Land Protection Plan

Swan Valley Conservation Area

Montana

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

- The Swan Valley Conservation Area Land Protection Plan describes the priorities for acquiring 10,000 acres on private lands nestled between the Bob Marshall Wilderness and the Mission Mountain Wilderness. This project also includes the fee-title purchase of up to 1,000 acres immediately adjacent to Swan River National Wildlife Refuge.

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

Contents

Figures

Tables

Abbreviations

BMU	Bear Management Unit
CA	conservation area
CoCE	Crown of the Continent ecosystem
dbh	tree diameter at breast height
DNRC	(Montana) Department of Natural Resources and Conservation
EA	environmental assessment
FONSI	finding of no significant impact
FTE	full-time equivalent
GIS	geographic information system
GNLCC	Great Northern Landscape Conservation Cooperative
GNP	Glacier National Park
LPP	land protection plan
MFWP	Montana Department of Fish, Wildlife and Parks
MBTRT	Montana Bull Trout Restoration Team
MLR	Montana Land Reliance
MNHP	Montana Natural Heritage Program
NCDE	Northern Continental Divide Ecosystem
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NWR	National Wildlife Refuge
PCTC	Plum Creek Timber Company
preserve	Swan River Oxbow Preserve
RU	recovery unit
Service	U.S. Fish and Wildlife Service
SHC	strategic habitat conservation
TNC	The Nature Conservancy
TPL	Trust for Public Lands
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1 Introduction and Project Description

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Swan Valley Conservation Area.

The Swan Valley is part of the Interior Columbia River Basin Area which includes the larger Columbia Basin and the Upper Missouri and Yellowstone Rivers watersheds. Swan River originates at Gray Wolf Lake in the Mission Mountains and flows through Swan Lake at the northern end of the valley, before entering the Flathead Lake watershed, ultimately flowing into the Columbia River System.

Swan Valley lies at the western edge of the Crown of the Continent ecosystem (CoCE) which is the last remaining ecosystem that still supports the full assemblage of large mammalian predators including grizzly bears, gray wolves, wolverine, and Canada lynx (see figure 1). Within the CoCE, an exceptional diversity of wetland types occurs including: major riparian areas, smaller riparian tributaries, glacial prairie potholes, lakes, bogs, fens, swamps, and boreal peatlands. The lowlands support over 170 different species of wetland plants. Along the elevational gradient, large expanses of fescue grasslands phase into alpine meadows or sagebrush steppe, which then transition into montane forests consisting of white pine, Douglas-fir, and ponderosa pine. These transitional zones of valley floors to montane forests are extremely important to fish and wildlife.

The continued presence in the Swan Valley of a large expanse of intact habitat and historical wildlife corridors will benefit federal trust species such as the grizzly bear, gray wolf, wolverine, pine marten, and Canada lynx; migratory birds such as harlequin ducks, common loons, red-necked grebes, black terns, olive-sided flycatchers, peregrine falcons, greater sandhill cranes, and trumpeter swans; and westslope cutthroat trout and bull trout. In addition, water howellia is found in Swan Valley.

PROJECT DESCRIPTION

The Swan Valley Conservation Area (CA) project is a conservation strategy to protect one of the last undeveloped, low-elevation coniferous forest ecosystems in western Montana. Swan Valley is situated between the roadless areas of the Glacier National Park/Bob Marshall Wilderness Complex, the Mission Mountains Wilderness, and the Bitterroot/Selway Wilderness Complex to the southwest. As such, it provides an avenue of connectivity between the Canadian Rockies and the Central Rockies of Idaho and Wyoming.

This project focuses on the strategic purchase of 10,000 acres of conservation easements on private lands nestled between the Bob Marshall Wilderness and the Mission Mountain Wilderness. This project also includes the fee-title purchase of up to 1,000 acres immediately adjacent to Swan River National Wildlife Refuge (NWR) (see figure 2).

Unlike many other rural valleys in Montana, Swan Valley has the potential to maintain its role in connecting the surrounding landscapes. However, a

Figure 1. Crown of the Continent ecosystem.

combination of depressed timber markets and high recreational land values has recently threatened not only the connectivity for wildlife, but is also impacting the traditional rural way of life for residents of Swan Valley. Funding for this project will come primarily from the Land and Water Conservation Fund and potential conservation partners.

The Swan Valley is located on the western edge of the CoCE, approximately 30 miles southeast of Kalispell, Montana. The Bob Marshall Wilderness and Glacier National Park (GNP) mark the eastern boundary, with the Mission Mountains Wilderness and Confederated Salish and Kootenai tribal lands on the western boundary, and the Blackfoot River valley flanking the southern side of the watershed. The project area encompasses an 187,400-acre landscape on the valley floor of the 469,000-acre Swan River watershed. The watershed contains approximately 332,000 acres in protected public ownership.

ISSUES

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

Scoping was conducted during two public open houses on May 18, 2010; 4–6 p.m., and June 2, 2010; 4–6 p.m., at the Swan Valley Community Center in Condon, Montana. The purpose of scoping was to seek input from the public regarding the establishment of the conservation easement project, and to identify the issues that needed to be addressed in the planning process. Thirty-six people attended the open houses. Twenty-three individuals, three agencies, and one organization provided written comments during the scoping period. Many of the comments received addressed the need for a balance between natural and cultural systems. There were two main categories of commonly expressed issues and concerns.

Biological Issues Identified During Scoping

The biological issues mentioned were

- the impacts of habitat fragmentation due to residential development;
- the U.S. Fish and Wildlife Service's (Service) role in management of private land encumbered with a conservation easement;
- concerns about habitat fragmentation involving potential impacts on wildlife habitat and water resources;
- the impact of climate change on the long-term sustainability and resiliency of the Swan Valley;
- the value of intact ecosystems.

Wildlife Habitat

Habitat fragmentation is a concern not only in the Swan Valley, but also in other areas of Montana. Given the current strong market for scenic western properties, there is concern that properties in the Swan Valley will be vulnerable to sale and subdivision for residential and commercial development.

Water Resources

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

Socioeconomic Issues Identified During Scoping

Socioeconomic issues mentioned were

- the need to keep private land in private ownership;
- the impacts of conservation easements on local community centers and their ability to grow;
- concern regarding fee-title purchase of lands around Swan River NWR, and the potential loss of tax revenue to local counties;
- since parcel sizes are typically smaller in the Swan Valley than other areas of Montana, the need to consider easements for smaller parcels

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Swan range.

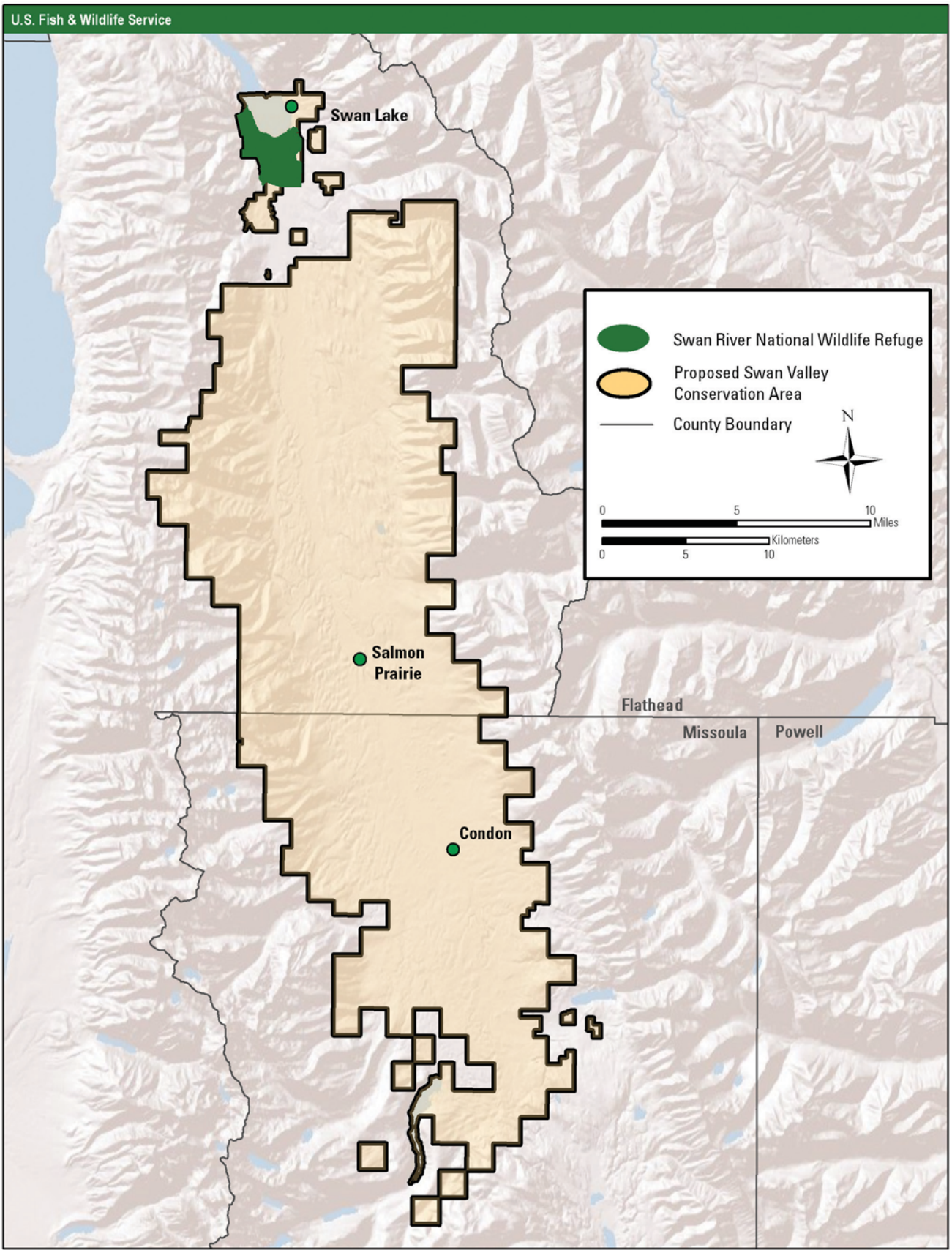

Figure 2. Swan Valley Conservation Area.

(<160 acres) in this region;
- wind energy development.

Landownership and Land Use

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

There were concerns that perpetual easements will lower the resale value of the land.

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

Public Use

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

Issues Not Selected for Detailed Analysis

The issue of property tax was not selected for further analysis. Currently, landowners pay property taxes to the counties on their private lands. The Swan Valley CA is mainly a conservation easement project, the land does not change hands, and therefore the property taxes paid by the landowner to the county are not affected. Minimal changes to the tax base are anticipated. Purchased fee-title lands will be subject to the Revenue Sharing Act (16 USC 715s) which requires revenue sharing payments to counties for purchase of the land. The amount is based on the greatest of (1) ¾ of 1 percent of the market value, (2) 25 percent of the net receipts, or (3) 75 cents per acre.

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 Swan Valley Conservation Area will be administered as part of the Refuge System in accordance with the National Wildlife Refuge System Administration Act of 1966 and other relevant legislation, executive orders, regulations, and policies.

Conservation of additional wildlife habitat in the Swan Valley region will also continue to be consistent with the following policies and management plans:

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

RELATED ACTIONS AND ACTIVITIES

The Service is working with other public and private entities to maintain wildlife habitat within the project area. In 2008, The Nature Conservancy (TNC) and the Trust for Public Lands (TPL) entered into an agreement with Plum Creek Timber Company (PCTC) to purchase, in a three-phase project, a total of 312,500 acres in western Montana known as the Montana Legacy Project. A total of 65,630 acres are located on the valley floor in the Swan Valley. The U.S. Forest Service (USFS) is scheduled to purchase 44,821 acres in 2010 and 20,809 acres will be purchased by the Montana Department of Natural Resources and Conservation (DNRC) in 2011. This transfer of ownership from corporate lands to public lands will have major benefits in reducing the checkerboard pattern of ownership within the valley and in protecting critical fish and wildlife habitat.

At the northern end of the valley where the Swan River flows into Swan Lake, the Service owns the Swan River National Wildlife Refuge. This 1,568-acre refuge, with an additional 210-acre USFS inholding, was purchased for migratory birds under the Migratory Bird Conservation Act, 16 U.S.C. 715-715. Adjacent to the refuge, TNC purchased a 392-acre property called the Swan River Oxbow Preserve (preserve) in 1986. These critically important fee-title lands form a crucial biological anchor in the northern part of the Swan River watershed.

This jointly owned 2,170-acre area is home to a variety of wetland communities, many species of birds, and several rare plants including the threatened water howellia. Historically, portions of this land served as a homestead site and supported such activities as farming, logging, grazing, and even a muskrat farm. The essential element of this landscape is water. Most of the refuge and preserve lies within a delta formed by the Swan River as it flows north to Swan Lake. The water table is high throughout this area due to the flooding of the river, and due to a system of perennial springs and seeps along the eastern border of the preserve. Water moving through the Swan River NWR and the preserve supports an amazing variety of wetland communities. Spruce forest predominates along the

southern boundary. A complex of sedge fen and birch carr communities lies adjacent to the spring system. To the west, cottonwood forest dominates the area.

TNC has identified five rare plant populations and two rare lichens within the variety of wetland communities of the Swan River NWR and the preserve. Round-leafed pondweed grows in the Swan River Oxbow Preserve and in adjacent ponds. Northern bastard toadflax inhabits the wet spruce forest. Buchler fern is found where carr vegetation and spruce forest intermingle. Small yellow lady's slipper grows on the preserve as well.

Protecting habitat for the federally listed water howellia is a high priority of this project. Howellia is thought to be extinct in California and Oregon, and is threatened in Washington, Idaho, and Montana. On the refuge and preserve, water howellia grows in the extensive marshes. Water howellia populations fluctuate with changes in the climate and it is estimated that the Swan River Oxbow Preserve supports approximately 5,000 plants, due in part to the variable drying regimes found across the refuge and preserve. This population, however, is extremely sensitive to climatic change, soil conditions, and disturbance.

The Bob Marshall and Scapegoat wilderness areas to the east perpetually protect over 1.5 million acres, connecting the Rocky Mountain Front and Blackfoot Valley to Swan Valley. To the west lies the 73,877-acre Mission Mountains Wilderness which provides connectivity to the Selway/Bitterroot Wilderness to the southwest, covering an additional 1.3 million acres (see figure 1).

HABITAT PROTECTION AND THE EASEMENT AND FEE-TITLE ACQUISITION PROCESS

Swan Valley Conservation Area includes the communities of Condon, Salmon Prairie, and Swan Lake in Missoula and Lake counties.

The project will protect 10,000 acres through conservation easements and up to 1,000 acres of fee-title acquisition. Fee-title purchase will be limited to lands immediately adjacent to Swan River National Wildlife Refuge. It is the long-established policy of the Service to acquire minimum interest in land from willing sellers to achieve habitat acquisition goals. Some fee-title acquisition will be authorized within the project boundary.

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

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

CONSERVATION EASEMENTS

The easement project will be a conservation tool, complementing other efforts in the area. Conservation easements are the most cost effective and socially acceptable means to ensure protection of important habitats within the project area.

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

FEE-TITLE ACQUISITION

Fee-title acquisition will be limited to the area adjacent to the Swan Valley NWR. Fee-title acquisition will triple or quadruple the cost of land acquisition, and add significant increases in management costs. Less than 1,000 acres is targeted for potential acquisition to minimize these expenditures.

2 Area Description and Resources

USFWS

Swan River in winter.

This chapter describes the biological, cultural, and socioeconomic resources most likely affected by establishing the Swan Valley CA.

BIOLOGICAL ENVIRONMENT

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

CLIMATE

The Upper Swan Valley is at the eastern limit of the Pacific maritime climatic influence, common to northern Idaho and northwestern Montana. The Mission Mountains experience more of the maritime influence than the Swan Range. The climate is generally cool and dry with precipitation increasing from south to north in the valley. Precipitation in the form of snow and rain varies between an average of 30 inches on the valley floor to over 100 inches along the Swan and Mission divides. The highest precipitation usually comes from late October to mid-February and again from mid-May to early July. The highest precipitation intensity occurs when a moist weather front from the Pacific collides with cool continental weather. Swan River receives a yearly average of 28.36 inches of precipitation and 125 inches of snow. Maximum snowfall was 256 inches from the fall of 1996 to the spring of 1997, and the maximum precipitation was 37.73 inches in 1964.

At the lower elevations the average annual temperature approximates 40°F. The average maximum temperature at Swan Lake is 55.3°F with the coldest average minimum temperature of 15.6°F occurring in January and the warmest average high temperature of 81.4°F occurring in July. Occasionally, cold arctic air slips over the Continental Divide from the northeast and down the valley, bringing extreme subzero temperatures from the continental weather system. Summer temperatures average in the 80s at the lower elevations with extreme temperatures of 90°F to 100°F during drought years. The relatively short growing season (2 to 3 months) limits widespread agricultural development. Frosts can occur any month of the year. Therefore, conversion of forest types to cultivated crops has been limited in comparison to other western Montana valleys. The highest temperature recorded was 103°F on August 24, 1969 and the lowest recorded temperature was -40°F on February 29, 1968 (Western Regional Climate Center 2010).

The average maximum temperature in Seeley Lake in the southern part of the valley is also 55.3°F. Annual precipitation in Seeley Lake is 20.9 inches, with average annual snowfall totaling 120 inches. The highest temperature recorded in Seeley Lake was 102°F on July 7, 2007 and the lowest recorded temperature was -53°F on January 7, 1937 (Western Regional Climate Center 2010).

Climate Change

Climate change is the pre-eminent issue for conservation in future decades. Current trends in climate change are expected to affect high mountain ecotypes and lower elevation, snowmelt-dependent watersheds, such as those found in the Swan Valley, more acutely than some other landscape ecotypes. Predictions regarding the specific effects of climate change in the Swan Valley are in the early stages. Empirical data indicates that during the twentieth century, the region has grown warmer, and in some areas drier. Annual average temperature has increased 1–3 degrees over most of the region. This seemingly modest increase masks much larger shifts in minimum winter temperatures (10°F) and shifts in maximum summer temperatures (7°F). In the "2007 Introduction to the Summary for Policy Makers Synthesis Report," the Intergovernmental Panel on Climate Change stated that average air temperatures may rise by up to six degrees by the end of this century, according to regionally downscaled models from the Pacific Northwest (USFWS 2009c).

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

- Less winter snow accumulation;
- Higher winter streamflows;
- Earlier spring snowmelt;
- Earlier peak spring streamflow and lower summer streamflows in rivers that depend on snowmelt (USFWS 2009c).

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

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

According to Service Grizzly Bear Recovery Coordinator, Chris Servheen (University of Montana, Missoula, MT; personal interview, 11 June 2008), it is highly likely that grizzly bear delayed fall den entry dates and earlier spring-emergence dates will begin occurring in the Swan Valley as they have in the Greater Yellowstone area, related to climate change. This will also potentially increase the likelihood of human-caused mortality from increased encounters (Endangered Species Coalition 2009).

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

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

Adaptation, Mitigation, and Engagement

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

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

One of the results of changing climates is the

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

Carbon sequestration forms one of the key elements of mitigation. The Swan Valley CA will protect large forested areas from subdivision. Forests are critically important in the effort to remove carbon dioxide from the atmosphere and mitigate climate change. The carbon dioxide from the atmosphere is absorbed by trees through photosynthesis and stored as carbon in tree trunks, branches, foliage, and roots, with oxygen as a byproduct. The organic matter in forest soils, such as the humus produced by the decomposition of dead plant material, also acts to store carbon.

