and focused field research conducted since the mid-1990s indicates that the Blackfoot Valley watershed contains the most critical, currently unprotected lynx habitat in the contiguous United States. The majority of this vulnerable habitat is in the Blackfoot Valley's Clearwater watershed and is managed by Plum Creek Timber Company. Although a significant portion of this privately-managed lynx habitat will be conserved as part of the Montana Legacy Project in 2010 and 2011, tens of thousands of acres of critical lynx habitat remain vulnerable to conversion and development in the Clearwater watershed.

Dr. John Squires and others with the USFS Rocky Mountain Research Station began intensive Canada lynx field research in the Blackfoot Valley in 1997. This work is ongoing and represents the most comprehensive lynx research project ever conducted in the contiguous United States. Researchers worked to develop a Resource Selection Function surface that will help predict lynx habitat suitability and use across western Montana where lynx were thought to have occurred historically. Relocation data from 129 individual lynx and sixty-four known 80% kernel home ranges were compared to 1,000 similar kernels randomly located throughout the



USFWS

*Subdivision development impacts habitat connectivity.*

species' Montana range. Researchers then analyzed topographic, climactic, vegetative, and spectral imagery data to develop a spatial model predicting lynx occurrence. Lynx were fitted with conventional and global positioning system (GPS) collars in the Blackfoot Valley between 1997 and 2009. The resulting relocation data align closely with the predictive habitat model and highlight those lands in the watershed important for lynx conservation and recovery.

The most important and vulnerable lynx habitat in the watershed occurs in the northwest Blackfoot Valley's Clearwater drainage. These lands are important for the long-term viability of lynx in western Montana and their conservation will help ensure habitat connectivity between the Crown of the Continent ecosystem and the Mission Mountains and Rattlesnake federal and tribal wilderness complexes.

For bull trout, critical habitat has been designated and explicitly mapped in each RU. Critical habitats are those stream reaches and lakes deemed essential to the conservation of the species (USFWS 2002). To identify those habitats within each RU essential to the conservation of bull trout, the Service used the four biological indicators derived from the 2002 bull trout draft recovery plan (USFWS 2002) and seven newly developed "guiding principles."

The four biological indicators are distribution, abundance, trend, and connectivity. The seven guiding principles are conserve opportunity for diverse life-history expression, conserve opportunity for genetic diversity, ensure bull trout are distributed across representative habitats, ensure sufficient connectivity among populations, ensure sufficient habitat to support population viability (for example abundance, trend indices), consider threats (for example climate change), and ensure sufficient redundancy in conserving population units.

## **CONSERVATION DESIGN**

The design stage of the SHC process involves assessment of the current state of the system, formulation of habitat objectives, and determination of priority areas.

### **Current State of the System**

In recent years, the mortality threshold for grizzly bear recovery in the NCDE has been exceeded, but the significance of these numbers cannot be evaluated until there is accurate information on population size. Through the use of genetic analysis on collected hair samples, researchers were able to determine that an estimated 765 grizzly bears make their home in the Northern Continental Divide. Of those 765, researchers estimate 470 bears are females. Female bears were also found throughout

the entire study area, indicating a good reproductive potential for the species. Analysis of hair samples has allowed researchers to determine the genetic health of the grizzly bear population. Although overall genetic variation indicates a healthy population, it is only one piece of the puzzle that managers need for the recovery of grizzlies in the NCDE to be successful (Kendall et al. 2009).

Within the watershed, bull trout densities are very low in the upper Blackfoot River, but increase downstream of the North Fork. Streams that appear to be particularly important for the spawning of migratory bull trout include Monture Creek, the North Fork Blackfoot River, Copper Creek, Gold Creek, Dunham Creek, Morrell Creek, the West Fork Clearwater River, and the East Fork Clearwater River. Bull trout spawner abundance is indexed by the number of identifiable female bull trout nesting areas (redds). Data indicate that Monture Creek has an upward trend from ten redds in 1989 to an average of fifty-one redds in subsequent years (Pierce et al. 2008). The North Fork also shows an upward trend from eight redds in 1989 to an average of fifty-eight redds between 1989 and 2008. The Copper Creek drainage (including Snowbank Creek) has experienced a resurgence of bull trout redds—from eighteen in 2003 to 117 in 2008—since the 2003 Snow Talon Fire. The total number of redds counted in these three streams (Monture Creek, North Fork, and Copper Creek) increased from thirty-nine in 1989 to 217 in 2000. With the onset of drought, bull trout redd counts then declined to 147 in 2008. These changes are attributed to protective regulations first enacted in 1990, restoration actions in spawning streams during the 1990s, and a period of sustained drought between 2000 and the present (Pierce et al. 2008).

### **Formulation of Habitat Objectives**

There are currently approximately 365,000 acres of unprotected private land and 75,000 acres of commercial timber company land in the Blackfoot Valley CA. With the current levels of development and fragmentation within Blackfoot Valley, bull trout populations appear to be increasing while the pressure of human-cause mortality on grizzly bears for the NCDE population is higher than acceptable for recovery. Conservation easements provide an opportunity to prevent further development and fragmentation that might reduce or reverse the positive trends in bull trout populations or increase human-grizzly interactions, putting further negative pressure on the NCDE population. Given that conserving all remaining private land with easements to prevent additional development is not a reasonable or desired goal, especially around the existing population centers of Lincoln, Helmville, Ovando, Seeley Lake, Greenough, Potomac, and Bonner, the Service has set a goal to protect up to 80,000 additional acres of existing private lands. Long-term

monitoring of grizzly bears, lynx, and bull trout will be conducted and the goal of up to 80,000 acres will be periodically reevaluated.

### **Priority Areas**

The Service is proposing to expand the Blackfoot Valley CA by purchasing conservation easements to reduce future impacts of development and habitat fragmentation. Typically, the Service will purchase an easement for the entire ownership of a landowner, and therefore the priorities for the Blackfoot Valley Conservation Area Land Protection Plan are based on the best available data on existing private ownerships. The Service generally focuses on parcels greater than 160 acres, however, parcels less than 160 acres may be considered if unique biological values exist. Also, buffer areas will be maintained around communities to provide rural communities with the ability to meet their community development goals and objectives.

Given the models and habitat objectives, three priority areas have been developed (see figure 6). Areas where easements are expected to have the greatest benefit to grizzly bears, lynx, and bull trout have been designated as Priority 1. Priority 1 also includes areas where it appears feasible to link easements to create corridors across the valley. Priority 2 is a high priority for lynx and bull trout, but somewhat less important for grizzly bears. Priority 3 includes critical habitat for bull trout, but lower priority habitat for grizzly bears and lynx. These priority areas will be regularly re-evaluated, and may be adjusted as additional quantifiable data on the habitat needs and limiting factors for focal species in the Blackfoot Valley become available. The "Monitoring and Research" section below provides further details on this feedback loop.

### **CONSERVATION DELIVERY**

Habitat protection will occur through the purchase of conservation easements. It is the long-established policy of the Service to acquire minimum interest in land from willing sellers to achieve habitat acquisition goals.

The acquisition authority for the project is the Fish and Wildlife Act of 1956 (16 U.S.C. 742 a-742j). The federal money used to acquire conservation easements from the Land and Water Conservation Fund are derived primarily from oil and gas leases on the outer continental shelf, motorboat fuel tax revenues, and sale of surplus federal property. There could be additional funds to acquire lands, waters, or interest therein for fish and wildlife conservation purposes through congressional appropriations, the Migratory Bird Conservation Fund, the North American Waterfowl Conservation Act funds, and donations from nonprofit organizations.

The basic considerations in acquiring an easement interest in private land are the biological significance of the area, existing and anticipated threats to wildlife resources, landowner interest in the project, and the size of the parcel. The purchase of conservation easements will occur with willing sellers only and will be subject to available funding.

### **MONITORING AND RESEARCH**

As the Blackfoot Valley CA project develops and conservation easements are purchased, grizzly bears, lynx, and bull trout will continue to be monitored. The U.S. Fish and Wildlife Service, Montana Fish, Wildlife and Parks, and the USGS all have active grizzly bear monitoring and research projects. MFWP, in particular, is focused on developing a science-based population monitoring program that provides the information necessary to successfully manage bears in western Montana (Dood et al. 2006).

Specifically, MFWP will monitor a representative sample of twenty-five or more adult females in the NCDE to establish population trends, and use verified sightings to document changes in bear distribution and linkage areas used, especially by female bears. MFWP will monitor mortality, including timing and causes, and gather survivorship data in cooperation with other agencies. In addition, results from the 2004 USGS NCDE Grizzly Bear DNA project (USGS 2004) will assist MFWP with bear population size estimation, distribution, and population trends which will provide additional information for focusing acquisition efforts.

The state of Montana began development of a bull trout restoration plan in 1993. The final plan, published in June 2000, sets goals, objectives and criteria for restoration; outlines actions to meet those criteria; and establishes a structure to monitor implementation and evaluate effectiveness of the plan (MBTRT 2000). One of the stated goals of the plan is to develop and implement a statistically valid population monitoring program. This monitoring program will be an effective tool to assess the status of bull trout in the Blackfoot Valley CA.

Grizzly bears and bull trout have been identified as focal species for the Great Northern Landscape Conservation Cooperative (GNLCC)(see figure 7). The GNLCC was established, in part, to foster cooperation between agencies and support monitoring and research where there are common interests. Continual evaluation of grizzly bear, bull trout, and lynx population trends and habitat use will be used to refine conservation efforts on the ground within the GNLCC. Ongoing efforts within the GNLCC will help provide information on population trends and habitat use for these science-based decisions.

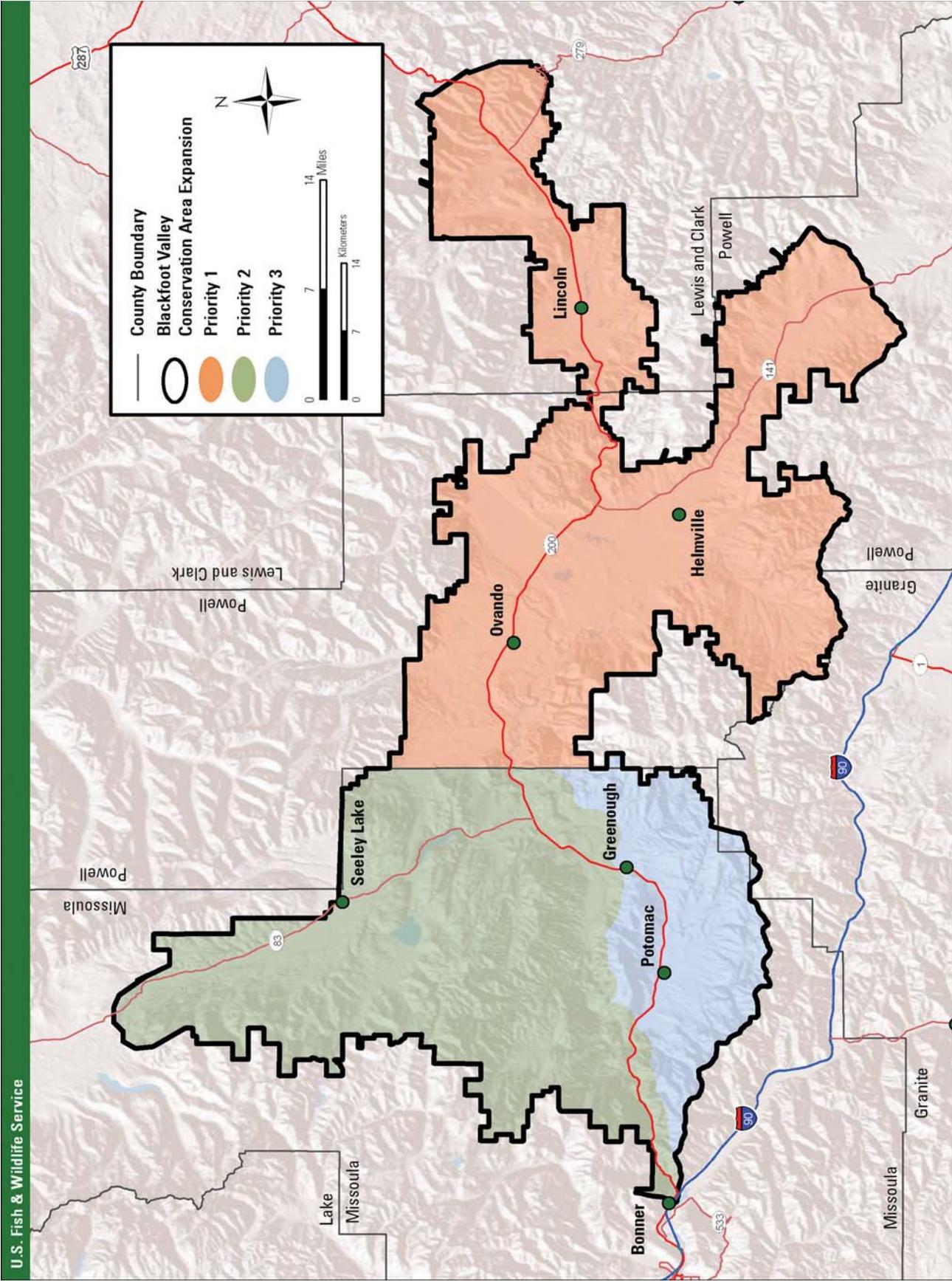


Figure 6. Blackfoot Valley project area priorities.



**Figure 7. Great Northern Landscape Conservation Cooperative with Blackfoot Valley Conservation Area expansion.**

## LANDSCAPE CONSERVATION COOPERATIVES

Strategic habitat conservation is a means of applying adaptive management across large landscapes. Landscape conservation cooperatives will facilitate strategic habitat conservation.

The Blackfoot Valley CA lies within the U.S. Fish and Wildlife Service's Great Northern Landscape Conservation Cooperative. GNLCC includes the mountain and transitional habitats in regions of Wyoming, Montana, Idaho, and the upper Green River basin in southern Wyoming and small parts of Colorado and Utah, and portions of the Interior Columbia Plateau reaching into Oregon and Washington westward to the Cascade Mountains. The GNLCC also includes the international landscapes of the interior British Columbia and Alberta, Canada, and covers the entirety of the northern Rocky Mountains and mid-continent lowlands of the interior northwest.

The GNLCC has identified priority species including: bull trout, grizzly bear, Lewis's woodpecker, trumpeter swan, westslope cutthroat trout, Arctic grayling, wolverine, willow flycatcher, sage grouse, burrowing owl, and Columbia spotted frog. Eight of these priority species exist within the project area.

The GNLCC works with a variety of science partners including many of which are also supporters of the proposed easement program. The protection of the Blackfoot Valley, through a conservation easement program, will significantly contribute to the conservation of GNLCC priority habitats and the federal trust species identified above.

As the GNLCC continues to develop, an overarching priority will be to serve as a convening body, bringing together partners to address existing and future issues related to climate change and landscape scale conservation. The Service will work with existing partnerships within the Blackfoot Valley to further refine priorities and leverage resources for acquisition.

## COORDINATION

Public involvement was initiated for the proposed expansion of the conservation easement project in the Blackfoot Valley Conservation Area in May 2010. A media contact list was compiled and news releases and factsheets were developed and distributed to media outlets, local organizations, elected officials, and interested parties. The news releases and factsheets described the proposed expansion of the conservation easement project, and announced an open house to gather input from the public.

Personal outreach efforts were made with county commissioners and other persons of interest.

