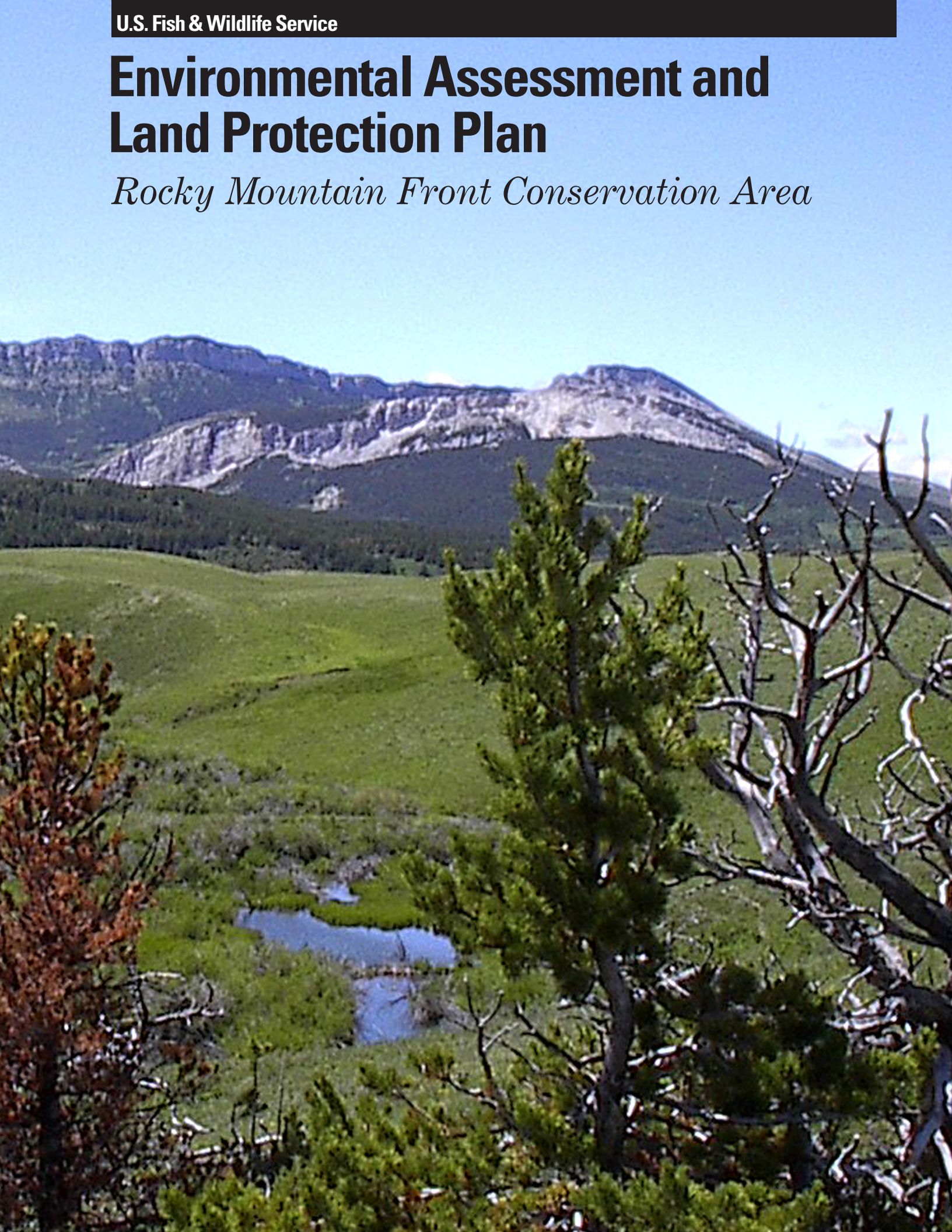
U.S. Fish & Wildlife Service

Environmental Assessment and Land Protection Plan

Rocky Mountain Front Conservation Area



Cover photograph of Sheep Creek along the Rocky Mountain Front, Montana
Photograph by USFWS/Ryan Fohling

In accordance with the National Environmental Policy Act and U.S. Fish and Wildlife Service policy, an environmental assessment and land protection plan have been prepared to analyze the effects of establishing the Rocky Mountain Front Conservation Area in northwestern Montana.

The environmental assessment analyzes the environmental effects of establishing the Rocky Mountain Front Conservation Area.

The land protection plan describes the priorities for purchasing 170,000 acres of easements within the proposed project boundary.

Both documents, which stand alone, are contained within this volume.

NOTE: Information contained in the maps within these documents is approximate and does not represent a legal survey. Ownership information, obtained from the Montana Natural Heritage Program, may not be complete.

Environmental Assessment for the Rocky Mountain Front Conservation Area

April 2005

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Chapter 1—Purpose of and Need for Action

"Aldo Leopold spoke of a 'sense of place'. When one comes to intimately know a special wild place, one feels sacred there. We touch the earth and are touched by it. We may not own the deed, but we can get very possessive of a place, especially when we become possessed by its extraordinary landscapes."
(Graetz 2000)

Lying in north-central Montana, the Rocky Mountain Front is such a place. The front has long been recognized as a nationally significant area for wildlife. It is located where the mixed-grass prairie to the east meets the Rocky Mountains of the west, and still supports what is arguably the most intact group of plant and animal species found in the lower 48 states.

Montana's Rocky Mountain Front
Photograph by The Nature Conservancy

A variety of forces formed the landscape of the front. Uplifting along the Continental Divide formed the mountains. Recent glaciation of the area carved out many of the valleys and formed a variety of riparian and prairie–pothole wetlands to the east. Climatic and geographic variation is extreme along the front.

The floral and faunal diversity along the front is extraordinary. The Montana Natural Heritage Program (NHP) has listed 114 species or communities of special concern within this area.

Rare trumpeter swans from the tri-state (Idaho, Montana, and Wyoming) population nest in wetlands along the southern end of the front. [Appendix A lists common and scientific names of plants and animals mentioned in the text.]

The westernmost-documented nesting population of the threatened piping plover is located north of the project boundary on the Blackfeet Indian Reservation.

There are pure strains of the westslope cutthroat trout in the headwaters of several small tributaries along the front.

There are approximately 240 species of birds found along the front, with 188 of these confirmed or suspected breeders. Some of the notable birds documented along the front include 14 species of waterfowl, the bald eagle, the American peregrine falcon, and the sandhill crane.

Mammals common along the front include an intact assemblage of large carnivores including the grizzly bear, gray wolf, mountain lion, Canada lynx, and wolverine. The front is one of the few places left in the lower 48 states where grizzly bears still roam out onto the plains. In addition, the front provides winter habitat for large populations of elk, deer, and pronghorn.

Much of the land along the front has undergone little change since the homestead era of the late 1800s. The front's productive grasslands have driven the local economy since the homestead era. The current ownership and land use is primarily large cattle ranches. Many of these ranches have remained in operation through the fourth and fifth generations of the same family.

This legacy of ranching has allowed the front to remain relatively intact compared with any other landscape in the lower 48 states. The front is a rare place where you can still find every major plant and animal species, native to Montana, that Lewis and Clark documented on their journey, with the exception of free-ranging bison.

Proposed Action

The U.S. Fish and Wildlife Service is proposing to establish the Rocky Mountain Front Conservation Area along the eastern edge of the Continental Divide in northwestern Montana (figure 1). The project area is centered 65 miles northwest of Great Falls, Montana. The project boundary encompasses roughly 918,000 acres, of which the Service would strategically acquire conservation easements on 170,000 acres of private land.

All acquisition would be in the form of conservation easements from willing sellers only. The project would involve no fee-title acquisition. The proposed easements would help maintain a relatively large, unfragmented block of habitat between existing protected areas including state wildlife management

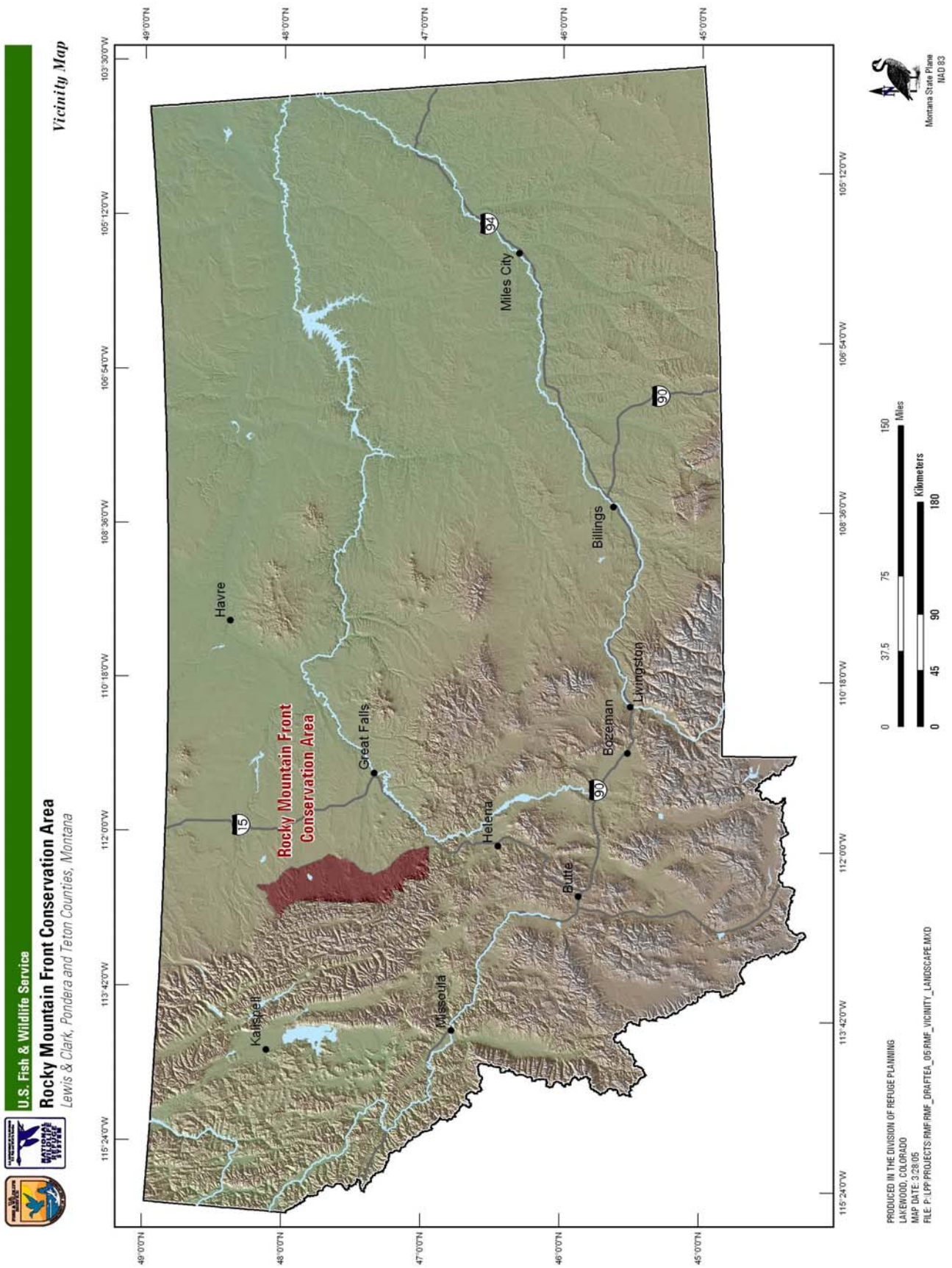


Figure 1. Vicinity map

areas, The Nature Conservancy's Pine Butte Swamp Preserve, and Boone and Crockett Club's Theodore Roosevelt Memorial Ranch.