Engagement involves cooperation, communication, and partnerships to address the conservation challenges presented by climate change (USFWS 2009c). The Swan Valley CA is located in an area that is designated as a high priority for conservation and linkage protection by many of our partners including Montana Fish, Wildlife and Parks (MFWP), The National Fish and Wildlife Foundation, The Nature Conservancy, The Kootenai River Network, The Swan Ecosystem Center, The Northwest Connections, Vital Ground, Trout Unlimited, Trust for Public Lands, and The Yellowstone to Yukon Initiative. Many of these organizations are involved in trans-boundary conservation, protecting and connecting habitat in the United States and Canada. Strong partnerships have already been developed to meet the challenges of climate change and wildlife resources.

Given the level of public and private partnerships focused on land protection within the Swan Valley CA, this landscape is an extremely promising large-scale opportunity in North America to improve species resiliency and adaptation in the face of climate change.

Geological Resources

The Mission Mountains and Swan Range resulted from the uplifting of ancient sea sediments laid down millions of years ago. The first phase pushed and bent these compressed sediments eastward along fault zones. The sediments were then formed into thick beds of compressed limestone, mudstone, and sandstone called the Belt Sedimentary Formation. Other rock deposits were added over millions of years.

Swan Valley was created by block faulting, with a large block of rock being pushed up along the fault lines forming the steep Swan Range on the east side of the valley and the west side of the fault, dipping down, forming the Mission Mountains along the west side. The general direction of the faulting was northwest to southeast, with the mountain ranges tilted in an easterly direction. This faulting history generally left steeper and more rugged mountains in the Swan Range. Both the Mission Mountains and the Swan Range are Precambrian sedimentary formations.

Further alteration of the geological landscape in the Swan Valley resulted from mountain valley or alpine glaciation. During the Bull Lake Ice Age that peaked roughly 100,000 years ago, the northern end of the Mission Mountains split the Rocky Mountain Trench (or Cordilleran) Glacier which flowed south from British Columbia. One lobe of the glacier went through the Swan Valley south to the Blackfoot River forming a continuous sheet over the mountains, especially the northern portion of the Mission Mountains. Only the highest peaks and ridges remained uncovered.

Ice again advanced through the valley to the lower end of Salmon Lake during the Pinedale Ice Age about 15,000 years ago. After this massive ice sheet melted, large glaciers repeatedly moved down the Mission and Swan valleys. Gravel beds of meltwater streams within the receding glaciers remained as long ridges (eskers) of sand and gravel. Additionally, long tongues of ice thrust out of the mountains into the valley, depositing moraines at their edges. The last fingers of ice formed the high ridges or high moraines that now enclose glacial lakes such as Holland and Lindbergh lakes, as well as others at the mouths of canyons in the Mission Mountains and Swan Range. The alpine glaciers may have merged to form a very large ice sheet in the Swan Valley that flowed north to meet the Cordilleran ice sheet near Bigfork. Giant glacial grooves cut in the northern tip and the east flank of the Mission Mountains, and the west flank of the Swan Range may have been made by the south-flowing Cordilleran ice sheet or the north-flowing Swan Valley Glacier. As the valley glacier melted, dirt and debris were left behind. Large piles of these sediments remained as humps on the valley floor, or were pushed into ridges or eskers as the glaciers moved. In other areas, pockets of ice were left behind. When they melted, they left depressions that became lakes, ponds, potholes, or wetlands. This complex of wetlands intermingled with upland terrain is unique. (Swan Ecosystem Center 2004)

The Swan River Basin, tributary to Flathead Lake and Flathead River in the headwaters of the Columbia River, is approximately 1,286 square miles in area. A wide diversity of lakes, riparian areas, rivers, creeks, alpine and subalpine glacial lakes, and springs feed the basin (Frissell et al. 1995). The Swan and Mission mountains (peak elevations reaching over 9,000 feet), have picturesque canyons that were formed by streams cutting through the Precambrian Belt Series metasedimentary rock (Alt and Hyndman 1986). The Swan River forged from flows through the mountains, winds across the morainal foothills

and through the valleys forming braided delta areas. The river travels over a dense forest floor composed of variously graded porous glacial till and alluvium, averaging 6.2 miles wide at an elevation range of 2,500 to 9,000 feet (Frissell et al.1995). Several large lakes (250 to 2,700 acres) occur along the course of the river and its main tributaries. These large lakes within the valley were carved by large alpine glaciers (Alt and Hyndman 1986). Hundreds of kettle lakes, fens, bogs, and other lacustrine and palustrine wetlands, with many perched aquifers not directly connected to surface streams, lie scattered across the glacial and alluvial valley floors and foothills (Frissell et al. 1995). Forested riverine and palustrine wetlands fringe the river channel and dominate its extensive floodplains and relict paleochannels (an ancient inactive stream channel filled by the sediments of younger overlying rock).

Habitat

Swan Valley is a biologically rich coniferous forest ecosystem located between the Bob Marshall Wilderness and the Mission Mountains wilderness complexes, in the heart of the CoCE. The Swan Valley is unique among Montana's spectacular valleys in that it contains over 4,000 glacially derived wetlands. In fact, approximately 16% of the land in the Swan Valley is considered wetland habitat (lakes, rivers, ponds, marshes, wet meadows, peatlands, and riparian areas). By comparison, the remainder of Montana averages 1% wetland habitat. This fact, along with its diverse forest types, makes the Swan Valley ideal habitat for a diverse array of wildlife. Rare carnivores, threatened trout, and a high diversity of songbirds and waterfowl depend upon the Swan Valley's unique habitats.

The Swan Valley contains fourteen ecologically significant wetlands as identified in the Montana Natural Heritage Program's report; "Ecologically Significant Wetlands in the Flathead, Stillwater, and Swan River Valleys" (Greenlee 1999). There is a higher number of wetland-associated rare plant species in the Swan Valley, including federally threatened water howellia. Water howellia is found exclusively in small, shallow depressional wetlands scattered across the valley floor. The Swan Valley is believed to contain the world's greatest density of water howellia.

The Swan Valley also supports a rich diversity of forest types ranging from high elevation whitebark pine communities to dry ponderosa pine communities on the valley floor, to wet cedar/hemlock and Engelmann spruce/subalpine fir communities on the east side of the valley.

Wildlife

The Swan Valley's moist low elevation forest ecosystem supports a rich diversity of fish and wildlife species (see appendix A). The federal trust species that will benefit from habitat protection include listed and candidate species such as grizzly bear, gray wolf, wolverine, pine marten, and Canada lynx; migratory birds such as harlequin duck, common loon, red-necked grebe, black tern, peregrine falcon, and greater sandhill crane; and native salmonoids such as the westslope cutthroat trout and bull trout.

Amphibians and Reptiles

The Montana Natural Heritage Database (MNHP 2010) documents ten species of amphibians and reptiles on record within the Swan Valley (see appendix A). Many of the species documented include S4 Status Species (apparently secure, though it may be quite rare in parts of its range or is suspected to be declining) such as common garter snake, painted turtle, rubber boa, Columbia spotted frog, long-toed salamander, and Rocky Mountain tailed frog. The northern alligator lizard is listed as an S3 Status Species (species potentially at risk because of limited or declining numbers, range, or habitat, even though it may be abundant in some areas of Montana). The western toad is listed as an S2 Status Species (species at risk because of very limited or potentially declining population numbers, range, or habitat, making it vulnerable to global extinction or extirpation in Montana). The northern leopard frog is listed as an S1 Status Species (at high risk because of extremely limited or rapidly declining population numbers, range, or habitat, making it highly vulnerable to global extinction or extirpation in Montana).

Species not listed in the Natural Heritage Database, but known to occur in the valley include: Pacific treefrog, western skink, eastern racer, gopher snake, terrestrial garter snake, and western rattlesnake (Werner et al. 2004). A total of sixteen species of amphibians and reptiles are known to inhabit the diverse habitats within the Swan Valley.

Fish

Common fish species of the Swan Valley include longnose suckers, largescale suckers, and slimy sculpin. In addition, potential species of concern within the project area include the brook stickleback and pygmy whitefish. Westslope cutthroat trout are currently a species of special concern, and utilize the clear, cold lakes and streams found in the project area.

Swan Valley Conservation Area is within the designated recovery area for the federally threatened bull trout. Critical habitat has been designated for bull trout within the project area.

Mammals

The Montana Natural Heritage Database (MNHP 2010) documents forty-two species of mammals on record within the Swan Valley (see appendix A). Many of the species documented include S2 Status Species such as grizzly bear and Townsend's bat. Other species include S3 Status Species such as wolverine, fisher, hoary bat, fringed myotis, hoary marmot, and Canada lynx, a federally threatened species.

Game species not listed in the Natural Heritage Database, but known to occur in the valley include: moose, elk, white-tailed deer, mule deer, bighorn sheep, and mountain goat (Foresman 2001). Other species documented to occur within the valley include: northern pocket gopher, southern red-backed vole, long-tailed vole, montane vole, heather vole, northern grasshopper mouse, house mouse, Norway rat, northern bog lemming, yellow-bellied marmot, northern flying squirrel, coyote, red fox, striped skunk, long-tailed weasel, mink, badger, raccoon, white-tailed jackrabbit, mountain cottontail, and porcupine (Foresman 2001).

A total of sixty-nine species of mammals are known to inhabit the diverse habitats within the Swan Valley. This vast array of species including large charismatic megafauna such as the grizzly bear, black bear, elk, moose, lynx, mountain lion, and gray wolf to more sublime species such as long-tailed voles and yellow-bellied marmots.

Migratory and Other Birds

Over 160 bird species are known to occur in the watershed with 110 breeding bird species documented.

Wetland complexes in the Swan Valley provide important breeding habitat for twenty species of waterfowl including: mallard, lesser scaup, wood duck, redhead, ring-necked duck, canvasback, American wigeon, Canada goose, green-winged teal, blue-winged teal, cinnamon teal, northern shoveler, gadwall, common goldeneye, Barrow's goldeneye, harlequin duck, bufflehead, hooded merganser, common merganser, red-breasted merganser, and ruddy duck.

The Swan Valley is one of the only watersheds in the western continental United States that supports breeding common loons. Currently, there are a total of six breeding pairs in the Swan Valley (Van, Loon, Summit, Lindbergh, Swan, and Holland lakes). Historical records indicate Shey and Peck lakes as being previously occupied by common loons.

Species of Special Concern

Twenty-seven of the 160 known bird species in the project area are Intermountain West Joint Venture conservation priority species. The U.S. Forest Service lists flammulated owl, bald eagle, black-backed woodpecker, common loon, and peregrine falcon as sensitive species occurring in the valley.

The "Partners In-Flight Draft Bird Conservation Plan for Montana" (Rich et al. 2004) identifies thirty-six species designated as conservation priority occurring in the Swan Valley Conservation Area:

- **4 Level 1 Priority Species:** Common loon, black-backed woodpecker, olive-sided flycatcher, and brown creeper.
- **14 Level 2 Priority Species:** Barrow's goldeneye, hooded merganser, bald eagle, northern goshawk, peregrine falcon, Vaux's swift, calliope hummingbird, Lewis' woodpecker, ruffed grouse, three-toed woodpecker, pileated woodpecker, willow flycatcher, Hammond's flycatcher, Cordilleran flycatcher, winter wren, red-naped sapsucker, and red-eyed vireo.
- **28 Level 3 Priority Species:** Northern harrier, sharp-shinned hawk, blue grouse, killdeer, western screech-owl, treat tray owl, rufous hummingbird, downy woodpecker, Clark's nutcracker, chestnut-backed chickadee, American dipper, golden-crowned kinglet, Townsend's solitaire, varied thrush, gray catbird, Cassin's vireo, warbling vireo, Townsend's warbler, American redstart, MacGillivray's warbler, chipping sparrow, song sparrow, red-winged blackbird, yellow-headed blackbird, Brewer's blackbird, Cassin's finch, and red crossbill.

The U.S. Fish and Wildlife Service Division of Migratory Bird Management report "Birds of

Cornell Lab of Ornithology/USFWS

Willow flycatcher.

Conservation Concern 2008" (USFWS 2008a) has identified the following twenty-two species of concern occurring in the Swan Valley Conservation Area:

- **7 Species on Bird Conservation Region 10 (Northern Rockies) List:** Bald eagle, peregrine falcon, calliope hummingbird, Lewis' woodpecker, olive-sided flycatcher, and willow flycatcher.
- **8 Species on USFWS Region 6 (Mountain-Prairie Region) List:** American bittern, bald eagle, golden eagle, peregrine falcon, prairie falcon, Lewis' woodpecker, willow flycatcher, and Cassin's finch.
- **7 Species on National List:** Bald eagle, peregrine falcon, calliope hummingbird, rufous hummingbird, Lewis' woodpecker, olive-sided flycatcher, and willow flycatcher.

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

Bull Trout

For listing purposes, the Service divided the range of bull trout into distinct population segments, and twenty-seven recovery units (RUs). Swan River valley falls within the Clark Fork River RU, and the Upper Clark Fork Recovery Subunit. Within this subunit, the watershed has been identified as a core recovery area (USFWS 2002).

Within the Clark Fork Recovery Area (all of western Montana, except the Kootenai River, plus parts of Idaho), the Swan Lake bull trout population has remained strong. The Swan Lake population is stable because fish can access about 150 miles of high quality tributary spawning habitat. Most bull trout populations are declining, because of habitat degradation, but many of the Swan Valley's tributary streams are in good to excellent condition.

Continuous identifiable female bull trout nesting areas (redd) count history dating to 1982 is available for bull trout for four index streams in the Swan River watershed (MFWP 2009). Bull trout may have reached equilibrium in this system at a population level of about 2,000 adults and the current trend appears stable. The total redd count was 598 in 2008, representing roughly 2,000 adults in the spawning run. Given that some adults do not spawn every year, the total adult population is likely over 2,500 adult bull trout.

Dave Menke/USFWS

Lewis' woodpecker.

Grizzly Bear

Grizzly bears are currently listed as a federally threatened species in the Northern Continental Divide Ecosystem (NCDE) (USFWS 2009b). The NCDE is an area of the northern Rocky Mountains, contained within the CoCE, with large blocks of protected public land containing some of the most pristine and intact environments found in the contiguous United States. The NCDE supports the largest population (765 individuals) of grizzly bears in the lower forty-eight states. Despite dramatic losses of habitat throughout North America, the grizzly has maintained a presence in Montana and bears occur in many portions of the Swan Valley watershed. The watershed is the southern boundary for the NCDE grizzly bear recovery zone. The Grizzly Bear Recovery Plan (USFWS 1993) includes all of Swan River watershed as suitable or occupied habitat.

The U.S. Geological Survey (USGS) Northern Divide Grizzly Bear Project, designed to estimate population size and distribution, confirmed the presence of forty-five grizzly bears in the Swan Valley in 2003 and 2004. The USGS estimates that at least sixty-one bears are present during all or part of the year in the watershed (USGS 2004). This area has been identified as an important habitat link for grizzlies moving between the Glacier National Park/ Bob Marshall Wilderness Complex and the Mission Mountains Wilderness. The Swan Valley is also believed to be the key linkage zone to the large and important Bitterroot/Selway Wilderness Complex to the southwest. As such, it provides an avenue of connectivity between the Canadian Rockies and the Central Rockies of Idaho and Wyoming. Maintaining habitat connectivity is critical to sustaining grizzly bear life histories and maintaining sustainable subpopulations within the southern portion of the NCDE.

Numerous studies by the Service and MFWP have documented significant grizzly bear use on private lands in the Swan Valley. Lakes, ponds, fens, and spring-fed creeks, common in portions of the valley floor, provide excellent bear habitat. Additionally, the vegetation found along certain reaches of the Swan

River and its tributaries provide bears with cover, food, and natural movement corridors.

Northern Rocky Mountain Gray Wolf

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

Canada Lynx

The Canada Lynx Recovery Outline categorized lynx habitat and occurrence within the contiguous United States as (1) core areas, (2) secondary areas, and (3) peripheral areas. Core areas are defined as the areas with the strongest long-term evidence of the persistence of lynx populations. Core areas have both persistent verified records of lynx occurrence over time and recent evidence of reproduction. Six core areas and one "provisional" core area are identified within the contiguous United States (Nordstrom et al. 2005).

The Swan River watershed is located within the Northwestern Montana/Northeastern Idaho Core Area (Ruediger et al. 2000). The watershed is a stronghold for the Canada lynx in the northern Rocky Mountains. Based on ongoing research in the Blackfoot Valley and Swan Valley watersheds, lynx populations appear stable, although low reproductive rates are characteristic of this population. Since 1998, over eighty lynx have been monitored in this area, providing information on habitat use, reproduction, mortality, and movement. This research has shown that the Swan and Blackfoot watershed contains some of the best remaining habitat for lynx in the continental United States. Large, intact spruce/subalpine fir forests above 4,000 feet in this area provide high quality habitat for lynx and for snowshoe hares, the primary lynx food source. Regenerating forest stands are often used as foraging habitat during the snow-free months while older, multi-storied stands serve as denning and year-round habitat (Blackfoot Challenge 2005).

Conservation easements protecting critical forested/wetland habitats including ponderosa pine, cedar/hemlock, and Engelmann spruce/subalpine fir communities on the valley floor, as well as riparian areas, will have long lasting benefits for the species listed above.

See appendix B for a list of federally listed animals present in the project area.

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 will 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

This section discusses landownership, property taxes, and public use and wildlife-dependent recreational activities.

LANDOWNERSHIP

The Swan Valley watershed ownership consists of 286,798 acres of federal (U.S. Forest Service and Service) lands, 45,676 acres of state (Montana Department of Natural Resources and Conservation) land, 66,066 acres owned by The Nature Conservancy, 12,154 acres owned by PCTC, and 51,808 acres of private lands. Most of the middle and high elevation forested lands within the watershed is administered by the U.S. Forest Service. Private lands are concentrated in the low elevation portions of the watershed (see figure 3, map of landownership).

In 2008, The Nature Conservancy and the Trust for Public Lands entered into an agreement with PCTC to purchase, in a three-phase project, a total of 312,500 acres in western Montana known as the Montana Legacy Project. A total of 65,630 acres are located on the valley floor in the Swan Valley. The USFS is scheduled to purchase 44,821 acres in 2010 and 20,809 acres will be purchased by the Montana DNRC in 2011. The Montana Legacy Project is the single largest conservation effort in the country to date. This transfer of ownership from corporate lands to public lands will have major benefits in reducing the checkerboard pattern of ownership within the valley and in protecting critical fish and wildlife habitat.