Scoping was conducted during a public open house, on May 19, 2010; 7-9 p.m. at the Ovando School, 108 Birch Street, in Ovando, Montana. The purpose of scoping was to seek input from the public regarding the proposed expansion of the conservation easement project, and to identify the issues that needed to be addressed in the planning process. Fifteen people attended the open house. Five individuals, two agencies, and two organizations provided comments during the scoping period. Comments identified biological, social, and economic concerns regarding the proposed expansion of the conservation easement project. The issues raised and comments received helped the planning team to develop the alternatives presented in the draft EA and LPP. Key issues are described in Chapter 1 of the draft EA and LPP, under “Issues Identified and Selected for Analysis.”

The EA and draft LPP was issued on July 26, 2010. Public comments were solicited until August 25. Six written comments were received during the comment period. Those detailed comments and their responses are included in appendix J.

## **CONTAMINANTS AND HAZARDOUS MATERIALS**

Fieldwork for pre acquisition contaminant surveys will be conducted, on a tract-by-tract basis, prior to the purchase of any land interest. Any suspected problems or contaminants requiring additional surveys will be referred to a contaminants specialist located in the Service’s Ecological Services office in Helena, Montana.

## **NATIONAL ENVIRONMENTAL POLICY ACT**

As a federal agency, the Service must comply with provisions of the National Environmental Policy Act. An environmental assessment is required under the act to evaluate reasonable alternatives that will meet stated objectives, and to assess the possible impacts to the human environment. The draft EA, published in July 2010, served as the basis for determining whether implementation of the project will constitute a major federal action significantly affecting the quality of the human environment.

## **DISTRIBUTION AND AVAILABILITY**

Copies of the land protection plan were sent to federal and state legislative delegations, tribes, agencies, landowners, private groups, and other interested individuals.

Additional copies of the document are available from the following offices and websites.

U.S. Fish and Wildlife Service  
Benton Lake National Wildlife Refuge Complex  
922 Bootlegger Trail  
Great Falls, MT 59404-6133  
406 / 727 7400  
<http://www.fws.gov/bentonlake>

and

U.S. Fish and Wildlife Service  
Region 6, Division of Refuge Planning  
P.O. Box 25486–DFC  
Denver, Colorado 80225  
303 / 236 4378  
303 / 236 4792 fax  
<http://mountain-prairie.fws.gov/planning/lpp.htm>



# Appendix A

## Name Change



### United States Department of the Interior



#### FISH AND WILDLIFE SERVICE Mountain-Prairie Region

IN REPLY REFER TO:  
NWRS/Planning  
Mail Stop 60130

MAILING ADDRESS:  
P.O. Box 25486, DFC  
Denver, Colorado 80225-0486

STREET LOCATION:  
134 Union Boulevard  
Lakewood, Colorado 80228-1807

SEP 03 2010

#### Memorandum

To: **Acting** Director (ANRS)

From: **Deputy** Regional Director, Region 6

Subject: Name Change Request-Blackfoot Valley Wildlife Management Area to Blackfoot Valley Conservation Area

Region 6 is requesting approval to rename an existing unit of the National Wildlife Refuge System (Refuge System). The unit for which the request is being made is the Blackfoot Valley Wildlife Management Area (WMA) located in Powell County, Montana.

The Blackfoot Valley WMA is a conservation easement program where easements are purchased from willing sellers within a designated boundary (i.e., wildlife management area). Started in 1994, the purpose of the program is to protect a vital habitat corridor between federally protected lands, state wildlife management areas, waterfowl production areas, voluntary perpetual easements, and private lands that are part of the Partners for Fish and Wildlife projects. These easements limit the type and amount of development that may take place on a property in the future. No fee-title acquisition is associated with this unit of the Refuge System.

Recently an expansion of this conservation easement area was included in the America's Great Outdoors Crown of the Continent Conservation Initiative. During public scoping for an environmental assessment and land protection plan for the proposed expansion of the Blackfoot Valley WMA, it was brought to our attention that the term 'wildlife management area' caused confusion among the public, local agencies, and organizations. The confusion is due to the fact that Montana Fish, Wildlife and Parks (MFWP) commonly use the term 'wildlife management area' to describe areas that are managed by the State of Montana for wildlife purposes. With both the Service and MFWP using the term 'wildlife management area' to describe their respective management interests, many people become confused about which agency is responsible for managing which lands. This is especially significant given the fact that both agencies have missions related to wildlife purposes, but different management strategies.

For example, public access, including hunting, is generally available on state managed wildlife management areas, whereas the Service does not have a controlling interest in allowing or disallowing public access with conservation easements. This interest is determined by the private landowner encumbered with an easement.

To eliminate this confusion, we recommend renaming the "Blackfoot Valley Wildlife Management Area" to the "Blackfoot Valley Conservation Area." Implementing this change will also bring this unit into compliance with Service policy regarding the naming and renaming of units of the Refuge System.

Part 040 FW 2, Naming and Renaming Units and Unit Sites, Chapter 2, Part 2.7 (H2), of the Fish and Wildlife Service Manual states, "When the Service has no fee-title ownership rights, such as for projects consisting entirely of easements, use 'Conservation Area' as the last part of the unit name."

Based on the above, we request the unit name of the **Blackfoot Valley Wildlife Management Area** be changed to the **Blackfoot Valley Conservation Area**. If additional information is needed on this project, please contact Toni Griffin, Division of Refuge Planning, at 303/236-4618.

Concurrence  
 Non-concurrence

Attachments



Date: 9.30.10

**ACTING** Deputy DIRECTOR

**FWS ORGANIZATION CODE/NAME REQUEST FORM**

A. Indicate Type of Action: Add \_\_\_\_\_ Change  Delete \_\_\_\_\_ Consolidate \_\_\_\_\_

B. If this is only a change, what is being changed? (circle one below)

Organization Code only      **Name only**      Both Organization Code & Name

C. Indicate the new/correct/deleted Organization Code: 61512

D. Indicate the new/correct/deleted Organization Name: Blackfoot Valley Conservation Area  
 (Do not abbreviate or use the acronyms)

If this is a change or consolidation, verify the old organization code(s) and name(s) below:

Organization Code: \_\_\_\_\_ Organization Name: Blackfoot Valley Wildlife Management Area  
 Organization Code: \_\_\_\_\_ Organization Name: \_\_\_\_\_  
 Organization Code: \_\_\_\_\_ Organization Name: \_\_\_\_\_

E. Mailing Address: \_\_\_\_\_ Physical Address: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

F. County Name and Numeric Code: \_\_\_\_\_

G. Congressional District Code: \_\_\_\_\_

H. Telephone Number: (\_\_\_\_)\_\_\_\_-\_\_\_\_ Fax Number: (\_\_\_\_)\_\_\_\_-\_\_\_\_

I. Will this organization directly receive funding? i.e., a Fund Target? **YES or NO**  
 (If YES, provide the organization's primary eight-digit job number: \_\_\_\_\_)  
 (If NO, the requestor must provide an organization code to receive financial reports for this organization: \_\_\_\_\_)

J. If the nature of this action is to **DELETE** an organization, the requestor must provide an organization code to receive financial reports for this organization: \_\_\_\_\_

K. Provide all higher management organization codes for the **Affected Organization Code:**  
 (The first organization code is the organization to which the affected organization directly reports)

L. Based on the higher management codes, what is this **Organization's FPPS Level?** \_\_\_\_\_

(If two organization codes are given above, then this **Organization's FPPS level is 3**)

M. The **Effective Date** for this request: 09/2/2010

N. **BASIC JUSTIFICATION:** Provide the factors necessitating change, rationale for selecting proposed structure and site, etc. - See attached memo (09/2/2010)  
- per policy 040 FW2.74(2)

O. **COST OF EFFECTING ORGANIZATION CHANGE:** Provide relocation costs, operational costs (salaries, utilities, transportation, travel, etc.) for existing and proposed structure.

NA

P. **IMPACT ON BUDGET AN/OR EFFECT ON PENDING BUDGET REQUESTS:** Provide impacts upon current fiscal year budget or upcoming fiscal year budget request.

NA

R. **EFFECT ON PROGRAM MANAGEMENT AND OPERATION:** Provide effects on efficiency and effectiveness, and quality of goods and services provided to customers.

NA

S. **Point of Contact:** Provide a point of contact for questions regarding this request:

Name: Toni Griffin E:mail Address: toni-griffin@fws.gov  
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# Appendix B

## List of Plants and Animals

### MAMMALS

SCIENTIFIC NAME	COMMON NAME
<i>Mustela vison</i>	American Mink
<i>Taxidea taxus</i>	Badger
<i>Castor canadensis</i>	Beaver
<i>Eptesicus fuscus</i>	Big Brown Bat
<i>Ovis canadensis</i>	Bighorn Sheep
<i>Ursus americanus</i>	Black Bear
<i>Lynx rufus</i>	Bobcat
<i>Neotoma cinerea</i>	Bushy-tailed Woodrat
<i>Lynx canadensis</i> <sup>T</sup>	Canada Lynx
<i>Spermophilus columbianus</i>	Columbian Ground Squirrel
<i>Canis latrans</i>	Coyote
<i>Peromyscus maniculatus</i>	Deer Mouse
<i>Sorex monticolus</i>	Dusky or Montane Shrew
<i>Cervus canadensis</i>	Elk or Wapiti
<i>Martes pennanti</i> *	Fisher
<i>Myotis thysanodes</i> *	Fringed Myotis
<i>Spermophilus lateralis</i>	Golden-mantled Ground Squirrel
<i>Canis lupus</i> <sup>E</sup>	Gray Wolf
<i>Ursus arctos</i> <sup>T</sup>	Grizzly Bear
<i>Phenacomys intermedius</i>	Heather Vole
<i>Lasiurus cinereus</i> *	Hoary Bat
<i>Myotis lucifugus</i>	Little Brown Myotis
<i>Myotis evotis</i>	Long-eared Myotis
<i>Myotis volans</i>	Long-legged Myotis
<i>Microtus longicaudus</i>	Long-tailed Vole
<i>Mustela frenata</i>	Long-tailed Weasel
<i>Martes americana</i>	Marten
<i>Sorex cinereus</i>	Masked Shrew
<i>Microtus pennsylvanicus</i>	Meadow Vole
<i>Microtus montanus</i>	Montane Vole
<i>Alces americanus</i>	Moose
<i>Sylvilagus nuttallii</i>	Mountain Cottontail
<i>Puma concolor</i>	Mountain Lion
<i>Odocoileus hemionus</i>	Mule Deer

SCIENTIFIC NAME	COMMON NAME
<i>Ondatra zibethicus</i>	Muskrat
<i>Glaucomys sabrinus</i>	Northern Flying Squirrel
<i>Thomomys talpoides</i>	Northern Pocket Gopher
<i>Lontra canadensis</i>	Northern River Otter
<i>Erethizon dorsatum</i>	Porcupine
<i>Sorex preblei</i> *	Preble's Shrew
<i>Sorex hoyi</i>	Pygmy Shrew
<i>Procyon lotor</i>	Raccoon
<i>Vulpes vulpes</i>	Red Fox
<i>Tamiasciurus hudsonicus</i>	Red Squirrel
<i>Tamias ruficaudus</i>	Red-tailed Chipmunk
<i>Mustela erminea</i>	Short-tailed Weasel
<i>Lasionycteris noctivagans</i> **	Silver-haired Bat
<i>Lepus americanus</i>	Snowshoe Hare
<i>Myodes gapperi</i>	Southern Red-backed Vole
<i>Mephitis mephitis</i>	Striped Skunk
<i>Corynorhinus townsendii</i> *	Townsend's Big-eared Bat
<i>Sorex vagrans</i>	Vagrant Shrew
<i>Sorex palustris</i>	Water Shrew
<i>Zapus princeps</i>	Western Jumping Mouse
<i>Myotis ciliolabrum</i>	Western Small-footed Myotis
<i>Odocoileus virginianus</i>	White-tailed Deer
<i>Lepus townsendii</i>	White-tailed Jack Rabbit
<i>Gulo gulo</i> *	Wolverine
<i>Marmota flaviventris</i>	Yellow-bellied Marmot
<i>Tamias amoenus</i>	Yellow-pine Chipmunk

## BIRDS

SCIENTIFIC NAME	COMMON NAME
<i>Recurvirostra americana</i>	American Avocet
<i>Botaurus lentiginosus</i> *	American Bittern
<i>Fulica americana</i>	American Coot
<i>Corvus brachyrhynchos</i>	American Crow
<i>Cinclus mexicanus</i>	American Dipper
<i>Spinus tristis</i>	American Goldfinch
<i>Falco sparverius</i>	American Kestrel
<i>Anthus rubescens</i>	American Pipit
<i>Setophaga ruticilla</i>	American Redstart
<i>Turdus migratorius</i>	American Robin
<i>Picoides dorsalis</i>	American Three-toed Woodpecker
<i>Spizella arborea</i>	American Tree Sparrow
<i>Pelecanus erythrorhynchos</i> *	American White Pelican
<i>Anas americana</i>	American Wigeon

SCIENTIFIC NAME	COMMON NAME
<i>Calypte anna</i>	Anna's Hummingbird
<i>Dendroica coronata auduboni</i>	Audubon's Warbler
<i>Haliaeetus leucocephalus</i>	Bald Eagle
<i>Patagioenas fasciata</i>	Band-tailed Pigeon
<i>Riparia riparia</i>	Bank Swallow
<i>Hirundo rustica</i>	Barn Swallow
<i>Strix varia</i>	Barred Owl
<i>Bucephala islandica</i> **	Barrow's Goldeneye
<i>Megaceryle alcyon</i>	Belted Kingfisher
<i>Cypseloides niger</i> *	Black Swift
<i>Chlidonias niger</i> *	Black Tern
<i>Picoides arcticus</i> *	Black-backed Woodpecker
<i>Pica hudsonia</i>	Black-billed Magpie
<i>Poecile atricapillus</i>	Black-capped Chickadee
<i>Archilochus alexandri</i>	Black-chinned Hummingbird
<i>Pheucticus melanocephalus</i>	Black-headed Grosbeak
<i>Himantopus mexicanus</i> *	Black-necked Stilt
<i>Dendroica caerulescens</i>	Black-throated Blue Warbler
<i>Cyanocitta cristata</i>	Blue Jay
<i>Anas discors</i>	Blue-winged Teal
<i>Dolichonyx oryzivorus</i> *	Bobolink
<i>Aegolius funereus</i>	Boreal Owl
<i>Euphagus cyanocephalus</i>	Brewer's Blackbird
<i>Spizella breweri</i> *	Brewer's Sparrow
<i>Certhia americana</i> *	Brown Creeper
<i>Toxostoma rufum</i>	Brown Thrasher
<i>Molothrus ater</i>	Brown-headed Cowbird
<i>Bucephala albeola</i>	Bufflehead
<i>Icterus bullockii</i>	Bullock's Oriole
<i>Larus californicus</i>	California Gull
<i>Stellula calliope</i>	Calliope Hummingbird
<i>Branta canadensis</i>	Canada Goose
<i>Aythya valisineria</i>	Canvasback
<i>Hydroprogne caspia</i> *	Caspian Tern
<i>Carpodacus cassinii</i> *	Cassin's Finch
<i>Vireo cassinii</i>	Cassin's Vireo
<i>Bombycilla cedrorum</i>	Cedar Waxwing
<i>Poecile rufescens</i>	Chestnut-backed Chickadee
<i>Spizella passerina</i>	Chipping Sparrow
<i>Anas cyanoptera</i>	Cinnamon Teal
<i>Aechmophorus clarkii</i> *	Clark's Grebe
<i>Nucifraga columbiana</i> *	Clark's Nutcracker
<i>Spizella pallida</i>	Clay-colored Sparrow