The easement program would rely on voluntary participation from landowners. Grazing would not be restricted on the land included in the easement contract. All land within an easement would remain in private ownership and, therefore, property tax and invasive plant control would remain the responsibility of the landowner. Control of public access to the land would also remain under control of the landowner.

Subdivision and development on an easement for residential, commercial, or industrial purposes would not be permitted. Altering the natural topography, converting native grassland to cropland, wetland drainage or establishing game farms would also be prohibited.

The easement program would be managed as part of the 10-county wetland management district (WMD), which is administered by the Benton Lake National Wildlife Refuge near Great Falls, Montana. The WMD staff would be responsible for the annual monitoring and administration of all easements on private land.

Project Area

The project area extends from Birch Creek along the northern boundary and southward to the South Fork of the Dearborn River watershed (figure 2). Private lands within this area include important riparian corridors, wetland complexes, and upland habitat for grizzly bears, trumpeter swans, raptors, and other migratory birds. Private ownership encompasses most of the lower foothills and short-grass prairie to the east, while public lands lay primarily in the mid-to-upper slopes of the Rocky Mountains to the west.

Habitat types within the project area include a matrix of short-grass and fescue prairie, glaciated wetlands, and intermountain grasslands. The state of Montana owns a significant portion of the public land within the project area. The Bureau of Land Management (BLM), the Bureau of Reclamation (BOR), and the U.S. Fish and Wildlife Service manage the remaining federal ownership.

Purpose of and Need for Proposed Action

The purpose this project is to maintain wildlife habitat integrity on a large landscape scale by helping to maintain open space in a rural setting. This project is needed to help protect the Rocky Mountain Front from being drastically changed by widespread, unplanned residential or commercial development, which has occurred elsewhere in western Montana. This type of development tends to fragment wildlife habitat and generally increases the costs to county governments that have to provide services to rural subdivisions.

The front remains biologically intact and has not been significantly impacted by residential or commercial development. However, with development and subdivision in many of the scenic mountain valleys and foothills to the west, pressure to develop and subdivide the front is increasing. During the 1960s, demographers documented that, for the first time in American history, higher proportions of people were leaving cities for parts rural than were making the return trip (Fuguitt 1985). "Exurbanization" only accelerated in the 1990s, drawing people still further out into the rural West. Since the 1990s, the West's "beachfront property"—rural lands adjacent to national parks and national forests—are some of the fastest growing areas (Rudzitis 1996).

Since the early 1970s, the Service has worked to protect waterfowl and other wildlife habitat on private land along the front through the small wetlands acquisition program. Conservation easements currently protect more than 12,000 acres of wetlands and 9,000 acres of important upland habitat on private land. This authority and funding is limited to lands with significant wetland areas for waterfowl and other water birds.

More recently, the Service's Partners for Fish and Wildlife (PFW) program has been working with many landowners to help restore and enhance fish and wildlife habitat on private land.

The Rocky Mountain Front Conservation Area program is necessary to protect additional habitat that is not eligible or covered by the current Service programs along the front.

The purposes of the conservation area are:

- to protect mountain foothills, uplands, and riparian and other wetland areas from future residential development
- to protect habitat integrity by preventing fragmentation
- to preserve landscape integrity to maintain, sustain, and enhance the historical plant, animal, and insect biodiversity of native prairie habitats, and to preserve the associated ranching heritage
- to minimize invasive plant infestations caused by soil disturbance, road building, and increased traffic resulting from rural housing development
- to minimize future demands on local government resources necessitated by providing services associated with increasing rural residential development

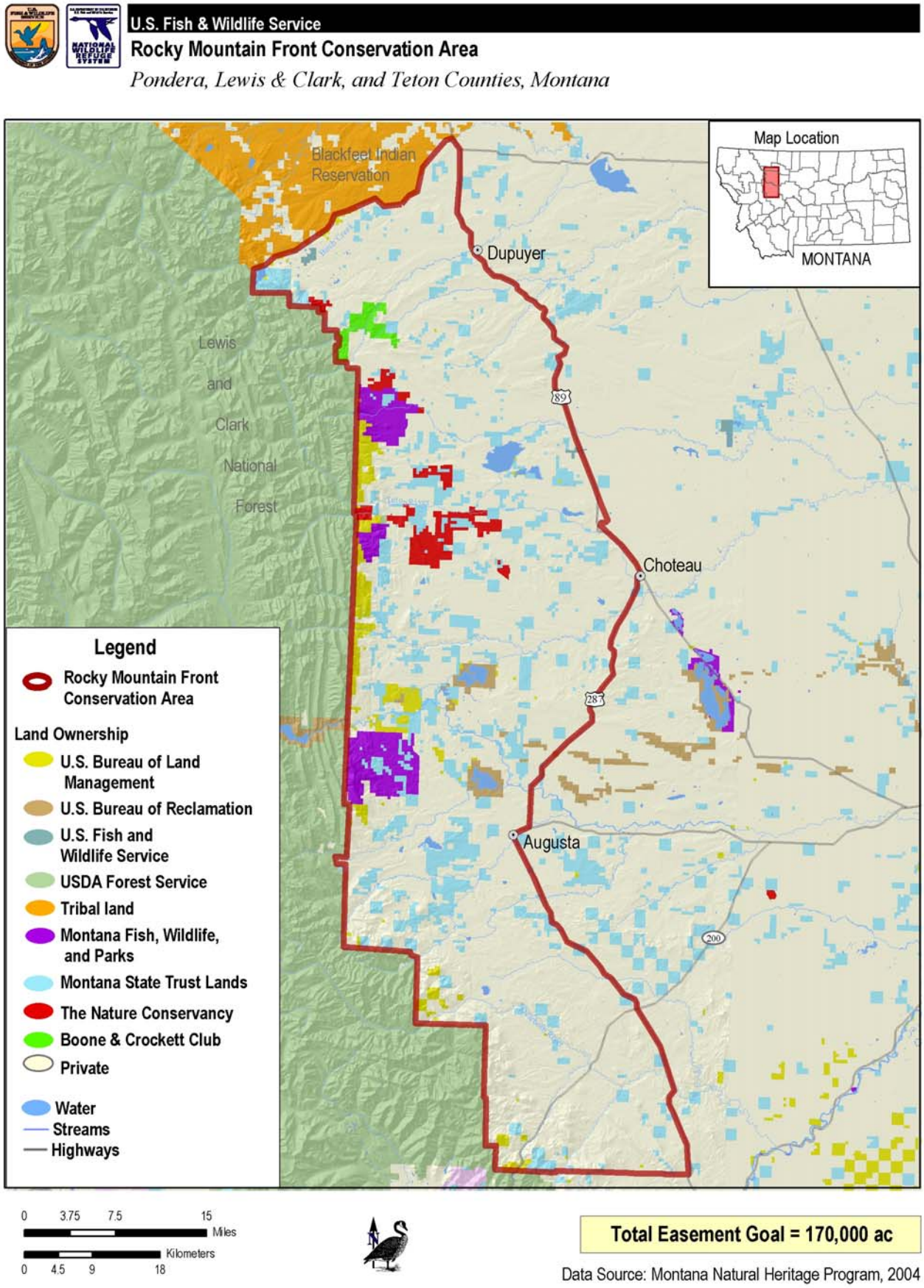


Figure 2. Project map for the Rocky Mountain Front Conservation Area

Decisions to be Made

Based on the analysis in this environmental assessment (EA), the Service's director of Region 6, with the concurrence of the director of the U.S. Fish and Wildlife Service, will make three decisions.

- Determine whether the Service should establish the Rocky Mountain Front Conservation Area.
- If yes, select an approved, conservation-easement project boundary that best fulfills the habitat protection purposes.
- If yes, determine whether the selected alternative would have a significant impact on the quality of the human environment. The National Environmental Policy Act (NEPA) of 1969 requires this decision. If the quality of the human environment would not be significantly affected, a finding of no significant impact (FONSI) will be signed and made available to the public. If the alternative would have a significant impact, completion of an environmental impact statement would be required to address further those impacts.

Issues Identified and Selected for Analysis

Open houses were held in Augusta, Choteau, and Great Falls, Montana on December 14, 15, and 16, 2004. Public comments were taken to identify issues to be analyzed for the proposed project. Approximately 100 landowners, citizens, and elected representatives attended and most expressed positive support for the project.

In addition, the Service's field staff has contacted local government officials, other public agencies, sportsman and woman groups, and conservation groups, all of which have expressed an interest in and a desire to protect the front from the pressures brought about by rural subdivisions.

There are two categories of commonly expressed issues and concerns.

Biological issues include:

- the impacts of habitat fragmentation due to residential development
- the Service's role in management of private land encumbered with a conservation easement

Socioeconomic issues include:

- the need to keep private land in private ownership
- public access for hunting or other recreational opportunities
- the effect of easements on oil and gas exploration

Biological Issues

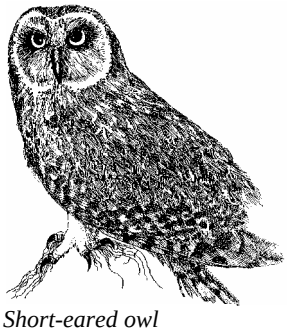
Concerns about habitat fragmentation involve potential impacts on wildlife habitat and water resources.

