



Blackfoot River Wildlife Management Area



Management Plan
2014

Southeast Region



Blackfoot River Wildlife Management Area

**2014 2023 Management Plan
December 2014**

Idaho Department of Fish and Game
Southeast Region
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Executive Summary

The objective of this updated management plan (Plan) is to report progress since the last revision and to provide direction for future management of the Blackfoot River Wildlife Management Area (BRWMA). This revision was completed in 2014 with extensive public input. This plan is tiered off other Idaho Department of Fish and Game (Department) plans and policies summarized below.

- State Wildlife Action Plan (2005)
- Statewide management plans for:
 - waterfowl (1991)
 - upland game (1991)
 - mule deer (2010)
 - white-tailed deer (2005)
 - elk (2014)
 - moose (1991)
 - furbearer (1991)
- Statewide big game depredation management plan (1988)
- Conservation Plan for the Greater Sage-grouse in Idaho (2006)
- Policy for Avian and Mammalian Predation Management (2000)

The Plan includes the vision and mission for BRWMA as well as background information. It also reports on the progress of goals identified in the 1999 plan as well as additional accomplishments (Appendix V), and addresses new or continuing issues. It supplements the Department strategic plan (*The Compass*, Appendix I) and was developed with public involvement. An online survey was posted on the Department's website in 2012 to collect public input on the current management of the state wildlife management areas. Suggestions from the survey and other input were incorporated into the planning process wherever possible.

Performance targets were identified through the public input process and from perspectives of Department staff. Given the priorities for BRWMA, those performance targets or issues have been addressed within the Management Program section.

The Plan directs the Department to manage the vegetation and public use on BRWMA for the benefit of wildlife habitat and fish and wildlife-based public recreation. Some examples of strategies to be employed include habitat improvements (food plots and winter forage plantings), pest control (noxious weeds), providing quality access points for hunting and other wildlife-based recreation, providing public outreach and educational opportunity, and monitoring the effectiveness of all efforts through wildlife and public use surveys.

An effort has been made to broaden the scope of the Plan so the management of BRWMA takes into account the role and influence of the BRWMA on wildlife and habitat within the surrounding landscape, as well as the influence of the surrounding landscape on BRWMA. The extent of the landscape consideration is largely driven by the known or expected occurrence of

high priority and at-risk species, as well as land use patterns and topographical features in the area (see Management Program/BRWMA Landscape Conservation section). There will be an attempt to recognize and consider all forms of wildlife with particular focus on listed sensitive species known or expected to occur within the BRWMA landscape. See Appendices VI and VII for more complete listings pertaining to BRWMA.

The Plan will serve as a guide for managers, partners, and the public in making and justifying management decisions that will serve the stated priorities and goals most efficiently. Particular performance targets and strategies are dependent on adequate funding, personnel, and public support.

Introduction

Idaho Department of Fish and Game (Department) manages 32 Wildlife Management Areas (WMAs) distributed throughout seven administrative Regions. Researchers from the University of Idaho and The Nature Conservancy evaluated the value of Idaho's WMAs to wildlife. They found the WMA network, created to support game species, "also conserves the full range of Idaho's wildlife and other ecological features" (Karl et al. 2005). Surveys and monitoring work conducted by Department biologists confirms their value to big game, nongame, and many at-risk species identified in Idaho's State Wildlife Action Plan. In many cases, WMAs provide the principal habitat for at-risk species.

Wildlife Management Areas often abut other protected lands such as National Forests, Bureau of Land Management lands, Bureau of Reclamation lands, state endowment lands (Idaho Department of Lands), state and local parks, or private lands protected by conservation easement. Due to the wildlife-focused management, WMAs serve as highly productive core areas of the landscapes in which they exist. Management of these areas involves a combination of restoring and maintaining important natural habitats to contribute to landscape-level habitat function (such as mountain brush uplands and marsh wetlands), and creating enhanced habitat (such as food plots and managed wetlands) to increase the carrying capacity for selected wildlife species.

Wildlife Management Area management plans strive to direct management that upholds these values. They may also be bounded by legislative and/or funding mandates, Department species plans, the State Wildlife Action Plan, conservation partner objectives, national wildlife conservation strategies and plans (federal and non-government organizations), and especially the Department's own strategic plan, *The Compass* (Appendix I). Priorities, performance targets, and strategies are then developed to be consistent with the above mentioned documents and to enhance conservation values inherent to the WMA.

Department Mission

All wildlife, including all wild animals, wild birds, and fish, within the state of Idaho, is hereby declared to be the property of the state of Idaho. It shall be preserved, protected, perpetuated, and managed. It shall be only captured or taken at such times or places, under such conditions, or by such means, or in such manner, as will preserve, protect, and perpetuate such wildlife, and provide for the citizens of this state and, as by law permitted to others, continued supplies of such wildlife for hunting, fishing and trapping (Idaho Code Section 36-103).

Department Strategic Goals

The Department's 2005 Strategic Plan, *The Compass*, is the primary guiding document for all other Department plans and outlines four goals for the Department:

- Fish, Wildlife and Habitat: Sustain Idaho's fish and wildlife and the habitats upon which they depend.
- Fish and Wildlife Recreation: Meet the demand for fish and wildlife recreation.

- Working With Others: Improve public understanding of and involvement in fish and wildlife management.
- Management Support: Enhance the capacity of the Department to manage fish and wildlife and serve the public.

The 2014 WMA plans describe the management direction for each of the 32 WMAs the Department manages to help accomplish these goals. The specific *Compass* goals and objectives relevant to WMA management are included in Appendix I.

Statewide WMA Vision

Our WMAs are managed to provide and showcase important habitat for all wildlife and to offer high quality, wildlife-based public recreation.

Other Considerations

All regional WMA programs are funded through a combination of hunting and fishing license revenue, appropriations from federal excise taxes (firearms, ammunition, archery equipment, and fishing tackle), and funding provided by other partners to mitigate habitat loss or simply to contribute to the conservation effort. Hunters and anglers pay a large portion of the management costs. They and other users are rewarded with areas that are open to the public for hunting, trapping, fishing, and viewing. The habitat provided helps to attract and sustain wildlife populations for consumptive and non-consumptive use, including venues for outdoor education activities.

All strategies proposed in this plan are bound by the contractual agreements between cooperating agencies, the mission of BRWMA, and all applicable Department species management plans and policies. Issues and strategies that are inconsistent with the mission were not considered. In addition, the implementation of all strategies will be subject to available funding, personnel, and safety considerations.

The Southeast Region

The Southeast Region, headquartered in Pocatello, manages five WMAs totaling 17,000 acres of land. This includes deeded properties, leases, and cooperative agreements. Management focus is to maintain highly functional wildlife habitat and provide wildlife-based recreation. These areas include:

- Blackfoot River WMA, located in Caribou County, is focused on the important Blackfoot River headwaters fishery, but also provides big game, upland game, and waterfowl habitat. It is also a popular fishing access point.
- Georgetown Summit WMA is an important winter range for deer and elk, but also provides year-round habitat for big game and several species of upland game. The Bear

River flows through the property, and the stream and riparian corridor is important for fisheries, furbearers, and waterfowl.

- Montpelier WMA, also located in Bear Lake County, serves mainly as an elk and mule deer winter range.
- Portneuf WMA in Bannock County is key part of a mule deer winter range that wraps around the Portneuf Mountains from Inkom to Lava Hot Springs. It is also popular for a variety of outdoor public recreation including big game and upland game hunting.
- Sterling WMA in central Bingham County lies adjacent to American Falls Reservoir and is a mixture of sagebrush steppe and wetlands that provide habitat for a variety of waterfowl and water birds. Upland game, particularly ring-necked pheasant, is also an important habitat management consideration. The area is well used for both upland game and waterfowl hunting.

Nearly all WMAs benefit a variety of nongame and sensitive species of plants and animals. Some examples of sensitive species for the Southeast Region include red glasswort, Idaho sedge, desert valvata, Idaho dunes tiger beetle, Yellowstone cutthroat trout, northern leopard frog, short-eared owl, Columbian sharp-tailed grouse, sandhill crane, trumpeter swan, lesser scaup, northern pintail, white-faced ibis, long-billed curlew, and Brewer's sparrow.

Blackfoot River WMA

Blackfoot River WMA (BRWMA) is administered through partnerships with the Bureau of Land Management (BLM), the U.S. Forest Service (USFS), the Idaho Department of Lands (IDL), and private landowners. It is located in Caribou County 16 miles northeast of Soda Springs.

Acquisition was initiated to preserve and enhance native plant communities for terrestrial wildlife and with particular focus on benefitting aquatic habitat for Yellowstone cutthroat trout. History of the WMA and current infrastructure is described in Appendices II and VIII. The priorities for BRWMA in order of importance include: 1) quality aquatic habitat for Yellowstone cutthroat trout breeding, rearing, and connectivity; 2) waterfowl and other wildlife production; 3) public hunting and fishing; and 4) general wildlife appreciation. Blackfoot River WMA funding comes from state hunting and fishing license sales, Pittman-Robertson Act funds (federal excise taxes), and Dingell-Johnson Act funds (federal excise taxes). Other grants and mitigation funds have also been utilized to support specific projects undertaken to maintain or improve habitat. This management plan is designed to provide broad guidance for the long-term management of BRWMA and replaces an earlier management plan written in 1999.

Blackfoot River WMA Vision

The BRWMA will be managed to benefit wildlife by providing diverse upland and riparian plant communities, and also to provide public access for wildlife-based recreation with emphasis on fishing and hunting opportunity.