SCIENTIFIC NAME	COMMON NAME
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
<i>Bucephala clangula</i>	Common Goldeneye
<i>Quiscalus quiscula</i>	Common Grackle
<i>Gavia immer</i> *	Common Loon
<i>Mergus merganser</i>	Common Merganser
<i>Gallinula chloropus</i>	Common Moorhen
<i>Chordeiles minor</i>	Common Nighthawk
<i>Corvus corax</i>	Common Raven
<i>Sterna hirundo</i> *	Common Tern
<i>Geothlypis trichas</i>	Common Yellowthroat
<i>Accipiter cooperii</i>	Cooper's Hawk
<i>Empidonax occidentalis</i>	Cordilleran Flycatcher
<i>Junco hyemalis</i>	Dark-eyed Junco
<i>Junco hyemalis caniceps</i>	Dark-eyed Junco (Gray-headed)
<i>Junco hyemalis montanus</i>	Dark-eyed Junco (Montana Junco)
<i>Junco hyemalis mearnsi</i>	Dark-eyed Junco (Pink-sided)
<i>Phalacrocorax auritus</i>	Double-crested Cormorant
<i>Picoides pubescens</i>	Downy Woodpecker
<i>Empidonax oberholseri</i>	Dusky Flycatcher
<i>Dendragapus obscurus</i>	Dusky Grouse
<i>Podiceps nigricollis</i>	Eared Grebe
<i>Tyrannus tyrannus</i>	Eastern Kingbird
<i>Anas penelope</i>	Eurasian Wigeon
<i>Sturnus vulgaris</i> ***	European Starling
<i>Coccothraustes vespertinus</i>	Evening Grosbeak
<i>Buteo regalis</i> *	Ferruginous Hawk
<i>Otus flammeolus</i> *	Flammulated Owl
<i>Sterna forsteri</i> *	Forster's Tern
<i>Passerella iliaca</i>	Fox Sparrow
<i>Leucophaeus pipixcan</i> *	Franklin's Gull
<i>Anas strepera</i>	Gadwall
<i>Aquila chrysaetos</i> *	Golden Eagle
<i>Regulus satrapa</i>	Golden-crowned Kinglet
<i>Ammodramus savannarum</i> *	Grasshopper Sparrow
<i>Dumetella carolinensis</i>	Gray Catbird
<i>Perisoreus canadensis</i>	Gray Jay
<i>Perdix perdix</i> ***	Gray Partridge
<i>Leucosticte tephrocotis</i> *	Gray-crowned Rosy-Finch
<i>Ardea herodias</i> *	Great Blue Heron
<i>Ardea alba</i>	Great Egret
<i>Strix nebulosa</i> *	Great Gray Owl
<i>Bubo virginianus</i>	Great Horned Owl
<i>Centrocercus urophasianus</i> *	Greater Sage-Grouse

SCIENTIFIC NAME	COMMON NAME
<i>Tringa melanoleuca</i>	Greater Yellowlegs
<i>Anas crecca</i>	Green-winged Teal
<i>Picoides villosus</i>	Hairy Woodpecker
<i>Empidonax hammondi</i>	Hammond's Flycatcher
<i>Histrionicus histrionicus</i> *	Harlequin Duck
<i>Zonotrichia querula</i>	Harris's Sparrow
<i>Catharus guttatus</i>	Hermit Thrush
<i>Lophodytes cucullatus</i> **	Hooded Merganser
<i>Podiceps auritus</i> *	Horned Grebe
<i>Eremophila alpestris</i>	Horned Lark
<i>Carpodacus mexicanus</i>	House Finch
<i>Troglodytes aedon</i>	House Wren
<i>Charadrius vociferus</i>	Killdeer
<i>Passerina amoena</i>	Lazuli Bunting
<i>Empidonax minimus</i>	Least Flycatcher
<i>Calidris minutilla</i>	Least Sandpiper
<i>Aythya affinis</i>	Lesser Scaup
<i>Tringa flavipes</i>	Lesser Yellowlegs
<i>Melanerpes lewis</i> *	Lewis' Woodpecker
<i>Melospiza lincolni</i>	Lincoln's Sparrow
<i>Lanius ludovicianus</i> *	Loggerhead Shrike
<i>Numenius americanus</i> *	Long-billed Curlew
<i>Limnodromus scolopaceus</i>	Long-billed Dowitcher
<i>Asio otus</i>	Long-eared Owl
<i>Oporornis tolmiei</i>	MacGillivray's Warbler
<i>Anas platyrhynchos</i>	Mallard
<i>Limosa fedoa</i>	Marbled Godwit
<i>Cistothorus palustris</i>	Marsh Wren
<i>Falco columbarius</i>	Merlin
<i>Sialia currucoides</i>	Mountain Bluebird
<i>Poecile gambeli</i>	Mountain Chickadee
<i>Zenaidura macroura</i>	Mourning Dove
<i>Vermivora ruficapilla</i>	Nashville Warbler
<i>Colaptes auratus</i>	Northern Flicker
<i>Colaptes auratus cafer</i>	Northern Flicker (Red-shafted)
<i>Accipiter gentilis</i> *	Northern Goshawk
<i>Circus cyaneus</i>	Northern Harrier
<i>Surnia ulula</i> **	Northern Hawk Owl
<i>Icterus galbula</i>	Northern Oriole
<i>Anas acuta</i>	Northern Pintail
<i>Glaucidium gnoma</i>	Northern Pygmy-Owl
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow
<i>Aegolius acadicus</i>	Northern Saw-whet Owl

SCIENTIFIC NAME	COMMON NAME
<i>Anas clypeata</i>	Northern Shoveler
<i>Lanius excubitor</i>	Northern Shrike
<i>Seiurus noveboracensis</i>	Northern Waterthrush
<i>Contopus cooperi</i>	Olive-sided Flycatcher
<i>Vermivora celata</i>	Orange-crowned Warbler
<i>Pandion haliaetus</i>	Osprey
<i>Seiurus aurocapilla**</i>	Ovenbird
<i>Myioborus pictus</i>	Painted Redstart
<i>Falco peregrinus*</i>	Peregrine Falcon
<i>Podilymbus podiceps</i>	Pied-billed Grebe
<i>Dryocopus pileatus*</i>	Pileated Woodpecker
<i>Pinicola enucleator</i>	Pine Grosbeak
<i>Spinus pinus</i>	Pine Siskin
<i>Falco mexicanus</i>	Prairie Falcon
<i>Sitta pygmaea</i>	Pygmy Nuthatch
<i>Loxia curvirostra</i>	Red Crossbill
<i>Mergus serrator</i>	Red-breasted Merganser
<i>Sitta canadensis</i>	Red-breasted Nuthatch
<i>Vireo olivaceus</i>	Red-eyed Vireo
<i>Sphyrapicus nuchalis</i>	Red-naped Sapsucker
<i>Podiceps grisegena</i>	Red-necked Grebe
<i>Phalaropus lobatus</i>	Red-necked Phalarope
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<i>Agelaius phoeniceus</i>	Red-winged Blackbird
<i>Aythya americana</i>	Redhead
<i>Larus delawarensis</i>	Ring-billed Gull
<i>Aythya collaris</i>	Ring-necked Duck
<i>Columba livia***</i>	Rock Pigeon
<i>Salpinctes obsoletus</i>	Rock Wren
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak
<i>Chen rossii</i>	Ross's Goose
<i>Buteo lagopus</i>	Rough-legged Hawk
<i>Regulus calendula</i>	Ruby-crowned Kinglet
<i>Oxyura jamaicensis</i>	Ruddy Duck
<i>Bonasa umbellus</i>	Ruffed Grouse
<i>Selasphorus rufus**</i>	Rufous Hummingbird
<i>Xema sabini</i>	Sabine's Gull
<i>Grus canadensis</i>	Sandhill Crane
<i>Passerculus sandwichensis</i>	Savannah Sparrow
<i>Tyrannus forficatus</i>	Scissor-tailed Flycatcher
<i>Charadrius semipalmatus</i>	Semipalmated Plover
<i>Accipiter striatus</i>	Sharp-shinned Hawk
<i>Tympanuchus phasianellus*</i>	Sharp-tailed Grouse

SCIENTIFIC NAME	COMMON NAME
<i>Asio flammeus</i> **	Short-eared Owl
<i>Plectrophenax nivalis</i>	Snow Bunting
<i>Chen caerulescens</i>	Snow Goose
<i>Bubo scandiacus</i>	Snowy Owl
<i>Vireo solitarius</i>	Solitary Vireo
<i>Melospiza melodia</i>	Song Sparrow
<i>Porzana carolina</i>	Sora
<i>Actitis macularius</i>	Spotted Sandpiper
<i>Pipilo maculatus</i>	Spotted Towhee
<i>Falcapennis canadensis</i>	Spruce Grouse
<i>Cyanocitta stelleri</i>	Steller's Jay
<i>Melanitta perspicillata</i>	Surf Scoter
<i>Buteo swainsoni</i> **	Swainson's Hawk
<i>Catharus ustulatus</i>	Swainson's Thrush
<i>Myadestes townsendi</i>	Townsend's Solitaire
<i>Dendroica townsendi</i>	Townsend's Warbler
<i>Tachycineta bicolor</i>	Tree Swallow
<i>Cygnus buccinator</i> *	Trumpeter Swan
<i>Cygnus columbianus</i>	Tundra Swan
<i>Cathartes aura</i>	Turkey Vulture
<i>Ixoreus naevius</i>	Varied Thrush
<i>Chaetura vauxi</i>	Vaux's Swift
<i>Catharus fuscescens</i> *	Veery
<i>Poocetes gramineus</i>	Vesper Sparrow
<i>Tachycineta thalassina</i>	Violet-green Swallow
<i>Rallus limicola</i>	Virginia Rail
<i>Vireo gilvus</i>	Warbling Vireo
<i>Sialia mexicana</i>	Western Bluebird
<i>Aechmophorus occidentalis</i>	Western Grebe
<i>Sturnella neglecta</i>	Western Meadowlark
<i>Piranga ludoviciana</i>	Western Tanager
<i>Contopus sordidulus</i>	Western Wood-Pewee
<i>Sitta carolinensis</i>	White-breasted Nuthatch
<i>Zonotrichia leucophrys</i>	White-crowned Sparrow
<i>Plegadis chihi</i> *	White-faced Ibis
<i>Zonotrichia albicollis</i>	White-throated Sparrow
<i>Loxia leucoptera</i>	White-winged Crossbill
<i>Melanitta fusca</i>	White-winged Scoter
<i>Meleagris gallopavo</i> ***	Wild Turkey
<i>Tringa semipalmata</i>	Willet
<i>Sphyrapicus thyroideus</i>	Williamson's Sapsucker
<i>Empidonax traillii</i>	Willow Flycatcher
<i>Phalaropus tricolor</i>	Wilson's Phalarope

SCIENTIFIC NAME	COMMON NAME
<i>Gallinago delicata</i>	Wilson's Snipe
<i>Wilsonia pusilla</i>	Wilson's Warbler
<i>Troglodytes troglodytes</i> *	Winter Wren
<i>Aix sponsa</i>	Wood Duck
<i>Dendroica petechia</i>	Yellow Warbler
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed Blackbird
<i>Dendroica coronata</i>	Yellow-rumped Warbler

## REPTILES

SCIENTIFIC NAME	COMMON NAME
<i>Thamnophis sirtalis</i>	Common Gartersnake
<i>Coluber constrictor</i>	Eastern Racer
<i>Elgaria coerulea</i> *	Northern Alligator Lizard
<i>Chrysemys picta</i>	Painted Turtle
<i>Charina bottae</i>	Rubber Boa
<i>Thamnophis elegans</i>	Terrestrial Gartersnake

## AMPHIBIANS

SCIENTIFIC NAME	COMMON NAME
<i>Rana luteiventris</i>	Columbia Spotted Frog
<i>Ambystoma macrodactylum</i>	Long-toed Salamander
<i>Pseudacris regilla</i>	Pacific Treefrog
<i>Ascaphus montanus</i>	Rocky Mountain Tailed Frog
<i>Bufo boreas</i> *	Western Toad

## FISH

SCIENTIFIC NAME	COMMON NAME
<i>Salvelinus confluentus</i> <sup>T</sup>	Bull Trout
<i>Cottus cognatus</i>	Slimy Sculpin
<i>Oncorhynchus clarkii lewisi</i> *	Westslope Cutthroat Trout

## INVERTEBRATES

SCIENTIFIC NAME	COMMON NAME
<i>Rhyacophila betteni</i>	A Caddisfly
<i>Parapsyche elsis</i>	A Caddisfly
<i>Lepidostoma cascadense</i>	A Caddisfly
<i>Lepidostoma unicolor</i>	A Caddisfly
<i>Chyrandra centralis</i>	A Caddisfly
<i>Dicosmoecus atripes</i>	A Caddisfly
<i>Dicosmoecus gilvipes</i>	A Caddisfly
<i>Anagapetus debilis</i>	A Caddisfly
<i>Arctopsyche grandis</i>	A Caddisfly

SCIENTIFIC NAME	COMMON NAME
<i>Neophylax splendens</i>	A Caddisfly
<i>Neothremma alicia</i>	A Caddisfly
<i>Micrasema bactro</i>	A Caddisfly
<i>Helicopsyche borealis</i>	A Caddisfly
<i>Hesperophylax designatus</i>	A Caddisfly
<i>Onocosmoecus unicolor</i>	A Caddisfly
<i>Brachycentrus americanus</i>	A Caddisfly
<i>Brachycentrus occidentalis</i>	A Caddisfly
<i>Eukiefferiella brehmi</i>	A Eukiefferiellan Chironomid
<i>Eukiefferiella devonica</i>	A Eukiefferiellan Chironomid
<i>Eukiefferiella gracei</i>	A Eukiefferiellan Chironomid
<i>Ephydatia cooperensis*</i>	A Freshwater Sponge
<i>Helobdella stagnalis</i>	A Leech
<i>Nemotaulius hostilis</i>	A Limnephilid Caddisfly
<i>Serratella tibialis</i>	A Mayfly
<i>Ephemerella excrucians</i>	A Mayfly
<i>Baetis bicaudatus</i>	A Mayfly
<i>Baetis tricaudatus</i>	A Mayfly
<i>Epeorus longimanus</i>	A Mayfly
<i>Drunella coloradensis</i>	A Mayfly
<i>Drunella doddsi</i>	A Mayfly
<i>Drunella grandis</i>	A Mayfly
<i>Drunella spinifera</i>	A Mayfly
<i>Attenella margarita</i>	A Mayfly
<i>Acentrella turbida</i>	A Mayfly
<i>Timpanoga hecuba</i>	A Mayfly
<i>Plauditus punctiventris</i>	A Mayfly
<i>Caudatella hystrix</i>	A Mayfly
<i>Ergodesmus compactus</i>	A Millipede
<i>Lophomus laxus*</i>	A Millipede
<i>Endopus parvipes*</i>	A Millipede
<i>Rhyacophila brunnea</i>	A Rhyacophilan Caddisfly
<i>Rhyacophila alberta</i>	A Rhyacophilan Caddisfly
<i>Rhyacophila narvae</i>	A Rhyacophilan Caddisfly
<i>Rhyacophila verrula</i>	A Rhyacophilan Caddisfly
<i>Zaitzevia parvula</i>	A Riffle Beetle
<i>Heterlimnius corpulentus</i>	A Riffle Beetle
<i>Cleptelmis addenda</i>	A Riffle Beetle
<i>Lara avara</i>	A Riffle Beetle
<i>Narpus concolor</i>	A Riffle Beetle
<i>Ordobrevia nubifera</i>	A Riffle Beetle
<i>Despaxia augusta</i>	A Stonefly