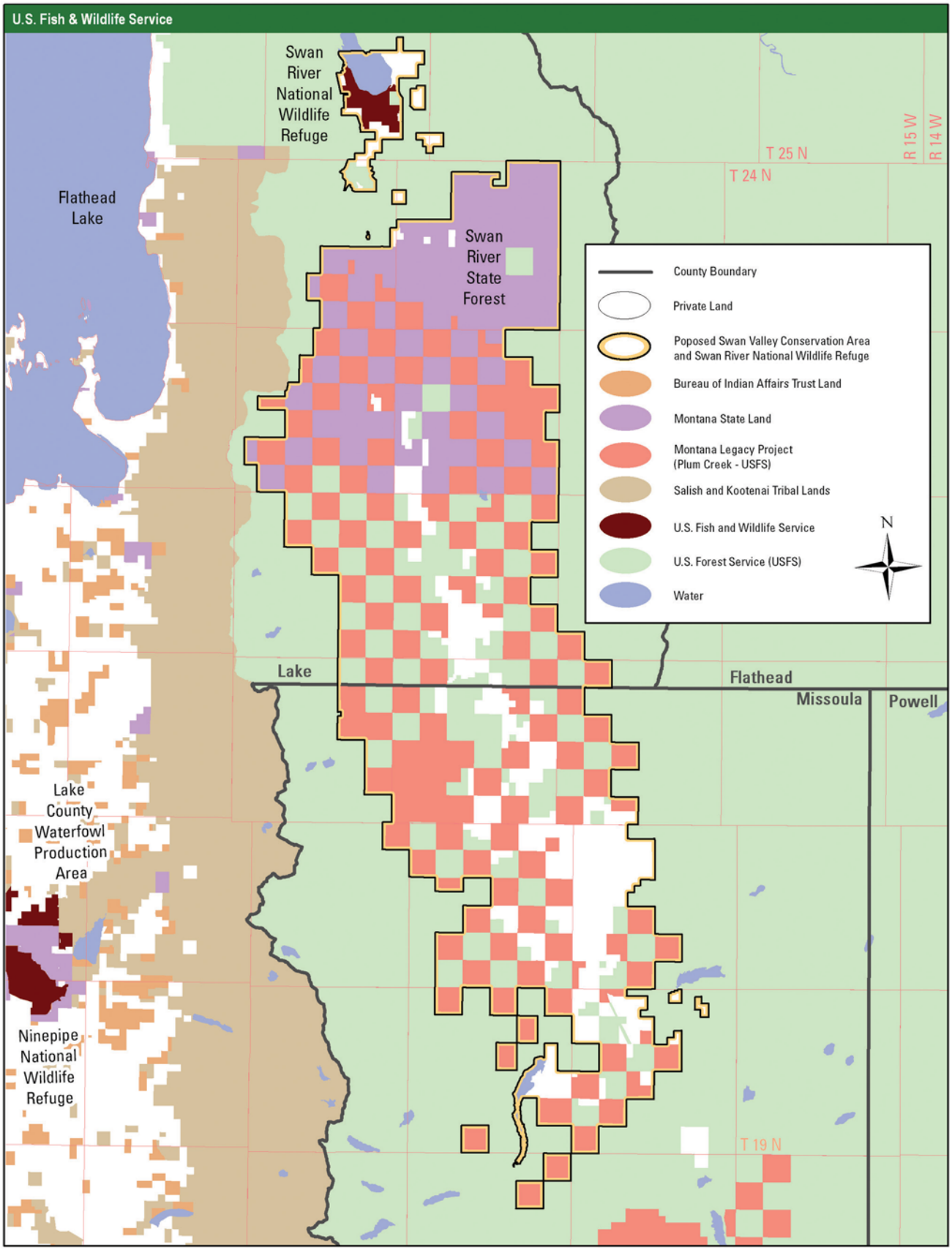

Figure 3. Landownership in the Swan Valley Conservation Area.

Timber Resources

The Swan Valley lies at the border of the maritime and continental climates and thus has a mixture of Pacific Coastal Forest and inter-mountain tree species (see tables 1–3). Western red cedar, grand fir, western hemlock, and western larch grow in the valleys, along with more familiar species such as Douglas-fir, Englemann spruce, ponderosa pine, and lodgepole pine.

Forest types range from wet riparian forest to drier ponderosa pine/snowberry communities. Cottonwood, aspen, and birch commonly surround the wetland and riparian areas or in other wetter upland sites. Cottonwood and spruce also dominate much of the Swan River's floodplain. Most of the lower elevation uplands consist of mixed conifers dominated by Douglas-fir, western larch, ponderosa pine, and lodgepole pine. Other common species include grand fir and subalpine fir. Stand types at most of the low elevation lands range from regenerated seedling and pole stands, to mixed-aged stands of mature timber. For the lower elevations, typical forest rotations for saw timber range from 50–75 years.

Forest types on the higher lands consist primarily of subalpine fir and lodgepole pine, with components of western larch, Douglas-fir, whitebark pine, and other species. Given the higher and colder conditions, typical forest rotations for saw timber range from 60–80 years.

Property Tax

Currently, landowners pay property taxes on their private lands to the counties. The Swan Valley CA is mainly a conservation easement project; the land does not change hands and, therefore, the property taxes paid by the landowner to the county are not affected. Minimal changes to the tax base are anticipated. Fee-title lands purchased will be subject to the Revenue Sharing Act (16 USC 715s) which requires revenue sharing payments to counties for the purchase of the land. The amount is based on the greatest of (1) ¾ of 1 percent of the market value, (2) 25 percent of the net receipts, or (3) 75 cents per acre.

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. Under a conservation easement, control of public access to land will remain under the discretion of the landowner. Any parcels acquired in fee title adjacent to Swan River NWR, will be administered and managed as part of the refuge, where a variety of wildlife-dependent recreational opportunities are available to the public.

Table 1. Historical seral stages within the Swan sub-basin.

	Terrestrial Community Group		
	Subalpine	*Montane*	*Lower Montane*
Seral Stage	*Approx. Historic Range*	*Approx. Historic Range*	*Approx. Historic Range*
Late Seral (dominant trees >15" dbh*)	8-10%	20-22%	2-6%
Mid Seral (dominant trees 5"–15" dbh*)	7-10%	31-37%	2-5%
Early Seral (dominant trees <5" dbh*)	2-3%	7-18%	0-1%

*dbh is tree diameter at breast height.
(Source: Swan Lake Ranger District 1998)

Table 2. 1998 distribution of seral stages for the Swan sub-basin.

	Terrestrial Community Group		
	Subalpine	*Montane*	*Lower Montane*
Seral Stage	*Approx. 1998 Range*	*Approx. 1998 Range*	*Approx. 1998 Range*
Late Seral (dominant trees >15" dbh*)	2%	10%	1%
Mid Seral (dominant trees 5"–15" dbh*)	11%	52%	1%
Early Seral (dominant trees <5" dbh*)	2%	11%	1%

**dbh is tree diameter at breast height.*
(Source: Swan Lake Ranger District 1998)

Table 3. Forest habitat types of the Swan sub-basin, 1998.

Warm Dry	Ponderosa Pine and Douglas-fir/grass types
	Most Douglas-fir and dry grand fir types
	Douglas-fir/twinflower and most grand fir types
Warm Moist	Grand fir/queencup beadlilly types
	Western redcedar and western hemlock/queencup beadlilly and menziesia types
Cool Moist	Subalpine fir/queencup beadlilly and menziesia types
	Subalpine fir/beargrass and dwarf huckleberry types
Riparian	Western redcedar/devil's club types
	Subalpine fir/bluejoint types
Cold	Subalpine fir/grouse whortleberry and woodrush types
	Whitebark pine and alpine larch types

(Source: Swan Lake Ranger District 1998)

3 Threats to and Status of Resources

USFWS

Wetland restoration on private land in the Swan Valley.

This chapter discusses the effects of establishing the Swan Valley Conservation Area.

EFFECTS ON THE BIOLOGICAL ENVIRONMENT

The establishment of the Swan Valley CA has a variety of effects on wildlife habitat and water resources.

Wildlife Habitat

Establishing the Swan Valley CA will provide for the conservation of up to 11,000 acres of important habitat on private land. This project will help maintain the uniqueness of the Swan Valley and complement conservation efforts of the MFWP, TNC, TPL, Montana Land Reliance (MLR), Vital Ground, Swan Valley Ecosystem Center, and other federal and state agencies.

Conservation easements within the Swan Valley 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.

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

Water Resources

Water resources on the 10,000 acres of conservation easements and the additional 1000 acres of fee-title acquisitions 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. This protection will also improve water resources throughout the Swan Valley watershed.

Landowners participating in the conservation easement project will continue to own and control water rights.

EFFECTS ON THE SOCIOECONOMIC ENVIRONMENT

The analysis of the chosen alternative considered landownership and land use, the value of intact ecosystems, wind energy development, and public use effects on the socioeconomic environment.

Landownership and Land Use

The Swan River watershed includes the communities of Condon, Salmon Prairie, Swan Lake, Ferndale, and Bigfork, and spans portions of Lake and Flathead counties. The remaining private land in the Swan Valley is relatively undeveloped except for two small communities totaling less than 400 people.

The Service will purchase up to 1,000 acres of fee-title land, and approximately 10,000 acres of conservation easements. Only willing sellers will be considered and paid appraised market value for these lands. Buffer areas will be maintained around rural communities to provide them with the ability to meet their community development goals and objectives.

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. Native forest habitats will remain intact, continuing to provide ecosystem goods and services to landowners and local communities. Ecosystem services include: soil erosion control, water supply, biodiversity, and carbon sequestration. The project will help protect valuable ecosystem services (see figure 4). The Swan Valley is a relatively intact system. Protecting this system is less expensive than the prohibitively high cost of restoration.

Wind Energy Development

Wind development within the Swan Valley Conservation Area will not occur on conservation easement and fee-title properties due to restrictions on wind development. This reduces fragmentation within the valley from the placement of towers

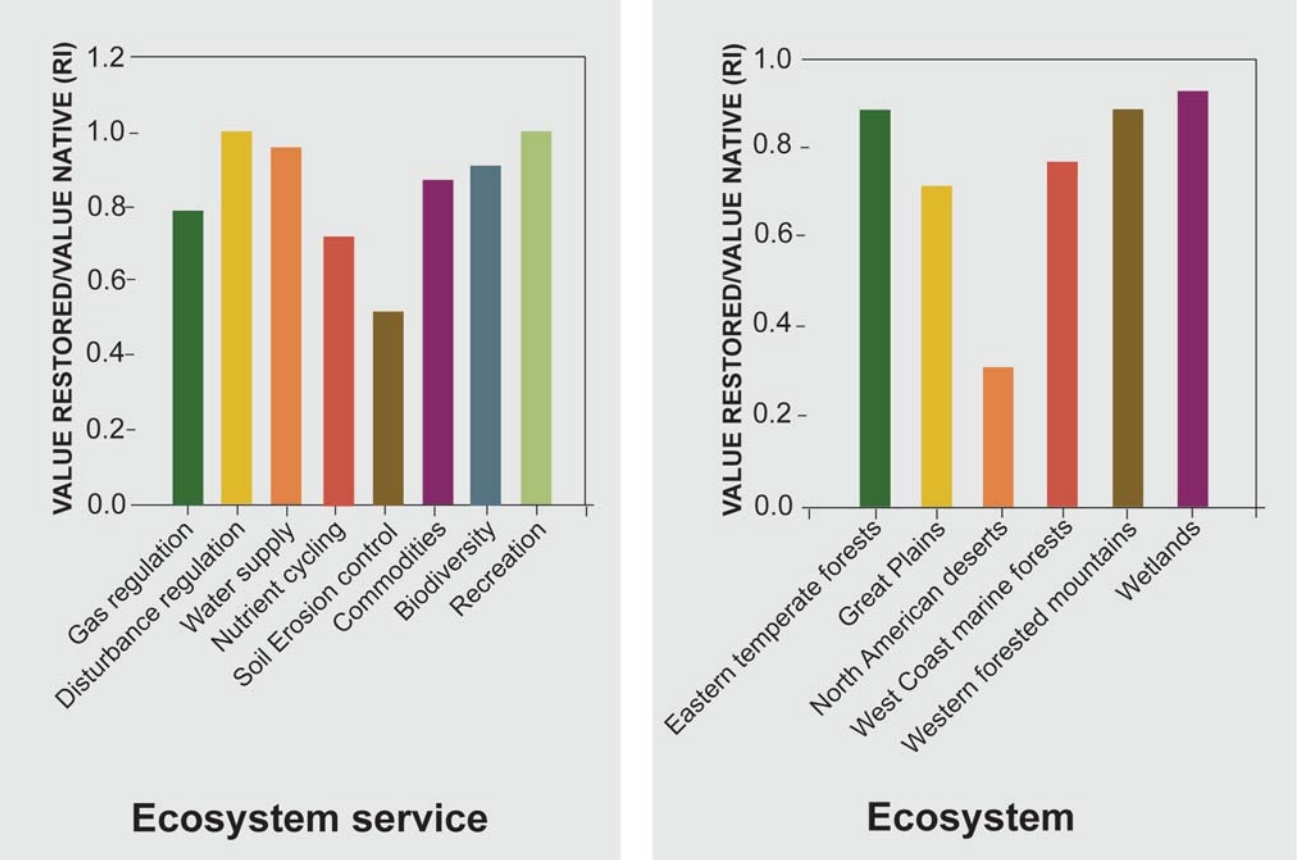

Figure 4. Relative native and restored benefits of ecosystem goods and services.

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)

and associated infrastructure development. This improves the wildlife corridors' integrity throughout the valley and helps reduce human–bear conflicts. 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 easement project, private landowners will retain full control over their property rights, including allowing or restricting hunting and fishing on their lands.

Lands purchased in fee-title will be managed as part of the Swan River NWR, which permits public use. Wildlife-dependent recreation opportunities at the Swan River NWR include hunting, fishing, wildlife observation and photography, interpretation, and environmental education. Fee-title acquisition will provide additional recreational opportunities on the refuge.

Economic Impacts

Increases in employment, annual operating expenditure, and easement purchases will contribute to the economic activity that the Benton Lake National Wildlife Refuge Complex generates in the project area. The socioeconomic impact of visitor expenditure is not included in this analysis as historical public visitor data at conservation areas is not available, and visitor increases due to public awareness of conservation activities is difficult to quantify.

According to Service staff, new employment associated with this project will require 1.67 full-time equivalent (FTE) employees and $91,518 in salaries or an average of $54,801 per new employee. Assuming employees spend 79 percent of their earnings locally, the direct socioeconomic impact of increased employment at Swan Valley CA is $72,299 annually.

Approximately $15,210 in operating expenditures associated with landowner management, employee training, and travel expenses will be added. These funds are spent on local goods and services and therefore directly impact the economy in the study area.

The direct economic impact of easement acquisitions is more difficult to attribute to the study area as it is less obvious where landowners may spend this income. In the Swan Valley CA, easements are worth an estimated $25,000,000. Table 4 presents a summary of annual operating costs and salaries associated with this project.

Table 4. Summary of annual operating costs and salaries associated with the economic impacts of conservation easements in the Swan Valley Conservation Area.

	Current Impacts	*Easement Program Impacts*
Salaries	$ --	$ 72,200
Operations	$ --	$ 15,210
Total Impacts	$ --	$ 87,509
Increase above baseline		$87,509

As shown above, the total direct economic impacts related to the Swan Valley CA are estimated at $87,509.

UNAVOIDABLE ADVERSE IMPACTS

No direct or indirect unavoidable adverse impacts to the environment will result from the establishment of the Swan Valley CA, 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 establishment of the Swan Valley CA. Once easements and fee-title lands are acquired, irreversible and irretrievable commitments of funds to protect these lands (such as expenditure for fuel and staff for monitoring) will exist. Some additional expenditure will occur for management and maintenance for additional fee-title acquisition near the refuge.

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

The Swan Valley CA will maintain the long-term biological productivity of the Swan Valley, increase protection of endangered and threatened species, and protect biological diversity.

The nation will gain the protection of one of the last undeveloped, low-elevation coniferous forest ecosystems, and the associated fish and wildlife species, for future generations of Americans. The public will gain long-term opportunities for wildlife-dependent recreational activities on the fee-title additions.

CUMULATIVE IMPACTS

Cumulative impacts are defined by National Environmental Policy Act (NEPA) 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 on the environment that may result from the combination of reasonably foreseeable actions in the Swan Valley CA, together with other biological and socioeconomic conditions, events, and developments.

Through the easement project and limited fee-title purchase, approximately 11,000 acres of privately owned biologically important habitats will be added to the 332,000 acres within the Swan Valley watershed that already have some level of protection. This 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 Swan River watershed.

Past Actions

There are currently 332,000 acres within the Swan Valley River watershed project area that already has some level of protection.

At the northern end of the valley where the Swan River flows into Swan Lake, the Service owns the Swan River National Wildlife Refuge. This 1,568-acre refuge, with an additional 210-acre USFS inholding, was purchased for migratory birds under the Migratory Bird Conservation Act, 16 U.S.C. 715-715. Adjacent to the refuge, TNC purchased a 392-acre property called the Swan River Oxbow Preserve in 1986. These critically important fee-title lands form a crucial biological anchor in the northern part of the Swan River watershed. This jointly owned 2,170-acre area is home to a variety of wetland communities, many species of birds, and several rare plants including the threatened water howellia. Historically, portions of this land served as a homestead site and supported such activities as farming, logging, grazing, and even a muskrat farm.

Protecting habitat for the federally listed water howellia is a high priority in the Swan Valley CA. Howellia is thought to be extinct in California and Oregon, and is threatened in Washington, Idaho, and Montana. On the preserve and refuge, water howellia grows in the extensive marshes. Water howellia populations fluctuate with changes in the climate and it is estimated that the Swan River Oxbow Preserve supports approximately 5,000 plants, due in part to the variable drying regimes found across the refuge and preserve. This population is extremely sensitive to climatic change, soil conditions, and disturbance. The Bob Marshall and Scapegoat wilderness areas to the east perpetually protect over 1.5 million acres, connecting the Rocky Mountain Front and Blackfoot Valley to Swan Valley. To the west lies the 73,877-acre Mission Mountains Wilderness which provides connectivity to the Selway/Bitterroot Wilderness to the southwest covering an additional 1.3 million acres.

In 2008, The Nature Conservancy and the Trust for Public Lands entered into an agreement with Plum Creek Timber Company to purchase, in a three-phase project, a total of 312,500 acres in western Montana known as the Montana Legacy Project. A total of 65,630 acres are located on the valley floor in Swan Valley. The U.S. Forest Service is scheduled to purchase 44,821 acres in 2010 and 20,809 acres will be purchased by the Montana Department of Natural Resources in 2011. The Montana Legacy Project is the single largest conservation effort in the country to date. This transfer of ownership from corporate lands to public lands will have major benefits in reducing the checkerboard pattern of ownership within the valley, and in protecting critical fish and wildlife habitat.

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 project areas within the CoCE to concentrate strategic acquisition to (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 5 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 twelve-county study region is approximately $250,300 annually.

As described in Table 5, total operational expenditures will increase by $64,423 for all three conservation projects. A total of 5.01 new FTE

Table 5. Summary of U.S. Fish and Wildlife Service projects for the Crown of the Continent ecosystem.

Project Area	Proposed Project Area	Potential New Acreage	Type of Acquisition Tool	Focal Species	Key Partners
Rocky Mountain Front Conservation Area Expansion	Expand existing area from 527,000 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
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
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

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 Swan Valley through the implementation of habitat restoration and management projects on private lands. Strong partnerships have also been 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, 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 Swan Valley provides an opportunity for the Service to collaborate with many public and private partners to conserve endangered species.

The Swan Valley CA will protect and maintain the integrity of the Swan 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 Bob Marshall Wilderness and Mission Mountain Wilderness, Swan River NWR, and TNC Swan River Oxbow Preserve.

The Swan Valley CA will have long term positive impacts on wildlife habitat and will result in the long term conservation of migratory birds, threatened and endangered species, native plants, and the overall biological diversity of the Swan Valley 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 County Open Space Bond

Missoula County within the Crown of the Continent ecosystem has established an open space bond with over $5,000,000 dedicated to protecting private lands, while keeping it 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.

Vital Ground Foundation

The Vital Ground Foundation is a Missoula, Montana-based land trust dedicated to protecting private land and habitat for the endangered grizzly bear and other wildlife. The foundation was established in 1990 and has worked with a variety of individual, corporate, foundation, agency, and community-based partners and supporters. In the past 20 years, the group has helped to protect nearly 600,000 acres of crucial wildlife habitat including portions of the Crown of the Continent ecosystem. Future partnerships to protect critical grizzly bear habitat are expected to occur with the Service (Vital Ground 2010).

Montana Land Reliance

"The mission of the Montana Land Reliance is to provide permanent protection for private lands that are significant for agricultural production, fish and wildlife habitat, and open space. The immediate accomplishments of MLR's conservation work are measured in miles of streambanks and acres of land and habitat that are protected. The lasting benefits of MLR's work are the perpetuation of a lifestyle and an economy that rely on responsibly managed private land and increasingly valuable Montana open spaces that will continue to nourish the spirit of future generations." The MLR has been active in the Swan Valley for over 10 years. Future partnerships with the Service are expected to conserve fish and wildlife resources in the future (Montana Land Reliance 2010).