Wildlife Habitat

Habitat fragmentation is a concern not only along the front, but also in other areas of Montana.

Given the current strong market for scenic western properties, especially when cattle prices are low, there is concern that ranches along the front 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 along the front.



Short-eared owl
Drawing by Cindie Brunner

Riparian habitat loss due to development is a key concern. Riparian habitat is a key component to grizzly bear movement between the mountains and prairie. 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.

Conversion of native prairie to cropland, especially within the eastern portion of the project area, is of concern. Studies have documented that the region to the north, in Canada, have lost passerine populations and migratory bird diversity because of native prairie conversion.

Water Resources

Residential development on the front 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. Conversion of native prairie to cropland also may negatively affect water resources.

Socioeconomic Issues

Land and public use issues are described below.

Landownership and Land Use

There is concern that perpetual easements would negatively affect future generations of landowners.

A concern is that conservation easements would limit the choices of future landowners, even though they may have paid as much for the land as if it had no restrictions. There are concerns that perpetual easements would lower the resale value of the land.

There is concern that the selection process would favor landowners whose properties were viewed as a threat to development over those lands located on the eastern edge of the project boundary.

Oil and Gas Exploration and Development

The potential impact of conservation easements to oil and gas development on private lands along the front is of concern.

There is concern about the potential impact of an easement program on the BLM's proposed oil and gas leasing program for public lands along the front.

Public Use

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

Issues Not Selected for Detailed Analysis

Historically, there has been concern about the amount of tax generated to the counties when land protection programs take place. Since the proposed project is a conservation easement program, the land enrolled in the program does not change hands and, therefore, the 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 would generally be an offset of any perceived reduction in the tax base since the county would 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.

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 Rocky Mountain Front Conservation Area would be monitored 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 along the Rocky Mountain Front would also continue to be consistent with the following policies and management plans:

- Prairie Pothole Joint Venture Implementation Plan (1994)
- North American Waterfowl Management Plan (USFWS 1994)
- Peregrine Falcon Recovery Plan (USFWS 1984)
- Bald Eagle Recovery Plan (northern states) (USFWS 1983)
- Migratory Bird Treaty Act (1918)
- Grizzly Bear Recovery Plan (USFWS 1993)
- Migratory Non-game Birds of Management Concern in the U.S. (USFWS 1995)

Related Actions and Activities

The Service is working with other public and private entities to maintain wildlife habitat within the project area.

Montana Department of Natural Resources and Conservation—Manages more than 120,000 acres of state lands along the front. The state leases these lands for agricultural and recreational purposes, to generate revenue for the state school trust.

U.S. Department of the Interior, BLM—Manages more than 26,000 acres of federal lands along the front. These lands are for agricultural and recreational purposes and are likely to remain in a primitive state into the future.

Montana Fish, Wildlife, and Parks (FWP)—Manages more than 30,000 acres of wildlife management areas within the project area. These lands provide critical winter habitat for resident big game species and will likely remain in a primitive state into the future.

The Nature Conservancy (TNC)—Owns and manages nearly 16,000 acres within the Pine Butte Swamp Preserve and holds conservation easements on 29,000 acres of private land. The fee-title lands are managed to provide quality habitat for a diversity of wildlife species and will likely remain in a primitive state into the future.

U.S. Department of Interior, BOR—Manages 7,200 acres at Willow Creek and Pishkun Reservoirs within the project area. These lands are likely to remain in a stable, primitive state into the future.

Private landowners—Own more than 70 percent of the project area including much of the critical habitat for wildlife along the front. The Service has acquired conservation easements on approximately 12,000 acres of private land within the proposed project boundary. However, this authority and funding is limited to lands with significant wetland areas for waterfowl and other water birds. State and private conservation organizations have been working to protect private lands within this project area for many years. This has resulted two landowners donating easements to the Montana Land Reliance. The FWP has purchased two easements. The Nature Conservancy has worked with landowners to secure 21 conservation easements.

The North American Waterfowl Management Plan—Enacted in 1986 to address declining waterfowl populations. Under this plan, the Prairie Pothole Joint Venture Implementation Plan (1994) was created to coordinate the efforts of Minnesota, North and South Dakota, Iowa, and the northern part of Montana. Funding and cooperative efforts for these projects represent partnerships between agencies, private entities, and conservation groups including TNC, Ducks Unlimited, Montana Audubon Society, U.S. Fish and Wildlife Service, BLM, and the FWP.

Partners for Fish and Wildlife (PFW)—Administered by the Service, this program provides a tool to work cooperatively with landowners to voluntarily restore and enhance wildlife habitat on private land. Since the inception of the program in 1992, approximately 485 acres of wetland, 22,000 acres of upland habitat, and 88 miles of streams and riparian areas have been restored or enhanced along the front. The FWP, National Fish and Wildlife Foundation, BLM, TNC, and numerous private landowners have provided funding for habitat projects.

Invasive plant projects—Infestations of invasive plants such as spotted knapweed, hounds tongue, and leafy spurge are not widespread along the front. However, they are present in the certain watersheds and threaten to spread throughout the project area. In an effort to contain the current problem, the Service's PFW program, TNC, county weed districts, and private landowners have initiated cooperative efforts in several watersheds. Current tools include education, along with mechanical, biological, and chemical control.

Habitat Protection and Easement Acquisition Process

On approval of a project boundary, habitat protection would 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. No fee-title acquisition would be authorized within the proposed project boundary.

The acquisition authority for the proposed Rocky Mountain Front Conservation Area is the Fish and Wildlife Act of 1956 (16 U.S.C. 742 a-742j). The federal monies 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 non-profit 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, and landowner interest in the program. The purchase of conservation easements would occur with willing sellers only and be subject to available funding.

Chapter 2—Alternatives, Including the Proposed Action

This chapter describes the two alternatives identified for this project:

- no-action alternative
- proposed action, giving the Service the authority to create the Rocky Mountain Front Conservation Area

The alternatives consider the effects of a conservation easement program within the project area boundary identified in this EA.

Alternative A (no action)

Currently, Service easements in the front are available through the small wetlands acquisition program for landowners that qualify. In addition, private efforts by TNC and other statewide land trusts could secure conservation easements.

Habitat enhancement or restoration projects on private lands such as water developments, grazing systems, and riparian management could continue through cooperative efforts with private landowners.

Alternative B (proposed action)

The Service would establish the Rocky Mountain Front Conservation Area along the eastern edge of the Continental Divide in northwestern Montana. The project boundary encompasses roughly 918,000 acres, of which the Service would strategically acquire conservation easements on 170,000 acres of private land. The geographic project area lies east of the Lewis and Clark National Forest, west of Highway 89/287, and north of Highway 200 to the Birch Creek drainage (figure 2).

Trumpeter swans find habitat on the front.
Photograph by the USFWS

The Service would seek to purchase easements on privately owned mountain foothills, wetlands, stream courses, and native grasslands. The easement contract would specify perpetual protection of habitat for trust species and limits on residential, industrial, or commercial development.

Priority areas for easements within the project area are based on the threat of development, connectivity with other protected lands, and quality of habitat types (including riparian areas, wetlands, and native grasslands) for trust species. The land protection plan (within this volume) describes these priorities in detail.

The easement program would rely on voluntary participation from landowners. Grazing would not be restricted on the land included in the easement contract.

Subdivision and development for residential, commercial, or industrial purposes would not be permitted. Alteration of the natural topography, conversion of native grassland to cropland, drainage of wetland, and establishment of game farms would be prohibited.

All land would remain in private ownership; property tax and invasive plant control would remain the responsibility of the landowner. Control of public access to the land would remain under the control of the landowner.

The easement program would be managed as part of the 10-county WMD, which is administered by the Benton Lake National Wildlife Refuge near Great Falls, Montana. The WMD staff would be responsible for the annual monitoring and administration of all easements on private land.

Monitoring would consist of periodically reviewing land status to ensure that the non-development goal of the conservation easement is being achieved according to the terms of the easement.

Alternatives Considered but not Studied

There was no further analysis for the following two alternatives.

Voluntary Landowner Zoning

Landowners would voluntarily petition the county commissioners to create a zoning district to direct the types of development that can occur within an area. This is "citizen-initiated" zoning. For example, landowners would petition the county government to zone an area as agricultural, precluding certain types of non-agricultural development such as residential subdivision. "Citizen initiatives" are rarely used and this alternative was not studied further.

County Zoning

In a traditional approach used by counties and municipalities, the local government would use zoning as a means of designating what type of development could occur in an area. Most counties in Montana prefer not to use this method and the alternative was not studied further. In addition, the county commissioners expressed support instead for conservation easements (alternative B) as a means of maintaining rural area values and potentially reducing the need for future zoning.

Chapter 3—Affected Environment

This chapter describes the biological, cultural, and socioeconomic resources most likely affected by establishing the Rocky Mountain Front Conservation Area.

Biological Environment

Lying in the shadow of the rugged Continental Divide, the Bob Marshall Wilderness and Lewis and Clark National Forest mark the western boundary of the project area. The Birch Creek drainage borders the project area to the north, with the distribution of fescue grasslands and critical riparian areas dictating the eastern boundary. The southern boundary falls approximately along the watershed of the South Fork of the Dearborn River.

The front forms a dramatic and biologically diverse landscape. The Rocky Mountain Front is an eco-tone formed by the meeting of two major eco-regions along a mountains–plains gradient. The front hosts a rich mixture of glaciated wetlands ("prairie potholes"), riparian corridors, mixed-grass prairie, and coniferous forest (figure 3). Annual precipitation varies from 60 inches in the mountains to 12 inches on the plains, and the elevation between the two can differ by more than 5,000 feet.

The NHP has rated the Rocky Mountain Front as one of the most significant natural landscapes in the state, a tribute to its intact ecological systems, expansive wetlands, and diverse native fauna and flora.

The front exhibits excellent species diversity—including waterfowl, bald eagle, black tern, long-billed curlew, Baird's sparrow, American peregrine falcon, westslope cutthroat trout, ferruginous hawk, grizzly bear, moose, and gray wolf. Approximately 240 bird species, or 65 percent of those found in Montana, inhabit the front. There are as many as 188 species of birds known or suspected to breed along the front.