SCIENTIFIC NAME	COMMON NAME
<i>Amphinemura banksi</i>	A Stonefly
<i>Prostoia besametsa</i>	A Stonefly
<i>Zapada cinctipes</i>	A Stonefly
<i>Zapada columbiana</i>	A Stonefly
<i>Zapada oregonensis</i>	A Stonefly
<i>Yoraperla brevis</i>	A Stonefly
<i>Doroneuria theodora</i>	A Stonefly
<i>Hesperoperla pacifica</i>	A Stonefly
<i>Claassenia sabulosa</i>	A Stonefly
<i>Setvena bradleyi</i>	A Stonefly
<i>Kogotus modestus</i>	A Stonefly
<i>Atherix pachypus</i>	A True Fly
<i>Tvetenia bavarica</i>	A Tvetenian Chironomid
<i>Cordulia shurtleffii</i>	American Emerald
<i>Pteronarcys dorsata</i>	American Salmonfly
<i>Agapetus montanus**</i>	An Agapetus Caddisfly
<i>Hyaella azteca***</i>	An Amphipod
<i>Euphydryas anicia</i>	Anicia Checkerspot
<i>Papilio zelicaon</i>	Anise Swallowtail
<i>Sympetrum semicinctum</i>	Band-winged Meadowhawk
<i>Leucorrhinia proxima</i>	Belted Whiteface
<i>Sympetrum danae</i>	Black Meadowhawk
<i>Rhionaeschna multicolor**</i>	Blue-eyed Darner
<i>Leucorrhinia borealis*</i>	Boreal Whiteface
<i>Euconulus fulvus</i>	Brown Hive
<i>Rhionaeschna californica**</i>	California Darner
<i>Nymphalis californica</i>	California Tortoiseshell
<i>Speyeria callippe</i>	Callippe Fritillary
<i>Aeshna canadensis</i>	Canada Darner
<i>Ladona julia**</i>	Chalk-fronted Corporal
<i>Pontia protodice</i>	Checkered White
<i>Sympetrum internum</i>	Cherry-faced Meadowhawk
<i>Anax junius</i>	Common Green Darner
<i>Plathemis lydia</i>	Common Whitetail
<i>Leucorrhinia glacialis**</i>	Crimson-ringed Whiteface
<i>Lacinipolia cuneata</i>	Cuneate Arches
<i>Leucorrhinia intacta</i>	Dot-tailed Whiteface
<i>Libellula forensis</i>	Eight-spotted Skimmer
<i>Lestes dryas</i>	Emerald Spreadwing
<i>Discus whitneyi</i>	Forest Disc
<i>Libellula quadrimaculata</i>	Four-spotted Skimmer
<i>Euphydryas gillettii*</i>	Gillette's Checkerspot
<i>Polytonia faunus</i>	Green Comma

SCIENTIFIC NAME	COMMON NAME
<i>Sphaerium simile</i>	Grooved Fingernailclam
<i>Sphaerium occidentale</i>	Herrington Fingernailclam
<i>Leucorrhinia hudsonica</i>	Hudsonian Whiteface
<i>Allogona Ptychophora</i>	Idaho Forestsnail
<i>Oreohelix carinifera</i> *	Keeled Mountainsnail
<i>Aeshna eremita</i> **	Lake Darner
<i>Aeshna constricta</i> **	Lance-tipped Darner
<i>Lycaena cupreus</i>	Lustrous Copper
<i>Udosarx lyrata</i> *	Lyre Mantleslug
<i>Magnipelta mycophaga</i> *	Magnum Mantleslug
<i>Deroceras laeve</i> ***	Meadow Slug
<i>Aglais milberti</i>	Milbert's Tortoiseshell
<i>Somatochlora semicircularis</i> **	Mountain Emerald
<i>Enallagma annexum</i>	Northern Bluet
<i>Chlosyne palla</i>	Northern Checkerspot
<i>Lestes disjunctus</i>	Northern Spreadwing
<i>Ischnura cervula</i>	Pacific Forktail
<i>Cordulegaster dorsalis</i>	Pacific Spiketail
<i>Aeshna palmata</i>	Paddle-tailed Darner
<i>Ophiogomphus severus</i>	Pale Snaketail
<i>Papilio eurymedon</i>	Pale Swallowtail
<i>Gnophaela vermiculata</i>	Police Car Moth
<i>Zonitoides arboreus</i>	Quick Gloss
<i>Sympetrum madidum</i> **	Red-veined Meadowhawk
<i>Dasyfidonia avuncularia</i>	Red-winged Wave
<i>Calopteryx aequabilis</i>	River Jewelwing
<i>Colligyris greggi</i> *	Rocky Mountain Dusksnail
<i>Oreohelix strigosa</i>	Rocky Mountainsnail
<i>Sympetrum costiferum</i>	Saffron-winged Meadowhawk
<i>Pteronarcys californica</i>	Salmonfly
<i>Polites sabuleti</i>	Sandhill Skipper
<i>Aeshna juncea</i> **	Sedge Darner
<i>Aeshna umbrosa</i>	Shadow Darner
<i>Pacifastacus leniusculus</i>	Signal Crayfish
<i>Prophyaon humile</i> *	Smoky Taildropper
<i>Epitheca spinigera</i> **	Spiny Baskettail
<i>Lestes congener</i>	Spotted Spreadwing
<i>Microphysula ingersolli</i>	Spruce Snail
<i>Hyles euphorbiae</i> ***	Spurge Hawkmoth
<i>Sympetrum pallipes</i>	Striped Meadowhawk
<i>Oreohelix subrudis</i>	Subalpine Mountainsnail
<i>Coenagrion resolutum</i>	Taiga Bluet
<i>Libellula pulchella</i>	Twelve-spotted Skimmer

SCIENTIFIC NAME	COMMON NAME
<i>Helisoma anceps</i>	Two-ridge Rams-horn
<i>Aeshna interrupta</i>	Variable Darner
<i>Sympetrum corruptum</i>	Variiegated Meadowhawk
<i>Vittrina pellucida</i>	Western Glass-snail
<i>Margaritifera falcata</i> *	Western Pearlshell
<i>Amphiagrion abbreviatum</i>	Western Red Damsel
<i>Cupido (Everes) amyntula</i>	Western Tailed Blue
<i>Sympetrum obtrusum</i>	White-faced Meadowhawk
<i>Stagnicola caperata</i>	Wrinkled Marshsnail
<i>Aeshna sitchensis</i> **	Zigzag Darner

## VASCULAR PLANTS

SCIENTIFIC NAME	COMMON NAME
<i>Polygonum austiniiae</i> *	Austin's Knotweed
<i>Bidens beckii</i> *	Beck Water-marigold
<i>Potamogeton obtusifolius</i> *	Blunt-leaved Pondweed
<i>Centunculus minimus</i> *	Chaffweed
<i>Cardamine rupicola</i> *	Cliff Toothwort
<i>Carex crawei</i> *	Crawe's Sedge
<i>Carex chordorrhiza</i> *	Creeping Sedge
<i>Castilleja cervina</i> *	Deer Indian Paintbrush
<i>Drosera anglica</i> *	English Sundew
<i>Collomia debilis</i> var. <i>camporum</i> *	Flexible Collomia
<i>Juncus hallii</i> *	Hall's Rush
<i>Grindelia howellii</i> *	Howell's Gumweed
<i>Hutchinsia procumbens</i> *	Hutchinsia
<i>Physaria carinata</i> *	Keeled Bladderpod
<i>Drosera linearis</i> *	Linear-leaved Sundew
<i>Botrychium minganense</i> **	Mingan Island Moonwort
<i>Phlox kelseyi</i> var. <i>missoulensis</i> *	Missoula Phlox
<i>Carex livida</i> **	Pale Sedge
<i>Nymphaea leibergii</i> *	Pygmy Water-lily
<i>Eriophorum gracile</i> *	Slender Cottongrass
<i>Schoenoplectus subterminalis</i> *	Water Bulrush
<i>Howellia aquatilis</i> *T	Water Howellia
<i>Brasenia schreberi</i> *	Watershield

\* *Species of Concern*

\*\* *Potential Species of Concern*

\*\*\* *Exotic Species (not native to Montana)*

*E* *Endangered*—listed in the Federal Register as being in danger of extinction.

*T* *Threatened*—listed in the Federal Register as likely to become endangered within the foreseeable future.

# Appendix C

## *List of Endangered and Threatened Species*

### MAMMALS

SCIENTIFIC NAME	COMMON NAME
<i>Lynx canadensis</i> <sup>(T)</sup>	Canada lynx
<i>Canis lupus</i> <sup>(E)</sup>	Gray wolf
<i>Ursus arctos horribilis</i> <sup>(T)</sup>	Grizzly bear

### FISH

SCIENTIFIC NAME	COMMON NAME
<i>Salvelinus confluentus</i> <sup>(T)</sup>	Bull trout

### PLANTS

SCIENTIFIC NAME	COMMON NAME
<i>Howellia aquatilis</i> <sup>(T)</sup>	Water howellia

(E) Endangered—listed in the Federal Register as being in danger of extinction.

(T) Threatened—listed in the Federal Register as likely to become endangered within the foreseeable future.



# Appendix D

## *List of Preparers and Reviewers*

<i>Author's Name</i>	<i>Position</i>	<i>Work Unit</i>
Kathleen Burchett	Project leader	USFWS, Benton Lake National Wildlife Refuge, Great Falls, MT
Mark Ely	Geographic information system (GIS) specialist	USFWS, Region 6, Division of Refuge Planning, Lakewood, CO
Kevin Ertl	Wildlife refuge specialist	USFWS, H2-O Waterfowl Production Area, Helmville, MT
Vanessa Fields	Wildlife biologist	USFWS, Benton Lake National Wildlife Refuge, Great Falls, MT
Randy Gazda	Wildlife biologist	USFWS, Partners for Fish and Wildlife, Great Falls, MT
Toni Griffin	Planning team leader	USFWS, Region 6, Division of Refuge Planning, Lakewood, CO
Greg Neudecker	Assistant Montana PFW coordinator	USFWS, Benton Lake National Wildlife Refuge, Great Falls, MT
Jason Steigert	Economist	BBC Research & Consulting, Denver, CO
<i>Reviewer's Name</i>	<i>Position</i>	<i>Work Unit</i>
Laurel Bowen	Writer-editor	TBC Solutions, Clinton, TN
David Lucas	Chief of planning	USFWS, Region 6, Division of Refuge Planning, Lakewood, CO
Jim Stutzman	Montana state coordinator	USFWS, Partners for Fish and Wildlife, Great Falls, MT



# Appendix E

## *Finding of No Significant Impact*

U.S. Department of the Interior  
FISH AND WILDLIFE SERVICE  
Region 6, Denver, Colorado

### FINDING OF NO SIGNIFICANT IMPACT

#### **Blackfoot Valley Wildlife Management Area Expansion** Lewis and Clark, Missoula, and Powell counties, Montana

The U.S. Fish and Wildlife Service has completed the Land Protection Plan and Environmental Assessment, Blackfoot Valley Wildlife Management Area Expansion. The Environmental Assessment evaluates two alternatives, including a No Action Alternative, and the subsequent environmental consequences of expanding the Blackfoot Valley Wildlife Management Area.

Alternative B, the preferred alternative, was selected for implementation, because it best meets the Service's objective to maintain the continued presence of the large expanse of intact habitat in the Blackfoot Valley. The Blackfoot Valley Wildlife Management Area expansion has been proposed to help protect the Blackfoot Valley from being drastically changed by widespread, unplanned residential or commercial development. This proposal also would benefit the American public by protecting wildlife, water quality and open space. The following is a summary of anticipated environmental effects from implementation of the preferred alternative:

1. Expanding the Blackfoot Valley Wildlife Management Area would provide for the conservation of up to 80,000 acres of important habitat on private land. This project would help maintain the uniqueness of the Blackfoot Valley region and complement other conservation efforts by The Nature Conservancy, The Montana Land Reliance, Blackfoot Challenge, and other state and federal agencies.
2. Conservation easements within the expanded Blackfoot Valley Wildlife Management Area would help alleviate habitat fragmentation issues. Maintaining key biological linkages would facilitate wildlife movement and provide for wildlife habitat requirements for species such as the grizzly bear, Canada lynx, wolverine, and gray wolf. The potential for human-wildlife conflicts would be greatly reduced.
3. Compatible agricultural practices such as livestock grazing or haying would continue, while sodbusting (breaking of native rangeland) would be prohibited. Easements would maximize the connectivity with other protected grasslands and decrease the negative impacts of habitat fragmentation on wildlife species.
4. Water resources on 80,000 acres would be protected from increased non-point source pollution from residential subdivision, commercial development, and draining of wetlands, which are prohibited under the proposed easement program. This project will help reduce the demand for potable water associated with new subdivisions and the challenges to water rights that may follow.

5. Location and distribution, but not rate or density, of human population growth would be affected. Positive effects may occur from increased public wildlife viewing, and hunting opportunities. Open space also may enhance property values on adjoining lands as people begin to seek out undeveloped lands in the future.
6. The Service, within the approved project boundary, would create no additional land-use regulations. The purchase of an easement would not result in a transfer of land title, and private landowners would continue to pay property taxes. Preventing subdivision and development could decrease future tax revenues in certain market areas. However, open space could actually provide a net savings to local governments when compared to the revenues generated and costs of services associated with residential development.
7. Oil and gas exploration or development on private land would not be precluded. Typically, conservation easements do not affect subsurface estates (oil and gas deposits) because the Service only acquires rights associated with surface ownership. In many places where the subsurface estate has been severed from surface ownership, including those in the Blackfoot Valley, the landowner does not own the subsurface rights; this means that the easement that the Service acquires from the landowner is junior to the subsurface rights. In instances where a landowner owns both the surface and the subsurface estate, the Service would treat oil and gas development as a permitted use and provide for such development in the easement document. Easements contain reasonable surface stipulations for such actions as revegetation of disturbed areas, access, and site reclamation.
8. Wind development within the Blackfoot Valley Wildlife Management Area would not occur on conservation easements which reduces fragmentation within the Valley from the placement of towers and associated infrastructure development. This improves wildlife corridors' integrity throughout the Valley. Restricting wind towers also prevents mortality from direct strikes of towers by migratory birds and other avian wildlife species.
9. Conservation easements purchased on private tracts would not change the landowner's right to manage public access to their property. Private landowners would retain full control over their property access rights, including allowing or restricting hunting and fishing on their lands, under the proposed easement program.
10. The proposed conservation easement program would maintain the long term biological productivity of approximately 80,000 acres of grassland, riparian, forest and tundra ecosystems, including increased protection of endangered and threatened species and maintenance of biological diversity by preserving a large intact functioning system. The nation would gain the protection of species for future generations of Americans. The public would gain long term opportunities for wildlife-dependent recreational activities from the continued presence of wildlife in the Valley.
11. Protection of the Blackfoot Valley will build resiliency and resistance to disturbances in the natural system from stressors which will help the ecological system absorb changes from climate change. The Blackfoot Valley Wildlife Management Area will accomplish this by maintaining

intact, interconnected landscapes, and restoring fragmented or degraded habitats.

As part of the public scoping process associated with this action, comments were solicited from the public through news releases and public meetings. An open house was held in Ovando, Montana on May 19, 2010. Public comments were taken to identify issues to be analyzed for the proposed project. Approximately fifteen landowners, citizens, and elected representatives attended the meetings, and most expressed positive support for the project. In addition, the Service's field staff contacted local government officials, other public agencies, and conservation groups, all of which have expressed an interest in and a desire to protect the Blackfoot Valley from the pressures brought about by rural subdivisions.