Blackfoot River WMA Mission

All wildlife resources of BRWMA will be protected and managed as mitigation for habitat losses, and to ensure sufficient quantities of high quality habitat for Yellowstone cutthroat trout, waterfowl, and a wide variety of other game and nongame species. High quality wildlife-based recreational opportunities will be provided compatible with provisions for wildlife and wildlife habitat.

Modification of Plan

This plan provides broad, long-term management direction for BRWMA. It will be evaluated at least every five years to determine if adjustments are needed. The Plan will be modified as needed to accommodate changing conditions and goals and to incorporate available advancements in management knowledge and techniques.

Area Description and Current Status

Blackfoot River WMA is located in Caribou County 16 miles northeast of Soda Springs, and includes 2,400 acres bisected by the headwaters of the Blackfoot River (Figure 1). It lies within the Great Basin/Rocky Mountain vegetation transition zone. Elevations range from 6,400 feet on the Blackfoot River to 7,700 feet on ridge tops surrounding the WMA.

Landforms in the Blackfoot River drainage are primarily the result of horizontal thrust faulting and subsequent erosion (USFS 1978). Sedimentary beds were buckled and overthrust by forces from the west. A series of ridges and valleys extend north and south as a result of this faulting and folding. Geologically, the upper valley contains alluvium consisting of silt, clay, sand, and gravel (Cuplin 1961). Soils are generally light clay with fine gravel texture, but vary greatly depending on slope and aspect. The surrounding mountains are composed of sedimentary shales, sandstones, limestones of the Paleozoic age, quartzites, and conglomerates. Phosphoria formations also exist which contain phosphatic shale (Thurrow 1980). Phosphate mining in the region around the WMA makes its unaltered habitat even more important to fish and wildlife. Current phosphate mining exploration and a 2016 proposed open pit mine including the WMA will have dramatic effects on wildlife habitat, species composition, and wildlife use. Fish habitat may be affected due to altered water quality, especially given recent concerns with elevated selenium levels from mining operations. Proper reclamation and mitigation are being sought for impacts to fish and wildlife on BRWMA and lands closely associated with the BRWMA.

The area has a semi-arid climate characterized by hot summers, cold winters, and frequent southwesterly winds. Temperatures range from -40°F to 90°F. Annual precipitation is 15-20 inches, more than half of which falls in the winter as snow. The climate is moderated by predominantly moist, warm air masses moving inland from the North Pacific Ocean and conditions are influenced locally by major mountain ranges, which lie north to south across west to east airflows. Occasional arctic air masses bring extreme winter cold. Mean daily temperatures in January rarely exceed 20°F, and minimums of -20°F are not unusual.

Located at the lower end of a high valley, BRWMA is bisected by the first seven miles of the Blackfoot River, principally formed by the confluence of Lanes and Diamond Creeks at the east edge of the property. Several small tributaries also flow through the WMA adding to the river volume before it enters a narrow canyon near the west edge of the WMA known locally as the Upper Narrows. The valley is also bisected by county maintained roads serving routes northward generally following Lanes Creek, and southward following Diamond Creek.

The Department holds title to 1,720 acres. A section (640 acres) administered by IDL lies southeast of the deeded property. The Department has held a “miscellaneous or conservation lease” on that section since acquisition of the deeded property. The BLM administers two parcels just northeast of the deeded property, one of which (40 acres) has been fenced with and essentially managed as part of BRWMA through an Assistance Agreement. The remaining surrounding properties are managed by the Caribou-Targhee National Forest and private ranching operations. Federal and private lands adjacent to the BRWMA are used mainly for

livestock grazing by cattle and sheep, as was the WMA prior to acquisition. The wet meadow areas nearer the river and tributaries were hayed historically, but not in recent decades. Phosphate mining is the other major industry impacting the area. Open pit mining operations have been conducted for several decades on ridges to the north, west, and south of BRWMA. There are currently active mining operations north of the BRWMA and preparations have been underway to exercise a mining lease which will directly impact the WMA north of the river with actual mining projected to begin by 2016. A separate mining operation to the south will also slightly impact the WMA. In addition to direct physical impacts to vegetation communities, recent investigation has also raised concern with the release of high levels of selenium associated with mine waste. A double circuit 115-kV transmission line route with an access road that would cross onto the south end of the WMA is currently under consideration. This development would further impact views as well as the integrity of mountain brush and timbered habitat in the vicinity.

Vegetation is dependent on climatic factors as well as land use and management history, but generally displays a complex of four dominant groups: 1) willow-dominated riparian areas, 2) sedge-dominated wet meadows, 3) aspen and Douglas-fir forests, and 4) sagebrush-grasslands.

The aspen complexes provide fawning and calving areas for deer and elk. Elk, mule deer, and moose use the WMA in the spring, summer, and fall. Due to snow depths, limited forage availability, and thermal cover on the WMA, the area is not considered big game winter range. The aspen/conifer forested ridges provide some winter habitat for elk and moose, but most of the big game migrates to the Georgetown front, the 90 Percent Range, and possibly to Tex Creek winter range to the northwest.

Noxious weeds are controlled by a variety of methods. Over 600 acres are chemically treated on an annual basis. Several biological controls have also been released. See Appendix VI for a map and thorough listing of known vegetation communities and plant species.

Many species of waterfowl and waterbirds including mallard, teal, gadwall, northern pintail, American widgeon, Canada goose, sandhill crane, and long-billed curlew nest and rear their young on the BRWMA. Upland game species include blue grouse, ruffed grouse, and occasionally sage-grouse and sharp-tailed grouse. The upper Blackfoot River historically supported an exceptional quality adfluvial Yellowstone trout fishery associated with Blackfoot Reservoir, located approximately 32 river miles downstream. Catches of five-pound cutthroat were not uncommon and 10 to 15 pound fish were occasionally reported (Thurrow 1980). In years since the early 1960s, anglers and fishery biologists observed a decline in angler success. Since the late 1990s, research and management surveys have been conducted to track trout population densities, migration patterns, and possible impacts of fishing pressure and avian predation mainly from American white pelican. Management steps have been taken to limit a pelican nesting colony on Blackfoot Reservoir and to reduce concentrated predation near the reservoir river mouth and at the Department operated fish trap just upstream of the river mouth. See Appendix VII for a thorough listing of animal species known to occur on BRWMA.

Other than administrative use, motorized vehicles are restricted to adjacent county roads and several parking areas. Public facilities are limited to parking areas, signage/information kiosks, and portable toilets during the fishing and hunting seasons when most public use occurs.

Most property boundaries, including county road right of ways, are fenced to control livestock and public use. Since acquisition in 1995, most original fencing has been replaced with rail fence or let-down wire fencing. Several structures exist on the property, some dating from the 19th century. Of the buildings, only the original homestead cabin and a bunkhouse completed in 2013 are being maintained. A well with hand pump was installed in 2012.

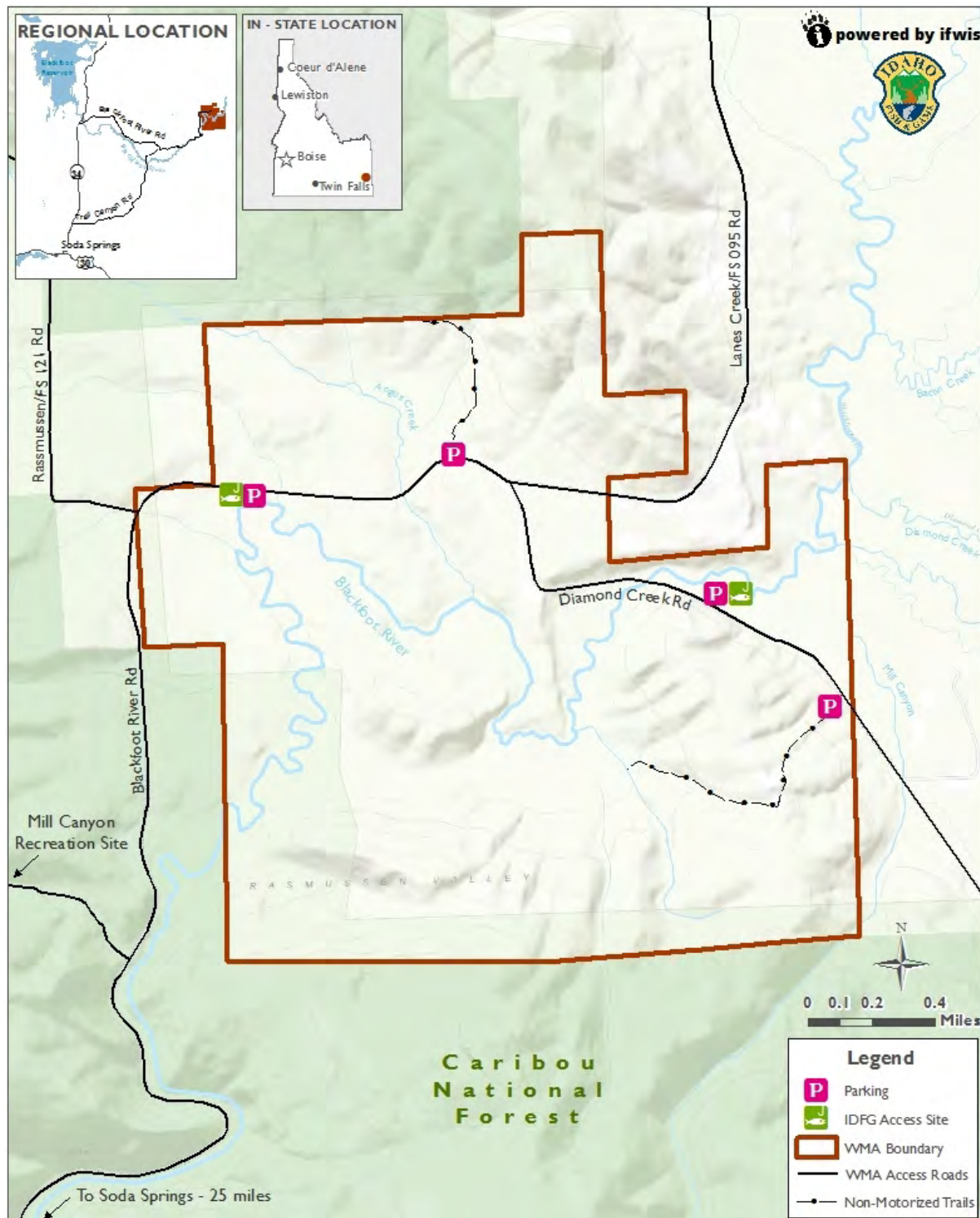


Figure 1. Blackfoot River Wildlife Management Area.

