

# 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.

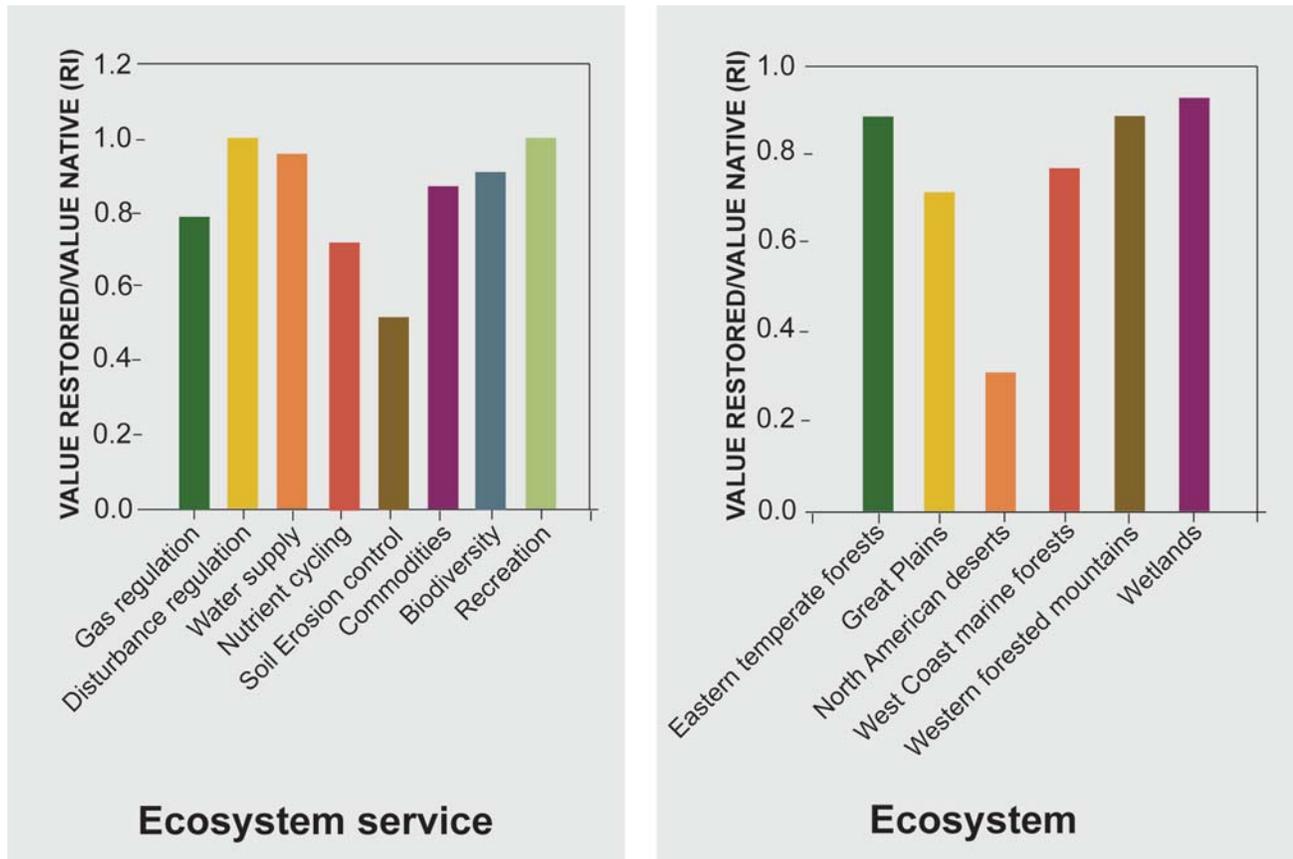
### ***WIND ENERGY DEVELOPMENT***

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).