Thus, this EA has taken a hard look at the environmental impacts to inform the public and ourselves about the consequences of the proposed action. Environmental consequences will be beneficial to wildlife habitat, endangered species, migratory birds, water quality, and native fish. While the proposal to expand the Blackfoot Valley Wildlife Management Area will largely preserve the current state of the natural environment and prevent degradation, there may be some reduction in energy development requiring surface occupancy, that would otherwise occur, but for the easements proposed by the Fish and Wildlife Service. Substantive conflict is not apparent over these land use issues; the vast majority of verbal and written comments received during scoping meetings and on the environmental assessment were in favor of the expansion of the Blackfoot Valley Wildlife Management Area through the use of voluntary conservation easements.

In determining whether this project is a major action significantly<sup>1</sup> affecting the quality of the human environment, we looked at both the context and intensity of the action (40 CFR § 1508.27, 40 CFR § 1508.14) as required by NEPA. The project will be implemented over time dependent upon the Fish and Wildlife Service's ability to obtain the funding needed for easement acquisitions. Of the 824,024 acres of habitat within the boundary area, 80,000 acres may be entered into voluntary easements with the Service, on a strictly voluntary basis with willing sellers only.

Because the human environment<sup>2</sup> is interpreted by the National Environmental Policy Act to mean the natural and physical environment and the relationship of people with that environment (40 CFR § 1508.14), in addition to our thorough analysis of physical environmental effects, we carefully assessed the manner in which the local people relate to the environment in the Blackfoot Valley. Economic or social effects are not intended by themselves to require the preparation an environmental impact statement (40 CFR § 1508.14). The location of the proposed action is largely rural and dominated by agricultural industries, mainly ranching. The vast majorities of commentators on the Blackfoot Valley Wildlife Management Area project supported the proposed action indicating in various comments that it would help them to relate to their natural and physical environment in much the same way they do now- via a ranching economy. Those who are interested in pursuing other economic development opportunities, such as wind energy, will not be precluded from doing so because the proposed action involves easements acquired on a voluntary basis only.

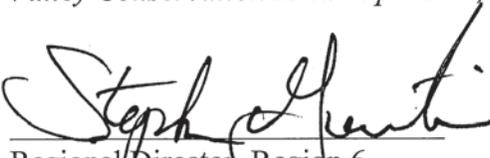
Therefore, in consideration of the fact that the Fish and Wildlife Service's conservation easement approach has a proven track record of effectiveness and minimal controversy due to its fundamental basis of voluntary participation to accomplish mutual goals of the Service and landowners, the compelling science in support of the project, and my review and evaluation of the information contained in the supporting reference, I have determined that expanding the boundary for the Blackfoot Valley Wildlife Management Area is not a major federal action that would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969.

The Finding of No Significant Impact (FONSI) and supporting Environmental Assessment will be available to the public. Copies of the Environmental Assessment are available for all affected landowners, agencies, private groups, and other interested parties.

The FONSI, Environmental Assessment, and other supporting documents are on file at the U.S. Fish and Wildlife Service, Refuges, Division of Planning, P.O. Box 25486-DFC, Denver, Colorado 80225. They are available for public inspection upon request.

**Supporting Reference**

U.S. Fish and Wildlife Service. 2010. *Land Protection Plan and Environmental Assessment, Blackfoot Valley Conservation Area Expansion*, Denver, Colorado.

  
Regional Director, Region 6  
U.S. Fish and Wildlife Service

9/24/10  
Date

<sup>1</sup> 40 CFR § 1508.27 "Significantly" as used in NEPA requires considerations of both context and intensity: (a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant; and (b) Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action.

<sup>2</sup> 40 CFR § 1508.14 "Human environment" shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment. (See the definition of "effects" (40 CFR § 1508.8).) This means that economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.

# Appendix F

## *Environmental Action Statement*

U.S. Fish and Wildlife Service  
Region 6  
Denver, Colorado

### ENVIRONMENTAL ACTION STATEMENT

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the action of expanding the executive boundary of the Blackfoot Valley Wildlife Management Area:

- is a categorical exclusion as provided by 516 DM 2, Appendices 1 and 2, and 516 DM 6, Appendix 1. No further documentation will be made.
- is found not to have significant environmental effects as determined by the attached Finding of No Significant Impact and Environmental Assessment.
- is found to have special environmental conditions as described in the attached environmental assessment. The attached Finding of No Significant Impact will not be final nor any actions taken pending a 30-day period for public review [40CFR 1501.4(e)(2)].
- is found to have significant effects and, therefore, a notice of intent will be published in the *Federal Register* to prepare an environmental impact statement before the project is considered further.
- is denied because of environmental damage, Service policy, or mandate.
- is an emergency situation. Only those actions necessary to control the immediate impacts of the emergency will be taken. Other related actions remain subject to NEPA review.

Other supporting document:

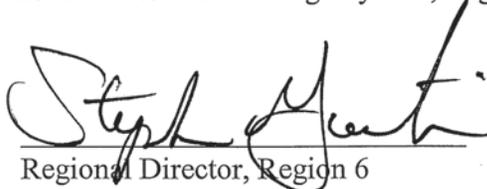
*Draft Environmental Assessment and Land Protection Plan, Blackfoot Valley Wildlife Management Area Expansion*



Assistant Regional Director  
National Wildlife Refuge System, Region 6

Date

9/24/10



Regional Director, Region 6  
U.S. Fish and Wildlife Service

Date

9/24/10



# Appendix G

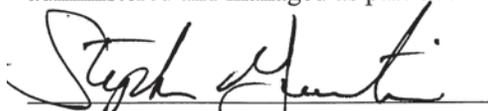
## *Environmental Compliance Certificate*

### U.S. FISH AND WILDLIFE SERVICE, REGION 6 ENVIRONMENTAL COMPLIANCE CERTIFICATE

PROJECT: Blackfoot Valley Wildlife Management Area Expansion  
STATE: Montana

ACTION (indicate if not applicable)	DATE
NEPA (NATIONAL ENVIRONMENTAL POLICY ACT)	
Categorical Exclusion.....	N/A
Environmental Assessment/Finding of No Significant Impact .....	9/24/10
Environmental Impact Statement/Record of Decision .....	N/A
Executive Order 11593, Protection of Historical, Archaeological, and Scientific Properties.....	8/30/10
Executive Order 11988, Floodplain Management .....	8/30/10
Executive Order 11990, Protection of Wetlands .....	8/30/10
Executive Order 12372, Intergovernmental Review of Federal Programs .....	8/30/10
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations.....	8/30/10
Executive Order 12996, Management and General Public Use of the National Wildlife Refuge System.....	8/30/10
Endangered Species Act, Section 7 .....	9/07/10
Coastal Zone Management Act, Section 307 .....	N/A
Uniform Relocation Assistance and Real Property Acquisition Policies Act.....	N/A
Level I Contaminants and Hazardous Waste (Secretarial Order 3127: 602DM2).....	8/30/10

I hereby certify that all requirements of the law, rules, and Service regulations or policies applicable to planning for the above project have met with compliance. I approve the expansion of the executive boundary for the Blackfoot Valley Wildlife Management Area to be administered and managed as part of the National Wildlife Refuge System.

  
Regional Director, Region 6  
U.S. Fish and Wildlife Service

9/24/10  
Date

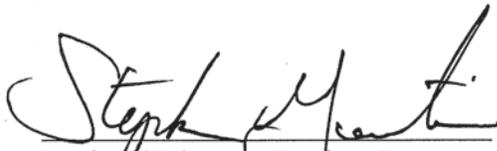
## STATEMENT OF COMPLIANCE

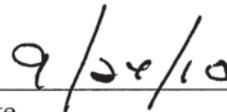
The following Executive Orders and legislative acts have been reviewed as they apply to the expansion of the executive boundary of the Blackfoot Valley Wildlife Management Area:

- 1. Executive Order 11593. Protection of Historical, Archaeological, and Scientific Properties.** The regional archaeologist determined that the acquisition of easements within the Blackfoot Valley Wildlife Management Area Expansion is not an undertaking under section 106 of the National Historic Preservation Act. In fact, the project has the potential to protect cultural resources. If, in the future, the Service grants a special permit for the landowner under the easement, section 106 may be relevant at that time. If so, the Service will take the necessary steps to address any historical or archaeological issues.
- 2. Executive Order 11988. Floodplain Management.** No structures that could be damaged by or that would significantly influence the movement of floodwater are planned for construction by the Fish and Wildlife Service on easements acquired as part of this project.
- 3. Executive Order 11990. Protection of Wetlands.** This action is consistent with protection of existing wetland resources from incompatible activities and thereby complies with this executive order.
- 4. Executive Order 12372. Intergovernmental Review.** The Service has discussed the proposal to expand the Blackfoot Valley Wildlife Management Area with landowners; conservation organizations; other federal agencies; state, and county commissioners; and other interested groups and individuals. At the federal level, the Service staff has briefed Senators Baucus and Tester, as well as the congressional delegation, and coordinated with representatives from other federal agencies such as the Bureau of Land Management and the U.S. Forest Service. At the state level, Governor Schweitzer's staff, along with the Montana Fish, Wildlife and Parks was briefed on the project.
- 5. Executive Order 12898. Federal Actions to Address Environmental Justice in Minority and Low-Income Populations.** Expanding the Blackfoot Valley Wildlife Management Area will not have a disproportionately high or adverse human health or environmental effect on minority or low-income populations. Therefore, this action complies with this Executive Order.
- 6. Executive Order 12996. Management and General Public Use of the National Wildlife Refuge System.** The public has been invited to participate in the planning process and has been very engaged. The Service held a public open house to seek input from the public regarding the proposed expansion of the conservation easement program, and to identify the issues that needed to be addressed in the planning process. Approximately fifteen written comments have been received from the public. The public's issues and comments have been incorporated into the Environmental Assessment and a copy of the final document will be sent to all interested landowners, agencies, private groups, and other parties. Since this project will strictly be easement acquisition, the Service will not manage or have control over public access to the protected lands. This right will remain with the private landowner and therefore a compatibility determination is not needed for this project.

7. **Endangered Species Act, section 7.** An internal section 7 consultation concluded the proposed action would have a 'May affect, but is not likely to adversely affect species/modify critical habitat' on listed species within the acquisition project area.
8. **Coastal Zone Management Act.** Due to the location of the project area, compliance of this Act was determined to be not applicable.
9. **Uniform Relocation Assistance and Real Property Acquisition Policies Act.** Since the Service will not be acquiring any land within the project area in fee-title, no relocation assistance will be needed and no real property acquisition will occur.
10. **Secretarial Order 3127. Contaminants and Hazardous Waste.** A Level 1 pre-acquisition contaminant survey will be completed prior to the purchase of any easement.

I hereby certify that the Service has complied with all requirements of law, rules, or regulations applicable to pre-acquisition planning for the above project. I approve the expansion of the executive boundary of the Blackfoot Valley Wildlife Management Area and the subsequent acquisition of up to 80,000 acres of easements from willing sellers:

  
Regional Director, Region 6  
U.S. Fish and Wildlife Service

  
Date



# Appendix H

## Section 7 Biological Evaluation

### INTRA-SERVICE ENDANGERED SPECIES ACT SECTION 7 EVALUATION FORM

**Originating Persons:** Kathleen A. Burchett, Project Leader, Benton Lake National Wildlife Refuge Complex and Toni Griffin, Refuges, Division of Planning, Denver Regional Office

**Telephone Number:** 406/727-7400

**Date:** 8/27/10

**I. Region:** Region 6

**II. Service Activity:** Establishment of the Expansion of the Blackfoot Valley Conservation Area

#### III. Pertinent Species and Habitat

##### A. Listed species and/or their critical habitat within the 3 county action area:

<b>LEWIS AND CLARK COUNTY</b>		
Gray Wolf	<i>Canis lupus</i>	E
Bull Trout	<i>Salvelinus confluentus</i>	T
Grizzly Bear	<i>Ursus arctos horribilis</i>	T
Canada Lynx	<i>Lynx canadensis</i>	T
<b>MISSOULA COUNTY</b>		
Gray Wolf	<i>Canis lupus</i>	E
Bull Trout	<i>Salvelinus confluentus</i>	T
Grizzly Bear	<i>Ursus arctos horribilis</i>	T
Canada Lynx	<i>Lynx canadensis</i>	T
<b>POWELL COUNTY</b>		
Gray Wolf	<i>Canis lupus</i>	E
Bull Trout	<i>Salvelinus confluentus</i>	T
Grizzly Bear	<i>Ursus arctos horribilis</i>	T
Canada Lynx	<i>Lynx canadensis</i>	T

C - Candidate  
 T - Threatened  
 E - Endangered

**B. Proposed species and/or their proposed critical habitat within the county / action area:**

Mountain plover (*Charadrius montanus*) listed as proposed threatened in Lewis and Clark, Missoula, and Powell counties.

**C. Candidate species within the county / action area:**

Yellow-billed cuckoo (*Coccyzus americanus*) is a candidate species in Missoula County.

**IV. Geographic Area/Action**

This Intra Section 7 covers the expansion of the Blackfoot Valley Conservation Area in portions of 3 counties in Montana; Lewis and Clark, Missoula, and Powell counties.

**V. Location**

The proposed boundary expansion (see attached map):

- State of Montana
  - A. Counties: Lewis and Clark, Missoula, and Powell.
- Description of extent of boundary for the Blackfoot Valley Conservation Area:

The Blackfoot Valley Conservation Area project area encompasses an 824,024-acre ecosystem that includes portions of Missoula, Powell, and Lewis and Clark counties. The parts of these counties make up the Blackfoot River watershed in western Montana. The watershed is bordered to the east by the Continental Divide, to the south by the Garnet Mountains, to the north by the Bob Marshall and Lincoln-Scapegoat Wilderness Areas, and to the west by the Rattlesnake Wilderness Area.

The watershed is located at the southern edge of the Crown of the Continent ecosystem, a 10 million-acre area of the Northern Rocky Mountains that extends north into Canada and includes Waterton-Glacier International Peace Park, Canada's Castle Wilderness, the Bob Marshall-Great Bear-Scapegoat Wilderness Complex, parts of the Flathead and Blackfoot Indian Reservations, Bureau of Land Management lands, and significant acreage of state and private lands. The watershed provides critical connections between the Crown of the Continent ecosystem and the Selway/Bitterroot ecosystem to the south. The center of the project area lies about 55 miles east of Missoula.

**VI. Description of the Proposed Action**

The Blackfoot Valley Wildlife Management Area was approved as a unit of the National Wildlife Refuge System in 1994 and is a landscape conservation strategy to protect one of the last undeveloped, low elevation river valley ecosystems in western Montana. This proposal involves the acquisition of an additional 80,000 acres of conservation easements from willing sellers on private land within an expanded project boundary encompassing approximately

824,024 acres. No land will be purchased in fee title under this project. In addition, the proposal will rename the Blackfoot Valley Wildlife Management Area to Blackfoot Valley Conservation Area.

The Blackfoot Valley provides a vital habitat corridor between existing U.S. Forest Service boundaries, Bureau of Land Management properties, state wildlife management areas, Service waterfowl production areas, The Nature Conservancy easements, Service conservation easements, and Partners for Fish and Wildlife projects.

## **VII. Determination of Effects**

At the federal level, four species are listed as threatened or endangered, including the grizzly bear, Canada lynx, gray wolf, and bull trout.

The proposed expansion of the Blackfoot Valley Conservation Area (CA) will have a beneficial effect on species listed in Section III. One of the purposes for the expansion of the Blackfoot Valley CA is to support the recovery and protection of threatened and endangered species, and to reduce the likelihood of future listings under the Endangered Species Act.