Habitat

Numerous hydrological features bisect the project area. The Dearborn, Sun, and Teton Rivers form major riparian corridors running from the mountains

From prairie potholes to forest, the front hosts diverse wildlife habitats.
Photograph by USFWS/Gary Sullivan

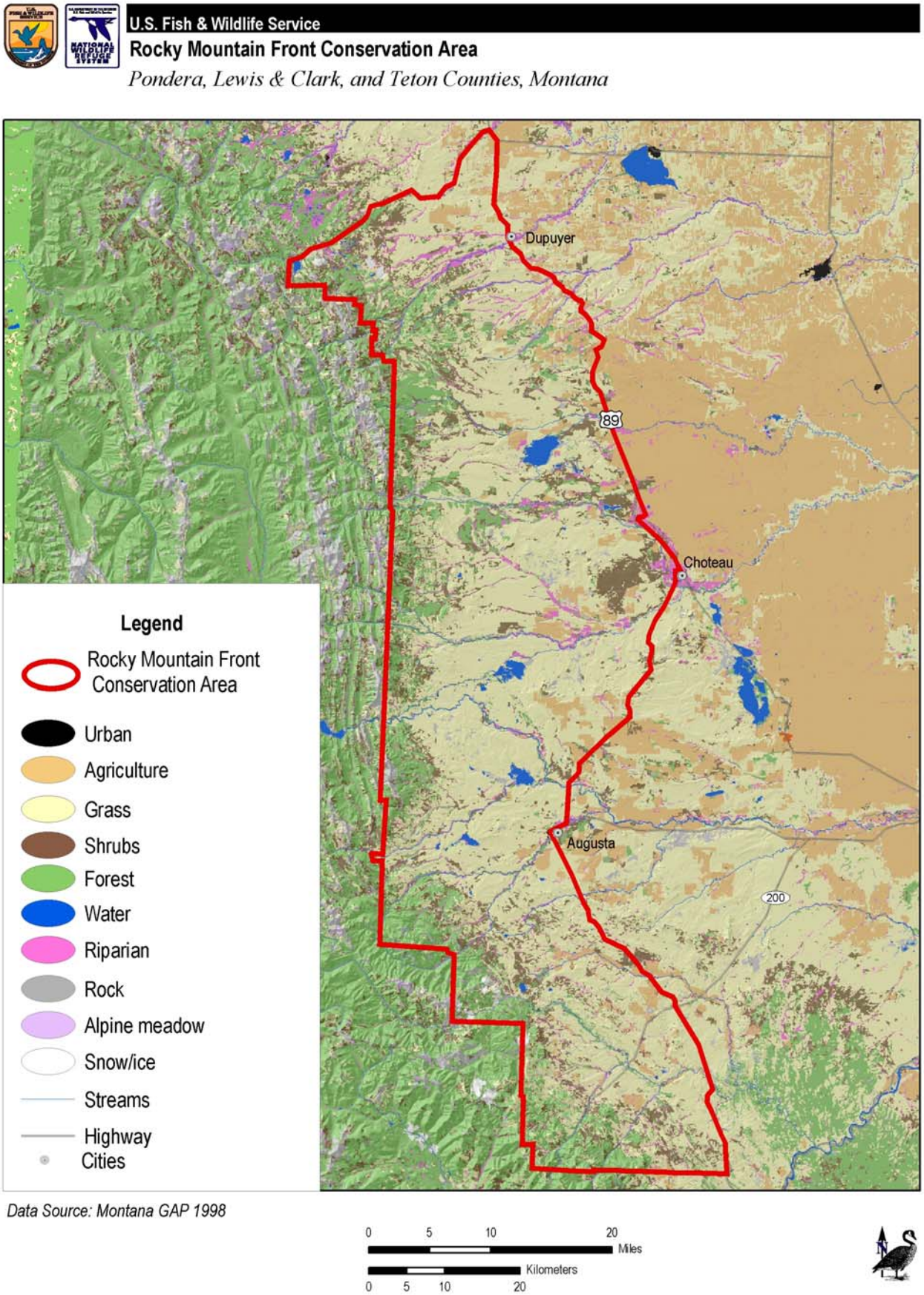


Figure 3. Land cover map for the Rocky Mountain Front Conservation Area

eastward into the prairies. Many other tributaries provide a diversity of riparian and wetland plant communities. More than 700 species of vascular plants occur within the project boundary, representing roughly one-third of all the plant species found in Montana and indicating the significant biological diversity of the front.

Uplands

Alpine meadows lie on the shoulders of the high peaks along the western edge of the front. Montane forests consisting of limber pine, Douglas-fir, and ponderosa pine transition eastward into aspen parkland and large expanses of fescue grasslands. The front's varied topography and soils give rise to a diverse array of plant communities including some of scientific importance. The NHP has rated the front as an "at-risk" site within the state and lists 114 species or communities of special concern for the area.

Wetlands

A vast array of wetlands and riparian communities, partially resulting from continental and alpine glaciation, occur within the project area. Approximately 30 percent of the 700+ species of plants are associated exclusively with wetland or riparian habitats, including some of the largest remaining fens (alkaline bogs) in Montana.

The depressional wetlands provide nesting and migration habitat for 16 species of waterfowl. Several mountain streams along the front also provide habitat for the harlequin duck. Three nesting pairs of rare trumpeter swans have been documented in the Bean Lake–Nylan Reservoir complex. This is one of the few sites outside of the Greater Yellowstone Ecosystem where the Rocky Mountain population of trumpeter swans nests. The front also serves as an important migration corridor for the Canadian population of trumpeter swans.

Hundreds of thousands of snow geese migrate along the front, including 50 percent of the entire Wrangle Island population. Peak flights of waterfowl through the project area during the spring and fall migrations often exceed several million birds. Six species of grebes nest in the area including the red-necked grebe, a species in serious decline in many other areas.

Eleven different species of shorebirds breed in the wetlands and adjacent grasslands scattered throughout the area. The westernmost breeding occurrence of inland piping plovers occurs at Alkali Lake near the northeast boundary of the project. A portion of the Rocky Mountain population of greater sandhill cranes breeds in the project area and several thousand use the river corridors during their spring and fall migrations.

Wildlife

The Rocky Mountain Front supports a wide variety of animal life. There are assemblages of amphibians and reptiles, mammals, birds, and fish in the project area.

Amphibians and Reptiles

A number of amphibians occur along the front including three species of frogs (boreal chorus, northern leopard, and Columbia spotted), two species of toads (plains spadefoot and western), and two species of salamanders (tiger and long-toed). The common garter snake, plains garter snake, terrestrial garter snake, western rattlesnake, greater short-horned lizard, and painted turtle are reptiles known to occur along the front (Maxell et al. 2003).

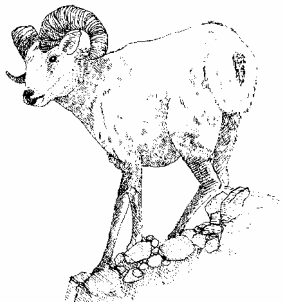
Mammals

Uplands provide habitat for many small mammals including shrews, mice, voles, and ground squirrels along the front. These mammals provide critical food sources for prairie raptors such as ferruginous hawks, northern harriers, and short-eared owls.

Wetlands provide cover and food for several terrestrial or semi-aquatic mammals including muskrat, beaver, river otter, and mink.

The grizzly bear, gray wolf, wolverine, badger, mountain lion, and Canada lynx are examples of carnivores that occur throughout the project area.

Big game animals such as moose, mule deer, elk, bighorn sheep, and pronghorn also use the upland habitat.



Bighorn sheep
Drawing by Cindie Brunner

Three federally listed mammals are present in the project area (appendix B). A stable but growing grizzly bear population occurs throughout the area. Gray wolves have immigrated back into the area from the Canadian Rockies and several packs have established home ranges west of the project boundary in the Bob Marshall Wilderness. The front supports one of the largest populations of Canada lynx in the lower 48 states.

The swift fox, nearly extirpated from the state in the past, are being reintroduced just north of the project area. This cooperative partnership between Defenders of Wildlife and the Blackfeet Indian Nation should eventually result in the reestablishment of swift fox populations along the front.

Birds

There are approximately 240 species of birds, or 65 percent of those found in Montana, recorded within the project area. Of those, 134 species nest along the front, while there are an additional 54 species that may breed. Seventeen species of waterfowl breed in the area including trumpeter swans and harlequin ducks. At least 21 species of raptors breed along the front, including 9 species of owls.

Cliffs and riparian areas provide the two most important habitats for nesting raptors within the project area. The steep cliffs of the transition zone between the mountains and prairies are essential nesting habitat for a number of raptors, providing nearly 87 percent of the golden eagles along the front (USFWS 1987). American peregrine falcons and ferruginous hawks also nest in these areas.

In addition to providing migration and travel corridors, riparian areas provide nesting areas for many species of migratory birds. One study along the front reported that riparian vegetation covered only 5.4 percent of the area, but provided nesting habitat for 96 percent of the Swainson's hawks and 93 percent of the red-tailed hawks (USFWS 1987).

The project area includes one of the largest remaining expanses of native prairie left in the northern Great Plains. This "sea of grass" provides essential habitat for numerous grassland birds, many of which are experiencing significant population declines. These include the chestnut-collared longspur, Le Conte's sparrow, bobolink, Sprague's pipit, burrowing owl, marbled godwit, long-billed curlew, and lark bunting.

Burrowing owls nest in grasslands.
Drawing by Cindie Brunner

Fish

Several streams and rivers along the front support pure strains of westslope cutthroat trout. A rare hybrid of the northern redbelly dace also occurs within the project area.

The Sun River was historically a stronghold for fluvial Arctic grayling, which were eliminated from the system because of habitat degradation. In the spring of 1999, grayling were reintroduced above Gibson Dam into the upper Sun River tributaries.

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 project area includes portions of three counties—Lewis and Clark, Pondera, and Teton. Four communities are within the project area, all located along the east boundary on Highway 89/287. The largest community is Choteau with a population of 1,781. Augusta has 284 people, and Dupuyer and Bynum both have less than 200 people (U.S. Census Bureau 2000).

Most of the rural population is involved in ranching and livestock production. Hunting of a wide variety of game species happens on private lands, with elk hunting bringing the most people to the front.