Management Issues

The list of issues addressed in this plan was generated from public input and from within the Department as described below. Similar issues are grouped into one of two categories: Wildlife Management, and Public Use and Relations Management. The identified issues in turn generated performance targets or issues, which were grouped by management directions within one of the four BRWMA priorities (Yellowstone Cutthroat Trout and Waterfowl Production, Other Wildlife Production, Public Fishing and Hunting, and General Wildlife Appreciation). The Performance Targets are all tied to a *Compass* (strategic plan) objective (Appendix I). Fifty-seven performance targets were identified. Again, an effort has been made to broaden the scope of the plan so the management of BRWMA takes into account the role and influence of the WMA on wildlife and habitat within the surrounding landscape, as well as the influence of the surrounding landscape on BRWMA. The landscape delineation is largely driven by the known or expected occurrence of high priority and at-risk species potentially impacted by BRWMA, but also considers topographical features and land use patterns.

Throughout 2012 (Feb-Dec), an online survey form was available on the Department website, and known interested parties were contacted via mailed postcards. Hard copies were also made available at the regional office or mailed out upon request. The survey allowed participants to answer questions and provide feedback on WMA management statewide and the management of specific WMAs.

In addition to sampling type of use and demographics, this tool was meant to collect input from the public on the current management of WMAs and suggestions for improvement. The survey (Appendix IV) included three leading questions meant to garner specific input: #6 “What could IDFG do to improve your visit to this WMA?”, #7 “Do you have any specific suggestions or comments about the management of this WMA?”, and #10 “Do you have any specific suggestions or comments on how to improve these [statewide] goals or current management of IDFG WMAs?”

From 61 survey responses pertaining to BRWMA, 48 comments or suggestions were received related to the questions mentioned above. Most of the comments came from users who identified fishing or hunting/scouting as their primary use of the WMA; however, wildlife viewing/photography, and being outside/hiking/miscellaneous activities were the most frequently listed uses by respondents. Use data, and occasional comments were also gathered from voluntary sign-in stations or through word of mouth. In 2012, 66 entries at the two voluntary sign-in stations indicated fishing was the most popular activity. In 2014, draft copies of all WMA plans were made available and comments solicited. Nineteen responses were provided concerning the BRWMA plan. Most respondents agreed with the plan as written with few new issues raised. One respondent felt the fishery has declined since grazing has discontinued and also expressed concern with the impact of nearby phosphate mining and potential impacts of related selenium contamination. Another respondent felt the status of sage-grouse in the vicinity was not well covered and that more discussion of probable development impacts (mining and transmission line installation) should be included. A third respondent suggested that use of lead-

free ammunition should be considered and that steps should be taken to assure trapping activity does not conflict with other priorities.

Neighbors to the BRWMA and management partners also have provided input through written correspondence or personal communication. All input/issues from the public were reviewed and any suggesting changes or improvement are listed below (similar comments have been paraphrased and/or combined).

Issues Identified by the Public

Wildlife Management

- Increase deer/elk numbers and consider reducing controlled hunt tags
- Set harvest quotas based solely on science
- Reduce predator numbers (pelicans/wolves)
- Increase fish numbers and do not attempt to exclude rainbow trout
- Improve fish habitat
- Include additional information on status of sage-grouse in the area
- Improve water quality with particular attention to potential selenium contamination
- Encourage all native plants/animals and discourage exotic/invasive species and noxious weeds
- Use fire or grazing to improve habitat
- Monitor phosphate mining impacts including vegetation communities, selenium concerns, and reclamation
- Address future funding issues and habitat maintenance
- Charge access fee for non-license holders
- Address wildlife/human use conflicts
- Increase fence maintenance
- Improve relations with neighbors and other organizations/agencies to optimize public benefits including additional wildlife habitat
- Acquire additional adjacent land
- Consider requiring lead-free ammunition on WMAs

Public Use and Relations

- Provide better maps
- Improve information stations (general rules/habitat and wildlife identification/available facilities-ranked opportunities) so literature is always available and protected from weather
- Improve relations with neighbors and other organizations/agencies to optimize public benefits including additional access
- Better agreements with neighbors
- Address future funding issues and access developments
- Charge access fee for non-license holders

- Acquire additional adjacent land
- Increase enforcement to curb littering and vandalism
- Provide more motorized access
- Current level of access adequate
- Charge fee for non-license holders and consider other fund raising tools
- Take measures to assure trapping activity does not conflict with other priorities

Issues Identified by the Department

Wildlife Management

- Extend WMA management considerations onto the surrounding landscape which influences or is influenced by the WMA
- Anticipate equipment/infrastructure needs and budget accordingly
- Complete contemporary surveys for all wildlife and plants including aquatic and terrestrial species
- Improve understanding and communication regarding fishery management goals and actions
- Protect wildlife habitat from impacts due to development, or fully mitigate current or potential values that are lost

Public Use and Relations

- Accurately assess and summarize year-round public use with an approved systematic and randomized sampling scheme
- Anticipate equipment/infrastructure needs and budget accordingly
- Maintain boundary markers on all boundaries spaced at no more than 660 feet
- Assure rules/regulations particular to the BRWMA (e.g., camping, open fires) are consistent with statewide use policy, are well posted on site and are addressed in printed/electronic format

Blackfoot River WMA Management Program

The Department is responsible for the conservation, protection, perpetuation, and management of all wildlife, fish, and plants in Idaho. Wildlife Management Areas enable the Department to directly affect habitat to maximize suitability for species in key areas and are an integral component in the Department's approach to fulfill its mandate in Idaho Code. Management to restore and maintain important natural habitats and create hyper-productive habitats that enhance carrying capacity for selected wildlife species remain key strategies on BRWMA. However, the most pervasive threats to WMA ecological integrity, such as noxious weeds, rural residential/commercial development, increased water diversion, and conflicting land uses on public lands, typically come from outside the WMA's boundary. Therefore, WMA managers must recognize and create opportunities to collaborate with adjacent landowners, expanding our collective conservation efforts for WMA-dependent wildlife.

An effective way to enable a broader influence over the future of BRWMA is through the use of Conservation Targets to guide management. Conservation Targets can be either a focal species or a habitat-type that benefits numerous species. According to Noss et al. (1999), focal species are those used by resource managers to determine the appropriate size and configuration of conservation areas. Conservation of species within landscapes used for other enterprises such as forestry, recreation, agriculture, grazing, and commercial development requires managers to determine the composition, quantity, and configuration of landscape elements required to meet the needs of the species present (Lambeck 1997). Since it is impractical to identify key landscape elements for all species dependent on BRWMA, a carefully selected suite of Conservation Targets can help provide for the conservation needs of many species. Additionally, identifying landscape-scale Conservation Targets across ownership boundaries helps address wildlife-related issues on the WMA and creates a platform for conservation partnerships on the surrounding landscape.

The following five-step process was used to create the BRWMA management program described in this plan. Each of these steps is described in detail on the ensuing pages.

- 1) Summary of Management Priorities
- 2) Focal Species Assessment
- 3) Selection of Conservation Targets
- 4) Coverage Assessment of Selected Conservation Targets
- 5) Creation of Management Program Table

Blackfoot River WMA Landscape Conservation

The BRWMA lies directly adjacent to BLM and USFS lands and includes a section of IDL land. All of these jurisdictions as well as adjacent private lands include wildlife habitat that serves as

core area for the overall landscape. An important role for BRWMA is to protect, enhance, or restore habitat functions for wildlife within the associated landscape.

Wildlife Management Areas enable the Department to directly affect habitat to maximize suitability for species in key areas and are an integral component in the Department's approach to fulfill its mandate in Idaho Code. Management to maintain important natural habitat or create enhanced habitat for selected species is a key strategy. However, many threats to species associated with BRWMA occur beyond the WMA boundary. Opportunities to cooperate and collaborate with adjacent land managers should be recognized and pursued whenever possible. Both wildlife and public benefits related to healthy wildlife populations will be augmented.

To promote a broader influence over wildlife habitat needs and associated public use, focal species and their particular needs have been identified and will be considered in all actions within BRWMA or wherever the Department has opportunity to influence land management, especially within the designated landscape. In order to delineate and describe the landscape associated with BRWMA, topography, land use patterns, wildlife-based recreation use patterns, and species occupancy have been considered.

When considering species occupancy, we have focused on species that are of high importance given the priorities of BRWMA, or those species given special status due to depressed or unknown population status. Special status species are those designated as Species of Greatest Conservation Need according to the Idaho Comprehensive Wildlife Conservation Strategy (Idaho Department of Fish and Game 2005) or, for plants, special status ranking assigned by the Idaho Conservation Data Center, or those given special status designation by either the BLM, USFS, or U.S. Fish and Wildlife Service (USFWS).