4 Project Implementation

John and Karen Hollingsworth/USFWS

Moose.

The land protection plan (LPP) provides a general description of the operations and management of the Swan Valley Conservation Area. The Service developed this LPP during the planning process to provide local landowners, governmental agencies, and the interested public with a general understanding of the anticipated management approaches for the easement project. The purpose of the LPP is to present a broad overview of the Service's management approach to wildlife and associated habitats, public uses, interagency coordination, public outreach, and other operational needs.

LAND PROTECTION OPTIONS

Two alternatives were considered for the environmental assessment (EA), no action and the chosen alternative, acquiring conservation easements and limited fee-title lands in the Swan Valley.

ACTION AND OBJECTIVES

The analysis and documentation was prepared by a combination of field and regional Service staff, along with partners and private consultants (see appendix C, "List of Preparers and Reviewers"). Appendix D contains a completed and signed finding of no significant impact, appendix E contains the environmental action statement, appendix F contains the environmental compliance certificate, appendix G contains the section 7 biological evaluation, and Director's approval memorandums are appendix H. The Swan Valley Conservation Area is a conservation strategy to protect one of the last undeveloped, low elevation coniferous forest ecosystems in western Montana. The Swan Valley is situated between the roadless areas of the Glacier National Park/Bob Marshall Wilderness Complex, the Mission Mountains Wilderness, and the equally large Bitterroot/Selway Wilderness Complex to the southwest. As such, it provides an avenue of connectivity between the Canadian Rockies and the Central Rockies of Idaho and Wyoming.

The Swan River Valley is part of the Interior Columbia River Basin Area. The Swan River originates at Gray Wolf Lake in the Mission Mountains and flows through Swan Lake at the northern end of the valley, before entering the Flathead Lake watershed, ultimately flowing into the Columbia River System. The Swan Valley lies at the western edge of the Crown of the Continent ecosystem that is the last remaining ecosystem that still supports a full assemblage of large mammalian predators including grizzly bears, gray wolves, wolverine, and Canada lynx.

The project area encompasses an 187,400-acre landscape on the valley floor of the 469,000-acre Swan River watershed. The Swan Valley is located on the western edge of the CoCE, approximately 30 miles southeast of Kalispell, Montana. The Bob Marshall Wilderness and Glacier National Park mark

the eastern boundary, with the Mission Mountains Wilderness and Confederated Salish and Kootenai tribal lands on the western boundary, and the Blackfoot River valley flanking the southern side of the watershed.

ACQUISITION ALTERNATIVES

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

Funding from other sources may also be used within the project area. Management activities associated with easements may be funded through other sources, such as TNC, Partners for Fish and Wildlife, and other private and public partners. The Service will also consider accepting voluntary donations for easements.

STRATEGIC HABITAT CONSERVATION

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

In 2004, the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife program led a statewide, strategic habitat conservation planning effort for focusing work in Montana. The state was divided into three broad geographic regions based on similar habitat types. Within each region, priority federal trust species and "guilds" were identified. The Montana Habitat and Population Evaluation Team office then assisted with gathering and creating spatially-explicit models and data sets for priority trust resources. In addition, the scientific-based planning efforts of partner agencies and conservation organizations were incorporated. These include the "Strategic Habitat Conservation Report" prepared by the National Ecological Assessment Team, the "Upper Missouri/Yellowstone/Upper Columbia River Ecosystem Team Focus Area Plan," the "Montana Partners Program 1999 Focus Area Plan," "Montana's Comprehensive Fish and Wildlife Conservation Strategy Plan," and The Nature Conservancy of Montana's "Statewide Conservation Plan." Seven stakeholder meetings were held to gather input from other partners to identify focus areas, and to develop an appropriate conservation strategy. The "2007 Montana Step-down Strategic Plan" identified geographic focus areas, habitat accomplishment targets, and benefit to federal trust species. The comprehensive process ultimately produced ten conservation focus areas for Montana. The Swan Valley CA is within the identified focus areas.

The preparation of this project area LPP addresses the four key elements of SHC: planning, design, delivery, and monitoring and research (see figure 5).

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

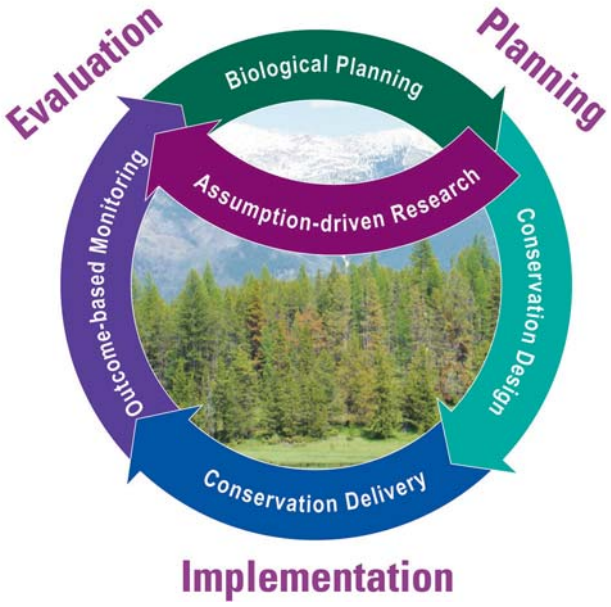

Figure 5. The basic strategic habitat conservation cycle.

BIOLOGICAL PLANNING

The Swan Valley is unique among Montana's spectacular valleys in that it contains over 1,000 glacially derived wetlands. In fact, approximately 16% of the land in the Swan Valley is considered wetland habitat (lakes, rivers, ponds, marshes, wet meadows, peatlands, and riparian areas). By comparison, the remainder of Montana averages 1% wetland habitat. There is a higher number of wetland-associated rare plant species in the Swan Valley, including federally threatened water howellia. Water howellia is found exclusively in small, swallow depressional wetlands scattered across the valley floor. The Swan Valley is believed to contain the world's greatest density of water howellia.

This fact, along with its diverse forest types, makes the Swan Valley an ideal habitat for a diverse array of wildlife. The federal trust species that will benefit from habitat protection include listed and candidate species such as grizzly bear, wolf, wolverine, pine

marten, and Canada lynx; migratory birds such as harlequin duck, common loon, red-necked grebe, black tern, peregrine falcon, and greater sandhill crane; and native salmonoids such as the westslope cutthroat trout and bull trout.

Focal Species

In order to strategically conserve habitat within the Swan Valley, the Service chose to focus on the grizzly bear and native salmonids, including the threatened bull trout. These species were chosen because they are federal trust resources, they represent the variety of key habitats and capture the needs of several other species in the Swan Valley, and there is sufficient information about them to develop a land protection plan. Water howellia was not chosen as a focal species because a significant number of known populations occur on land that is already protected. However, water howellia depend on dynamic, healthy, and functional wetlands and in Swan Valley the wetlands, streams, and rivers are connected through complex hydro-geomorphic processes (Frissell et al. 1995). Focusing on healthy rivers, streams, and associated wetland complexes for bull trout may capture some of the needs for water howellia on private lands.

Population Objectives

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

Bull Trout

The Swan Valley core area lies within the Clark Fork RU. For the Swan Lake core area, the total adult bull trout abundance, distributed among local populations, must exceed 1,000 fish, and adult bull trout abundance must exceed 2,500 in Swan Lake (USFWS 2002) (see figure 6, map of critical habitat for bull trout).

Grizzly Bear

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

Limiting Factors

Increasing urbanization which causes increased fragmentation of habitat from housing developments and associated road development is a major threat to the Swan Valley and the entire CoCE. Most current published statistics (2000–2009) by the U.S. Census Bureau reported Missoula and Lake counties are experiencing a 13.4% increase in population from 2000 (US Census Bureau 2010). Communities within the Swan Valley experienced a similar growth rate increase of 25%. Montana as a whole experienced a 10.5% increase within that same period (U.S. Census Bureau 2010).

For wide-ranging species, such as grizzly bears, unplanned development leads to loss of habitat connectivity within the project area and, on a larger scale, between the CoCE and other historical or potential ranges. Riparian zones, for example, provide excellent habitat and cover for bears moving throughout the watersheds, but they are also among the most desired locations for building (USFS 2003). An increase in development also leads to more frequent conflicts between bears and people, due in large part to the increased presence of bear attractants. Human garbage, dog food, and bird seed can condition and habituate bears, leading to more interactions and conflicts with people. These factors can lead to human-caused grizzly bear mortality, which in turn results in a decrease in grizzly bear

USFWS

Collared grizzly bear movement data is used to assess populations.

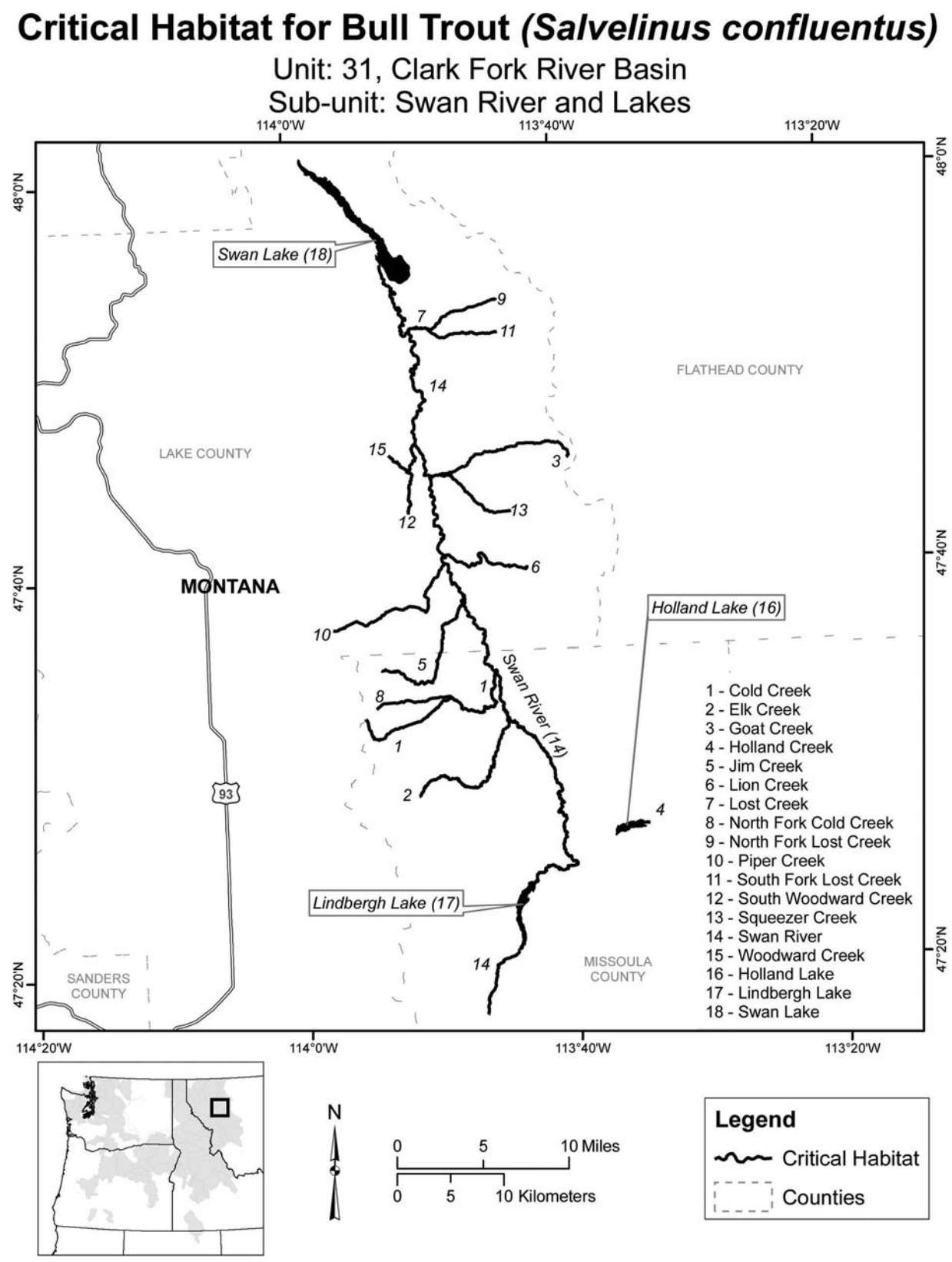

Figure 6. Critical habitat for bull trout.

reproduction, and the loss of population and genetic viability. More than 17% of the NCDE is private land, and an estimated 71% of bear-human conflicts and bear deaths occur on these private lands (Dr. Christopher Servheen, Grizzly Bear Recovery Coordinator, University of Montana, Missoula, MT; personal interview, 11 June 2008). Minimizing attractants on private lands and limiting subdivision are keys to reducing this threat to grizzly bears.

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

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

Key Habitats for Protection

For grizzly bears, the Service used a computer-based geographic information system (GIS) to map the Swan Valley and identify the areas of highest human influence. Less developed areas, called "linkage zones," where human activity is still fairly light and appropriate cover (for example, in riparian areas) exists were identified (Pelletier 1995, Servheen et al. 2001). If protected, linkage zones can serve to connect the Mission Mountains to the west and the Swan Range and Bob Marshall Wilderness to the east, thus preserving feeding, breeding, and travel opportunities for the bears. Models such as these simplify reality in order to make complex interactions manageable for conservation planning. While this analysis cannot capture all of the fine-scale aspects of how grizzlies move across the landscape, it represents the best available scientific information on how human activity influences grizzly bears. In general, as interactions with humans are lowered, bear mortality will also be lowered (Servheen et al. 2001).

For the bull trout, critical habitat has been designated and explicitly mapped in each RU. Critical habitats are those stream reaches and lakes deemed essential to the conservation of the species (USFWS 2009a). To identify those habitats within each RU essential to the conservation of bull

© MFWP

Bull trout.

trout, the Service used the four biological indicators derived from the 2002 bull trout draft recovery plan and seven newly developed "guiding principles" (USFWS 2002).

The four biological indicators are distribution, abundance, trend, and connectivity. The seven guiding principles are to (1) conserve opportunity for diverse life-history expression, (2) conserve opportunity for genetic diversity, (3) ensure bull trout are distributed across representative habitats, (4) ensure sufficient connectivity among populations, (5) ensure sufficient habitat to support population viability (for example, abundance and trend indices), (6) consider threats (for example., climate change), and (7) ensure sufficient redundancy in conserving population units. In addition to critical habitat, the Service also considered spatially explicit analysis of river linkages and hydro-geomorphic connectivity of bull trout habitat to key wetland complexes (Frissell et al. 1995).

Conservation Design

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

Current State of the System

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

the grizzly bear population. Although overall genetic variation indicates a healthy population, it is only one piece of the puzzle that managers need for the recovery of grizzlies in the NCDE to be successful (Kendall et al. 2009).

Within the Clark Fork Recovery Area, the Swan Lake bull trout population has remained strong. The Swan Lake population is stable because fish can access about 150 miles of high quality tributary spawning habitat. Most bull trout populations are declining because of habitat degradation, but many of Swan Valley's tributary streams are in good to excellent condition. The core area populations (Swan, Holland, and Lindbergh lakes) represent working models for creating and sustaining bull trout recovery opportunities in heavily managed timber-producing watersheds (USFWS 2002).

Continuous identifiable female bull trout nesting areas (redd) count history dating to 1982 is available for bull trout for four index streams in the Swan River watershed (MFWP 2009). Bull trout may have reached equilibrium in this system at a population level of about 2,000 adults, and the current trend appears stable.

The total redd count was 598 in 2008, representing roughly 2,000 adults in the spawning run. Given that some adults do not spawn every year, the total adult population is likely over 2,500 adult bull trout.

Formulate Habitat Objectives

There are currently approximately 36,000 acres of private land in the Swan Valley CA. A total of 117 miles of bull trout critical habitat and 10,000 acres of grizzly linkage zones occur on private lands. With the current levels of development and fragmentation within the Swan Valley, bull trout populations appear stable; however, the pressure of human-cause mortality on grizzly bears is higher than acceptable for recovery. How much more fragmentation or development could occur, yet still keep bull trout populations stable, and not significantly add to grizzly mortality, is unknown. Given that conserving all remaining private land with easements to prevent additional development is not a reasonable or desired goal, especially around the existing population centers of Condon and Salmon Prairie, a goal to protect 11,000 acres of existing private lands has been set. Long-term monitoring of grizzly bears and bull trout will be conducted and the goal of 11,000 acres will be periodically re-evaluated.

Priority Areas

The Service is proposing to establish the Swan Valley Conservation Area to purchase approximately 10,000 acres of conservation easements and up to 1,000 acres of fee-title land in order to reduce future impacts of development and habitat fragmentation. Typically, the Service will purchase an easement for the entire ownership of a landowner; therefore the priorities for the Swan Valley LPP are based on the best available data on existing private ownerships. The Service generally focus on parcels greater than 160 acres, however, parcels less than 160 acres may be considered if unique biological values exist. Also, buffer areas will be maintained around communities to provide rural communities with the ability to meet their community development goals and objectives.

Given the models and habitat objectives, the Service developed the priority areas shown in figure 7. Areas where both grizzly bears and bull trout could benefit through conservation easements have been designated as Priority 1. Priority 1 also includes areas where it appears feasible to link easements to create corridors across the valley. Areas where only one of the species may benefit significantly, or where connectivity is more difficult due to small ownerships (<80 acres) or other barriers were designated priority 2. And the remaining areas are Priority 3. These priority areas will be regularly reevaluated and may be adjusted as additional quantifiable data on the habitat needs and limiting factors for focal species in the Swan Valley become available. The "Monitoring and Research" section provides further details on this feedback loop.

Conservation Delivery

Habitat protection will occur through the purchase of conservation easements and less than 1,000 acres of limited fee-title acquisition. It is the long-established policy of the Service to acquire minimum interest in land from willing sellers to achieve habitat acquisition goals. Fee-title acquisition will be authorized within the project boundary immediately adjacent to Swan River NWR.

The acquisition authority for the project is the Fish and Wildlife Act of 1956 (16 U.S.C. 742 a-742j). The federal funding 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 the 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, North American Waterfowl Conservation Act funds, and donations from nonprofit organizations.