A seasonal influx of tourists are attracted to the front for opportunities to bird watch, mountain-bike, horseback ride, backpack, camp, canoe, fish, and view archeological and paleontological resources. Choteau and Augusta are "gateway" communities for recreational activities on the Lewis and Clark National Forest, Bob Marshall and Scapegoat Wildernesses, and Glacier National Park.

Agricultural Resources

The economy of the Rocky Mountain Front is primarily agrarian. Large cattle ranches dominate the private lands within the project area. The population is sparse and towns are small and widely scattered. Towns tend to be service centers for the agricultural economy, but also cater to tourism and recreation.

Landowners along the front are representative of rural Montana's independent and traditional lifestyles. The ranchers' livelihood depends on natural resources (grass, water, and open space) and, while generally resistant to regulations, these ranchers have a deep-rooted attachment to the land.

Unlike many other areas in the country, the key to protecting the front lies primarily in sustaining the current land use pattern of livestock ranching. The Service's success in this social context would be an important model for conservation programs throughout the West.

Landownership

More than 70 percent of the project area, including much of the important habitat for all wildlife along the front, is privately owned.

Property Tax

Currently, landowners pay property taxes on their private lands to the counties.

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, pronghorn, elk, moose, deer, black bear, bighorn sheep, mountain lion, and furbearers. Private landowners often give permission for hunting and fishing on their land.

Chapter 4—Environmental Consequences

This chapter assesses the environmental impacts expected to occur from the implementation of alternatives A or B, as described in chapter 2. Environmental impacts are analyzed by issues for each alternative and appear in the same order as discussed in Chapter 2.

Snow geese and other waterfowl frequent Freezeout Lake Wildlife Management Area in the Rocky Mountain Front.
Photograph by The Nature Conservancy

Effects on the Biological Environment

This section describes the estimated effects on wildlife habitat and water resources of carrying out alternatives A and B.

Wildlife Habitat

The effects on wildlife habitat are described below.

Alternative A (no action)

Although the Service's existing partnership would continue to enhance habitat on private lands, degradation of resources on many unprotected private lands would continue. These potential impacts could result in the further decline of game, non-game, and listed species.

Many acres of land would likely be developed for recreational home sites or isolated commercial uses, as economic forces change in the future. In recent years, subdivision and the demand for recreational property have been spilling over from western Montana, posing the greatest single threat to the front. Lands adjacent to natural areas are choice home sites and are targeted for residential development. In particular, burgeoning subdivisions occur at the mouths of the Dearborn, Sun, and Teton River canyons and land prices have increased dramatically. Long-time family ranches are beginning to be sold and are commanding very high prices as recreational properties.

No action would result in loss of opportunity to protect historically important upland and wetland habitats. Without the protection of private land with conservation easements, the future of wildlife habitat in the project area would be uncertain.

Habitat fragmentation is one the greatest impacts caused by rural subdivision and residential development. The front has more than 650,000 privately owned acres, with the majority remaining in large ranch ownership. However, under state law, the subdivision process is not difficult—land may be split into lots of 160 acres or greater without local review or approval. Moreover, with no county zoning in place, small-lot subdivisions are possible.

Private land subdivision results in smaller ownerships. Subsequent effects, including those listed below, would likely impact wildlife:

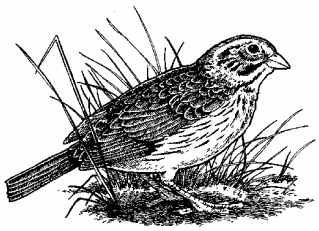
- increased dogs and cats (direct predation)
- overgrazing
- invasive plant infestations
- increased fencing, roads, and vehicle traffic
- loss of habitat and travel corridors for wildlife

In addition, these effects would bring increased human presence in the form of snowmobiles, predator–prey shifts, and sources of disturbance that can disrupt wildlife movement patterns and render habitat unusable.

Loss of habitat and travel corridors for wolverine, Canada lynx, grizzly bear, gray wolf, and other species would likely have a negative impact on these species' populations along the front. Research has shown that grizzly bears move between private lands along the front, Glacier National Park, and the Lewis and Clark National Forest, all of which are part of the northern Continental Divide ecosystem (USFWS 1987). These key geographic and biological linkages can be lost and wildlife populations isolated once an area is fragmented by subdivisions or other development.

Increased human settlement can also result in increased human–wildlife conflicts, as well as impacting actions to control important natural ecological events such as fire and seasonal floods.

Conversion of native prairie to cropland, especially within the eastern portion of the project area, has an effect on bird populations. In the fescue prairie region of Alberta, Canada, total passerine populations and diversity have decreased significantly as native rangeland has been converted to cereal grain production (Owens and Myers 1972). Overall, grassland bird populations are decreasing faster and over a larger area than any other avian species group, including Neotropical migrants (Knopf 1996).



Baird's sparrow

Alternative B (proposed action)

Establishing the Rocky Mountain Front Conservation Area would provide for the conservation of up to 170,000 acres of important habitat on private land. This program would help maintain the uniqueness of the front and complement conservation efforts of the FWP, TNC, Boone and Crockett Club, Montana Land Reliance, and other federal and state agencies.

The fact that the front 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 front.

Conservation easements within the Rocky Mountain Front Conservation Area would help alleviate habitat fragmentation issues. Key biological linkages would facilitate wildlife movement and provide for wildlife habitat requirements. The potential for human–wildlife conflicts would be greatly reduced.

Compatible agricultural practices such as livestock grazing or haying would continue, while sodbusting (i.e., 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 (Owens and Myers 1972).

Water Resources

The effects on water resources are described below.

Alternative A (no action)

The prospect of residential development along the front represents a potentially significant threat to the aquatic habitat. Sewage-derived nutrient additions to streams and lakes could have detrimental effects on the aquatic ecology (Wernick et al. 1998).

Housing developments can also result in additional wetland drainage, water diversion, and introduction of invasive species. Development could also change drainage patterns or rate of surface runoff, increasing soil erosion and non-point source pollution.

As demand for potable water increases for new subdivisions, water rights could be questioned and challenged to a greater extent in the future. Groundwater aquifers would receive more demand, resulting in potential degradation to the hydrology of some wetland areas.

Conversion of grasslands to cropland has been documented to increase sedimentation and pesticide runoff into wetlands. Tillage increases the sediment load into wetlands when compared to grasslands (Gleason and Euliss 1998, Kantrud et al. 1989), primarily due to wind erosion (NRCS 1992).

Alternative B (proposed action)

Water resources on 170,000 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.

Compatible agricultural practices such as livestock grazing or haying would continue, while sodbusting would be prohibited. The landowner would continue to own and control water rights.

Effects on the Socioeconomic Environment

This section describes the estimated effects of alternatives A and B on landownership, land use, oil and gas exploration and development, and public use.

Landownership and Land Use

The effects on land ownership and use are described below.

Alternative A (no action)

More than 70 percent of the front would remain in private ownership, having no restrictions. Ranching opportunities could be reduced when landowners begin to split tracts into smaller lots.

However, landowners that subdivide could increase their revenue by developing recreational home sites. With subdivision, tracts could potentially increase in value if there is desire to cluster housing or to keep open space for future housing developments.

The community would lose open space and the aesthetics of the front would diminish. Subdivision

and development would reduce hunting and wildlife observation opportunities and diminish revenue associated with these activities to local communities.

Alternative B (proposed action)

The easement program would enhance the protection of trust resources through conservation of wildlife habitat and protection of land from surface disturbance or development.

The proposed action would affect location and distribution, but not rate or density, of human population growth. Ongoing, traditional agricultural uses such as livestock grazing would allow compatible ranching to continue. This alternative would maintain open space on a large landscape scale, thereby preserving the rural lifestyle of the area.

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 a defined market area. 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 (Haggerty 1996).

Positive effects may occur from increased public wildlife viewing, fishing, and hunting opportunities. Open space also may enhance property values on adjoining lands as people begin to seek out undeveloped lands in the future.

The easement program would have no effect on tribal jurisdiction or tribal rights because it is outside of reservation land and deals only with willing easement sellers.

Oil and Gas Exploration and Development

The effects on exploration and development for oil and gas are described below.

Alternative A (no action)

Oil and gas development would continue to occur on private lands along the front. Stipulations to protect the surface estate would be governed by existing state regulations.

Alternative B (proposed action)

The proposed easement program would not preclude oil and gas exploration or development on private land. Typically, conservation easements do not affect subsurface estates (i.e., 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 along the front, 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 would contain reasonable surface stipulations for such actions as revegetation of disturbed areas, access, and site reclamation.

Easements would not be acquired on federal lands where the BLM administers the oil and gas leasing program. The BLM program is concentrated on public lands, whereas the Service's conservation easements are concentrated on private lands. The potential impact of the proposed easement program on the BLM's oil and gas activities along the front would be negligible.

Public Use

The effects on public use are described below.

Alternative A (no action)

The Service would not purchase conservation easements, and landowners would manage public use.

Alternative B (proposed action)

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 rights, including allowing or restricting hunting and fishing on their lands, under the proposed easement program. This is different from the FWP's block management program, where participating landowners provide hunter access to their private lands.

White-tailed deer
Drawing by Cindie Brunner

Unavoidable Adverse Impacts

Any adverse effects that may be unavoidable while carrying out alternatives A and B are described below.

Alternative A (no action)

The adverse impacts of degradation and habitat fragmentation would be expected to be more widespread and prevalent in the project area.

Alternative B (proposed action)

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

Irreversible and Irretrievable Commitments of Resources

Any commitments of resources that may be irreversible or irretrievable as a result of carrying out alternatives A and B are described below.

Alternative A (no action)

There would be no additional commitment of resources by the Service if no action is taken.

Alternative B (proposed action)

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

Short-term Use versus Long-term Productivity

Alternative A (no action)

Ranches may be sold to developers for short-term gains, which would have a negative impact on the long-term biological productivity of the area.

Over the long-term, the costs to counties to sustain development in rural areas could be significant (see the landownership and use section above).

Alternative B (proposed action)

The proposed conservation easement program would maintain the long-term biological productivity of the grassland and wetland ecosystems along the front—including increased protection of endangered and threatened species and maintenance of biological diversity.

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.