Combining the factors of topography, land use, and known species occupancy, we have designated a landscape, or area of influence, logically associated with BRWMA and management concerns and priorities (Figure 2). The designated landscape represents a minimum 10-mile buffer about the BRWMA boundary, including topography similar to or influencing the habitat within the BRWMA boundary as well as associated land use such as agricultural land, native forest and rangeland, and the variety of land ownership associated with the WMA. The BRWMA landscape includes an area known to be used by migratory mule deer fawning on the WMA as indicated by radio telemetry as well as the Blackfoot River watershed downstream to the Government Dam on Blackfoot Reservoir, in consideration of the adfluvial Yellowstone cutthroat trout population. It also takes into account the occurrence records of sensitive plant and animal species in the vicinity.

The focal species or groups of species have been used to designate several Conservation Targets for BRWMA priorities in the Management Program Table below (pages 35-39). Management Directions, and subsequently Performance Targets, Strategies, and Outcome Metrics are related to a given scope of application being either within just the BRWMA boundary, within the surrounding BRWMA landscape, or both within the landscape and the BRWMA boundary.

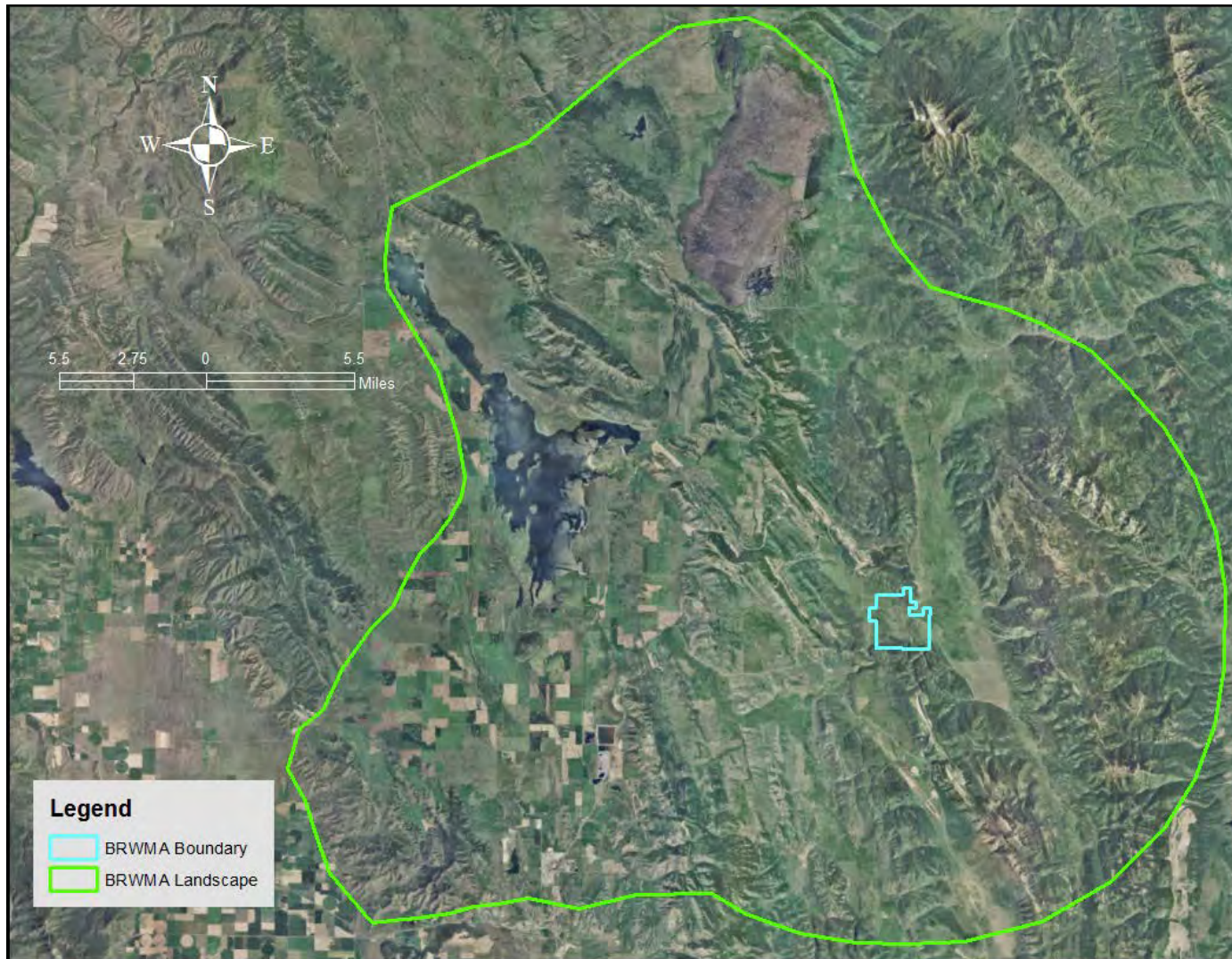


Figure 2. Blackfoot River WMA Landscape.

Summary of Management Priorities

Blackfoot River WMA, like many other WMAs, was created for a specific purpose and therefore has inherent management priorities incorporated in the cooperating agency agreements and land ownerships that formed the WMA. Blackfoot River WMA focuses primarily on protecting and enhancing habitat for Yellowstone cutthroat trout, waterfowl, and other wildlife while providing opportunities for wildlife and fisheries-related recreation.

Legal mandates associated with the 2001 appropriation of federal funding for the State Wildlife Grants program also guide the Department's management priorities. The U.S. Congress appropriated federal funds through the State Wildlife Grants program to help meet the need for conservation of all fish and wildlife. Along with this new funding came the responsibility of each state to develop a Comprehensive Wildlife Conservation Strategy (CWCS) referred to above. The Department coordinated this effort in compliance with its legal mandate to protect and manage all of the state's fish and wildlife resources (Idaho Department of Fish and Game 2005). The CWCS is currently under revision and is now referred to as the State Wildlife Action Plan (SWAP). The SWAP serves to coordinate the efforts of all partners working toward conservation of wildlife and wildlife habitats across the state. The SWAP does not distinguish between game and nongame species in its assessment of conservation need and is Idaho's seminal document identifying species at-risk. Therefore, at-risk species identified in the SWAP, both game and nongame, are a management priority for the Department.

In addition to the biological goals of preserving, protecting, and perpetuating all fish and wildlife in Idaho, the Department also has a statewide goal of protecting and improving wildlife-based recreation and education. The Department's strategic plan, *The Compass*, outlines multiple strategies designed to maintain or improve both consumptive (e.g., hunting, trapping, fishing) and non-consumptive (e.g., wildlife watching) wildlife-based recreation opportunities across the state.

Taking the biological and funding resources of BRWMA into consideration, in concert with these foundational priorities of the WMA and statewide Department priorities, the Department developed the following list of broad-scale BRWMA Management Priorities.

Blackfoot River WMA Management Priorities (listed in order of importance):

1. Yellowstone Cutthroat Trout and Waterfowl Production
2. Other Wildlife* Production
3. Public Fishing and Hunting
4. General Wildlife Appreciation

* "Other Wildlife" to include all wild species plant and animal

The priorities for BRWMA were developed based on the potential of the habitat, and typical or potential wildlife-based use.

The BRWMA includes the first seven miles of the Blackfoot River, formed by the confluence of Diamond Creek, Lanes Creek, and several small tributaries at the east edge of the WMA. The river is low gradient throughout the WMA and is impacted by surrounding land use that increases sediment load and selenium levels. Though actual spawning habitat on the WMA is limited, it provides an important barrier-free migration corridor and rearing habitat for Yellowstone cutthroat trout. Gentle flows, backwaters, wet meadows, and adjacent shrublands provide rearing and nesting habitat for a variety of waterfowl. The area has long been appreciated for potential fishing access, though opportunity was limited while the property was in private ownership. Even with a restrictive fishing season (catch and release/artificial lures only/delayed opening), the area gets substantial use from mid-summer through fall. The area is also popular for big game hunting including mule deer, elk, and moose. Waterfowl hunting opportunity for Canada goose and mallard is substantial, at least through late November. The area has also been popular for wildlife viewing largely due to the road system through the area which provides access to additional public lands. Trapping opportunity has also been pursued and typically two participants are permitted.

Focal Species Assessment

This section of the Plan is an assessment of conservation priority species that will identify Conservation Targets to guide management within the BRWMA Landscape. Table 1 evaluates taxa that are either flagship species (Groves 2003) and/or at-risk species identified by the Idaho SWAP and designated Species of Greatest Conservation Need (SGCN), the Idaho Conservation Data Center, or key federal agencies.

Flagship species are popular, charismatic species that serve as symbols and catalysts to motivate conservation awareness, support, and action (Heywood 1995). Flagship species often represent a landscape or ecosystem (e.g., east Idaho highlands), a threat (e.g., habitat loss), organization (e.g., state government or conservation group) or geographic region (e.g., protected area, Department Region or state; Veríssimo et al. 2009). Yellowstone cutthroat trout is an example of a species that fits the criteria as both focal and flagship species. Yellowstone cutthroat trout is a culturally and economically important species in Idaho. It is ranked as a sensitive species and represents a founding priority for establishment of the BRWMA. Therefore, Yellowstone cutthroat trout is an important flagship species considered in the BRWMA assessment.