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

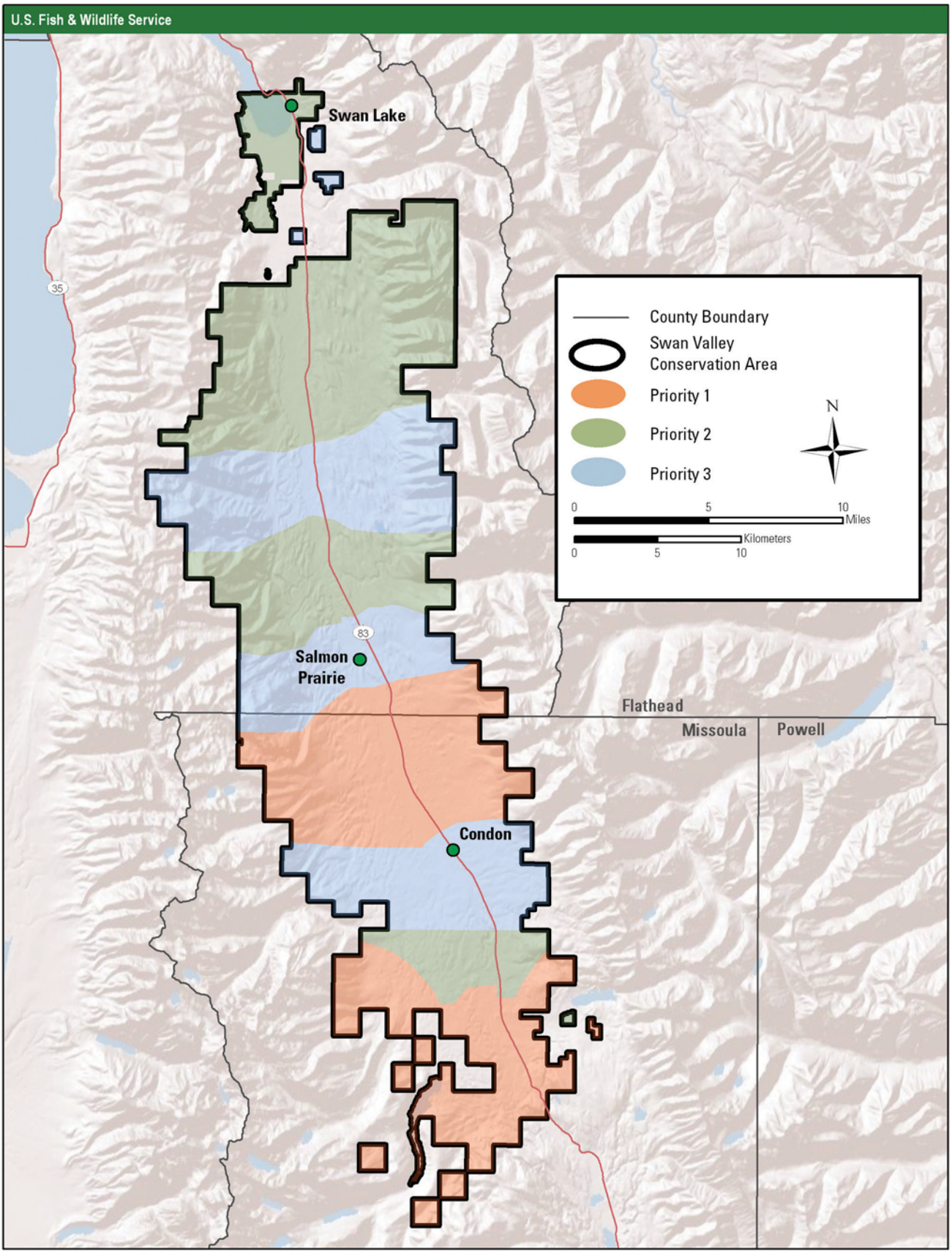

Figure 7. Swan Valley Conservation Area priorities.

Monitoring and Research

As the Swan Valley Conservation Area project develops and conservation easements are purchased, grizzly bears and bull trout will continue to be monitored. The Service, MFWP, and USGS have active grizzly bear monitoring and research projects. MFWP, in particular, is focused on developing a science-based population monitoring program that provides the information necessary to successfully manage bears in western Montana (Dood et al. 2006). Specifically, MFWP will monitor a representative sample of twenty-five or more adult females in the NCDE to establish population trends, and will use verified sightings to document changes in bear distribution and linkage areas used, especially by female bears. MFWP will monitor mortality, including timing and causes, and gather survivorship data in cooperation with other agencies. In addition, results from the 2004 USGS NCDE Grizzly Bear DNA project (USGS 2004) will assist MFWP with bear population size estimation, distribution, and population trends which will provide additional information for focusing acquisition efforts.

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

Grizzly bears and bull trout have been identified as a focal species for the Great Northern Landscape Conservation Cooperative (GNLCC) (see figure 8). The GNLCC was established, in part, to foster cooperation between agencies and to support monitoring and research where there are common interests. Continual evaluation of grizzly bear population trends and habitat use will be used to evaluate and refine conservation efforts on the ground within the GNLCC.

LANDSCAPE CONSERVATION COOPERATIVES

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

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

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

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

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

COORDINATION

Public involvement was initiated for the proposed establishment of a conservation easement project in the Swan Valley in May 2010. A media contact list was compiled and news releases and factsheets were developed and distributed to media outlets, local organizations, elected officials, and interested parties. The news releases and factsheets described the proposed establishment of the Swan Valley CA, and announced two open houses to gather input from the public. Personal outreach efforts were made with county commissioners in each of the two counties included in the project area, and with other persons of interest.

At the federal level, the Service staff has briefed Senators Baucus and Tester as well as the Congressional delegation, and coordinated with representatives from other federal agencies such as the U.S. Forest Service. At the state level, Governor Schweitzer's staff, along with MFWP, was briefed on the project. In addition, the Service provided information to the Confederated Salish and Kooteni Tribes on this project.

Nongovernmental conservation groups are vital to the success of the proposed project. Service staff has coordinated with partner organizations such as TNC, MLR, and the Swan Valley Ecosystem Center.

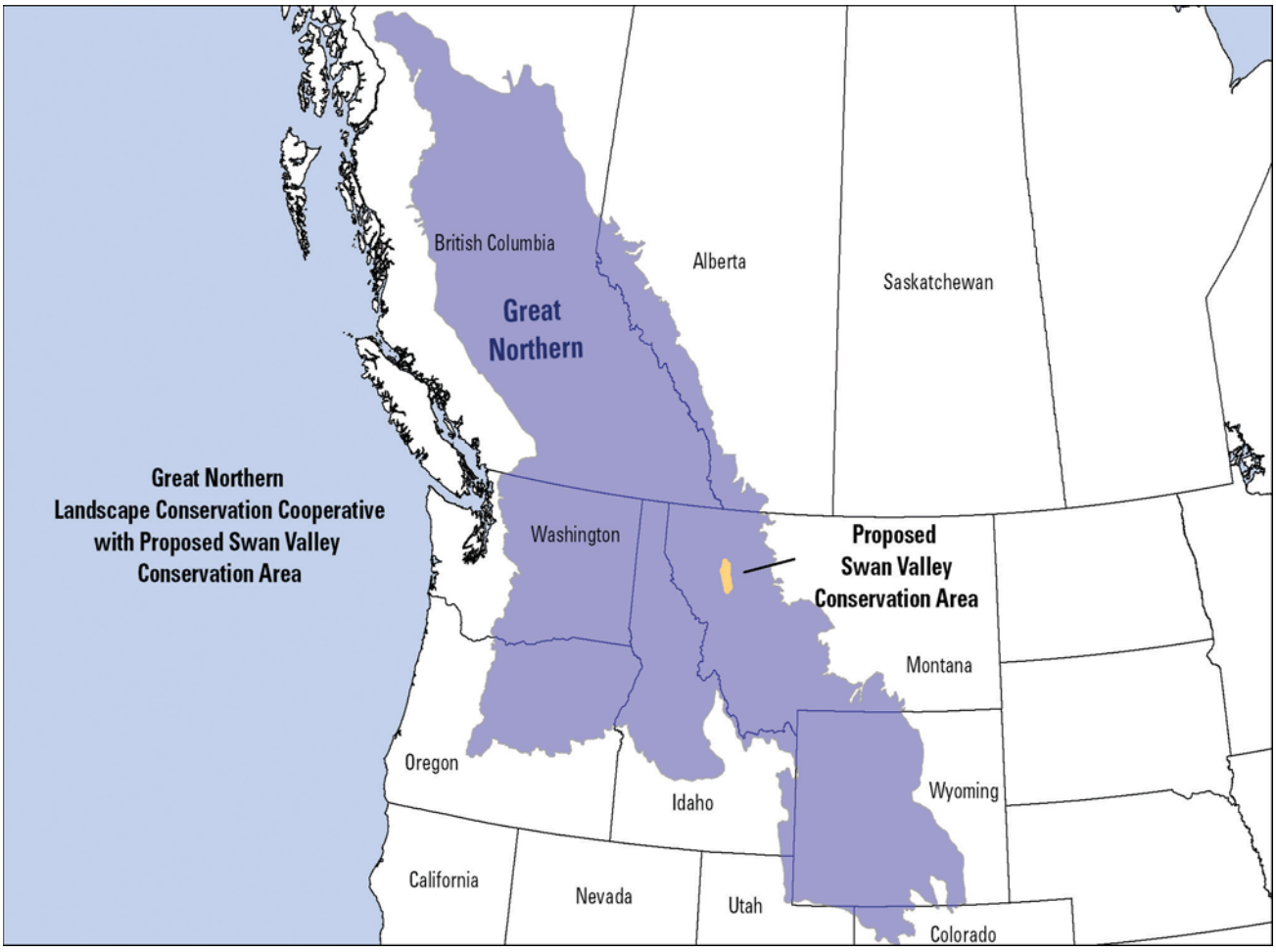

Figure 8. Great Northern Landscape Conservation Cooperative with Swan Valley Conservation Area.

Scoping was conducted during two public open houses on May 18, 2010; 4–6 p.m., and June 2, 2010; 4–6 p.m., at the Swan Valley Community Center in Condon, Montana. The purpose of scoping was to seek input from the public regarding the establishment of the Swan Valley CA, and to identify the issues that needed to be addressed in the planning process. Thirty-six people attended the open houses. Twenty-three individuals, three agencies, and one organization provided written comments during the scoping period.

The draft EA/LPP was presented to the public on July 26, 2010 for a 30-day comment period. Six written comments were received during the comment period on the draft EA/LPP. Those detailed comments and their responses are included in appendix I.

CONTAMINANTS AND HAZARDOUS MATERIALS

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

NATIONAL ENVIRONMENTAL POLICY ACT

As a federal agency, the Service must comply with provisions of the National Environmental Policy Act. An 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 draft EA, published in July 2010, served as the basis for determining whether implementation of the project will constitute a major federal action significantly affecting the quality of the human environment.

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

DISTRIBUTION AND AVAILABILITY

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

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

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

and

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

Appendix A

List of Plants and Animals

MAMMALS

SCIENTIFIC NAME	COMMON NAME
Castor canadensis	Beaver
Eptesicus fuscus	Big Brown Bat
Ursus americanus	Black Bear
Lynx rufus	Bobcat
Neotoma cinerea	Bushy-tailed Woodrat
Myotis californicus	California Myotis
*Lynx canadensis*T*	Canada Lynx
Spermophilus columbianus	Columbian Ground Squirrel
Peromyscus maniculatus	Deer Mouse
Sorex monticolus	Dusky or Montane Shrew
*Martes pennanti**	Fisher
*Myotis thysanodes**	Fringed Myotis
Spermophilus lateralis	Golden-mantled Ground Squirrel
*Canis lupus*E*	Gray Wolf
*Ursus arctos*T*	Grizzly Bear
*Lasiurus cinereus**	Hoary Bat
Marmota caligata	Hoary Marmot
Myotis lucifugus	Little Brown Myotis
Myotis evotis	Long-eared Myotis
Myotis volans	Long-legged Myotis
Martes americana	Marten
Sorex cinereus	Masked Shrew
Microtus pennsylvanicus	Meadow Vole
Puma concolor	Mountain Lion
Ondatra zibethicus	Muskrat
Lontra canadensis	Northern River Otter
Ochotona princeps	Pika
Tamiasciurus hudsonicus	Red Squirrel
Tamias ruficaudus	Red-tailed Chipmunk
Mustela erminea	Short-tailed Weasel
*Lasionycteris noctivagans***	Silver-haired Bat
Lepus americanus	Snowshoe Hare
Myodes gapperi	Southern Red-backed Vole

SCIENTIFIC NAME	COMMON NAME
*Corynorhinus townsendii**	Townsend's Big-eared Bat
Sorex vagrans	Vagrant Shrew
Sorex palustris	Water Shrew
Microtus richardsoni	Water Vole
Zapus princeps	Western Jumping Mouse
Myotis ciliolabrum	Western Small-footed Myotis
*Gulo gulo**	Wolverine
Tamias amoenus	Yellow-pine Chipmunk
*Myotis yumanensis***	Yuma Myotis

BIRDS

SCIENTIFIC NAME	COMMON NAME
Recurvirostra americana	American Avocet
*Botaurus lentiginosus**	American Bittern
Fulica americana	American Coot
Corvus brachyrhynchos	American Crow
Cinclus mexicanus	American Dipper
Spinus tristus	American Goldfinch
Falco sparverius	American Kestrel
Setophaga ruticilla	American Redstart
Turdus migratorius	American Robin
Picoides dorsalis	American Three-toed Woodpecker
Anas americana	American Wigeon
Dendroica coronata audubonii	Audubon's Warbler
*Haliaeetus leucocephalus**	Bald Eagle
Patagioenas fasciata	Band-tailed Pigeon
Riparia riparia	Bank Swallow
Hirundo rustica	Barn Swallow
Strix varia	Barred Owl
*Bucephala islandica***	Barrow's Goldeneye
Megaceryle alcyon	Belted Kingfisher
*Cypseloides niger**	Black Swift
*Chlidonias niger**	Black Tern
*Picoides arcticus**	Black-backed Woodpecker
Pica hudsonia	Black-billed Magpie
Poecile atricapillus	Black-capped Chickadee
Archilochus alexandri	Black-chinned Hummingbird
Pheucticus melanocephalus	Black-headed Grosbeak
Amphispiza bilineata	Black-throated Sparrow
Cyanocitta cristata	Blue Jay
Anas discors	Blue-winged Teal
*Dolichonyx oryzivorus**	Bobolink
Bombycilla garrulus	Bohemian Waxwing

SCIENTIFIC NAME	COMMON NAME
*Poecile hudsonicus**	Boreal Chickadee
Aegolius funereus	Boreal Owl
Fringilla montifringilla	Brambling
Euphagus cyanocephalus	Brewer's Blackbird
*Spizella breweri**	Brewer's Sparrow
*Certhia americana**	Brown Creeper
Molothrus ater	Brown-headed Cowbird
Bucephala albeola	Bufflehead
Icterus bullockii	Bullock's Oriole
Stellula calliope	Calliope Hummingbird
Branta canadensis	Canada Goose
Catherpes mexicanus	Canyon Wren
*Hydroprogne caspia**	Caspian Tern
*Carpodacus cassinii**	Cassin's Finch
Vireo cassinii	Cassin's Vireo
Bombycilla cedrorum	Cedar Waxwing
Poecile rufescens	Chestnut-backed Chickadee
Spizella passerina	Chipping Sparrow
Anas cyanoptera	Cinnamon Teal
*Nucifraga columbiana**	Clark's Nutcracker
Petrochelidon pyrrhonota	Cliff Swallow
Bucephala clangula	Common Goldeneye
*Gavia immer**	Common Loon
Mergus merganser	Common Merganser
Chordeiles minor	Common Nighthawk
Corvus corax	Common Raven
Acanthis flammea	Common Redpoll
Geothlypis trichas	Common Yellowthroat
Accipiter cooperii	Cooper's Hawk
Empidonax occidentalis	Cordilleran Flycatcher
Junco hyemalis	Dark-eyed Junco
Junco hyemalis montanus	Dark-eyed Junco (Montana Junco)
Junco hyemalis hyemalis / cismontanus	Dark-eyed Junco (Slate-colored)
Picoides pubescens	Downy Woodpecker
Empidonax oberholseri	Dusky Flycatcher
Dendragapus obscurus	Dusky Grouse
Tyrannus tyrannus	Eastern Kingbird
Sayornis phoebe	Eastern Phoebe
*Sturnus vulgaris***	European Starling
Coccothraustes vespertinus	Evening Grosbeak
Spizella pusilla	Field Sparrow
*Otus flammeolus**	Flammulated Owl
Passerella iliaca	Fox Sparrow

SCIENTIFIC NAME	COMMON NAME
Anas strepera	Gadwall
*Aquila chrysaetos**	Golden Eagle
Regulus satrapa	Golden-crowned Kinglet
*Ammodramus savannarum**	Grasshopper Sparrow
Dumetella carolinensis	Gray Catbird
Perisoreus canadensis	Gray Jay
*Leucosticte tephrocotis**	Gray-crowned Rosy-Finch
*Ardea herodias**	Great Blue Heron
Ardea alba	Great Egret
*Strix nebulosa**	Great Gray Owl
Bubo virginianus	Great Horned Owl
Pipilo chlorurus	Green-tailed Towhee
Anas crecca	Green-winged Teal
Picoides villosus	Hairy Woodpecker
Empidonax hammondii	Hammond's Flycatcher
*Histrionicus histrionicus**	Harlequin Duck
Catharus guttatus	Hermit Thrush
Acanthis hornemanni	Hoary Redpoll
*Lophodytes cucullatus***	Hooded Merganser
*Passer domesticus****	House Sparrow
Troglodytes aedon	House Wren
Charadrius vociferus	Killdeer
Chondestes grammacus	Lark Sparrow
Passerina amoena	Lazuli Bunting
*Ammodramus leconteii**	Le Conte's Sparrow
Empidonax minimus	Least Flycatcher
Aythya affinis	Lesser Scaup
*Melanerpes lewis**	Lewis' woodpecker
Melospiza lincolnii	Lincoln's Sparrow
Oporornis tolmiei	MacGillivray's Warbler
Dendroica magnolia	Magnolia Warbler
Anas platyrhynchos	Mallard
Cistothorus palustris	Marsh Wren
Sialia currucoides	Mountain Bluebird
Poecile gambeli	Mountain Chickadee
Zenaida macroura	Mourning Dove
Dendroica coronata coronata	Myrtle Warbler
Vermivora ruficapilla	Nashville Warbler
Colaptes auratus	Northern Flicker
Colaptes auratus cafer	Northern Flicker (Red-shafted)
*Accipiter gentilis**	Northern Goshawk
Circus cyaneus	Northern Harrier
*Surnia ulula***	Northern Hawk Owl

SCIENTIFIC NAME	COMMON NAME
Anas acuta	Northern Pintail
Glaucidium gnoma	Northern Pygmy-Owl
Stelgidopteryx serripennis	Northern Rough-winged Swallow
Aegolius acadicus	Northern Saw-whet Owl
Lanius excubitor	Northern Shrike
Seiurus noveboracensis	Northern Waterthrush
Contopus cooperi	Olive-sided Flycatcher
Vermivora celata	Orange-crowned Warbler
Pandion haliaetus	Osprey
Gavia pacifica	Pacific Loon
*Falco peregrinus**	Peregrine Falcon
Podilymbus podiceps	Pied-billed Grebe
*Dryocopus pileatus**	Pileated Woodpecker
Pinicola enucleator	Pine Grosbeak
Spinus pinus	Pine Siskin
Falco mexicanus	Prairie Falcon
Sitta pygmaea	Pygmy Nuthatch
Loxia curvirostra	Red Crossbill
Sitta canadensis	Red-breasted Nuthatch
Vireo olivaceus	Red-eyed Vireo
Sphyrapicus nuchalis	Red-naped Sapsucker
Podiceps grisegena	Red-necked Grebe
Buteo jamaicensis	Red-tailed Hawk
Agelaius phoeniceus	Red-winged Blackbird
Aythya americana	Redhead
Larus delawarensis	Ring-billed Gull
Aythya collaris	Ring-necked Duck
*Columba livia****	Rock Pigeon
Salpinctes obsoletus	Rock Wren
Buteo lagopus	Rough-legged Hawk
Regulus calendula	Ruby-crowned Kinglet
Oxyura jamaicensis	Ruddy Duck
Bonasa umbellus	Ruffed Grouse
*Selasphorus rufus***	Rufous Hummingbird
Grus canadensis	Sandhill Crane
Passerculus sandwichensis	Savannah Sparrow
Sayornis saya	Say's Phoebe
Accipiter striatus	Sharp-shinned Hawk
*Asio flammeus***	Short-eared Owl
Plectrophenax nivalis	Snow Bunting
Tringa solitaria	Solitary Sandpiper
Vireo solitarius	Solitary Vireo
Melospiza melodia	Song Sparrow