Cumulative Impacts

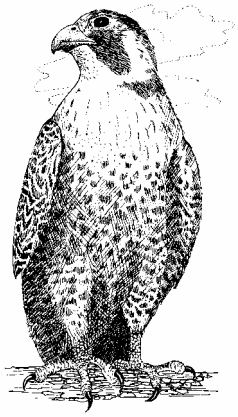
This section describes the cumulative impacts that may result from the combination of expected actions in alternatives A or B, together with other biological and socioeconomic conditions, events, and developments.

Alternative A (no action)

Current Service programs such as PFW would continue along the front. The Service would continue to work cooperatively with landowners to improve voluntarily habitat on private land.

Alternative B (proposed action)

Through the proposed easement program, approximately 170,000 acres of privately owned mountain foothills, wetlands, and native grassland habitats would be added to the 258,000 acres of federal, state and privately owned lands within the project area that already have some level of protection. This would 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 along the front.



American peregrine falcon
Drawing by Cindie Brunner

Chapter 5—Coordination and Environmental Review

The Service coordinated within the agency, as well as with other federal agencies and local agencies, while developing this EA. Coordination effort for contaminants and hazardous materials is described below.

The Service conducted this environmental analysis under the authority of the NEPA. The resulting document will be distributed to the project mailing list; copies can be requested.

The analysis and documentation was prepared by a combination of field and regional Service staff, along with partners.

Agency Coordination

The Service has discussed the proposal to establish the Rocky Mountain Front Conservation Area with landowners; conservation organizations; other federal agencies; tribal, state, and county governments; and other interested groups and individuals.

The Service held three public meetings to provide information and discuss the proposal with landowners and other interested citizens. The staff at Benton Lake National Wildlife Refuge has presented the project to the county commissioners in each of the three counties included in the project area.

At the federal level, the Service staff has coordinated with representatives from other federal agencies such as the BLM and has provided briefings for Montana's congressional delegation. At the state level, Governor Schweitzer's staff, along with the FWP, was briefed on the project. In addition, the Service provided information to the Blackfeet Tribe on this project, which is adjacent to their reservation.

Non-governmental conservation groups are key to the success of the proposed project. Service staff has coordinated with partner organizations such as The Nature Conservancy, The Montana Land Reliance, and the Rocky Mountain Front Land Owner Advisory Council.

Contaminants and Hazardous Materials

Fieldwork for the pre-acquisition contaminant surveys would be conducted, on a tract-by-tract basis, prior to the purchase of any land interest. Any suspected problems or contaminants requiring additional surveys would 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 NEPA. An EA is required under NEPA to evaluate reasonable alternatives that will meet stated objectives and to assess the possible impacts to the human environment. The EA serves as the basis for determining whether implementation of the proposed action would constitute a major federal action significantly affecting the quality of the human environment.

The analysis for, and development of this EA, facilitated the involvement of government agencies and the public in the decision-making process.

Distribution and Availability

Copies of the EA were sent to federal and state legislative delegations, 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
922 Bootlegger Trail
Great Falls, MT 59404
406/727 7400
http://bentonlake.fws.gov

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

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References

Fuguitt, G.V. 1985. The nonmetropolitan population turnaround. Annual Review of Sociology 11(259–80).

Gleason, R.A., and N.H. Euliss, Jr. 1998. Sedimentation of prairie wetlands. Great Plains Res. 8(1):97–112.

Graetz, Rick, and Susie Graetz. 2000. Montana's Rocky Mountain Front. 95 pp.

Haggerty, M. 1996. Costs of county and educational services in Gallatin County, Montana. Local Government Center, Montana State University: Bozeman, MT. 9 pp.

Kantrud, H.A., G.L. Krapu, and G.A. Swanson. 1989. Prairie basin wetlands of the Dakotas: a community profile. Biological Report 85 (7.28). U.S. Department of the Interior, U.S. Fish and Wildlife Service. 116 pp.

Knopf, F.L. 1996. Prairie legacies–birds. *In* Samson, F.B., and F.L. Knopf, eds., Prairie conservation: preserving North America's most endangered ecosystem. Island Press: Washington, DC.

Maxell, B.A.; J.K. Werner; P. Hendricks; and D.L. Flath. 2003. Herpetology in Montana; a history, status summary, checklists, dichotomous keys, accounts for native, potentially native, and exotic species, and indexed bibliography. Society for Northwestern Vertebrate Biology.

Natural Resources Conservation Service (NRCS). 1992. Estimated average annual wind erosion in relation to T value on non-federal rural land, by land cover/use and by year; table 215. U.S. Department of Agriculture, Natural Resources Conservation Service.

Owens, R., and M.T. Myers. 1972. Effects of agriculture upon populations of native passerine birds of an Alberta fescue grassland. Can.J.2001.51:697–713.

Rudzitis, G. 1996. Wilderness and the changing American West. New York:Wiley.

U.S. Census Bureau. 2000. 2000 census of agriculture; vol. 1–geographic area series; part 31–Montana, state and county data. Washington, DC.

U.S. Fish and Wildlife Service (USFWS). 1983. Bald eagle recovery plan (northern states). U.S. Department of the Interior, U.S. Fish and Wildlife Service: Denver, CO. 133 pp.

———. 1984. American peregrine falcon recovery plan (Rocky Mountain/Southwest population). U.S. Department of the Interior, U.S. Fish and Wildlife Service: Denver, CO. 105 pp.

———. 1987. Interagency Rocky Mountain Front wildlife monitoring/evaluation program: management guidelines for selected species. U.S. Department of the Interior, U.S. Fish and Wildlife Service. 71 pp.

———. 1993. Grizzly bear recovery plan. U.S. Department of the Interior, U.S. Fish and Wildlife Service: Missoula, MT. 181 pp.

———. 1994. North American waterfowl management plan. U.S. Department of the Interior, U.S. Fish and Wildlife Service. 19 pp.

———. 1995. Migratory nongame birds of management concern in the United States; the 1995 list. U.S. Department of the Interior, U.S. Fish and Wildlife Service.

Wernick, B.G.; K.E. Cook; and H. Schreier. 1998. Land use and streamwater nitrate-N dynamics in an urban-rural fringe watershed. Journal of the American Water Resources Association 43(3):639–650.

Appendix A—List of Plants and Animals Mentioned in the Text

Plants

Aspen	*Populous tremuloides*
Douglas-fir	*Pseudotsuga menziesii*
Idaho fescue	*Festuca idahoensis*
Limber pine	*Pinus flexilis*
Ponderosa pine	*Pinus ponderosa*

Fish

Arctic grayling	*Thymallus arcticus*
Northern redbelly dace	*Phoxinus eos*
Westslope cutthroat trout	*Oncorhynchus clarki lewisi*

Amphibians and Reptiles

Boreal chorus frog	*Pseudacris maculata*
Columbia spotted frog	*Rana luteiventris*
Common garter snake	*Thamnophis sirtalis*
Greater short-horned lizard	*Phrynosoma hernandesi*
Long-toed salamander	*Ambystoma macrodactlyum*
Northern leopard frog	*Rana pipiens*
Painted turtle	*Chrysemys picta*
Plains garter snake	*Thamnophis radix*
Plains spadefoot	*Spea bombifrons*
Terrestrial garter snake	*Thamnophis elegans*
Tiger salamander	*Ambystoma tigrinum*
Western rattlesnake	*Crotalus viridus*
Western toad	*Bufo boreas*

Mammals

Badger	*Taxidea taxus*
Beaver	*Castor canadensis*
Bighorn sheep	*Ovis canadensis*
Bison	*Bison bison*
Canada lynx	*Lynx canadensis*
Elk	*Cervus elaphus*
Gray wolf	*Canis lupus*
Grizzly bear	*Ursus arctos horribilis*
Ground squirrel	*Spermophilus elegans*
Mice	*Onychomys* spp., *Peromyscus* spp., *Reithrodontomys* spp.
Mink	*Mustela vison*
Moose	*Alces alces*
Mountain lion	*Felis concolor*
Mule deer	*Odocoileus hemionus*
Muskrat	*Ondatra zibethicus*
Pronghorn	*Antilocapra americana*
River otter	*Lutra canadensis*
Shrews	*Sorex* spp.
Swift fox	*Vulpes velox*
Voles	*Microtus* spp.
White-tailed deer	*Odocoileus virginianus*
Wolverine	*Gulo gulo*

Birds

American peregrine falcon	*Falco peregrinus*
Baird's sparrow	*Ammodramus bairdii*
Bald eagle	*Haliaeetus leucocephalus*
Black tern	*Chlidonias niger*
Bobolink	*Dolichonyx oryzivorus*
Burrowing owl	*Athene cunicularia*
Chestnut-collared longspur	*Calcarius ornatus*
Ferruginous hawk	*Buteo regalis*
Golden eagle	*Aquila chrysaetos*
Harlequin duck	*Histrionicus histrionicus*
Lark bunting	*Calamospiza melanocorys*
Le Conte's sparrow	*Ammodramus leconteii*
Long-billed curlew	*Numenius americanus*
Marbled godwit	*Limosa fedoa*
Northern harrier	*Circus cyaneus*
Piping plover	*Charadrius melodus*
Red-necked grebe	*Podiceps grisegena*
Red-tailed hawk	*Buteo jamaicensis*
Sandhill crane	*Grus canadensis*
Short-eared owl	*Asio flammeus*
Snow goose	*Chen caerulescens*
Sprague's pipit	*Anthus spragueii*
Swainson's hawk	*Buteo swainsoni*
Trumpeter swan	*Cygnus buccinator*

Appendix B—Endangered and Threatened Species

Mammals

Canada lynx	*Lynx canadensis*	(T)
Gray wolf	*Canis lupus*	(E)
Grizzly bear	*Ursus arctos horribilis*	(T)

Birds

Bald eagle	*Haliaeetus leucocephalus*	(T)
Piping plover	*Charadrius melodus*	(T)

Key
(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

Land Protection Plan for the Rocky Mountain Front Conservation Area

April 2005

Prepared by

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Land Protection Plan

The U.S. Fish and Wildlife Service developed this land protection plan during the planning process to provide local landowners, governmental agencies, and the interested public with a general understanding of the anticipated acquisition priorities for the proposed easement program.

Introduction and Project Description

The proposed Rocky Mountain Front Conservation Area is located along the eastern edge of the Continental Divide in northwestern Montana. This area is located approximately 65 miles northwest of Great Falls, Montana. The project area extends from Birch Creek along the northern boundary and southward to the South Fork of the Dearborn River watershed (figure 1). The boundary of the project area contains approximately 918,000 acres.