A principal limitation of the flagship species concept is that by focusing limited management resources on culturally and economically important species, more vulnerable species may receive less or no attention (Simberloff 1998). To overcome this limitation we are also considering a variety of at-risk species (Groves 2003); yielding a more comprehensive assessment that includes culturally and economically important species (e.g., mule deer and upland game birds) along with formally designated conservation priorities (e.g., Brewer's sparrow). Categories of at-risk species considered in this assessment are: 1) species designated as Idaho SGCN or, for plants, special status ranking assigned by the Idaho Conservation Data Center; 2) species designated as Sensitive by Region 4 (Intermountain Region) of the USFS; 3) species designated as Sensitive by the Idaho State Office of the BLM; and 4) species listed or candidates for listing under the Endangered Species Act by USFWS.

Although the Idaho SWAP SGCN includes most of the special status species identified by land management agencies in Idaho, some species not listed as SGCN are considered priorities by other agencies. The area surrounding BRWMA is comprised of multiple land ownerships including BLM, IDL, USFS, and private lands. The BLM, IDL, and USFS in particular are key partners in this landscape as their management actions can directly influence ecological function on BRWMA.

United States Forest Service Sensitive Species are animal species identified by the Intermountain Regional Forester for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution. The Forest Service Manual (FSM 2670.22) directs the development of sensitive species lists. This designation applies only on USFS-administered lands.

Bureau of Land Management Sensitive Species are designated by State Directors in cooperation with the State fish and wildlife agency (BLM manual 6840). The Idaho State BLM Office updated these designations in 2003. The sensitive species designation is normally used for species that occur on BLM public lands and for which BLM has the capability to significantly affect the conservation status of the species through management.

Information on species status, occurrence (within WMA boundary and within Landscape boundary), beneficial management/conservation actions, and threats were derived through consultation with Department Regional Habitat, Fisheries, and Wildlife staff; occurrence records in the Department's Idaho Fish and Wildlife Information System database; consultation with various BLM and USFS species lists; and species summaries provided in the Idaho SWAP.

Southeast Regional Habitat staff, with assistance from regional staff, estimated the suitability of assessed species as a focal species based on descriptions in Groves (2003) and U.S. Fish and Wildlife Service (2005). Potentially suitable focal species may include species with one or more of the following five characteristics:

- *Species with high conservation need*
- *Species or habitats that are representative of a broader group of species sharing the same or similar conservation needs*
- *Species with a high level of current program effort*
- *Species with potential to stimulate partnerships*
- *Species with a high likelihood that factors affecting status can realistically be addressed* (U.S. Fish and Wildlife Service 2005)

Game species considered for focal species designation include elk and mule deer combined, moose, Columbian sharp-tailed grouse, greater sage-grouse, sandhill crane, mallard, and Yellowstone cutthroat trout.

Nongame species considered for focal species designation include: Canada lynx, Myotis guild (California), little brown, long-eared, long-legged, Yuma), North American wolverine, bald eagle,

boreal owl, Brewer's sparrow, great gray owl, long-billed curlew, merlin, northern goshawk, peregrine falcon, Transitional waterbird guild (American avocet, American white pelican, black-crowned night heron, black-necked stilt, black tern, California gull, Caspian tern, Clark's grebe, common loon, Franklin's gull, Forster's tern, harlequin duck, hooded merganser, lesser scaup, northern pintail, snowy egret, trumpeter swan, western grebe, white-faced ibis, Wilson's phalarope), common garter snake, northern leopard frog, western toad, Bear Lake springsnail, western pearlshell, stonefly, spur-throat grasshopper, Idaho sedge, and hoary willow.

Table 1. Status of conservation priority species on Blackfoot River WMA, including potential suitability as a focal species for management.

Species	Status Designation(s)	Occurrence Context in Blackfoot River WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Blackfoot River WMA
Mammals					
Elk (<i>Cervus elaphus</i>) and Mule Deer (<i>Odocoileus hemionus</i>)	Flagship	BRWMA and the surrounding landscape includes fawning and calving habitat as well as important transition and winter range to the west and northwest in game management units 69 and 72.	Industrial development from mining operations and related infrastructure contribute to cumulative losses of habitat and disrupted connectivity. Other infrastructure such as expanded highway capacity or power grid connections creates similar impacts. Loss and degradation of riparian habitat including aspen stands and meadow complexes impacts habitat productivity and recruitment.	Support management that increases aspen on the landscape; (Eastern Idaho Aspen Working Group). Provide technical assistance to public and private land managers to expand available habitat and halt the cumulative loss and fragmentation of existing habitat especially due to mining and transmission line development. Contribute to Department regional disease and toxin monitoring efforts.	Potentially suitable as a focal species. Elk and Mule deer are a culturally and economically important wildlife species in eastern Idaho and are species with good potential for developing conservation partnerships. Elk and Mule deer are representative of a broader group of species sharing the same or similar conservation needs.
Moose (<i>Alces alces</i>)	Flagship	Moose occur in unknown numbers throughout the BRWMA landscape.	Loss and degradation of riparian habitat including aspen stands and meadow complexes impacts habitat productivity and recruitment, regional disease concerns, illegal harvest; industrial development from mining operations and related infrastructure contribute to cumulative losses of habitat and disrupted connectivity.	Support management that increases high quality riparian habitat on the landscape; provide technical assistance; contribute to Department regional disease monitoring efforts.	Potentially suitable as a focal species. Moose are relatively abundant in the BRWMA landscape and are dependent on habitats that are representative of a broader group of species sharing the same or similar conservation needs.
Canada Lynx (<i>Lynx canadensis</i>)	SGCN, BLM Type-1, USFS Sensitive, USFWS ESA Threatened	Several historic occurrences within the BRWMA landscape, and one relatively recent occurrence within two miles of the WMA.	Habitat degradation, fragmentation, and loss are the primary threats to lynx populations. Fire suppression and timber management practices have affected landscape-scale characteristics of vegetation composition and structure. Habitat alterations and increased access have also been associated with increased competition with coyotes and bobcats; winter recreation (snowmobiles, ski area development) may cause disturbance and displacement.	Information needed regarding the current status of Idaho populations. Timber management practices designed to maintain or enhance habitat for the snowshoe hare and other prey may help sustain lynx populations. Management practices that increase habitat complexity at landscape scales may also be beneficial. Potential disturbance should be addressed in occupied habitat. Incidental take from trapping should be addressed through education.	Unsuitable as a focal species. Occurrence context on BRWMA landscape does not reflect the main threats. Limited and unquantified seasonal occurrence limits potential management feedback at the focal species scale.
North American Wolverine (<i>Gulo gulo</i>)	SGCN, BLM Type-3, USFS Sensitive, USFWS ESA Proposed threatened	Three relatively recent occurrences within the BRWMA landscape	Human disturbance is among the most important causes of habitat fragmentation and degradation in wolverine habitat.	Limiting disturbance to occupied habitat is critical. Would benefit from wilderness designations in subalpine and mid-elevation forests. Incidental take from trapping should be addressed through education.	Unsuitable as a focal species. Occurrence context on BRWMA landscape does not reflect the main threats. Limited and unquantified seasonal occurrence limits potential management feedback at the focal species scale.
Myotis Guild	SGCN, BLM Type-4, 5	California myotis, Long-eared myotis, Long-legged myotis and Yuma myotis occurrences within the BRWMA landscape (California and Yuma may be misclassifications for Western Small-footed and Little Brown respectively).	Individuals are long-lived and exhibit low reproductive potential. Roost sites tend to be colonial, and may be limiting in some areas; aggregations are susceptible to disturbance and intentional persecution. High prey densities are often associated with wetlands and other highly productive habitat. Local populations potentially affected by wind turbine installations situated in flyways or near high-use areas, such as wetlands or roosts.	Minimize broad-spectrum insect control activities that reduce prey base. Where possible, document natural roosting habitat. Create day-and night-roosting habitat through installation of bat boxes. Deploy escapement devices on troughs and water tanks, and develop natural and artificial pooled water sources. Track with ongoing efforts of the East Idaho Bat Working Group to mitigate bat mortalities from wind energy development.	Potentially suitable as a focal species. Unknown scope of occurrence and composition of guild on BRWMA would require preliminary work to determine the extent of occurrence.