SCIENTIFIC NAME	COMMON NAME
Porzana carolina	Sora
Actitis macularius	Spotted Sandpiper
Pipilo maculatus	Spotted Towhee
Falcipennis canadensis	Spruce Grouse
Cyanocitta stelleri	Steller's Jay
Catharus ustulatus	Swainson's Thrush
*Vermivora peregrina***	Tennessee Warbler
Myadestes townsendi	Townsend's Solitaire
Dendroica townsendi	Townsend's Warbler
Tachycineta bicolor	Tree Swallow
Cathartes aura	Turkey Vulture
Ixoreus naevius	Varied Thrush
Chaetura vauxi	Vaux's Swift
*Catharus fuscescens**	Veery
Pooecetes gramineus	Vesper Sparrow
Tachycineta thalassina	Violet-green Swallow
Vireo gilvus	Warbling Vireo
Tyrannus verticalis	Western Kingbird
Sturnella neglecta	Western Meadowlark
*Megascops kennicottii***	Western Screech-Owl
Piranga ludoviciana	Western Tanager
Contopus sordidulus	Western Wood-Pewee
Sitta carolinensis	White-breasted Nuthatch
Zonotrichia leucophrys	White-crowned Sparrow
*Lagopus leucura**	White-tailed Ptarmigan
Aeronautes saxatalis	White-throated Swift
Loxia leucoptera	White-winged Crossbill
*Meleagris gallopavo****	Wild Turkey
Sphyrapicus thyroideus	Williamson's Sapsucker
Empidonax traillii	Willow Flycatcher
Phalaropus tricolor	Wilson's Phalarope
Gallinago delicata	Wilson's Snipe
Wilsonia pusilla	Wilson's Warbler
*Troglodytes troglodytes**	Winter Wren
Aix sponsa	Wood Duck
Dendroica petechia	Yellow Warbler
Icteria virens	Yellow-breasted Chat
Xanthocephalus xanthocephalus	Yellow-headed Blackbird
Dendroica coronata	Yellow-rumped Warbler

**Species of Concern*
***Potential Species of Concern*
****Exotic Species (not native to Montana)*

REPTILES

SCIENTIFIC NAME	COMMON NAME
Thamnophis sirtalis	Common Garter snake
*Elgaria coerulea**	Northern Alligator Lizard
Chrysemys picta	Painted Turtle
Charina bottae	Rubber Boa
Thamnophis elegans	Terrestrial Garter snake

AMPHIBIANS

SCIENTIFIC NAME	COMMON NAME
Rana luteiventris	Columbia Spotted Frog
Ambystoma macrodactylum	Long-toed Salamander
*Rana pipiens**	Northern Leopard Frog
Ascaphus montanus	Rocky Mountain Tailed Frog
*Bufo boreas**	Western Toad

FISH

SCIENTIFIC NAME	COMMON NAME
*Salvelinus confluentus*T*	Bull Trout
*Culaea inconstans***	Brook Stickleback
Catostomus catostomus	Longnose Sucker
Cottus bairdi	Mottled Sculpin
Ptychocheilus oregonensis	Northern Pikeminnow

INVERTEBRATES

SCIENTIFIC NAME	COMMON NAME
Hydropsyche confusa	A Caddisfly
Lepidostoma unicolor	A Caddisfly
Dicosmoecus gilvipes	A Caddisfly
Arctopsyche grandis	A Caddisfly
Neophylax rickeri	A Caddisfly
Neophylax splendens	A Caddisfly
Micrasema bactro	A Caddisfly
Brachycentrus americanus	A Caddisfly
Serratella tibialis	A Mayfly
Ephemerella excrucians	A Mayfly
Baetis tricaudatus	A Mayfly
Epeorus longimanus	A Mayfly
Drunella coloradensis	A Mayfly
Drunella spinifera	A Mayfly
Ergodesmus compactus	A Millipede
*Endopus parvipes**	A Millipede
Rhyacophila narvae	A Rhyacophilan Caddisfly

SCIENTIFIC NAME	COMMON NAME
Zaitzevia parvula	A Riffle Beetle
Heterlimnius corpulentus	A Riffle Beetle
Cleptelmis addenda	A Riffle Beetle
Lara avara	A Riffle Beetle
Narpus concolor	A Riffle Beetle
Optioservus quadrimaculatus	A Riffle Beetle
Ordobrevia nubifera	A Riffle Beetle
Zapada cinctipes	A Stonefly
Zapada oregonensis	A Stonefly
Doroneuria theodora	A Stonefly
Hesperoperla pacifica	A Stonefly
Erynnis afranius	Afranius Duskywing
*Rhyacophila alexanderi**	Alexander's Rhyacophilan Caddisfly
*Oreohelix alpina**	Alpine Mountainsnail
Nesovitrea electrina	Amber Glass
Cordulia shurtleffii	American Emerald
*Agapetus montanus***	An Agapetus Caddisfly
Plebejus glandon	Arctic Blue
Anguispira kochi	Banded Tigersnail
Nesovitrea binneyana	Blue Glass
Euconulus fulvus	Brown Hive
Aeshna canadensis	Canada Darner
*Oreohelix elrodi**	Carinate Mountainsnail
*Ladona julia***	Chalk-fronted Corporal
Sympetrum internum	Cherry-faced Meadowhawk
Arion rufus	Chocolate Arion
Cryptomastix mullani	Coeur d'Alene Oregonian
Plathemis lydia	Common Whitetail
Vertigo modesta	Cross Vertigo
Oreohelix strigosa depressa	Depressed Rocky Mountainsnail
Leucorrhinia intacta	Dot-tailed Whiteface
Eubranchipus serratus	Ethologist Fairy Shrimp
*Radiodiscus abietum***	Fir Pinwheel
Discus whitneyi	Forest Disc
Libellula quadrimaculata	Four-spotted Skimmer
Polygonia faunus	Green Comma
Diphetor hageni	Hagen's Small Minnow Mayfly
*Discus brunsoni**	Lake Disc
Limenitis lorquini	Lorquin's Admiral
*Somatochlora semicircularis***	Mountain Emerald
Nymphalis antiopa	Mourning Cloak
Chlosyne palla	Northern Checkerspot
*Goereilla baumanni**	Northern Rocky Mountains Refugium Caddisfly

SCIENTIFIC NAME	COMMON NAME
*Caudatella edmundsi***	Northern Rocky Mountains Refugium Mayfly
*Arion fasciatus****	Orange-banded Arion
Cordulegaster dorsalis	Pacific Spiketail
Aeshna palmata	Paddle-tailed Darner
Zonitoides arboreus	Quick Gloss
Platyprepia virginalis	Ranchman's Tiger Moth
Punctum californicum	Ribbed Spot
Calopteryx aequabilis	River Jewelwing
Oreohelix strigosa	Rocky Mountainsnail
Polites sabuleti	Sandhill Skipper
*Pristiloma wascoense**	Shiny Tightcoil
Pacifastacus leniusculus	Signal Crayfish
Vallonia cyclophorella	Silky Vallonia
*Ophiogomphus occidentis***	Sinuous Snaketail
*Prophysaon humile**	Smoky Taildropper
Microphysula ingersolli	Spruce Snail
*Discus shimekii**	Striate Disc
Oreohelix subrudis	Subalpine Mountainsnail
Vertigo elatior	Tapered Vertigo
Libellula pulchella	Twelve-spotted Skimmer
Aeshna interrupta	Variable Darner
Vitrina pellucida	Western Glass-snail
*Margaritifera falcata**	Western Pearlshell

VASCULAR PLANTS

SCIENTIFIC NAME	COMMON NAME
*Ophioglossum pusillum**	Adder's Tongue
*Eleocharis rostellata**	Beaked Spikerush
*Bidens beckii**	Beck Water-marigold
*Potamogeton obtusifolius**	Blunt-leaved Pondweed
*Cardamine rupicola**	Cliff Toothwort
*Cypripedium fasciculatum**	Clustered Lady's-slipper
*Dryopteris cristata**	Crested Shieldfern
*Drosera anglica**	English Sundew
*Epipactis gigantea**	Giant Helleborine
*Carex rostrata**	Glaucus Beaked Sedge
*Grindelia howellii**	Howell's Gumweed
*Carex lacustris**	Lake-bank Sedge
*Botrychium lineare**	Linearleaf Moonwort
*Liparis loeselii**	Loesel's Twayblade
Phacelia lyallii	Lyall Phacelia
*Botrychium minganense***	Mingan Island Moonwort
*Synthyris canbyi**	Mission Mountain kittentails

SCIENTIFIC NAME	COMMON NAME
*Botrychium lunaria***	Moonwort Grape-fern
*Botrychium montanum**	Mountain Moonwort
*Lycopodium inundatum**	Northern Bog Clubmoss
*Botrychium pinnatum*****	Northern Moonwort
*Carex livida***	Pale Sedge
*Scheuchzeria palustris**	Pod Grass
*Amerorchis rotundifolia**	Round-leaved Orchis
*Mimulus breviflorus**	Short-flowered Monkeyflower
*Eriophorum gracile**	Slender Cottongrass
*Cypripedium parviflorum***	Small Yellow Lady's-slipper
*Cypripedium passerinum**	Sparrow's-egg Lady's-slipper
*Botrychium spathulatum**	Spoon-leaf Moonwort
*Mimulus ampliatus**	Stalk-leaved Monkeyflower
*Botrychium pedunculosum**	Stalked Moonwort
*Mimulus hymenophyllus*****	Thinsepal monkeyflower
*Trichophorum cespitosum**	Tufted Club-rush
*Botrychium ascendens**	Upward-lobed Moonwort
*Schoenoplectus subterminalis**	Water Bulrush
*Howellia aquatilis*T*	Water Howellia
*Botrychium crenulatum**	Wavy Moonwort
*Botrychium hesperium**	Western Moonwort

NONVASCULAR PLANTS

SCIENTIFIC NAME	COMMON NAME
*Eurhynchium pulchellum var. barnesii*****	
*Brigantiaea praetermissa***	Brick-spored Firedot Lichen
Bryum calobryoides	Bryum moss
*Solorina bispora**	Chocolate Chip Lichen
*Neckera douglasii**	Douglas' neckera moss
*Lobaria hallii**	Gray Lungwort Lichen
*Ramalina obtusata**	Hooded Ramalina Lichen
*Collema curtisporum**	Jelly Lichen
*Parmeliella triptophylla**	Lead Lichen
*Sphagnum magellanicum**	Magellan's Peatmoss
*Evernia divaricata***	Mountain Oakmoss Lichen
*Pseudocyphellaria anomala**	Netted Specklebelly Lichen
*Ramalina pollinaria**	Powdery Twig Lichen
*Verrucaria kootenaica**	Speck Lichen

**Species of Concern*
***Potential Species of Concern*
****Exotic Species (not native to Montana)*
*****Status Under Review*
E Endangered—listed in the Federal Register as being in danger of extinction.
T Threatened—listed in the Federal Register as likely to become endangered within the foreseeable future.

Appendix B

List of Endangered and Threatened Species

MAMMALS

SCIENTIFIC NAME	COMMON NAME
Lynx canadensis (T)	Canada Lynx
Canis lupus (E)	Gray Wolf
Ursus arctos horribilis (T)	Grizzly Bear

FISH

SCIENTIFIC NAME	COMMON NAME
Salvelinus confluentus (T)	Bull Trout

PLANTS

SCIENTIFIC NAME	COMMON NAME
Howellia aquatilis (T)	Water Howellia

(E) Endangered—listed in the Federal Register as being in danger of extinction
(T) Threatened—listed in the Federal Register as likely to become endangered within the foreseeable future

Appendix C

List of Preparers and Reviewers

Author's Name	*Position*	*Work Unit*
Kathleen Burchett	Project leader	USFWS, Benton Lake National Wildlife Refuge, Great Falls, MT
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Bob Johnson	Deputy refuge manager	USFWS, Benton Lake National Wildlife Refuge, Great Falls, MT
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Jason Steigert	Economist	BBC Research & Consulting, Denver, CO

Reviewer's Name	*Position*	*Work Unit*
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David Lucas	Chief of planning	USFWS, Region 6, Division of Refuge Planning, Lakewood, CO

Appendix D

Finding of No Significant Impact

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

FINDING OF NO SIGNIFICANT IMPACT

Swan Valley Conservation Area
Missoula and Lake counties, Montana

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

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

1. Establishing the Swan Valley Conservation Area would provide for the conservation of up to 10,000 conservation easement acres of important habitat on private land, and includes the fee-title purchase of up to 1,000 acres immediately adjacent to Swan River National Wildlife Refuge. This project would help maintain the uniqueness of the Swan Valley region and complement other conservation efforts by The Nature Conservancy, The Montana Land Reliance, Swan Valley Ecosystem Center, and other state and federal agencies.

2. Conservation easements and fee-title purchases within the Swan Valley Conservation Area would help alleviate habitat fragmentation issues. Maintaining key biological linkages would facilitate wildlife movement and provide for wildlife habitat requirements for species such as the grizzly bear, Canada lynx, wolverine, and gray wolf. The potential for human-wildlife conflicts would be greatly reduced.

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

4. Water resources on 11,000 acres would be protected from increased non-point source pollution from residential subdivision, commercial development, and draining of wetlands, which are prohibited under the proposed easement program and would not occur on fee-title property. This project will help reduce the demand for potable water associated with new subdivisions and the challenges to water rights that may follow.

5. The location and distribution, but not rate or density, of human population growth would be affected. Positive effects may occur from increased wildlife dependent public use such as wildlife viewing, photography, environmental education, interpretation, fishing, and hunting opportunities on fee-title

lands. Open space also may enhance property values on adjoining lands as people begin to seek out undeveloped lands in the future.

6. The Service, within the approved project boundary, would create no additional land-use regulations. The purchase of an easement would not result in a transfer of land title, and private landowners would continue to pay property taxes. Preventing subdivision and development could decrease future tax revenues in certain market areas. Minimal changes to the tax base are anticipated for fee-title lands which will not exceed 1,000 acres in the project area. Purchased fee-title lands will be subject to the Revenue Sharing Act (16 USC 715s) which requires revenue sharing payments to counties for purchase of the land. The amount is based on the greatest of (1) ¾ of 1 percent of the market value, (2) 25 percent of the net receipts, or (3) 75 cents per acre. Open space could actually provide a net savings to local governments when compared to the revenues generated and costs of services associated with residential development.

7. Oil and gas exploration or development on private land would not be precluded. Typically, conservation easements do not affect subsurface estates (oil and gas deposits) because the Service only acquires rights associated with surface ownership. In many places where the subsurface estate has been severed from surface ownership, including those in the Swan Valley, the landowner does not own the subsurface rights; this means that the easement that the Service acquires from the landowner is junior to the subsurface rights. In instances where a landowner owns both the surface and the subsurface estate, the Service would treat oil and gas development as a permitted use and provide for such development in the easement document. Easements contain reasonable surface stipulations for such actions as revegetation of disturbed areas, access, and site reclamation.

8. Wind development within the Swan Valley Conservation Area would not occur on conservation easements which reduces fragmentation within the Valley from the placement of towers and associated infrastructure development. This improves wildlife corridors' integrity throughout the Valley. Restricting wind towers also prevents mortality from direct strikes of towers by migratory birds and other avian wildlife species.

9. Conservation easements purchased on private tracts would not change the landowner's right to manage public access to their property. Private landowners would retain full control over their property access rights, including allowing or restricting hunting and fishing on their lands, under the proposed easement program. Lands purchased in fee-title would be managed as part of the Swan River National Wildlife Refuge, which provides public use. Wildlife-dependent recreation opportunities at the Swan River National Wildlife Refuge include hunting, fishing, wildlife observation and photography, interpretation, and environmental education. Fee-title acquisition would provide additional recreational opportunities on the refuge.

10. The long term biological productivity of approximately 11,000 acres of grassland, riparian, forest and tundra ecosystems, including increased protection of endangered and threatened species and maintenance of biological diversity by preserving a large intact functioning system would occur. The nation would gain the protection of species for future generations of Americans. The public would gain long term opportunities for wildlife-dependent recreational activities from the continued presence of wildlife in the Valley.

11. Protection of the Swan Valley will build resiliency and resistance to disturbances in the natural system from stressors which will help the ecological system absorb changes from climate change. The

Swan Valley CA will accomplish this by maintaining intact, interconnected landscapes, and restoring fragmented or degraded habitats.

As part of the public scoping process associated with this action, comments were solicited from the public through news releases and public meetings. Two public open houses were held in Condon, Montana on May 18 and June 2, 2010. Public comments were taken to identify issues to be analyzed for the proposed project. Approximately thirty-six landowners, citizens, and elected representatives attended the meetings, and most expressed positive support for the project. In addition, the Service's field staff contacted local government officials, other public agencies, and conservation groups, all of which have expressed an interest in and a desire to protect the Swan Valley from the pressures brought about by rural subdivisions.

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

In determining whether this project is a major action significantly[1] affecting the quality of the human environment, we looked at both the context and intensity of the action (40 CFR § 1508.27, 40 CFR § 1508.14) as required by NEPA. The project will be implemented over time dependent upon the Fish and Wildlife Service's ability to obtain the funding needed for easement and fee-title acquisitions. Of the 187,400 acres of habitat within the boundary area, 10,000 acres may be entered into voluntary easements with the Service, on a strictly voluntary basis with willing sellers only, and up to 1,000 acres may be purchased in fee-title from willing sellers only.

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

Therefore, in consideration of the fact that the Fish and Wildlife Service's conservation easement approach has a proven track record of effectiveness and minimal controversy due to its fundamental basis of voluntary participation to accomplish mutual goals of the Service and landowners, the compelling science in support of the project, and my review and evaluation of the information contained in the supporting reference, I have determined that establishing the boundary for the Swan Valley

Conservation Area is not a major federal action that would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969.

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

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

Supporting Reference

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

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

9/24/10
Date

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

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

Appendix E

Environmental Action Statement

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

ENVIRONMENTAL ACTION STATEMENT

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

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

Other supporting document:
Draft Environmental Assessment and Land Protection Plan, Swan Valley Conservation Area

Richard A Coleman — 9/24/10

Assistant Regional Director
National Wildlife Refuge System, Region 6

Date

Steph Guertin — 9/24/10

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

Date

Appendix F

Environmental Compliance Certificate

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

PROJECT: Swan Valley Conservation Area
STATE: Montana

ACTION (indicate if not applicable)	DATE
NEPA (NATIONAL ENVIRONMENTAL POLICY ACT)	
Categorical Exclusion	N/A
Environmental Assessment/Finding of No Significant Impact	9/24/10
Environmental Impact Statement/Record of Decision	N/A
Executive Order 11593, Protection of Historical, Archaeological, and Scientific Properties	8/28/10
Executive Order 11988, Floodplain Management	8/28/10
Executive Order 11990, Protection of Wetlands	8/28/10
Executive Order 12372, Intergovernmental Review of Federal Programs	8/28/10
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations	8/28/10
Executive Order 12996, Management and General Public Use of the National Wildlife Refuge System	8/28/10
Endangered Species Act, Section 7	9/07/10
Coastal Zone Management Act, Section 307	N/A
Uniform Relocation Assistance and Real Property Acquisition Policies Act	9/17/10
Level I Contaminants and Hazardous Waste (Secretarial Order 3127: 602DM2)	8/28/10

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

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

9/24/10
Date

STATEMENT OF COMPLIANCE

The following Executive Orders and legislative acts have been reviewed as they apply to the establishment of the executive boundary of the Swan Valley Conservation Area:

1. **Executive Order 11593. Protection of Historical, Archaeological, and Scientific Properties.** The regional archaeologist determined that the acquisition of easements within the Swan Valley Conservation Area is not an undertaking under section 106 of the National Historic Preservation Act. In fact, the project has the potential to protect cultural resources. If, in the future, the Service grants a special permit for the landowner under the easement, section 106 may be relevant at that time. If so, the Service will take the necessary steps to address any historical or archaeological issues.