Expanding the Blackfoot Valley CA would provide for an increase in conservation protection on up to 80,000 acres of important habitat on private land. This program would help maintain the uniqueness of the Blackfoot Valley and complement conservation efforts of the Montana Department of Fish, Wildlife and Parks, The Nature Conservancy, and other federal and state agencies.

The fact that the Blackfoot Valley remains biologically and ecologically intact is a tribute to the area's ranchers and residents, who have long recognized what this unique and important landscape represents for ranching and wildlife. The project aims to ensure habitat for wildlife remains intact in perpetuity and, by doing so, strengthens the ranching heritage of the Blackfoot Valley.

Conservation easements along the Blackfoot Valley would help alleviate habitat fragmentation issues. Key biological linkages would facilitate wildlife movement and provide for wildlife habitat requirements including Canada lynx, gray wolf, and grizzly bears. The potential for human-wildlife conflicts would be greatly reduced and resiliency in response to climate change would be maintained.

The Blackfoot Valley watershed is the southern boundary for the NCDE grizzly bear recovery zone. The Grizzly Bear Recovery Plan includes most of the watershed as suitable and/or occupied habitat. The U.S. Geological Survey (USGS) Northern Divide Grizzly Bear Project, designed to estimate population size and distribution, confirmed the presence of twenty-nine individual grizzly bears in the Blackfoot River watershed in 2003 and 2004. The USGS estimates that at least forty bears are present during all or part of the year in the watershed. In recent years, grizzly bear activity has increased in the watershed. This area appears to be an important habitat link for grizzly bears that are re-colonizing historical ranges to the south. Maintaining habitat connectivity is critical to sustaining grizzly bear life histories and maintaining sustainable

subpopulations within the southern portion of the Northern Continental Divide Ecosystem.

Grizzly bears breed, forage, and migrate throughout the watershed and den above 6,500 feet. They move from high mountain elevations to lower valley bottoms to forage seasonally for available food. Lakes, ponds, fens, and spring-fed creeks, common in portions of the valley floor, provide excellent bear habitat. Additionally, the vegetation found along certain reaches of the Blackfoot River and its tributaries provide bears with cover, food and natural movement corridors.

The Blackfoot River watershed is located within the Northwestern Montana/Northeastern Idaho Core Area for Canada lynx. The Blackfoot Valley watershed is a stronghold for the Canada lynx in the northern Rocky Mountains. Based on ongoing research in the upper and middle Blackfoot areas, lynx populations appear stable, although low reproductive rates are characteristic of this population. Since 1998, over eighty lynx have been monitored in the watershed, providing information on habitat use, reproduction, mortality, and movement. This research has shown that the watershed contains some of the most critical habitat for lynx in the continental United States. Large, intact spruce/subalpine fir forests above 4,000 feet in the watershed provide high quality habitat for lynx and for snowshoe hares, the primary lynx food source. Regenerating forest stands are often used as foraging habitat during the snow-free months while older, multi-storied stands serve as denning and year-round habitat.

The Northern Rocky Mountain Gray Wolf Recovery Plan established three recovery zones in Montana, Idaho, and Wyoming. The Blackfoot River watershed is in the Northwest Montana Recovery Area. In August 2010, the gray wolf was relisted as endangered. As of 2009, Montana Fish, Wildlife and Parks has confirmed the presence of four resident wolf packs and estimates that at least twenty-five to thirty-five wolves inhabit the Blackfoot Valley watershed.

Compatible agricultural practices such as livestock grazing or haying would continue, while sodbusting (breaking of native rangeland) would be prohibited. Easements would maximize the connectivity with other protected grasslands and decrease the negative impacts of habitat fragmentation on grassland birds.

Water resources on 80,000 acres would be protected from increased non-point source pollution from residential subdivision, commercial development, and draining of wetlands, all of which are prohibited under the proposed easement program. Protection of wetlands would support conservation efforts for mountain plovers. Conservation easements also focus protection along riparian corridors which are critical for wildlife including grizzly bears and aquatic resources such as bull trout.

The Blackfoot River watershed lies within the Clark Fork River Recovery Unit and the Upper Clark Fork Recovery Subunit for bull trout. Within this subunit, the watershed has been identified as a core recovery area and the watershed has been proposed as critical habitat within the Clark Fork River drainage.

Within the watershed, bull trout densities are very low in the upper Blackfoot River, but increase downstream of the North Fork. Streams that appear to be particularly important for the spawning

of migratory bull trout include Monture Creek, the North Fork Blackfoot River, Copper Creek, Gold Creek, Dunham Creek, Morrell Creek, the West Fork Clearwater River, and the East Fork Clearwater River. Bull trout spawner abundance is indexed by the number of identifiable female bull trout nesting areas (redds). Data indicate that the total number of redds counted in Monture Creek, North Fork, and Copper Creek from 1989 to 2000 have increased. With the onset of drought, bull trout redd counts declined in 2008.

Conserving native land cover is an important component of maintaining ecosystem structure and function. Under the proposed action, native forest habitats would remain intact, continuing to provide ecosystem goods and services to landowners and local communities. Ecosystem services include: soil erosion control, water supply, biodiversity, and carbon sequestration.

**VIII. Effects Determination and Response Requested**

**A. Listed Species / designed critical habitat**

- No Effect / no adverse modification X Concurrence
- May affect, but is not likely to adversely affect species / modify critical habitat X Concurrence
- May affect, and is likely to adversely affect species / modify critical habitat \_\_\_\_\_ Formal Consultation

**B. Proposed Species / proposed critical habitat**

- No effect on proposed species / no adverse modification of proposed critical habitat (species: mountain plover) X Concurrence
- Is likely to jeopardize proposed species or adversely modify proposed critical habitat (species: mountain plover) \_\_\_\_\_ Concurrence

Kathleen A. Burchett  
 Kathleen A. Burchett, Project Leader  
 Benton Lake National Wildlife Refuge Complex  
 National Wildlife Refuge System  
 Region 6

**IX. Reviewing ESO Evaluation**

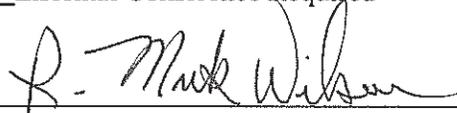
X Concurrence

Non-Concurrence

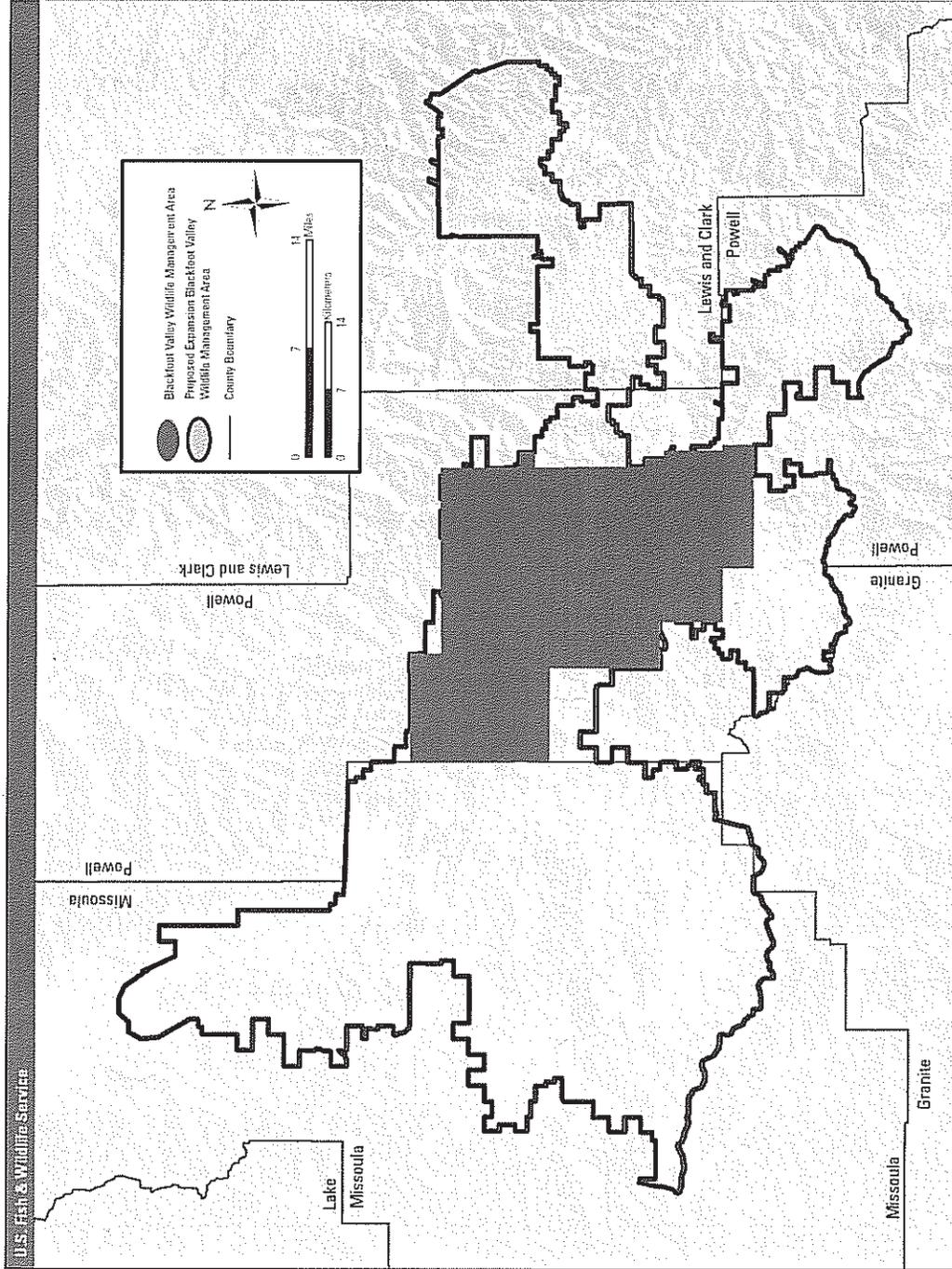
Formal Consultation Required

Conference Required

Informal Conference Required

 9-7-10

Mark Wilson, Field Supervisor  
Ecological Services Montana Field Office  
Region 6





# Appendix I

## *Director's Approval to Expand the Blackfoot Valley Wildlife Management Area*



IN REPLY REFER TO:

### United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Mountain-Prairie Region



MAILING ADDRESS: STREET LOCATION:  
P.O. Box 25486, DFC 134 Union Boulevard  
Denver, Colorado 80225-0486 Lakewood, Colorado 80228-1807

SEP 27 2010

#### Memorandum

To: Director

From: Regional Director, Region 6 

Subject: Transmittal of Decision Document—Crown of the Continent: Expanding the Blackfoot Valley Wildlife Management Area and the Rocky Mountain Front Conservation Area

The Decision Documents to expand the Blackfoot Valley Wildlife Management Area and the Rocky Mountain Front Conservation Area, in Montana have been approved. With the approval of these projects, the Service, in cooperation with our partners, will be able to conserve up to 205,000 acres of native habitat.

In order to strategically conserve habitat within the Blackfoot Valley, the Service focused on the threatened grizzly bear, bull trout, and Canada lynx. High priority grizzly bear habitat was identified using expert knowledge of current bear linkages and priority lynx habitat was identified using a spatially explicit model developed by the U.S. Forest Service. For the bull trout, critical habitat has been designated and explicitly mapped in each recovery unit (RU) by the Service. There are approximately 365,000 acres of unprotected private land and 75,000 acres of commercial timber company land in the Blackfoot Valley WMA. With the current levels of development and fragmentation within Blackfoot Valley, bull trout populations appear to be increasing while the pressure of human-cause mortality on grizzly bears for the Northern Continental Divide Ecosystem (NCDE) population is higher than acceptable for recovery. Conservation easements provide an opportunity to prevent further development and fragmentation that might reduce or reverse the positive trends in bull trout populations or increase human-grizzly interactions, putting further negative pressure on the NCDE population. Given that conserving all remaining private land with easements to prevent additional development is not a reasonable or desired goal, the Service has set a goal to protect 80,000 additional acres of existing private lands. Long-term monitoring of grizzly bears, lynx, and bull trout will be conducted and the acreage goal and acquisition priority will be periodically reevaluated, as additional scientific information is obtained collaboratively with Service partners and the Great Northern Landscape Conservation Cooperative.

In order to strategically conserve habitat within the expanded Rocky Mountain Front Conservation Area, the Service selected the grizzly bear as a key focal species. Focusing on grizzly bears is likely to capture the habitat needs of several of the other key trust species. High priority grizzly bear habitat along the Front was identified using a spatially-explicit model developed by a multi-agency working group. Currently, grizzly bear populations appear stable; however, the pressure of human-caused mortality on grizzly bears is higher than acceptable for recovery across the NCDC. How much more fragmentation or development could occur without

affecting population stability or significantly affecting grizzly bear mortality is unknown. Given that preventing development on all of the remaining 600,000 acres of unencumbered private land along the Front is not a reasonable or desired goal, the Service has set a goal to protect 125,000 additional acres of private land with conservation easements. Long-term monitoring of grizzly bears will be conducted and the total conservation goal of 295,000 acres and acquisition priority will be periodically re-evaluated, as additional scientific information is obtained collaboratively with Service partners and the Great Northern Landscape Conservation Cooperative.

Attached are the following documents, in accordance with land acquisition planning requirements, submitted for the Director's concurrence.

1. Environmental Assessment
2. Environmental Compliance Certificate
3. Environmental Action Statement
4. Finding of No Significant Impact
5. Land Protection Plan
6. Realty Feasibility Report

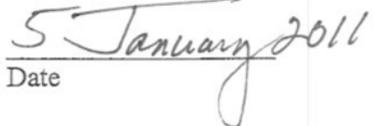
An Engineering Assessment was not completed, because these projects involve only conservation easements; and, therefore, no fee-title interests will be acquired and no structures will be built by the Service on any land acquired through this project. A Conceptual Management Plan was not completed, because daily management rights and responsibilities will remain with the private landowners. The only Service management responsibility will be annual monitoring for compliance with the terms of the easements.

Concurrence

Non-concurrence

  
\_\_\_\_\_  
Director, U.S. Fish and Wildlife Service  
Attachments

**Acting Deputy**

  
\_\_\_\_\_  
Date



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Washington, D.C. 20240



In Reply Refer To:  
FWS/ANRS-NRCP/046481

FEB 1 2011

### Memorandum

To: Regional Director, Region 6  
Deputy

From: Director *Caroline Ashe*

Subject: Approval to Proceed with Publication and Distribution of the Final Planning Documents for the Expansion of Rocky Mountain Front Conservation Area and Blackfoot Valley Wildlife Management Area

I concur with the September 27, 2010, request by the Regional Director, Region 6, and authorize the expansion of these units of the National Wildlife Refuge System.

Congratulations on a thorough job with the Environmental Assessment and FONSI for these two units of the System. I am extremely excited about landscape projects such as this that strive to protect large areas for the conservation of fish and wildlife species.

You have proposed two expanded acquisition projects that define the principles of Strategic Habitat Conservation. Prior to land acquisition pursuant to the Land Protection Plan please link your priority areas to spatially explicit data. As these data become available, please assure that priority tracts are pursued that will provide measurable outcomes related to biological goals identified in the Environmental Assessment and Land Protection Plan.





# Appendix J

## *Public Involvement*

Public involvement was initiated for the proposed expansion of the conservation easement project in the Blackfoot Valley Conservation Area in May 2010. A media contact list was compiled and news releases and factsheets were developed and distributed to media outlets, local organizations, elected officials, and interested parties. The news releases and factsheets described the proposed expansion of the conservation easement project, and announced an open house to gather input from the public. Personal outreach efforts were made with county commissioners and other persons of interest.