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Species	Status Designation(s)	Occurrence Context in Blackfoot River WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Blackfoot River WMA
Birds					
Columbian Sharp-tailed Grouse (<i>Tympanuchus phasianellus columbianus</i>)	SGCN, BLM Type-3, USFS Sensitive	Regional concentrations of sharp-tailed grouse depend on areas within the BRWMA landscape. There are approximately seven leks (currently active and/or historic) documented within the BRWMA landscape.	Population declines are related to habitat loss and degradation. Breeding habitats are dominated by relatively dense herbaceous (grass and forbs) cover and shrubs. Broods depend on areas with abundant forbs and insects, often with high shrub diversity. Sharp-tailed grouse often rely on riparian areas or deciduous hardwood shrub stands during winter, although agricultural fields may be used in milder conditions.	Identify, protect and maintain key breeding and wintering habitats, avoid disturbance to breeding complexes (lands within six mile radius of occupied leks), monitor breeding populations. Work with adjacent private landowners to encourage deferred haying operations.	Potentially suitable as a focal species. Meets all criteria for focal species designation. Sharp-tailed grouse have large home ranges, are capable of extensive movements, and use a mosaic of habitats within PWMA and vicinity.
Greater Sage-grouse (<i>Centrocercus urophasianus</i>)	SGCN, BLM Type-2, USFS Sensitive, USFWS ESA Candidate	The Blackfoot River and Willow Creek watersheds and the BRWMA landscape include sage-grouse habitat designated as either <i>Preliminary General</i> or <i>Preliminary Priority</i> in the BLM Version 2 habitat modeling effort, or as <i>General Management Zone</i> in the Idaho Governor's Alternative. Eight active leks are known within the BRWMA landscape and at least one confirmed active lek is within six miles of the WMA boundary. Sage-grouse have recently been observed on BRWMA. Lek attendance in the upper Blackfoot River drainage has trended downward over the last fifty years.	Loss, degradation, and fragmentation of sagebrush habitat are the major threats to the greater sage-grouse in Idaho. Habitat degradation factors include alteration of historical fire regimes, conversion of sagebrush habitat, water developments, use of herbicides and pesticides, invasive species, urbanization, energy development, mineral extraction, and recreation.	Identify, protect, and maintain existing sagebrush seasonal habitats; particularly breeding and winter habitats and especially due to brush treatments and mining and transmission line development. Identify new lek/breeding habitats in the BRWMA vicinity. Where possible, restore damaged and lost sage-steppe habitat. Manage projects to significantly reduce fragmentation of existing sagebrush habitats and to reduce human disturbance with particular attention to mining and transmission line development.	Potentially suitable as a focal species. Sage-grouse have a high conservation need and are representative of a group of species sharing similar conservation needs. They have a high level of current Department program effort and are a species with potential to stimulate partnerships. However, they currently have limited occurrence in the BRWMA vicinity.
Mallard (<i>Anas platyrhynchos</i>)	Flagship	The Blackfoot River watershed and BRWMA landscape includes important breeding and transitional habitats for Mallard and other species of waterfowl including SGCN Lesser scaup and Northern pintail.	Transitional populations are of primary concern, especially as ducks on wetlands compete against agricultural and urban users for limited water and space.	Primary actions should focus on restoring wetlands and integrating waterfowl management with farming practices	Potentially suitable as a focal species. Mallards are a culturally and economically important wildlife species in eastern Idaho and are species with good potential for developing conservation partnerships. Mallards are a foundational priority for the creation of BRWMA and are representative of a broader group of species sharing the same or similar conservation needs.
Transitional Waterbird Guild	SGCN	The Blackfoot River watershed and the BRWMA landscape includes important transitional habitats for many Idaho waterbird SGCN. Several species also nest in the area.	Threats to most Idaho waterbirds are not related to the use of transitional habitat but are related to disturbance of nesting breeding habitat, pesticide contamination and loss of wetlands.	Provide undisturbed nesting habitat.	Potentially suitable as a focal species. Transitional waterbirds are a culturally and economically important wildlife species in eastern Idaho and are species with good potential for developing conservation partnerships. Transitional waterbirds are representative of a broader group of species sharing the same or similar conservation needs.
Long-billed Curlew (<i>Numenius americanus</i>)	SGCN	Numerous occurrences within the BRWMA landscape and also documented within the WMA boundary. Habitat on the WMA is suitable to support low density nesting but breeding status is unknown.	The greatest threat to Long-billed Curlew in Idaho is loss of habitat. Conversion of grasslands to croplands, residential development, and increasing recreational use have all resulted in losses of suitable habitat in Idaho.	Identify curlew nesting and brood-rearing areas on BRWMA and vicinity. Protect nesting areas from fragmentation and human disturbance from approximately mid-April to mid-June especially due to mining and transmission line development.	Potentially suitable as a focal species. Long-billed curlew are relatively abundant in the BRWMA landscape and are dependent on habitats that are representative of a broader group of species sharing the same or similar conservation needs.

Species	Status Designation(s)	Occurrence Context in Blackfoot River WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Blackfoot River WMA
Sandhill Crane (<i>Grus canadensis</i>)	SGCN	Sandhill cranes within the BRWMA landscape are part of the Rocky Mtn. Population. BRWMA provides breeding habitat for sandhill crane. Gray's Lake, approximately 12 miles north of the WMA, is one of the most important breeding and migration-staging habitats for the Rocky Mtn. Population.	Greatest threat to Rocky Mtn. Population cranes is loss of migration-staging habitat. However, loss and degradation of wetland/riparian breeding habitat is also an issue.	Protect and restore wetland/riparian habitat for breeding sandhill cranes especially due to mining and transmission line development. Document breeding locations on the WMA, including nesting brooding locations.	Potentially suitable as a focal species. Sandhill cranes are relatively abundant in the BRWMA landscape and are dependent on habitats that are representative of a broader group of species sharing the same or similar conservation needs.
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	SGCN, BLM Type-1, USFS Sensitive	Bald eagles are common in the Blackfoot River watershed year-round. There is one documented nest site within the BRWMA landscape.	The greatest threat to bald eagles in Idaho is disturbance during the nesting period from activities such as forestry and human recreation.	Nest monitoring will continue. Disturbance around nest sites should be minimized or avoided altogether, especially during late-winter/early-spring when eagles are initiating territory establishment and breeding activities.	Potentially suitable as a focal species. Bald eagle is a culturally and important wildlife species in eastern Idaho and a species with good potential for developing conservation partnerships
Northern Goshawk (<i>Accipiter gentilis</i>)	SGCN, BLM Type-3, USFS Sensitive	Documented occurrences within the BRWMA landscape, including some evidence of breeding activity.	Goshawks are considered sensitive to large-scale changes to forested habitats associated with timber harvesting, livestock grazing, fire suppression and drought (Reynolds et al. 1992).	Work with USFS biologists to update local status of nesting goshawks in the BRWMA landscape. Maintain forested habitat within the BRWMA landscape in a variety of vegetation structure stages to provide quality habitat for goshawk prey species (See Reynolds et al. 1992 for specific recommendations).	Potentially suitable as a focal species. Management recommendations for Northern Goshawk are considered a good surrogate for managing forest species diversity (Reynolds et al. 1992). However, there is limited information on current utilization of BRWMA habitats by goshawks potentially nesting on adjacent USFS lands.
Merlin (<i>Falco columbarius</i>)	SGCN	Documented occurrences within the BRWMA landscape.	An increase in agricultural lands has caused losses of both nest sites and prey species for merlins	Continued monitoring of environmental contaminants in merlins is recommended since this is still cause for concern in some parts of their range	Unsuitable as a focal species. Occurrence context on BRWMA landscape does not reflect the main threats. Limited and unquantified seasonal occurrence limits potential management feedback at the focal species scale.
Peregrine Falcon (<i>Falco peregrinus</i>)	SGCN, BLM Type-3, USFS Sensitive	Nearest known peregrine aerie is within the BRWMA landscape approximately 10 miles north of the WMA boundary. Past mining activity high walls serves as potential nesting sites.	Loss of habitat, particularly at cliff nest sites or adjacent wetlands, is a key threat to peregrine falcons. Disturbance at nest sites during breeding is also a threat to this species.	The potential for peregrine nesting within the BRWMA landscape is unclear. However, management that minimizes disturbance near cliff nesting areas will benefit breeding raptors. Restoring and enhancing riparian and wetland habitats on BRWMA landscape will enhance prey abundance.	Unsuitable as a focal species. Occurrence context on BRWMA does not reflect the main threats. Limited and unquantified seasonal occurrence on BRWMA limits potential management feedback at the focal species scale.
Boreal Owl (<i>Aegolius funereus</i>)	SGCN, BLM Type-5, USFS Sensitive	An historical occurrence recorded within the BRWMA landscape indicated possible breeding activity.	Primary threat to this species is timber harvest (e.g., clearcutting), which often eliminates large-diameter snags and live trees used for nesting, reduces primary prey populations, and removes forest structure needed for foraging and roosting	Management should involve retention of large-diameter snags, protection and restoration of aspen, and retention of subnivean structural features important to the small mammal prey base. A coordinated, statewide, count-based monitoring program for nocturnal birds would help refine population estimates and trend data needed for this species.	Unsuitable as a focal species. Limited information on use of BRWMA by boreal owls limits the potential value of management feedback.
Great Gray Owl (<i>Strix nebulosa</i>)	BLM Type-5, USFS Sensitive	Great gray owls have been observed within the BRWMA landscape and within the WMA boundary. A record within one mile of the WMA boundary references brooding.	Habitat loss and fragmentation through timber harvest and development are the primary threats facing Great Gray Owl populations. Other threats include fire suppression leading to forested-stand density increases and conifer encroachment into	Retain beneficial habitat features at the landscape-level, particularly open areas for foraging adjacent to stands of mature or old-growth trees for nesting and roosting. Utilize variable harvest patch sizes, irregular borders to increase forest edge area; retain	Potentially suitable as a focal species. Management recommendations for Great gray owl might be a good surrogate for managing forest species diversity. However, there is limited information on current utilization of BRWMA landscape habitats for nesting or foraging.