2. **Executive Order 11988. Floodplain Management**. No structures that could be damaged by or that would significantly influence the movement of floodwater are planned for construction by the Fish and Wildlife Service on easements acquired as part of this project.

3. **Executive Order 11990. Protection of Wetlands.** This action is consistent with protection of existing wetland resources from incompatible activities and thereby complies with this executive order.

4. **Executive Order 12372. Intergovernmental Review**. The Service has discussed the proposal to establish the Swan Valley Conservation Area with landowners; conservation organizations; other federal agencies; state, and county commissioners; and other interested groups and individuals. At the federal level, the Service staff has briefed Senators Baucus and Tester, as well as the congressional delegation, and coordinated with representatives from other federal agencies such as the Bureau of Land Management and the U.S. Forest Service. At the state level, Governor Schweitzer's staff, along with the Montana Fish, Wildlife and Parks was briefed on the project.

5. **Executive Order 12898. Federal Actions to Address Environmental Justice in Minority and Low-Income Populations.** Establishing the Swan Valley Conservation Area will not have a disproportionately high or adverse human health or environmental effect on minority or low-income populations. Therefore, this action complies with this Executive Order.

6. **Executive Order 12996. Management and General Public Use of the National Wildlife Refuge System**. The public has been invited to participate in the planning process and has been very engaged. The Service held two public open houses to seek input from the public regarding the proposed establishment of the conservation area, and to identify the issues that needed to be addressed in the planning process. Approximately thirty-three written comments have been received from the public. The public's issues and comments have been incorporated into the Environmental Assessment and a copy of the final document will be sent to all interested landowners, agencies, private groups, and other parties. For conservation easement acquisition, the Service will not manage or have control over public access to the protected lands; this right will remain with the private landowner. For fee-title acquisition a compatibility determination will be conducted for proposed uses on lands within the Swan River National Wildlife Refuge.

7. **Endangered Species Act, section 7.** An internal section 7 consultation concluded the proposed action would have a 'May affect, but is not likely to adversely affect species/modify critical habitat' on listed species within the acquisition project area.

8. **Coastal Zone Management Act**. Due to the location of the project area, compliance of this Act was determined to be not applicable.

9. **Uniform Relocation Assistance and Real Property Acquisition Policies Act.** Applicable provisions of P.L. 91-646 will be applied to ownerships as they become available for purchase. Any landowner would be eligible for reimbursement of incidental expenses (recording fee, etc) incurred as a result of a sale to the United States.

10. **Secretarial Order 3127. Contaminants and Hazardous Waste**. A Level 1 pre-acquisition contaminant survey will be completed prior to the purchase of any easement.

I hereby certify that the Service has complied with all requirements of law, rules, or regulations applicable to pre-acquisition planning for the above project. I approve the establishment of the executive boundary of the Swan Valley Conservation Area and the subsequent acquisition of up to 10,000 acres of easements from willing sellers, and up to 1,000 acres of fee-title lands adjacent to the Swan River National Wildlife Refuge:

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

9/24/10
Date

Appendix G

Section 7 Biological Evaluation

INTRA-SERVICE ENDANGERED SPECIES ACT SECTION 7 EVALUATION FORM

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

Telephone Number: 406/727-7400

Date: 8/26/10

I. Region: Region 6

II. Service Activity: Establishment of the Swan Valley Conservation Area

III. Pertinent Species and Habitat

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

LAKE COUNTY		
Gray Wolf	*Canis lupus*	E
Bull Trout	*Salvelinus confluentus*	T
Grizzly Bear	*Ursus arctos horribilis*	T
Canada Lynx	*Lynx canadensis*	T
Water Howellia	*Howellia aquatilis*	T
MISSOULA COUNTY		
Gray Wolf	*Canis lupus*	E
Bull Trout	*Salvelinus confluentus*	T
Grizzly Bear	*Ursus arctos horribilis*	T
Canada Lynx	*Lynx canadensis*	T
Water Howellia	*Howellia aquatilis*	T

C - Candidate
T - Threatened
E - Endangered

B. Proposed species and/or their proposed critical habitat within the county / action area:
Mountain plover (*Charadrius montanus*) listed as proposed threatened species in

Missoula County.

C. Candidate species within the county / action area:
Yellow-billed cuckoo *(Coccyzus americanus)* is a candidate species in Missoula County.

IV. Geographic Area/Action

This Intra Section 7 covers the establishment of the Swan Valley Conservation Area in portions of 2 counties in Montana; Lake and Missoula counties.

V. Location

The proposed boundary (see attached map):

- State of Montana

  A. Counties: Lake, Missoula.

- Description of project boundary for the Swan Valley Conservation Area:

The Swan Valley is located on the western edge of the Crown of the Continent ecosystem, approximately 30 miles southeast of Kalispell, Montana. The Bob Marshall Wilderness and Glacier National Park mark the eastern boundary, with the Mission Mountains Wilderness and Confederated Salish and Kootenai tribal lands on the western boundary, and the Blackfoot River Valley flanking the southern side of the watershed. The project area encompasses an 187,400-acre Swan River watershed. The watershed contains approximately 332,000 acres in protected public ownership.

VI. Description of the Proposed Action

The Swan Valley Conservation Area is a landscape conservation strategy to protect one of the last undeveloped, low elevation coniferous forest ecosystems in western Montana. Swan Valley is situated between the roadless areas of the Glacier National Park, Bob Marshall Wilderness Complex, the Mission Mountains Wilderness, and the Bitterroot/Selway Wilderness Complex to the southwest. As such, it provides an avenue of connectivity between the Canadian Rockies and the Central Rockies of Idaho and Wyoming.

This proposal focuses on the strategic purchase of 10,000 acres of conservation easements on private lands nestled between the Bob Marshall Wilderness and the Mission Mountain Wilderness. This proposal also includes the purchase of up to 1,000 acres immediately adjacent to Swan River National Wildlife Refuge.

VII. Determination of Effects

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

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

Establishing the Swan Valley Conservation Area would provide for the conservation of up to 11,000 acres of important habitat on private land. This program would help maintain the uniqueness of the Swan Valley and complement conservation efforts of the Montana Department of Fish, Wildlife and Parks, The Nature Conservancy, Montana Land Reliance, Vital Ground, Swan Valley Ecosystem Center, and other federal and state agencies.

Conservation easements within the Swan Valley 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 (breaking of native rangeland) would be prohibited. Easements would maximize the connectivity with other protected grasslands and decrease the negative impacts of habitat fragmentation on grassland birds.

Water resources on 11,000 acres of conservation easements andfee-title acquisitions 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. This is particularly important for water howellia that depends exclusively on small, shallow, depressional wetlands scattered across the Valley floor. The Swan Valley is believed to contain the world's greatest density of water howellia.

For listing purposes, the Service divided the range of bull trout into distinct population segments, and twenty-seven recovery units. Swan River Valley falls within the Clark Fork River Recovery Unit, and the Upper Clark Fork Recovery Subunit. Within this subunit, the watershed has been identified as a core recovery area. The Swan Lake bull trout population has remained strong. The Swan Lake population is stable, because fish can access about 150 miles of high quality tributary spawning habitat. Most bull trout populations are declining, because of habitat degradation, but many of Swan Valley's tributary streams are in good to excellent condition. The Montana Fish, Wildlife, and Park's bull trout redd counts indicate that the total adult population is likely over 2,500 adult bull trout. The conservation easement program and strategic fee-title purchase will help preserve these important habitats.

The Swan Valley watershed is the southern boundary for the Northern Continental Divide grizzly bear recovery zone. The Grizzly Bear Recovery Plan includes all of Swan River watershed as suitable or occupied habitat. The USGS Northern Divide Grizzly Bear Project confirmed the presence of forty-five grizzly bears in the Swan Valley in 2003-2004. The Swan Valley is believed to be the key linkage zone to the Bitterroot/Selway Wilderness Complex to the southwest providing an avenue of connectivity between the Canadian Rockies and the Central Rockies of Idaho and Wyoming. Conservation easements and fee-title purchases will helped protect significant corridors.

The Northern Rocky Mountain Gray Wolf Recovery Plan established three recovery zones in Montana, Idaho, and Wyoming. The Swan River watershed is in the Northwest Montana Recovery Area. In August 2010, the USFWS relisted the gray wolf as endangered species in the western Great Lakes, the northern Rocky Mountain states of Idaho and Montana and parts of Washington, Oregon, and Utah. As of 2009, MFWP has confirmed the presence of three resident wolf packs and estimates that at least fifteen to twenty-five wolves inhabit the watershed. Additional protection through conservation easements and fee-title will continue to protect habitat for the gray wolf.

The Swan River watershed is located within the Northwestern Montana/Northeastern Idaho Core Area for Canada lynx. The watershed is a stronghold for the Canada lynx in the northern Rocky Mountains. Based on ongoing research in the Blackfoot and Swan watersheds, lynx populations appear stable, although low reproductive rates are characteristic of this population. Since 1998, over eighty lynx have been monitored in this area, providing information on habitat use, reproduction, mortality, and movement. This research has shown that the Swan and Blackfoot watersheds contain some of the best remaining habitat for lynx in the continental United States. Large, intact spruce/subalpine fir forests above 4,000 feet in this area provide high quality habitat for lynx and for snowshoe hares, the primary lynx food source. Regenerating forest stands are often used as foraging habitat during the snow-free months while older, multi-storied stands serve as denning and year-round habitat. Conservation easements protecting critical forested/wetland habitats including ponderosa pine, cedar/hemlock and Engelmann spruce/subalpine fir communities on the valley floor as well as riparian areas will have long lasting benefits for the Canada lynx.

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

VIII. Effects Determination and Response Requested

A. *Listed Species / designed critical habitat*

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

B. *Proposed Species / proposed critical habitat*

No effect on proposed species / no adverse modification of proposed critical habitat (species: mountain plover)	X Concurrence

Is likely to jeopardize proposed species or adversely modify proposed critical habitat
(species: mountain plover)

_____Concurrence

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

IX. Reviewing ESO Evaluation

_X_Concurrence

_____Non-Concurrence

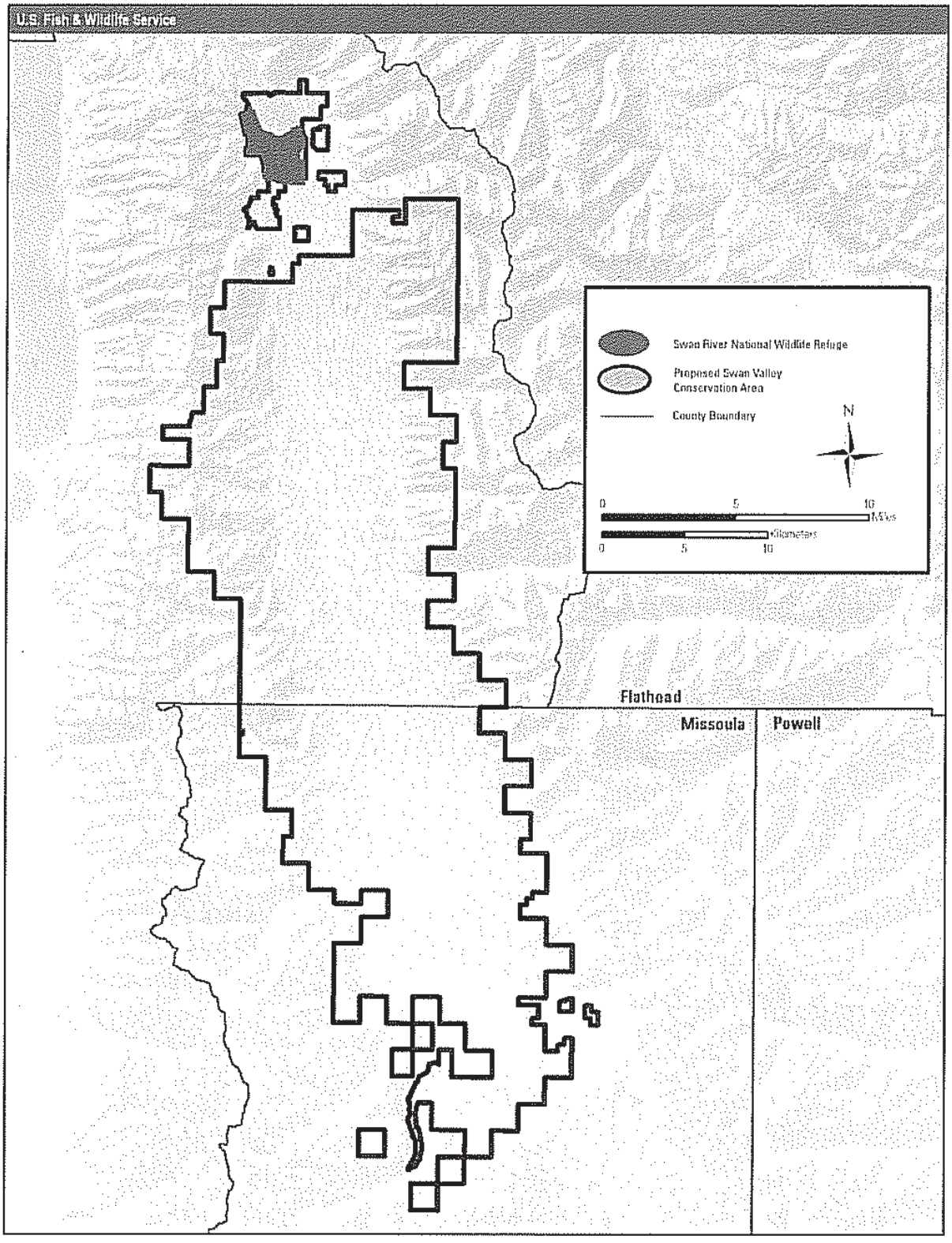
_____Formal Consultation Required

_____Conference Required

_____Informal Conference Required

R. Mark Wilson 9-7-10

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


U.S. Fish & Wildlife Service
Swan River National Wildlife Refuge
Proposed Swan Valley Conservation Area
County Boundary
N
0 5 10
Miles
Kilometers
0 5 10
Flathead
Missoula
Powell

Appendix H

Director's Approval to Establish the Swan Valley Conservation Area

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240

In Reply Refer To:
ANRS-CPP /DTS 046495

Memorandum

To: Regional Director, Region 6

From: Deputy Director

Subject: Approval to Proceed with Publication and Distribution of the Final Planning Documents for the Creation of Swan Valley Conservation Area, Montana

I concur with your September 27, 2010 request to authorize the creation of the Swan Valley Conservation Area (MT) as a new unit of the National Wildlife Refuge System.

Congratulations on a thorough job with your Environmental Assessment and FONSI for this new unit. I am extremely excited about projects such as this that strive to protect large areas for the conservation of fish and wildlife.

You have proposed a new acquisition project that defines the principles of Strategic Habitat Conservation. Prior to land acquisition, pursuant to the Land Protection Plan, please link your priority areas to spatially explicit data. As these data become available, please ensure that you pursue priority tracts that will provide measurable outcomes related to population goals or the conservation of important habitats.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mountain-Prairie Region

IN REPLY REFER TO:

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

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

SEP 27 2010

Memorandum

To: Director

From: Regional Director, Region 6

Subject: Transmittal of Decision Document—Crown of the Continent: Establishing the Swan Valley Conservation Area

The Decision Document to establish the Swan Valley Conservation Area, in western Montana has been approved. With the approval of this project, the Service, in cooperation with our partners, will be able to conserve up to 11,000 acres of native habitat.

In order to strategically conserve habitat within the Swan Valley, the Service focused on the threatened grizzly bear and bull trout. High priority grizzly bear habitat was identified using a spatially-explicit model of key linkage zones. For the bull trout, critical habitat has been designated and explicitly mapped in each recovery unit (RU) by the Service. There are approximately 36,000 acres of private land in the proposed Swan Valley CA. A total of 117 miles of bull trout critical habitat and 10,000 acres of grizzly linkage zones occur on private land. With the current levels of development and fragmentation within the Swan Valley, bull trout populations appear stable; however, the pressure of human-cause mortality on grizzly bears is higher than acceptable for recovery. How much more fragmentation or development could occur, yet still keep bull trout populations stable, and not significantly add to grizzly mortality, is unknown. Given that conserving all remaining private land with easements to prevent additional development is not a reasonable or desired goal, the Service has set a goal to protect 11,000 acres of private land. Long-term monitoring of grizzly bears and bull trout will be conducted and the goal of 11,000 acres and acquisition priority will be periodically re-evaluated, as additional scientific information is obtained collaboratively with Service partners and the Great Northern Landscape Conservation Cooperative.

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

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

All fee-title purchases will become part of the Swan River National Wildlife Refuge. For fee-title purchases, an Engineering Assessment will be completed on a case-by-case basis as we proceed

with the pre-acquisition process with willing sellers. The refuge is currently engaged in the Comprehensive Conservation Planning (CCP) process. The management of the additional fee-title acquisitions will be subject to the management recommendations of the Final CCP. As such, a Conceptual Management Plan will not be completed.

✓ Concurrence

___ Non-concurrence

ACTING Director, U.S. Fish and Wildlife Service

5·18·2011
Date

Attachments

Appendix I

Public Involvement

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

Scoping was conducted during two public open houses on May 18, 2010; 4–6 p.m., and June 2, 2010; 4–6 p.m., at the Swan Valley Community Center in Condon, Montana. The purpose of scoping was to seek input from the public regarding the establishment of the conservation easement project, and to identify the issues that needed to be addressed in the planning process. Thirty-six people attended the open houses. Twenty-three individuals, three agencies, and one organization provided written comments during the scoping period. Comments identified biological, social, and economic concerns regarding the proposed conservation easement project. The issues raised and comments received helped the planning team to develop the alternatives presented in the draft environmental assessment and land protection plan (EA/LPP). Key issues are described in Chapter 1 of the draft EA/LPP, under "Issues Identified and Selected for Analysis."

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

PUBLIC COMMENTS

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

The refuge staff recognizes and appreciates all input received from the public. To address this input, several clarifications and some changes are reflected in the final environmental assessment and land protection plan.

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

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

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

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

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

Comment 2. *I just gave the draft EA for the Swan Valley Conservation Area a read. It sounds all good to me. I liked how the idea is pitched as a part of a much bigger conservation effort. My only concerns are:*

- *Some landowner might be alarmed to find their property suddenly in a "conservation area."*
- *The easements don't preclude logging and other timber management practices.*

I have considered pell-mell real estate development a huge threat to the Swan. I'm delighted to hear that there could be more conservation easements here.

Response 2. Thank you for your comments. The Service agrees that a regional landscape conservation strategy will be critical to the conservation of the wildlife and habitats within the Crown of the Continent ecosystem. The Swan Valley lies at the western edge of the Crown of the Continent ecosystem, which is the last remaining ecosystem that still supports a full assemblage of large mammalian predators including grizzly bears, gray wolves, wolverine, and Canada lynx. The three proposed conservation areas help provide landscape-scale protection for wide-roaming species and ecological processes.

Response 2.1. It is Service policy to seek easements from willing sellers only. Participation in the conservation easement project is strictly voluntary.

Response 2.2. Although the conservation easements do not preclude logging and other timber management practices on easement properties, a timber management plan must be submitted by the landowner and approved by the Service prior to the harvesting of any timber, or other timber management practice occurring on lands with a conservation easement.