The Service intends to purchase or receive donated conservation easements on approximately 170,000 acres of private land from willing landowners within the approved boundary. Conservation easements would be purchased on wetlands, grasslands, riparian corridors, and other important habitats. These easements would connect and expand existing protected conservation lands within the project area.

The project area encompasses one of the last truly "wild" landscapes in the lower 48 states. Lying in the shadow of the rugged Continental Divide, the Rocky Mountain Front hosts a rich mixture of glaciated wetlands ("prairie potholes"), riparian corridors, mixed-grass prairie, and coniferous forest. In this largely intact landscape comes a nearly complete historical suite of species—including waterfowl, bald eagle, black tern, long-billed curlew, Baird's sparrow, American peregrine falcon, ferruginous hawk, grizzly bear, moose, gray wolf, and westslope cutthroat trout.

The fact that the front remains biologically and ecologically intact is a tribute to the area's ranchers and residents, and other conservation-minded individuals and groups, who have long recognized what this unique and important landscape represents

Diverse habitats along the Rocky Mountain Front support a variety of wildlife.
Photograph by The Nature Conservancy

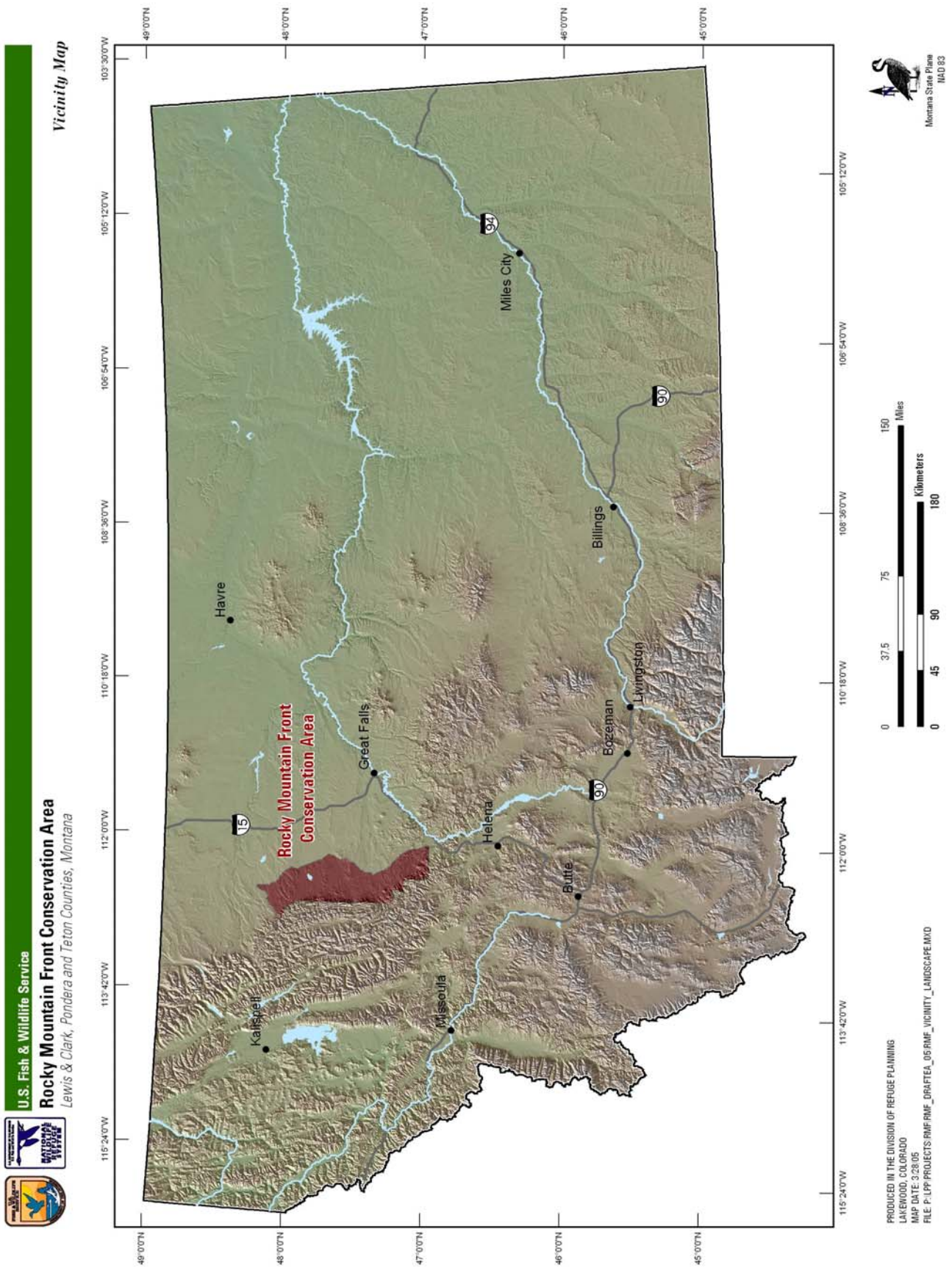

Figure 1. Vicinity map

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 front.

The purposes of this project are:

- to protect mountain foothills, uplands, and riparian and other wetland areas from future residential development
- to protect habitat integrity by preventing fragmentation
- to preserve landscape integrity to maintain, sustain, and enhance the historical plant, animal, and insect biodiversity of native prairie habitats, and to preserve the associated ranching heritage
- to minimize invasive plant infestations caused by soil disturbance, road building, and increased traffic resulting from rural housing development
- to minimize future demands on local government resources necessitated by providing services associated with increasing rural residential development

Threats to and Status of Resources

The rural character of the Rocky Mountain Front is likely to undergo substantial change over the next 10–20 years. The proposed conservation easement program is a positive effort towards perpetual support of wildlife values. The program would protect large tracts of private lands from residential and commercial development that would undermine wildlife values and fragment habitats.

The Service, as well as conservation groups and people in the region, have voiced concern with the fragmentation of habitats in other areas of Montana. This habitat loss is due primarily to the conversion of lands, once significant to wildlife, to summer homes and associated human-use pressures. In a landscape largely intact, habitat fragmentation poses a substantial threat to the continued viability of wildlife populations within the front including grizzly bear recovery efforts.

Given the current strong market for scenic western properties, especially when cattle prices are low, ranches along the front will be vulnerable to sale and subdivision for residential and commercial development. The subdivision process is not difficult. Under Montana law, land may be split into lots of 160 acres or greater without local review or approval. Moreover, with no county zoning in place, small-lot subdivisions are possible.

In addition to fragmentation, residential and commercial development can present a substantial threat to aquatic ecosystems. Housing developments can bring sewage-derived nutrient additions to streams and lakes. Development can result in wetland drainage, water diversion, invasive plant infestations, and introduction of nonnative fishes into aquatic ecosystems.

Proposed Action

The Service intends to purchase or receive donated conservation easements on approximately 170,000 acres from willing landowners within the approved conservation area boundary. The only method of protection that would be used within the project boundary is a conservation easement. *No fee-title acquisition would be considered as part of this project.*

The Service has standard conservation easement agreements that have been used successfully in other areas of Montana. The Service would use the same language and terms for the conservation easements along the front to minimize confusion, for ease of enforcement, and to provide the necessary level of protection for the resources.

The easement program would rely on voluntary participation from landowners. Grazing would not be restricted on the land included in an easement contract. Grazing is compatible with the purpose of easement program and is an important part of the rich ranching heritage of the region.

Subdivision and development for residential, commercial, or industrial purposes would not be permitted. Alteration of the natural topography, conversion of native grassland to cropland, drainage of wetland, and establishment of game farms would be prohibited.

All land would remain in private ownership; property tax and invasive plant control would remain the responsibility of the landowner. Control of public access to the land would remain under the control of the landowner.

The easement program would be managed as part of the 10-county wetland management district (WMD), which is administered by the Benton Lake National Wildlife Refuge near Great Falls, Montana.

WMD staff, to ensure landowner compliance with the easement terms, would check easements annually. This monitoring is important to ensure that easement properties do not undergo subdivision, development for home sites, or conversion of native rangeland to cropland.

Protection Alternatives

Outside of Alaska, the Rocky Mountain Front is one of the last truly wild places in North America. The wildlife resources within the project area are tremendous and include almost all of the species present 200 years ago.

The current agricultural and ranching practices along the front, together with existing protected lands, have been critical in maintaining the biological integrity of the area. However, new threats from subdivision and development make the future uncertain.

For this project area of more than 918,000 acres, successful protection of the wildlife habitat and natural resources requires the cooperation and efforts of many partners. Alternatives for protection include no action, acquisition or management by others, and conservation easement acquisition by the Service.

No Action

The EA explored the consequences of no further action by the Service. These consequences were considered unacceptable, leading to the selection of the preferred alternative to establish a conservation area along the front (alternative B of the EA).

Acquisition or Management by Others

There are already more than 258,000 acres of habitat along the front with some level of protection. Most of this land has been acquired and is managed by other federal agencies or non-governmental conservation groups.

The Service's 170,000 acres of easements would be an important addition to these conservation efforts and key to maintaining the overall biological integrity of the project area. It is unlikely that other agencies or groups would protect the 170,000 acres if the Service does not create the Rocky Mountain Front Conservation Area.

Conservation Easements

The easement program would be a tool to conserve up to 170,000 acres, complementing other efforts on the front. 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 along the front to achieve habitat protection. Fee-title acquisition would triple or quadruple the cost of land acquisition in addition to significant increases in management costs.

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 the only viable means to protect wildlife values on a landscape scale.

Priority Zones

There are more than 650,800 acres of unencumbered private land within the project area that may be eligible for the Service's conservation easement program. The Service's 170,000-acre target is less than 30 percent of the available private land within the project area.

The Service has created three priority zones to focus the acquisition of easements on private lands that would provide the greatest benefit to wildlife.

Providing connectivity through wildlife habitat linkages to existing protected lands is a key element used to delineate priority areas within the Rocky Mountain Front Conservation Area.

Connectivity of habitats would help ensure that wide-ranging species such as grizzly bears have sufficient habitat to meet their life cycle requirements. The grizzly bear is a good "umbrella species" for other species within the project area. This means that, if grizzly bears have adequate habitat protection, the needs of a larger, more diverse suite of species would also be met.