Scoping was conducted during a public open house, on May 19, 2010; 7-9 p.m. at the Ovando School, 108 Birch Street, in Ovando, Montana. The purpose of scoping was to seek input from the public regarding the proposed expansion of the conservation easement project, and to identify the issues that needed to be addressed in the planning process. Fifteen people attended the open house. Five individuals, two agencies, and two organizations provided comments during the scoping period. Comments identified biological, social, and economic concerns regarding the proposed expansion of the conservation easement project. The issues raised and comments received helped the planning team to develop the alternatives presented in the draft environmental assessment (EA) and land protection plan (LPP). Key issues are described in Chapter 1 of the draft EA and LPP, under “Issues Identified and Selected for Analysis.”

The draft EA/LPP was presented to the public July 26, 2010 for a 30-day comment period. Six written comments were received during the comment period on the draft EA and LPP.

### **PUBLIC COMMENTS**

The following issues, concerns, and comments are a compilation of those expressed during public scoping, and during the July–August 2010 comment period for the draft EA and LPP. Comments were provided by local and county governments, state agencies, private organizations, and individuals concerned about the natural resources of the Blackfoot Valley. Comments were received verbally at meetings, via email, and in writing.

The refuge staff recognizes and appreciates all input received from the public. To address this input, several clarifications and some changes are reflected in the final EA and LPP.

The issues, comments, and concerns are presented as received, followed by responses from the Service. Comments about editorial and presentation corrections were addressed in the production of the final EA and LPP, and are not detailed here.

**Comment 1.** *I am writing in support of the US Fish & Wildlife Service proposal to use Land and Water Conservation money to purchase easements in 3 areas of Montana, the Blackfoot Valley, Rocky Mountain Front and Swan Valley.*

*During the last 40 years I have recreated in each of the areas in question and I value the relatively uncluttered space there greatly. What better way to spend tax dollars than to preserve a landscape that can be enjoyed by everyone in perpetuity.*

*I would like to continue hunting, fishing, camping and sightseeing in these areas. By purchasing these easements, we can keep the private lands a viable source of income for the owners and at the same time keep the landscape unchanged for visitors like me.*

**Response 1.** Thank you for your comments. The goals of the conservation easement project are to protect fish and wildlife resources while concurrently maintaining the rural character of the area. Implementation of the expansion will support your values of preserving a landscape in perpetuity, keep private lands a viable source of income for the owners, and keep the landscape relatively unchanged for visitors to the Blackfoot Valley.

**Comment 2.** *I noticed that the checkerboard ownership west of Placid Lake is excluded from the proposed expansion. These lands have been identified as some of the highest conservation value lands in the Clearwater Valley (see recent discussion among Missoula County, Rural Initiatives and MT FW&P [Montana Fish, Wildlife and Parks], USFS [U.S. Forest Service], USFWS [U.S. Fish and Wildlife Service], and Plum Creek Timber [Company] in their IAG [interagency group] proposal for the land use plan). Was this decision based on other potential conservation strategies for these lands or other reasons to exclude this area?*

**Response 2.** Thank you for your comments. The Service agrees that the checkerboard area west of Placid Lake has high conservation value. The proposed boundary has been modified in the final LPP to include this area within the project boundary.

**Comment 3.** *Please consider parcel sizes smaller than 160 acres in Missoula and Lewis and Clark Counties. These counties generally have smaller lot sizes than Powell County and these smaller parcels have high conservation value. Also, please consider allowing other entities to hold conservation easements because some landowners don't want the government holding their easement. The proposed expansion is great!*

**Response 3.** Thank you for your comments. The Service agrees, and the following language was included in the draft EA and LPP, Chapter 2—Alternatives, page 7, “Alternative B (Proposed Action),” “The Service generally focuses on parcels greater than 160 acres, however parcels less than 160 acres may be considered for conservation easements if unique biological values exist.” A similar statement is also included in Chapter 6—Land Protection Plan, “Priority Areas,” page 29, first paragraph.

**Comment 4.** *Lincoln area may have some smaller acreages that are critical connecting corridors.*

**Response 4.** Thank you for your comments. See Response 3.

**Comment 5.** *I believe it is very important to consider a smaller acreage when dealing with Missoula and Lincoln County (given that biological values can be conserved on a landscape).*

**Response 5.** Thank you for your comments. See Response 3.

**Comment 6.** *US Fish and Wildlife Service needs to look at smaller acreages for special species & wildlife corridors.*

**Comment 6.1.** *Also take a hard look at small communities to analyze effects of easements.*

**Response 6.** Thank you for your comments. See Response 3.

**Response 6.1.** The Service is very sensitive to the needs of communities to remain economically healthy. We engage the communities to ensure this, by such actions as: coordinating with local communities to establish buffer zones as requested, maintaining the land in private ownership so not to affect tax roles, meeting with county commissioners and community planning boards.

**Comment 7.** *The 160 acre minimum won't work for much of the watershed. In Potomac, there are key pieces of meadow-creek bottom that need to be protected that may be 100 acres or less.*

**Response 7.** Thank you for your comments. See Response 3.

## AGENCY AND ORGANIZATION COMMENTS

Agency and organization comments received include the original letter received and our responses.

**Comment 8.** *I will be unable to attend the upcoming meetings regarding easements. I do want to express my support for the easement expansion along the Front and in the Blackfoot. I also support establishment of an easement program in the Seeley/Swan region. As you know, there are significant amounts of state trust land in all the areas which we manage in cooperation with neighboring landowners. Maintaining these working lands for habitat and open space as well as livestock and timber productivity is critical for the state and local communities.*

*Thank you for this opportunity to support conservation easements as a vital tool for maintaining working lands in these important areas of Montana.*

*Mary Sexton,  
DNRC [State of Montana,  
Department of Natural Resources  
and Conservation] Director*

**Response 8.** Thank you for your comments. The Service will continue to maintain close communication and implement collaborative conservation efforts with Montana Department of Natural Resources and Conservation in the future.

**Letter # 9**

**From:** "Jon Haufler" <Jon\_Haufler@emri.org>  
**To:** <toni\_griffin@fws.gov>

---

**Date:** Tuesday, August 24, 2010 10:36AM  
**Subject:** comments on Blackfoot Valley Conservation Easement Program

---

To whom it may concern:

The Clearwater Resource Council (CRC) is a collaborative citizen organization of approximately 200 members in the Seeley Lake area whose mission is to initiate and coordinate efforts that will enhance, conserve, and protect the natural ecosystems and rural lifestyle of the Clearwater River region for present and future generations. We would like to comment on the proposed expansion of the Blackfoot Valley Conservation Easement Program.

The CRC strongly supports the expansion of this easement program. The Clearwater Valley is an important area within the larger Crown of the Continent Ecoregion, providing habitat for a wide diversity of species and important linkage zones for additional species. Maintaining the conservation status of key lands in the Valley will be important to help maintain the quality of habitat and linkages needed to sustain this key ecoregion. Expansion of the Easement Program to include the Clearwater Valley and additional areas will help play a pivotal role in achieving this goal.

Thank you for the opportunity to provide comments on this important expansion.

Sincerely,

Jon Haufler

President

Clearwater Resource Council

[www.crcmt.org](http://www.crcmt.org)

**Response**

**Response 9.** Thank you for your comments.

**Letter # 10**

P.O. Box 8953 • Missoula, Montana 59807 • (406) 549-0755 • Fax (406) 728-2841  
 Email: office@fvlt.org • www.fvlt.org

June 14, 2010

Toni Griffin, Planning Team Leader  
 Division of Refuge Planning  
 U.S. Fish and Wildlife Service  
 PO Box 25486, DFC  
 Denver, CO 80225

Dear Mr. Griffin,

Thank you for the opportunity to provide comments on the expansion of the Blackfoot Valley Wildlife Management Area. As a community-based conservation organization, Five Valleys Land Trust (Five Valleys) is keenly aware of the importance of the entire Blackfoot watershed to the people of western Montana. We value the watershed's clean water, healthy populations of fish and wildlife, working lands, and diverse recreational opportunities.

Over the years the United State Fish and Wildlife Service (USFWS) has accomplished a tremendous record of vital land conservation work in the central portion of the Blackfoot, but unfortunately the Service has not been able to take advantage of land protection opportunities in other deserving parts of the watershed. The Potomac Valley is a particularly important place for additional conservation work. Due to its close proximity to the growing urban center of Missoula, the Potomac Valley is highly threatened by subdivision and development. Many Potomac families continue to be actively involved in ranching and forestry activities and their lands contain productive agricultural land, as well as, wetlands and riparian areas that provide connectivity for wide-ranging fish and wildlife species. Five Valleys has worked with private landowners in the Potomac for many years, and we think that additional USFWS involvement there will assist all of the cooperating agencies, organizations, and area landowners achieve more of our shared conservation goals.

We lend our strong support for the proposal to expand the Conservation Easement Program's boundaries to include the Potomac, Clearwater and Lincoln areas of the Blackfoot. In addition, we urge the USFWS to consider adjusting the program requirements slightly to better serve these new areas. Parcel sizes are generally smaller in the Potomac, Clearwater and Lincoln areas, in part because the 160-acre minimum lot size requirement imposed in Powell County and the Upper Blackfoot is not in effect in these parts of the Blackfoot located in Missoula County and Lewis and Clark County. Nonetheless, there are many parcels worthy of protection that are less than 160 acres and we hope they will be eligible for this program.



Board of Directors: Lucy Beighle • Sean Benton • Laura Brehm • Jim Brown • John Corwin • Jim Cusker • Mary Lynn Eiseman  
 Anne Fogel-Burchenal • Julie Gardner • Kathy McAllister • Jeffrey Roth • Jim Royan • Amber Sherrill • Don Sokoloski  
 John Talbot • Chuck Tribe • Jim Valeo • Pam Volkmann

**Response**

**Response 10.** Thank you for your comments.

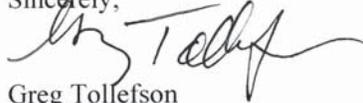
**Response 10.1** See Response 3.

**Letter # 10**

Finally, although the USFWS Conservation Easement Program has a good reputation in the greater Blackfoot community, some landowners don't feel comfortable entering into an easement that is held by a government entity. In these cases, USFWS might be better able to meet its conservation goals if private land trusts were allowed to hold easements under this program. Private land trusts in Montana have protected important fish and wildlife habitat in coordination with the USFWS through the NAWCA program, and a similar partnership could strengthen this program provided the kind of flexibility is built-in that will allow landowners to enter into conservation easements with the qualified public or private conservation entity of their choice.

Again, Five Valleys would like to commend the USFWS for its conservation efforts and achievements in the Blackfoot Valley that have benefited all of us who cherish the precious natural values of the watershed. Thank you for considering our comments.

Sincerely,



Greg Tollefson  
Conservation Director

cc: Kevin Ertl, Refuge Operations Specialist  
Kathy Burchett, Project Leader

**Response**

**Response 10.2** Current policy does not permit Service interests to be managed by other agencies or organizations. There are a variety of agencies and land trusts that offer conservation easements in the Blackfoot Valley, and landowners are free to pursue a conservation easement with the agency or organization that best meet their individual needs.

**Letter # 11**



BOARD OF COUNTY COMMISSIONERS  
200 W BROADWAY ST  
MISSOULA MT 59802-4292

PHONE: (406) 258-4877  
FAX: (406) 721-4043

BCC 2010-187  
August 12, 2010

Toni Griffin, Planning Team Leader  
Division of Refuge Planning  
U.S. Fish and Wildlife Service  
P.O. Box 25486, DFC  
Denver, CO 80225

**RE: Blackfoot Valley and Swan Valley Conservation Easement Programs**

Dear Toni:

Thank you for the opportunity to comment on the proposed expansion of the Blackfoot Valley conservation easement program, and creation of the Swan Valley Conservation easement program. The Missoula Board of County Commissioners supports and encourages efforts to improve land and resource management of public and private lands located within Missoula County. Accordingly, we strongly support both of these conservation easement programs.

We appreciate the continued presence of conservation partners such as USFWS. We are especially pleased with the Forest Service landscape scale approach to protecting the globally important Crown of the Continent ecosystem.

The continued and expanded availability of different funding sources will also support and complement other ongoing efforts in the County. In 2006, Missoula County voters approved a \$10 million open space bond. Of the nine projects approved for the use of bond funds, five projects, covering almost 4,700 acres, have been approved in the Potomac, Greenough, and Swan Valley areas.

In addition to our support, we reiterate the following suggestions made by the Open Lands Citizen Advisory Committee, in their June 21, 2010 letter, for your consideration:

- Reduce the minimum parcel size to less than 160 acres. There are landowners with smaller holdings in key areas that would be able to benefit from the program.

**Response**

**Response 11.** Thank you for your comments.

**Response 11.1** See Response 3.

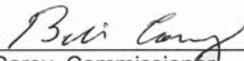
**Letter # 11**

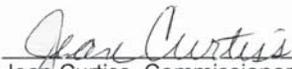
- Allow land trusts or other state or federal agencies, besides USFWS, to hold the easements. This would allow a landowner more choice in who he or she might be working with, as well as free up agency time spent monitoring easements.

Thank you for your consideration. If you have any questions, please do not hesitate to contact us or our Rural Initiatives staff (406-258-3432) at your convenience.

Sincerely,  
BOARD OF COUNTY COMMISSIONERS

  
Michele Landquist, Chair

  
Bill Carey, Commissioner

  
Jean Curtiss, Commissioner

BCC/ppr

cc: Pat O'Herren, Missoula County Rural Initiatives  
Greg Neudecker, USFWS  
Dennis Iverson, Missoula County Open Land Citizen Advisory Committee  
Nancy Heil, Missoula County Rural Initiatives

Toni Griffin, USFWS – August 12, 2010

2

**Response**

**Response 11.2** See Response 10.2.

**Letter # 12**

Toni Griffin  
 Division of Refuge Planning  
 U.S. Fish and Wildlife Service  
 P.O. Box 25486, DFC  
 Denver, CO 80255

June 21, 2010

Re: Proposed Expansion of Conservation Easement Program in the Blackfoot Valley  
 Proposed Conservation Easement Program in the Swan Valley

Dear Ms. Griffin,

The Missoula County Open Lands Citizens Advisory Committee (OLC) heard a presentation at our June meeting from Kevin Ertl and Greg Neudecker regarding the USFWS proposed conservation easement programs in the Blackfoot and Swan Valleys. We are writing to offer our strong support of both these programs.

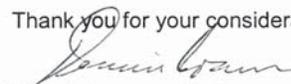
In 2006 Missoula County voters approved a \$10 million bond for the purpose of preserving open space. OLC reviews and makes recommendations to the Board of County Commissioners about the use of these funds in rural areas of the County. Bond funds have been approved to support 9 conservation easements covering over 5,814 acres in the County, with significant other funding matches. Five of these projects covering almost 4,700 acres have been approved in the Potomac, Greenough, and Swan Valley areas.

We support and encourage the continued presence of conservation partners and the availability of different funding sources. In particular, we applaud the USFWS landscape scale approach to protecting the Crown of the Continent, an ecosystem of global importance.

In addition to our support, we offer the following suggestions for your consideration as you expand the USFWS program:

- Reduce the minimum parcel size to less than 160 acres. There are landowners with smaller holdings in key areas that would be able to benefit from the program.
- Allow land trusts or other third parties besides USFWS to hold the easements. This would allow a landowner more choice in who he or she might be working with, as well as free up agency time spent monitoring easements.

Thank you for your consideration.