Comment 3. *I am very concerned about future easements in the Swan Valley. My in-depth study on land currently in private hands without easements is a very low 17,000 acres. We are surrounded by 3.8 million acres of protected lands (wilderness and multiple use types). The economy of the valley is so low that our school has 27 students, grades 1 thru 8. People used to come to the area to work and raise a family—now—they are mostly high end ($.s) retired folk. I am a Councilman for the Swan Valley Community Council, Vice President of the local AARP [American Association of Retired Persons] Chapter, Election Judge & Poll Manager, and member of the Montana Board of Crime Control. The valley is concerned about if there can be economic development, especially if we lose even more land to conservation easements that will strangle any possibility of this. Please do not act on this expansion of conservation easements in the Swan Valley.*

Response 3. Thank you for your comments. Service data indicates there are currently approximately 36,000 acres of private land in the proposed Swan Valley Conservation Area. Within this area, 117 miles of bull trout critical habitat and 10,000 acres of grizzly linkage zones occur on private lands. With current levels of development and fragmentation within the Swan Valley; bull trout populations appear stable, however, the pressure of human-cause mortality on grizzly bears is higher than acceptable for recovery. How much more fragmentation or development could occur, yet still keep bull trout populations stable, and not significantly add to grizzly mortality, is unknown. Given that conserving all remaining private land with easements to prevent additional development is not a reasonable or desired goal, especially around the existing population centers of Condon and Salmon Prairie, the Service has set a goal to protect 11,000 acres of existing private lands. Long-term monitoring of grizzly bears and bull trout will be conducted and the goal of 11,000 acres will be periodically reevaluated.

The issue regarding the impacts of conservation easements on local community centers and their ability to grow was also identified during public scoping meetings in Condon on May 18, and on June 2, 2010. The Service agrees the proposed conservation easement project in the Swan Valley should address the need for local rural communities to be able to grow. The final environmental assessment and final land protection plan have been modified to include the following statement, "The Service will work individually with local communities within the Swan Valley Conservation Area to determine the configuration of a community buffer to facilitate economic development adjacent to local communities."

Comment 4. *I am writing in response to your article published in the Seeley Swan Pathfinder of August 5, 2010. I am totally opposed to the government tying up any more land under conservation easements for a number of reasons. First, it is well known that most parcels of land that are presently under conservation easement by one of the several groups that facilitate them has been greatly ignored and is very mismanaged and the level of production has been diminished significantly. When the government is controlling anything, there are substantial cost over runs and the care taken is minimal as best. What has happened to the American dream of private ownership of the land and the dedication of the owners to be the best land stewards possible? I am in a position to be a victim of the US Fish and Wildlife Service in two areas. We have a family ranch on the east front of the Rocky Mountains and also have land in the Swan Valley. I would like to respectfully request that you do NOT attempt to occupy these lands and turn them into government run disaster areas where there is no local involvement other than the vocal special interest environmental groups that have nothing to lose if some citizen chooses to give up their rights to property.*

Response 4. The Service respects private property rights and, as such, will acquire conservation easements only from willing sellers. Landowner's choice whether or not to participate in the project is a tangible example of respect for personal property rights.

The easement project endorses best management practices. Ranchers and landowners currently on the

landscape successfully manage their areas to ensure economic viability. The Service does not endorse management practices that degrade resources or production. For example, cattlemen are successful at determining their land's carrying capacity and being good stewards of their land which includes determining the number of cattle to graze. The Service does not control their economic production. We do restrict draining wetlands, development for residential and commercial operations, and conversion of native grasslands. The lands with conservation easements remain in private ownership and are maintained by the private landowner. The Service provides management suggestions at the landowner's request.

Limited fee-title purchase (less than 1,000 acres) from willing sellers only is proposed adjacent to Swan River National Wildlife Refuge. Under fee-title ownership, refuge staff is responsible for management and maintenance of the area. Fee-title ownership offers the Service the option of additional wildlife-dependent recreational opportunity when compatible with the purpose for which the parcel was acquired. The Service works with local individuals, community groups, county commissioners as well as special interest conservation groups.

Comment 5. *I hope every landowner that wants a CE [conservation easement] could get one.*

Response 5. The Service has established priority acquisition areas because annual appropriated congressional funding (Land and Water Conservation Fund) is generally less than demand. As funding increases, the ability to purchase easements likewise increases.

Comment 6. *The Swan Valley is still one of the few accessible unique areas in the US that is not yet overpopulated. We should educate people to desire to keep it this way.*

Response 6. Thank you for your comments. Conservation easement projects assist with keeping landownership in private hands, while limiting residential and commercial development which often alters the unique attributes of rural lifestyle.

Comment 7. *I own 20 acres, bordered by (now) USFS [U.S. Forest Service], and a 200 acre ranch in a conservation easement. There are also 3 nearby properties in c.e.s [conservation easements]. I have a large wetland on my property, and there are numerous wetlands nearby. Heavy wildlife population. I want to pass the place on to my children. We have a flat, very buildable corner of our property that is separated from where we live by a small road. We have thought if [our] financial situation becomes desperate, we could sell it. I'd rather be paid for a conservation easement!!! I do not want someone living there, but may have no choice. Thank you.*

Response 7. Thank you for your comments. Many participants in our successful easement projects elsewhere in Montana felt similarly when they decided to place their land under conservation easement. The U.S. Fish and Wildlife Service attributes are protected in perpetuity and the private landowner receives financial compensation accordingly.

Comment 8. *The proposed USFWS [U.S. Fish and Wildlife Service] conservation easement program will bring additional resources to private land conservation efforts in the Swan. It will be imperative for USFWS staff to coordinate closely with the NGOs [nongovernment organizations] that have a long history of conservation work in the Swan (MLR [Montana Land Reliance], TNC [The Nature Conservancy], Vital Ground, TPL [The Trust for Public Land], SEC [Swan Ecosystem Center], etc).*

Response 8. Thank your for your comments. The Service strongly agrees with your request to coordinate closely with nongovernmental organizations who have historically worked in the Swan Valley. We hope to continue working with our existing partners and develop new partnerships to address conservation needs of the Swan Valley.

Comment 9. *Great project. We need to have many different levels of protection.*

Response 9. Thank you for your comments. The Service easement project offers financial alternatives to private landowners. Participation in the easement project is voluntary and it is a decision made exclusively by the landowner.

Comment 10. *I applaud this effort—one more tool in the toolbox will help!*

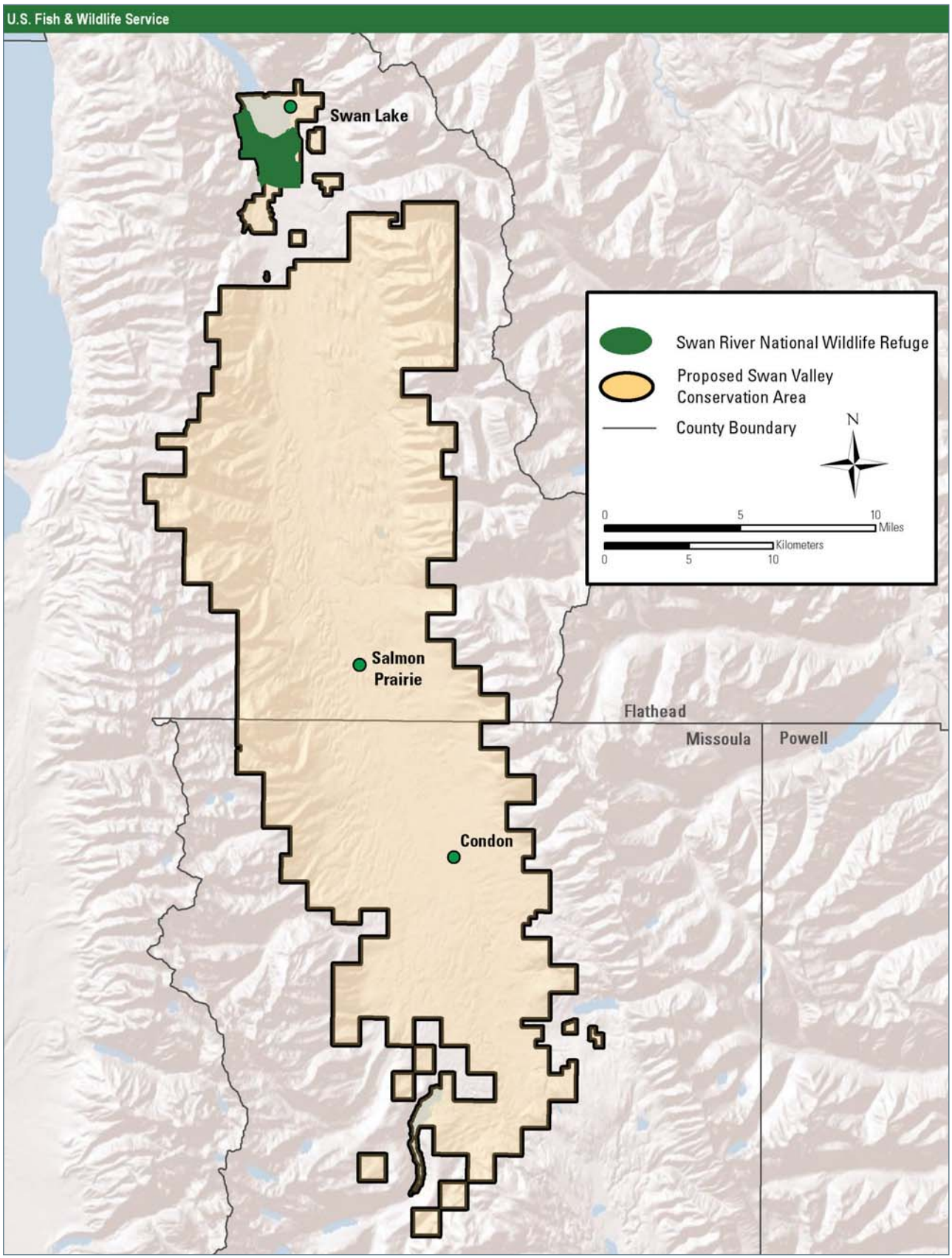
Response 10. Thank you for your comment. The Service can offer landowners an additional option for fish and wildlife protection.

Comment 11. *Large private parcels purchased by wealthy seasonal residents and lower income generations are being priced out of the valley.*

Response 11. Thank you for your comment. Easement project payments can occasionally assist private landowners in remaining on the landscape which they otherwise may not be able to afford.

Comment 12. *Expand boundary to south–Upper Clearwater?? Need purchased easement program in the Swan.*

Response 12. Portions of the Clearwater area are included in the expansion of the Blackfoot Valley Conservation Area (see map). This may include the area of your inquiry.



Response 12 map.

Comment 13. *My main concern is the numerous "Gated Road." The gated areas deny the public access to hundreds of thousands of acres of public land, most of which have no direct impact on critters except in the spring and winter and should only be gated during that time.*

Response 13. Because easement property remains in private ownership, ingress and egress remains the right of the private landowner. Fee-title purchases that are proposed adjacent to Swan River National Wildlife Refuge may be open to the public for compatible wildlife-dependent recreational use.

Comment 14. *Thank you for: 1) This excellent, professional brochure. Well done. Impressed. 2) For a very effective G.I.S. [Geographic Information System] map for having enough context to make sense, and not cookie-cuttering to the exact boundary. Good job all. Thanks.*

Response 14. Thank you for your comments.

Comment 15. *As I understand what's being considered, I support USFWS effort in CE program and in restoration.*

Response 15. Thank you for your comment.

Comment 16. *I definitely support conservation easements for the Swan Valley.*

Response 16. Thank you for your comment.

Comment 17. *I am in full support of conservation easements in the Swan.*

Response 17. Thank you for your comment.

Comment 18. *I support this endeavor wholeheartedly. Let's get this done during the Obama Administration.*

Response 18. Thank you for your comments.

Comment 19. *Consider parcels smaller than 160 acres, especially if there are opportunities for connected easements. Few properties in the Swan are 160 acres or larger.*

Response 19. The Service agrees, and the following language was included in the draft EA and LPP, Chapter 2—Alternatives, Page 7, Alternative B (Proposed Action), "The Service generally focuses on parcels greater than 160 acres, however parcels less than 160 acres may be considered for conservation easements if unique biological values exist." A similar statement is also included in the final land protection plan under the "Priority Areas" section.

AGENCY, ORGANIZATIONS, AND COMMERCIAL CORPORATION COMMENTS

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

Comment 20. *I will be unable to attend the upcoming meetings regarding easements. I do want to express my support for the easement expansion along the Front and in the Blackfoot. I also support establishment of an easement program in the Seeley/Swan region. As you know, there are significant amounts of state trust land in all the areas which we manage in cooperation with neighboring landowners. Maintaining these working lands for habitat and open space as well as livestock and timber productivity is critical for the state and local communities.*

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

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

Response 20. Thank you for your comments. The Service will continue to maintain close communications and implement collaborative conservation efforts with Montana Department of Natural Resources and Conservation in the future.

Comment 21. *It was nice meeting you guys this morning. The county appreciates you taking your time to meet face to face and explain what you are proposing to do in the Swan Valley. As you most likely gleaned from the conversation, the cost the local government incurs to provide services to properties in the southern Swan Valley is not commensurate with the tax base and because of the large amount of land in the county that is owned by the Confederated Salish and Kootenai Tribes, every tax dollar is that much more precious. Therefore, while generally supportive of your program objectives regarding the conservation easement program, the county doesn't really want more land going into a tax exempt status when it comes to the land around the Swan River Wildlife Refuge. Hopefully the 'Transfer of Development Rights" exception in the Lake County Density Map and Regulations can help both parties achieve their objectives. The map and regulations are available on our website: http://lakecounty-mt.org/planning/Lake_County_Density_Map.html note: the regulations are in a link on the left side of the screen.*

Again, thanks for coming to meet with us and if you have any questions about the Density Regulations, please feel free to contact us.

Response 21. Thank you for your comments. We support the Lake County TDR [Transfer of Development Rights] program, and will explore the Service's ability to participate in this type of transaction to ensure that development occurs in the most appropriate areas for growth.

Letter # 22

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

BRIAN SCHWEITZER, GOVERNOR

STATE OF MONTANA

1625 ELEVENTH AVENUE

DIRECTOR'S OFFICE (406) 444-2074
FAX: (406) 444-2684

PO BOX201601
HELENA, MONTANA 59620-1601

August 24, 2010

Kathy Burchett
Benton Lake National Wildlife Refuge
922 Bootlegger Trail
Great Falls, Montana 59404

Dear Ms. Burchett:

Thank you for the opportunity to comment on the Draft Environmental Assessment (EA) and Land Protection Plan for the Swan Valley Conservation Area. We offer the following comments regarding the proposed action and draft EA.

As you note on page 33, Chapter 6 in the Draft Land Protection Plan, Montana Department of Natural Resources and Conservation (DNRC) owns and manages a sizable portion of land within the proposed 187,400 conservation area (CA). Within the proposed CA, DNRC manages 39,700 acres of forest land (21% of the CA) for the purpose of revenue generation to support school trust beneficiaries. DNRC has had a long history of being a cooperator of conservation efforts in the Swan Valley including: 1) Swan Valley Grizzly Bear Conservation Agreement with the USFWS, USFS, and Plum Creek Timber Company, 2) Swan Valley Grizzly Bear Ranger Program; and 3) DNRC/Swan Ecosystem Center MOU to help provide support and funding for other local projects to help minimize conflicts between humans and grizzly bears. Additionally, DNRC has worked for the last seven years with the USFWS to develop a Habitat Conservation Plan (HCP) covering forest management activities across 550,000 acres in western Montana, including the Swan River State Forest. Given our agency's stake in the Swan Valley we hope to engage with you more often as this project develops.

We offer our support of a logical delineation of a CA which would facilitate the acquisition of conservation easements on private lands in the Swan Valley. We ask that the Service keep in mind DNRC's responsibility to generate revenue on state trust lands and actively manage forests as conservation easements on private lands are considered.

Sincerely,

Mary Sexton
Director

Response

Response 22. Thank you for your comments.

Letter # 23

MISSOULA COUNTY

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

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

BCC 2010-187
August 12, 2010

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

RE: Blackfoot Valley and Swan Valley Conservation Easement Programs

Dear Toni:

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

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

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

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

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

Response

Response 23. Thank you for your comments.

Response 23.1 The Service agrees. See Response 19.

Letter # 23

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

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

Sincerely,
BOARD OF COUNTY COMMISSIONERS

Michele Landquist, Chair

Bill Carey, Commissioner

Jean Curtiss, Commissioner

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

Response

Response 23.2 Current policy does not permit Service interests to be managed by other agencies or organizations. There are a variety of agencies and land trusts that offer conservation easements in the Swan Valley, and landowners are free to pursue a conservation easement with the agency or organization that best meet their individual needs.

Letter # 24

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

June 21, 2010

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

Dear Ms. Griffin,

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

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

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

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

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

Thank you for your consideration.

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

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

Response

Response 24. Thank you for your comments.

Response 24.1 See Response 19.

Response 24.2 See Response 23.2.

Letter # 25

THE TRUST for PUBLIC LAND

CONSERVING LAND FOR PEOPLE

Montana Legacy Project Office
32 South Ewing Street
Room 302
Helena, MT 59601

T. 406-495-2269

www.tpl.org

June 14, 2010

Greg Neudecker
Montana Partners for Fish and Wildlife Program
US Fish & Wildlife Service
PO Box 66
Ovando, Montana 59854

Kathy Burchett
US Fish & Wildlife Service
Benton Lake National Wildlife Refuge
922 Bootlegger Trail
Great Falls, Montana 59404

Subject: Proposed Conservation Easement Program in the Swan Valley

Dear Greg & Kathy:

Thank you for holding two meetings in Condon regarding the proposed U.S. Fish & Wildlife Service (USF&WS) Conservation Easement Program in the Swan Valley. I believe there is positive local community support for the proposed program and hope that useful comments were provided.

The Trust for Public Land (TPL) has been working with the Swan Valley community for over a decade, identifying important resource values, developing appropriate land conservation strategies, and implementing those strategies. The valley is an important piece of the regional ecologic framework, and many of these efforts have been directed toward the checkerboard ownership pattern of Plum Creek Timber Company lands and public lands (principally USFS and DNRC). More recently, the Montana Legacy Project included the remaining Plum Creek lands within the valley, most of which have been conveyed to the Flathead National Forest (FNF). While these projects have addressed many threats to habitat fragmentation, other resource values in the Swan Valley still remain at risk.

I believe the Conservation Easement Program proposed by the USF&WS can provide additional tools to conserve important natural resource values associated with private lands in the Swan Valley. The program would be very complementary to past and current efforts, providing expertise and resources to private landowners who wish to conserve certain values on their properties. A few comments:

- The programmatic area (187,400 acres) contains much public land (FNF) and could be reduced to focus on private land. (The boundary may have been drafted prior to the donation of about 45,000 acres to the FNF in March 2010.)
- Many private land ownerships in the valley are smaller (<160 acres), so the program should provide flexibility to address natural resource values that may be present on such lands.
- The total acreage of conservation easement authority (11,000 acres) seems feasible, but could even be enlarged, given the presence of natural resource values in the valley.

Thanks for the opportunity to comment on the scoping of this program.

Sincerely,

Robert Rasmussen

Robert Rasmussen, Field Representative

cc: Toni Griffin, USF&WS

Response

Response 25. Thank you for your comments.

Response 25.1 The Service is aware of the Montana Legacy Project, which is mentioned on page 14 of the draft EA/LPP. The proposed project area boundary was selected based on the biological needs of the focal species identified in the draft land protection plan, and generally follows the valley floor of the Swan watershed. We acknowledge other agency lands exist within the proposed project boundary, however, the planning team felt it would be difficult to create a contiguous boundary that included only private lands within the Swan Valley. However, the Service conservation easement project will focus on the approximately 36,000 acres of private land within the conservation area.

Response 25.2 See Response 19.

Response 25.3 Initial projections included 11,000 acres as feasible acquisitions. The project is expected to take 15 years to complete. Conservation goals and objectives will be evaluated throughout the process and if project area changes are necessary the Service may seek to request a boundary expansion.

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