The Service and its partners recognize that there is tremendous opportunity to expand existing blocks of conservation lands within the project area. This includes state or federal fee-title ownership and private lands already under conservation easement. This also includes conservation-oriented, non-governmental organization ownership (e.g., The Nature Conservancy and Boone and Crockett Club).

More than 258,000 acres of public and private lands in the project area currently have some form of conservation protection in place. This represents approximately 28 percent of the area.

Within these protected lands, the Service has identified "core" lands that provide a high level of existing protection for wildlife and natural resources. These areas provide good anchors from which to build the easement program and increase connectivity.

Core areas include:

- The Nature Conservancy's (TNC) Pine Bluff Swamp
- the Boone and Crockett Club's Theodore Roosevelt Memorial Ranch
- several large state wildlife management areas

- Bureau of Land Management lands
- Bureau of Reclamation lands
- U.S. Fish and Wildlife Service lands
- private lands already under conservation easement

The project area has been split into three priority zones (figure 2) for acquiring conservation easements using the following criteria:

- connectivity to other protected lands
- biological significance to grizzly bears (as umbrella species for other species)

Priority 1—This includes the area north of Willow Creek to the North Fork Birch Creek drainage, and to the east. The eastern boundary was based on the best available information about the biological needs of grizzly bears, drawing on expert opinion. Within the priority 1 zone, approximately 179,000 acres of public and private land currently have some level of protection. Key anchors, which can be expanded on to increase connectivity, are the state wildlife management areas, TNC lands, Lewis and Clark National Forest, Boone and Crockett lands, and private lands with existing conservation easements.

Priority 2—Priority zone 2 extends from Willow Creek to the south, to just south of the South Fork of Dearborn River. Within this zone, there are approximately 33,000 acres of public and private lands with some level of protection. The key anchor is the Lewis and Clark National Forest. Service easements can provide a key linkage to the front for wildlife using the national forest.

Priority 3—This includes the remaining areas within the project area. This zone is part of the front eco-region, and contains large continuous blocks of native prairie.

Table 1 depicts the acreages within the priority zones, including those identified as potential for inclusion in the easement program.

Table 1. Habitat protection priority zones for the Rocky Mountain Front Conservation Area, Montana

Zone	*Total Area (acres)*	*Protected Core Lands[1] (acres)*	*Other Protected Lands[2] (acres)*	*Private Lands Potentially Eligible for Easements (acres)*
Priority 1	415,900	115,026	63,661	234,874
Priority 2	181,438	7,711	25,157	147,649
Priority 3	321,038	13,110	33,948	268,286
Total acreage	918,378	135,847	122,766	650,809

[1]*Includes all federal fee-ownership, state wildlife management areas, TNC and Boone and Crockett Club lands, and all lands with conservation easements.*
[2]*Includes Montana state trust lands.*

Acquisition Alternatives

The Service proposes to acquire conservation easements, principally by using funds appropriated under the Land and Water Conservation Act (LWCF). LWCF funds apply more widely than other sources for protection of uplands and grasslands.

The federal monies used to acquire conservation easements from the LWCF are derived primarily from oil and gas leases on the outer continental shelf, motorboat fuel tax revenues, and sale of surplus federal property. General taxes do not generate LWCF funds.

Migratory Bird Conservation Fund (MBCF) monies may also be used within the project area. Since the early 1970s, the Service has worked to protect waterfowl and other wildlife habitat on private land along the front through the small wetlands acquisition program. Conservation easements along the front protect more than 12,000 acres of wetlands and 9,000 acres of important upland habitat on private land. However, much of the land along the front is not eligible for these funds, which limits the use of this tool within the project area.

Other sources (such as TNC, Ducks Unlimited, North American Wetland Conservation Act grants, Partners for Fish and Wildlife, and other private and public partners) may fund management activities associated with easements.

Coordination

The proposed Rocky Mountain Front Conservation Area has been discussed with landowners, conservation organizations, government officials, and other interested groups and individuals. The proposal and associated EA address the protection of

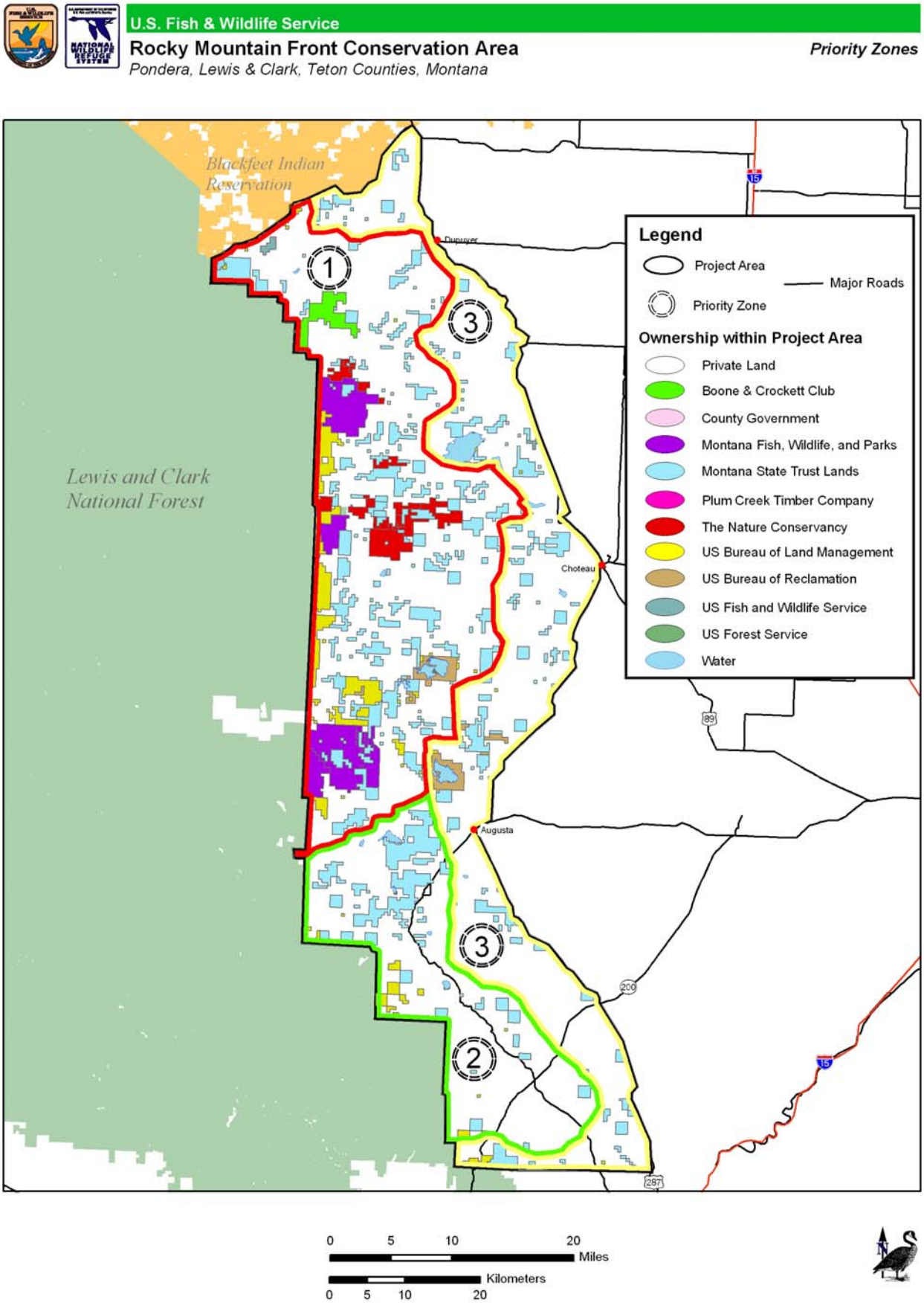

Figure 2. Priority zones for the Rocky Mountain Front Conservation Area

native habitats, primarily through acquisition of conservation easements by the Service under the direction of the National Wildlife Refuge System.

Open houses were held in Augusta, Choteau, and Great Falls, Montana on December 14, 15, and 16, 2004. Public comments were taken to identify issues to be analyzed for the proposed project.

Approximately 100 landowners, citizens, and elected representatives attended and most expressed positive support for the project.

In addition, the Service's field staff has contacted local government officials, other public agencies, sportsman and woman groups, and conservation groups, all of which have expressed an interest in and a desire to protect the front from the pressures brought about by rural subdivisions.

Socio-cultural Considerations

The economy of the front is primarily agrarian and cattle ranches dominate the private lands within the project area. Ownerships are relatively large in size (2,000- to 25,000-acre blocks), which helps maintain this intact landscape.

The human population is sparse and towns are widely scattered. Private lands are used for hunting, with elk-hunting season bringing the most people to the front. A seasonal influx of tourists is attracted to the front for opportunities to bird watch, mountain bike, horseback ride, backpack, camp, canoe, fish, and view archeological and paleontological resources.

Choteau and Augusta are "gateway" communities for recreational activities on the Lewis and Clark National Forest, Bob Marshall and Scapegoat Wildernesses, and Glacier National Park.

Historically, residents and county governments have been concerned about the amount of taxes paid to the counties when land protection programs such as this occur. Because this project is a conservation easement program, the land enrolled does not change hands and taxes paid to the counties by the landowner are not affected.

Over the short-term, money paid by the Service for a conservation easement becomes another source of income for the landowner, with a portion of those dollars likely to be spent locally in the region. In addition, development of rural landscapes often leads to increased demand for services and higher costs to rural counties. These costs likely would not be incurred if the rural landscape were to remain intact.

In addition, the use of conservation easements precludes the necessity for county zoning within the program area. Proximity of protected lands also tends to enhance the property value of adjoining lands.

The ranchers' livelihoods depend on natural resources (grass, water, and open space). The key to protecting the front lies primarily in sustaining the current pattern of ranching and low-density use. The easement program is not expected to cause any significant changes to the socio-cultural climate along the front but, rather, would help sustain the current condition.

Summary of Proposed Action

The rural character of the Rocky Mountain Front is likely to undergo substantial change over the next 10–20 years as pressures from residential and commercial development continue to increase.

The Service and its partners view the front as one of the last great wild places to view undisturbed, native habitat and the plethora of plant and animal species that reside there.

The Service intends to purchase or receive donated conservation easements on approximately 170,000 acres from willing landowners within the approved project boundary. The only method of protection that would be used within the project boundary is a conservation easement. Easements would be acquired principally using funds appropriated under the LWCF.

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