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Species	Status Designation(s)	Occurrence Context in Blackfoot River WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Blackfoot River WMA
			meadows.	forested corridors; retain hunting perches; retain forested stands around potential nest sites; and protect existing nest sites habitat especially pertaining to mining and transmission line development.	
Brewer's Sparrow (<i>Spizella breweri</i>)	SGCN, BLM Type-3	Brewer's Sparrow is a common breeder in sagebrush habitat within BRWMA landscape.	Shrub-steppe obligate species, closely associated with big sagebrush. Habitat destruction and degradation in sage steppe are the primary threats to Brewer's Sparrow populations.	Conservation actions should focus on preserving areas of intact, unfragmented shrub-steppe habitat especially due to mining development.	Potentially suitable as a focal species. Brewer's Sparrow is a sagebrush obligate and representative of sagebrush-dependent species sharing similar conservation needs.
Reptiles					
Common Garter Snake (<i>Thamnophis sirtalis</i>)	BLM Type-3	Several occurrences within the BRWMA landscape and also documented within the WMA boundary.	Possible threats include habitat loss and changes in the prey base arising from habitat change and species introductions.	Studies to clarify the status of populations are needed, including investigations of habitat requirements and threats to populations. Protection of occupied sites from large scale habitat destruction associated with timber harvest, damming, and intensive agricultural use is needed.	Unsuitable as a focal species. Limited information on distribution within the BRWMA landscape. Unknown distribution limits potential management feedback.
Amphibians					
Northern Leopard Frog (<i>Rana pipiens</i>)	SGCN, BLM Type-3	Numerous documented occurrences within the BRWMA landscape and the WMA boundary.	Loss and degradation of wetland and riparian habitat. Introduced competitors and predators can cause population declines and losses. Disease is also a concern, particularly the chytrid fungus, <i>Batrachochytrium dendrobatidis</i> .	Wetland protection and/or restoration of degraded sites are beneficial; a comprehensive understanding of population status is needed.	Potentially suitable as a focal species. Species is important indicator of riparian and wetland systems in southeast Idaho, the stronghold for this species in Idaho. Continued persistence in the BRWMA landscape would help guide priorities for riparian and wetland conservation.
Western Toad (<i>Anaxyrus boreas</i>)	BLM Type-3, USFWS Eastern Population Petitioned ESA,	Several recent occurrences within the Blackfoot and Salt River watersheds of ESA-petitioned subspecies. Current distribution and status in watershed is poorly documented.	Habitat alteration and fragmentation isolates breeding populations and increases the effects of widespread threats such as changes in water quality, timber harvest, livestock grazing, fire, and toxic chemicals. Disease is also a concern, particularly the chytrid fungus, <i>Batrachochytrium dendrobatidis</i> .	Managing disease, cataloging and monitoring population status, delineating important habitat, protecting delineated habitat, and identifying and protecting current breeding sites from habitat degradation (Keinath and McGee 2005).	Unsuitable as a focal species. Limited information on distribution within the BRWMA landscape. Unknown distribution limits potential management feedback.
Fish					
Yellowstone Cutthroat Trout (<i>Oncorhynchus clarkii bouvieri</i>)	Flagship, SGCN, BLM Type-2, USFS Sensitive	BRWMA includes the over seven miles of the Blackfoot River headwaters, providing spawning and rearing habitat within the WMA, but also important passage to numerous tributaries higher in the watershed.	Reduction in historically occupied range, habitat loss, fragmentation of current habitat, and isolation of existing populations, and hybridization with rainbow trout and other subspecies of cutthroat trout are the principal issues facing Yellowstone cutthroat trout (May et al. 2003). A more recent and localized concern is elevated levels of selenium from mining operations which may impact recruitment.	Continue programs such as (1) population distribution and trend monitoring program; (2) sterile fish stocking program in areas where Yellowstone cutthroat trout and introduced hatchery fish overlap; (3) angler harvest programs to benefit Yellowstone cutthroat trout; (4) monitoring genetic purity of Yellowstone cutthroat populations; (5) reestablishment of metapopulation connectivity. Contribute to Department regional disease and toxin monitoring.	Potentially suitable as a focal species. Yellowstone cutthroat trout are a foundational priority for the creation of BRWMA. Yellowstone cutthroat trout are a culturally and economically important wildlife species in eastern Idaho and are a species with good potential for developing conservation partnerships.

Species	Status Designation(s)	Occurrence Context in Blackfoot River WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Blackfoot River WMA
Gastropods					
Bear Lake Springsnail (<i>Pyrgulopsis pilsbryana</i>)	SGCN	Occurrences documented within the BRWMA landscape.	Alteration of springs through capping, excavation, and diversion is an important threat to populations. Habitat degradation arising from livestock use is also a threat.	Research to gain a better understanding of the current population numbers, trends, ecology, and the status of habitat is needed	Unsuitable as a focal species. Limited information on distribution within the BRWMA landscape. Unknown distribution limits potential management feedback.
Bivalves					
Western Pearlshell (<i>Margaritifera falcata</i>)	SGCN	Occurrence of this freshwater mussel has recently been documented within the Blackfoot River watershed and within the BRWMA.	Populations are sensitive to water quality; livestock, agricultural runoff, housing or industrial development, and mining are potential causes of degraded water quality. Small dam construction and extensive diversions may also impact aquatic habitats. The loss of appropriate host fish populations is also a threat.	Research is necessary to determine current distribution, population sizes, and population trends throughout the state. Efforts are also needed to evaluate and prioritize site-level threats and conservation needs. Contribute to Department regional disease and toxin monitoring.	Unsuitable as a focal species. Limited information on distribution within the BRWMA landscape. Unknown distribution limits potential management feedback.
Insects					
Stonefly (<i>Pictetiella expansa</i>)	SGCN	One occurrence documented within the BRWMA landscape	Stonefly populations are affected by changes to aquatic habitat, such as alteration of flow patterns, streambed substrate, thermal characteristics, and water quality. Alteration and degradation of aquatic habitat is the primary concern for Idaho populations.	Surveys are needed to determine the current status of known populations and the distribution of populations in the state. Also needed are efforts to monitor population trend, as well as habitat conditions within the range of this species.	Unsuitable as a focal species. Limited information on distribution within the BRWMA landscape. Unknown distribution limits potential management feedback.
Spur-throat Grasshopper (<i>Melanoplus digitifer</i>)	SGCN	One historical occurrence documented within the BRWMA landscape	Threats to grasshoppers include pesticides and habitat modification. Although conversion of native habitat to agricultural uses has benefited some grasshopper species, there are no data to suggest that agriculture has benefited this species.	Surveys are needed to determine the current status of populations; no specimens have been collected since 1961.	Unsuitable as a focal species. Limited information on distribution within the BRWMA landscape. Unknown distribution limits potential management feedback.
Plants					
Idaho Sedge (<i>Carex idahoensis</i>)	State rank S-2, BLM Type-2	Occurrences documented within the BRWMA landscape and within the WMA boundary.	Populations may be affected by heavy grazing. Other risks are competition from exotic species, hydrologic alterations, agricultural development and road construction/maintenance.	Updated population data and related site information are needed. Impacts of herbivory and other disturbance should be monitored	Potentially suitable as a focal species. Occurrences within the landscape and WMA boundary are well documented and accurate mapping could be developed and tracked. Reduced populations would be an indicator for increased wetland protection and restoration effort.
Hoary Willow (<i>Salix candida</i>)	State rank S-2, BLM Type-4	Occurrences documented within the BRWMA landscape. Very few other occurrences limited to extreme northern and eastern Idaho.	Known populations are small and restricted. Populations may be threatened by grazing pressure. Other risks are competition from exotic species, hydrologic alterations and agricultural development.	Updated population data and related site information are needed. Impacts of herbivory and other disturbance should be monitored	Potentially suitable as a focal species. Occurrences within the landscape are well documented and accurate mapping could be developed and tracked. Reduced populations would be an indicator for increased wetland protection and restoration effort.

Selection of Conservation Targets

The biodiversity of BRWMA is represented by numerous vertebrates, invertebrates, plants, and ecological communities. It is impractical to evaluate and plan for the conservation of all these elements. Therefore, Conservation Targets, a sub-set of species and communities, were selected to represent the biodiversity of BRWMA for management and conservation, while still reflecting the management priorities of BRWMA.

The Conservation Targets for the Plan were selected from species ranked as potentially suitable focal species in Table 1. A final consideration in the selection of Conservation Targets was the best professional judgment of the Southeast Regional Habitat Manager and East District Habitat Biologist. Effective Conservation Targets cannot be selected based solely on species assessments. They must reflect regional threats, priorities, existing conservation partnerships, public use, other social considerations, and the limitations of WMA personnel and funding.

The Conservation Targets selected to guide management on BRWMA (corresponding BRWMA Priority in parentheses) are:

1. Yellowstone Cutthroat Trout (Yellowstone Cutthroat Trout and Waterfowl Production)
2. Elk and Mule Deer (Other Wildlife Production)
3. Brewer's Sparrow (Other Wildlife Production)
4. Northern Leopard Frog (Other Wildlife Production)

Yellowstone Cutthroat Trout

Yellowstone cutthroat trout was selected as a Conservation Target to represent Yellowstone Cutthroat Trout and Waterfowl Production on BRWMA because:

- Yellowstone cutthroat trout is a flagship species and a primary foundational priority for the creation of BRWMA.
- Riparian habitat extent is easily mapped and monitored on BRWMA and the adjacent landscape.
- Given the high species value of riparian habitat—particularly of priority species such as mule deer, Columbian sharp-tailed grouse, Yellowstone cutthroat trout, etc.—wetland and riparian restoration partnerships are very achievable.

Elk and Mule Deer

Elk and mule deer was selected as a Conservation Target to represent Other Wildlife Production on BRWMA because:

- Elk and mule deer rely on a broad array of habitat components including aspen, forest, riparian, live streams, mountain shrub, grasslands, and sagebrush to thrive within the BRWMA landscape. Efforts to sustain mule deer by conserving these varied habitat components will benefit other big game and a wide range of other species.

Brewer's Sparrow

Brewer's sparrow was selected as a Conservation Target to represent Other Wildlife Production on BRWMA because:

- Upland habitat types associated with Brewer's sparrow benefit several species evaluated in Table 1 not fully covered by other Conservation Targets. Efforts to sustain Brewer's sparrow by conserving associated habitat components will also benefit a wide range of other species including sensitive species.
- Upland habitat associated with sensitive species can be mapped and monitored on BRWMA and the adjacent landscape.

Northern Leopard Frog

Northern leopard frog was selected as a Conservation Target to represent Other Wildlife Production on BRWMA because:

- Nearly all species evaluated in Table 1 will benefit from efforts to protect and restore wetland and riparian habitat. Wetland and riparian protection and restoration is a primary recommended beneficial management and conservation action for most species evaluated.
- Wetland and riparian habitat extent is easily mapped and monitored on BRWMA and the adjacent landscape.
- Given the high species value of wetland and riparian habitat—particularly of priority species such as mule deer, Columbian sharp-tailed grouse, Yellowstone cutthroat trout, etc.—wetland and riparian restoration partnerships are very achievable.