  
 Dennis Iverson, Chair  
 Missoula County Open Lands Citizens Advisory Council  
 c/o Missoula County Rural Initiatives  
 200 W. Broadway  
 Missoula, MT 59802

Cc: Greg Neudecker, USFWS  
 Nancy Heil, Missoula County Rural Initiatives  
 Missoula Board of County Commissioners

**Response**

**Response 12.** Thank you for your comments.

**Response 12.1** See Response 3.

**Response 12.2** See Response 10.2.

**Response 13.** Thank you for your comments.

## Letter # 13


**Montana Fish,  
Wildlife & Parks**

Region 2 Office  
3201 Spurgin Road  
Missoula, MT 59804-3101  
406-542-5500  
Fax 406-542-5529  
August 24, 2010

Toni Griffin, Planning Team Leader  
US Fish and Wildlife Service  
Division of Refuge Planning  
134 Union Blvd., Suite 300  
Lakewood, CO 80228

Reference: Blackfoot Valley Wildlife Management Area Expansion--Draft EA

Dear Ms. Griffin:

Montana Fish, Wildlife and Parks (FWP) strongly supports the proposed US Fish and Wildlife Service's (USFWS) Blackfoot Valley Wildlife Management Area and the expansion of the Blackfoot Valley conservation easement program. As the holder of nearly 50,000 acres of conservation easements in the Blackfoot watershed, FWP recognizes the role easements can and do play in the permanent protection of critical fish and wildlife habitat there. The USFWS's conservation easement program has been a key component of the broader 35-year Blackfoot Valley conservation initiative, and FWP has actively partnered with the Service to protect crucial habitat and working landscapes in the watershed.

One of the reasons conservation easements have been so broadly accepted and applied in the Blackfoot is that there is a variety of agencies and land trusts willing to craft agreements that fit with landowners' long-term conservation vision for their properties. USFWS conservation easements have proven to be a good fit for many landowners, and they have effectively protected fish and wildlife habitat of national significance.

USFWS easements have perpetually conserved important coldwater native fisheries, sensitive wildlife species' habitat, crucial connectivity between large blocks of public land, and the public's opportunity to enjoy its fish and wildlife resource. They have also built public-private partnerships and trust that benefit fish and wildlife well beyond individual easements' boundaries.

FWP manages three existing Wildlife Management Areas in the Blackfoot and intends to acquire a fourth by early 2011. In total, these FWP-managed WMAs comprise nearly 75,000 acres in the

**Response**

See next page for response.

**Letter # 13**

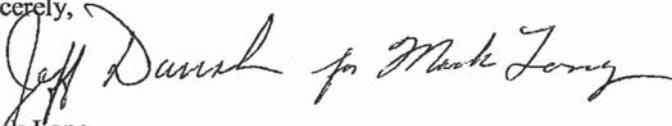
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Blackfoot Valley WMA Expansion, Draft EA

Blackfoot and are heavily used and highly valued by the public. We agree that because FWP has referred to the more than 70 statewide properties it manages for wildlife conservation as “Wildlife Management Areas,” the Service’s use of the same name for this current initiative may cause some public confusion. We support the Planning Team’s idea of changing the name of the proposed Blackfoot Valley WMA to the “Blackfoot Valley Conservation Area.”

FWP believes that the additional conservation easements the proposed USFWS program expansion would enable, would ensure the protection of critical fish and wildlife habitat on private working lands that might otherwise be developed or otherwise impaired. The protection of private lands subject to this proposal would complement the significant and ongoing conservation investments FWP and others have made in the watershed. Enabling the Service to work across a broader area and with additional willing landowners in the watershed makes good sense and would further leverage the work we and others are doing to protect this critical landscape.

Thank you for providing the opportunity for FWP to comment on this proposal.

Sincerely,



Mack Long  
Regional Supervisor

ML/sr

C: Greg Neudecker, USFWS, Ovando, MT  
Kevin Ertl, USFWS, Helmville, MT

**Response**

**Response 13.** Thank you for your comments.

## Letter # 14



## Rocky Mountain Elk Foundation

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Lands Program Manager  
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Phone (406) 493-6650  
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August 24, 2010

Toni Griffin  
US Fish and Wildlife Service  
Benton Lake National Fish and Wildlife Refuge Complex  
922 Bootlegger Trail  
Great Falls, MT 59404

Dear Toni,

Please consider this letter from the Rocky Mountain Elk Foundation as support for the expansion of the conservation easement boundaries and wildlife management areas for the Blackfoot Valley Conservation Easement Program and the Rocky Mountain Front Easement Program. The conservation of important landscapes, wildlife habitat, fisheries habitat, open space, working productive farms and ranches and wildlife corridors and connectivity that has been already accomplished by conservation easements in these areas has truly been impressive. It has been valuable work accomplished toward ensuring the future of our natural resources. We applaud the USFWS for these accomplishments and encourage these efforts continue in the future. The RMEF has a vested interest in completing conservation easements in both of these areas and would like the opportunity to work with the USFWS and other partners to protect even more valuable elk country.

The expansion of these conservation areas will allow for more accomplishments in land conservation in these landscapes and the ability for private and public conservation entities to work together with the private landowners in the area. Conservation easements are an important and effective tool to private land conservation. The RMEF has completed both acquisitions and easements in these areas and will continue to work toward conservation outcomes with private landowners and public land management agencies.

We encourage you to continue to consider expanding these wildlife management area boundaries which will allow more opportunity to conserve Montana's elk country. Please contact the RMEF or myself anytime at 406-493-6650 or [mmueller@rmef.org](mailto:mmueller@rmef.org). Thank you for the opportunity to comment on these proposals.

Sincerely,

*Mike Mueller*

Mike Mueller  
Lands Program Manager

## Response

**Response 14.** Thank you for your comments.

**Response 14.1** The Service also looks forward to continuing our conservation partnership with the National Elk Foundation.

**Response 14.2** Fish and wildlife benefits generated from conservation easement projects expand to a large suite of species. These benefits are expected to include large herbivores such as elk.



# Bibliography

- Alt, D.; Hyndman, D.W. 1986. Roadside geology of Montana. Missoula, MT: Mountain Press Publishing Company. 5–7.
- Blackfoot Challenge. 2005. The Blackfoot watershed: state of the basin report. Understanding our natural resources and rural lifestyle. Ovando, MT: Blackfoot Challenge. [Number of pages unknown].
- Blackfoot Challenge and Trout Unlimited. 2009. Blackfoot subbasin plan. Ovando, MT: Blackfoot Challenge. [Number of pages unknown].
- Casey, D. 2000. Partner's in Flight bird conservation plan, Montana. Version 1.1. Kalispell, MT: American Bird Conservancy. [Number of pages unknown].
- Cox, B.; Gignoux, T.; McCulloch, R. 1998. Economic geology in the western Montana portion of the Blackfoot river region: discussion and field trip guide. Abstract. [Place of publication unknown]: Northwest Geology. Volume 28:101–109.
- Crown Managers Partnership. 2011. Figure 1 Crown of the Continent ecosystem [map pdf]. [Internet]. [Revision date unknown]. <<http://crownmanagers.org>> accessed 10 February 2011.
- Dodds, W.K.; Bertrand, K.N.; Dalgleish, H.J.; Falke, J.A.; Knight, G.L.; Rehmeirer, R.L.; Wiggam, S.; Wilson, K.C. 2008. Comparing ecosystem goods and services provided by restored and native lands. *Bioscience* 58:837–845.
- Dood, A.R.; Atkinson, S.J.; Boccadori, V.J. 2006. Grizzly bear management plan for western Montana: final programmatic environmental impact statement. Helena, MT: Montana Fish, Wildlife and Parks. 163 p.
- Endangered Species Coalition. 2009. America's hottest species; ten endangered wildlife, fish, and plants impacted by climate change. Washington DC: Endangered Species Coalition. 16 p.
- Fondell, T.F.; Ball, I.J. 1997. Breeding bird productivity in the Blackfoot Valley, Montana. On file at Montana Cooperative Wildlife Research Unit, U.S. Fish and Wildlife Service, Missoula, MT.
- Hanna, D.; Bay, L.; Bergman, E. 2009. Proposed climate change case statement for The Nature Conservancy in Montana. [Place of publication unknown]: [Publisher unknown]. [Number of pages unknown].
- Kendall, K.C.; Arno, S.F. 1989. Whitebark pine—an important but endangered wildlife species. In: Schmidt, W. C.; McDonald, K. J.; compilers. Proceedings of symposium on whitebark pine ecosystems: ecology and management of a high-mountain resource. U.S. Forest Service Technical Report INT-270: Proceedings, Symposium on whitebark pine ecosystems; 1989 March 29–31; [Place of proceedings unknown]. Bozeman, MT: U.S. Department of Agriculture, U.S. Forest Service. 264–273.
- Kendall, K.C.; Boulanger, J.; Macleod, A.C.; Paetkau, D.; Stetz, J.B.; White, G. C. 2009. Demography and genetic structure of a recovering brown bear population. *Journal of Wildlife Management* 73(1):3–17.
- Lesica, P. 1994. The distribution of plant community diversity associated with glacial wetlands in the Ovando Valley, Montana. On file at The Nature Conservancy, 32 S. Ewing, Helena, MT. 26 p.
- [USFS] U.S. Forest Service. 2003. Biological assessment for grizzly bears: Clearwater Roads Project. On file at U.S. Department of Agriculture, U.S. Forest Service, Lola National Forest, Seeley Lake Ranger District, Seeley Lake, MT.
- McKelvey, K.S.; Buskirk, S.W.; Krebs, C.J. 2000. Theoretical insights into the population viability of lynx. In: Ruggiero, L.F.; Aubry, K.B.; Buskirk, S.W.; et al., editors. Ecology and conservation of lynx in the contiguous United States. Boulder, CO: [Publisher unknown]. [Number of pages unknown].
- [MEA] Millennium Ecosystem Assessment. 2005. Ecosystems and human well-being: current state and trends. Washington DC: Island Press. [Number of pages unknown].
- [MBTRT] Montana Bull Trout Restoration Team. 2000. Restoration plan for bull trout in the Clark Fork River basin and Kootenai River basin, Montana. Helena, MT: Montana Fish, Wildlife and Parks. 116 p.

- [MFIS] Montana Fisheries Information System. 2009. [Name of publication unknown]. Helena, MT: Montana Fish, Wildlife and Parks. [Number of pages unknown].
- [MFWP] Montana Fish, Wildlife and Parks. 2005. Montana's comprehensive fish and wildlife conservation strategy. Helena, MT: Montana Fish, Wildlife and Parks. [Number of pages unknown].
- [MTNHP] Montana Natural Heritage Program. 2009a. Natural resource information system search results for the blackfoot subbasin. Helena, MT: Montana Natural Heritage Program. [Number of pages unknown].
- \_\_\_\_\_. 2009b. Montana field guide. Helena, MT: Montana Natural Heritage Program. [Number of pages unknown].
- Owens, R.; Myers, M.T. 1972. Effects of agriculture upon populations of native passerine birds of an Alberta fescue grassland. *Canadian Journal of Zoology* 51:697–713.
- Pierce R.; Davidson, M.; Knotek, L.; Podner, C.; Thabes, J. 2008. The Big Blackfoot River fisheries and restoration investigations for 2006 and 2007. Missoula, MT: Montana Department of Fish, Wildlife, and Parks. [Number of pages unknown].
- [PIF] Partners In Flight. 2000. Partners in flight bird conservation plan Montana. Version 1.1. [Place of publication unknown]: [Publisher unknown]. [Number of pages unknown].
- Ruediger, B.; Claar, J.; Gniadek, S.; Holt, B.; Lewis, L.; Mighton, S.; Naney, B.; Patton, G.; Rinaldi, T.; Trick, J.; Vandehey, A.; Wahl, F.; Warren, N.; Wenger, D.; Williamson, A. 2000. Canada lynx conservation assessment and strategy. [Place of publisher unknown]: [Publisher unknown]. [Number of pages unknown].
- Stenseth, N. 2004. Snow conditions may create an invisible barrier for lynx. *Proceedings of the National Academy of Science* 101(29):10632–10634.
- The Nature Conservancy of Montana. 2010 [More Blackfoot land conserved for fish, wildlife and people]. Revised July 27, 2010. <<http://www.nature.org/wherewework/northamerica/states/montana/press/press4613.html>> accessed 27 July 2010.
- [USFWS] U.S. Fish and Wildlife Service. 1987. Northern Rocky Mountain wolf recovery plan. [Place of publication unknown]: U.S. Fish and Wildlife Service. [Number of pages unknown].
- \_\_\_\_\_. 1993. Grizzly bear recovery plan. Missoula, MT: U.S. Fish and Wildlife Service. 181 p.
- \_\_\_\_\_. 2002. Draft recovery plan for three of the five distinct population segments of bull trout (*Salvelinus confluentus*). Portland, OR: U.S. Department of the Interior, U.S. Fish and Wildlife Service, Region 1, Clark Fork Recovery Unit. [Number of pages unknown].
- \_\_\_\_\_. 2005. Recovery outline: contiguous United States distinct population segment of the Canada lynx. Helena, MT: U.S. Department of the Interior, U.S. Fish and Wildlife Service. [Number of pages unknown].
- \_\_\_\_\_. 2008. Strategic habitat conservation handbook—a guide to implementing the technical elements of SHC. [Place of publication unknown]: U.S. Department of the Interior, U.S. Fish and Wildlife Service. 22 p.
- \_\_\_\_\_. 2009a. Montana Partners for Wildlife-Blackfoot River Watershed focus area. [Internet]. [Revision date unknown]. <[www.fws.gov/mountain-prairie/pfw/montana/mt5b.htm](http://www.fws.gov/mountain-prairie/pfw/montana/mt5b.htm)> [Access date unknown].
- \_\_\_\_\_. 2009b. Strategic plan for responding to accelerating climate change in the 21st century. [Place of publication unknown]: U.S. Department of the Interior, U.S. Fish and Wildlife Service. 41 p.
- \_\_\_\_\_. 2009c. [Endangered species program, U.S. Fish and Wildlife Service]. [Revision date unknown]. <<http://www.fws.gov/endangered/>> [Access date unknown].
- \_\_\_\_\_. 2010. [Bull trout proposed critical habitat revision, 2010]. Revised January 13, 2010. <<http://fws.gov/pacific/bulltrout/>> [Access date unknown].
- [USGS] U.S. Geological Service. 2004. [Northern Divide grizzly bear project]. Revised June 2010. <[http://www.nrmcs.usgs.gov/research/ncdebeardna\\_detail.htm](http://www.nrmcs.usgs.gov/research/ncdebeardna_detail.htm)> [Access date unknown].
- Wali, M.K.; Evrendilek, F.; Safaya, N.M. 2002. The Americas: With special reference to the United States of America. In Perrow, M.R.; Davy, A.J., editors. Handbook of ecological restoration. Volume 2. Restoration in progress. Cambridge UK: Cambridge University Press. 3–31.
- Whipple, J.W.; Earhart, R.L.; Mudge, M.R. 1987. Geologic map of the Rogers Pass area, Lewis and Clark County, Montana. USGS Miscellaneous Investigation Series Map I-1642. [Place of publication unknown]: U.S. Geological Survey.

Witkind, I.J.; Weber, W.M. 1982. Reconnaissance geologic map of the Bigfork-Avon environmental study areas, Flathead, Lewis and Clark, Missoula and Powell counties, Montana. [Place of publication unknown]: U.S. Geological Survey Miscellaneous Investigations Map I-1380.

Yellowstone to Yukon Conservation Initiative. 2009. [Frequently asked questions]. [Revision date unknown]. <<http://www.y2y.net/Default.aspx?cid=378&lang=1#Q3>> [Access date unknown].