Coverage Assessment of Selected Conservation Targets

We define an effective Conservation Target as one providing meaningful conservation benefits for multiple species that share similar habitat requirements or life history traits. They are useful for directing limited management resources and maximizing conservation effort. One measure of effectiveness is to assess the number of species that a Conservation Target benefits (or covers) within the management landscape.

Regional Habitat and other staff worked together to complete the coverage assessment table (Table 2). We evaluated each of the Conservation Targets to determine which species from Table 1 would benefit from management activities focused on that target. Evaluations are based on knowledge of species habitat requirements, occurrence within the management landscape, and the scope of current and planned management actions. The assessment considered only those habitat features or needs relevant to the species as it occurs on the management landscape. Our results indicate that the selected Conservation Targets on BRWMA provide substantial, but variable habitat benefits for an array of assessed species.

We also evaluated which species or guilds would receive little or no tangible benefit from management actions for specific Conservation Targets; these are designated “conservation needs.” We identified conservation needs for several species or guilds and determined that further data will be useful to inform the next WMA planning process. A prudent management strategy is to consider a landscape where these species may be prioritized for management in the future. Broad strategies for addressing these management needs are identified in the following Management Program Table (pages 35-39), but typically include collection of additional baseline data.

Table 2. Analysis of Conservation Target coverage and identification of conservation needs.

Species Assessed in Table 1	Conservation Targets ^a				Conservation Need
	Yellowstone Cutthroat Trout	Elk and Mule Deer	Brewer's Sparrow	Northern Leopard Frog	
Mule Deer	P	X	P	P	
Elk	P	X	P	P	
Moose	P	X	P	P	
Canada Lynx		P			Yes
North American wolverine		P	P		Yes
Myotis Guild	X			X	
Columbian Sharp-tailed Grouse		P	P	P	
Greater Sage-grouse	P	P	X	P	
Mallard	P	P	P	P	
Transitional Waterbird Guild	P			X	
Long-billed Curlew		P	P	P	
Sandhill Crane		P	P	P	
Bald Eagle	P	P	P	P	
Northern Goshawk		P			Yes
Merlin		X	P	P	
Peregrine Falcon	P	P	P	P	
Boreal Owl		P			Yes
Great Gray Owl		P		P	Yes
Brewer's Sparrow		X	X		
Common Garter Snake	P	P		X	
Northern Leopard Frog	P	P		X	
Western Toad	P	P		P	
Yellowstone Cutthroat Trout	X	P		P	
Bear Lake Springsnail	P	P		P	
Western Pearlshell	X			P	
Stonefly	X			P	
Spur-throat grasshopper		P	P		
Idaho sedge	X	P		X	
Hoary willow	X	P		X	

^a Entries marked with "X" indicate that the majority or all habitat needs for an assessed species within the management landscape are being met by management actions benefitting the Conservation Target. Entries marked with "P" indicate only a portion of the species habitat needs are being met by management actions for the Conservation Target. Conservation needs exist where target-specific management actions provide little or no tangible habitat benefit for an assessed species. Blank cells under conservation targets may indicate a conservation need or where dissimilar habitat needs preclude conservation benefits.

Blackfoot River WMA Management Program Table

The following table outlines the Management Directions, Performance Targets, Strategies, and Outcome Metrics BRWMA staff will use to manage for the Conservation Targets selected (page 31) to represent each BRWMA Priority (page 22) at both the BRWMA and Conservation Target-specific landscape scale. The Compass Objective column links the Management Directions in this table to the objectives of the Department's strategic plan, *The Compass* (Appendix I).

WMA Priority: Yellowstone Cutthroat Trout and Waterfowl Production					
Conservation Target: Yellowstone Cutthroat Trout					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
BRWMA	Provide high quality stream habitat	Create stream corridor vegetation map over nine miles of mainstem Blackfoot River and potential spawning tributaries by 2018 and then monitor every five years	Supported by other programs record species composition within 30 feet of high water mark Supported by other programs monitor vegetation composition, structure and condition	Map and monitoring completed	A, B, C, E, F, H
		Using standardized protocol, conduct stream bank condition survey over nine miles of mainstem Blackfoot River and potential spawning tributaries by 2018 and then every five years	Supported by other programs monitor stream bank erosion or herbivory caused by wildlife, livestock and recreationists	Miles surveyed	
		Maintain nine miles of stable stream banks	Supported by other programs protect and promote woody vegetation Supported by other programs protect stream banks from physical degradation	Stream bank miles maintained	
		Maintain 12 miles of boundary fences annually	Work with neighboring landowners to maintain fencing	Miles of fence maintained	
		Remove trespass cattle from BRWMA promptly (at a maximum, within the timeframe outlined in the Idaho State Trespass of Animals [Title 25, Chapter 22] or Estrays [Title 25, Chapter 23] Laws, whichever is applicable)	Work with neighboring landowners, local Brand Inspector and/or Sheriff to ensure trespass cattle are removed	Lawful removal of trespass cattle	
		Monitor water quality annually	Supported by other programs identify and address sources of sediment or other pollutants especially at tributaries	Pollutions sources identified and addressed	
	Monitor predation	Monitor predation annually	Supported by other programs monitor predator numbers and initiate hazing or direct predator control if warranted Assist with enforcement of special fishing regulations	Predation monitored and controlled Violations detected	
Landscape	Provide high quality stream habitat	Improve water quality throughout Blackfoot River watershed	Through technical assistance and supported by other programs, identify existing or potential sources of sediment or other pollutants entering mainstem Blackfoot River and tributaries Work with partnering land managers and regulatory agencies to propose and initiate solutions	Pollutions sources identified and addressed	

WMA Priority: Yellowstone Cutthroat Trout and Waterfowl Production					
Conservation Target: Mallard					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
BRWMA	Breeding, nesting and brood rearing	Maintain 1,200 acres of high quality ground nesting cover	Mow, burn and control grazing to favor well adapted native vegetation	Acres maintained	B, C, F, G, H
		Monitor 2,400 acres and treat 600 acres annually to control noxious weeds	Use chemical, mechanical, biological and educational methods to control noxious weed infestations	Acres treated	
		Maintain four artificial goose nesting structures	Goose nesting platforms serviced at least every three years	Structures maintained	
		Using standard protocol monitor waterfowl nesting success by correlating breeding pair/brood counts in 2015 and then every five years	Supported by other programs conduct pair counts and brood surveys	Nesting success monitored	
			Initiate passive or direct predator control if warranted		
		Maintain 12 miles of boundary fences annually	Work with neighboring landowners to maintain fencing	Miles of fence maintained	
		Remove trespass cattle from BRWMA promptly (at a maximum, within the timeframe outlined in the Idaho State Trespass of Animals [Title 25, Chapter 22] or Estrays [Title 25, Chapter 23] Laws, whichever is applicable)	Work with neighboring landowners, local Brand Inspector and/or Sheriff to ensure trespass cattle are removed	Lawful removal of trespass cattle	
Landscape	Breeding, nesting and brood rearing	Complete at least 20 habitat projects by 2023	Prioritize Habitat Improvement Program projects and work with Department Farm Bill Coordinator, private landowners and land management agencies to incorporate seasonal Mallard habitat needs into land use planning	Habitat projects completed	
		Identify, map, protect and improve travel corridors to staging areas associated with Blackfoot Reservoir and Grays Lake by 2023	Supported by other programs, collaborate with private landowners and government agencies to identify important travel corridors	Map completed	
			Collaborate with private landowners and government agencies to protect/improve corridors	Travel corridors protected/improved	
	Protect and promote additional mallard habitat	Provide long term protection to 200 acres of habitat by 2023	Working with willing sellers, acquire additional lands through fee title, easement, lease or legal agreement as opportunities arise	Acres protected	
			Through the Habitat Improvement Program, Mule Deer Initiative, Farm Bill Coordinator, public outreach and technical assistance (BLM, BOR, Fort Hall Reservation, NRCS, USFWS, etc.) encourage off-site development and protections of mallard habitat		
WMA Priority: Other Wildlife Production					
Conservation Target: Brewer’s Sparrow					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
BRWMA	Sensitive species and nongame upland habitat	Complete updated species list and mapped breeding territories by 2018 with emphasis on sensitive gastropods, insects, reptiles, birds and mammals (Appendices VI and VII)	Supported by other programs conduct surveys of migratory and breeding species	Surveys conducted/lists recorded	B, C, F, G, H
		Protect and enhance 2,400 acres of nesting/brood rearing, foraging and storm cover	Balance other wildlife management needs and recreational use with habitat requirements for sensitive and nongame species	Acres protected	
			Assist promotion of local awareness of existing species and habitat needs		

WMA Priority: Other Wildlife Production					
Conservation Target: Brewer’s Sparrow					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
BRWMA	Sensitive species and nongame upland habitat	Monitor 2,400 acres and treat 600 acres annually to control noxious weeds	Use chemical, mechanical, biological and educational methods to control noxious weed infestations	Acres treated	B, C, F, G, H
		Maintain 12 miles of boundary fences annually	Work with neighboring landowners to maintain fencing	Miles of fence maintained	
		Remove trespass cattle from BRWMA promptly (at a maximum, within the timeframe outlined in the Idaho State Trespass of Animals [Title 25, Chapter 22] or Estrays [Title 25, Chapter 23] Laws, whichever is applicable)	Work with neighboring landowners, local Brand Inspector and/or Sheriff to ensure trespass cattle are removed	Lawful removal of trespass cattle	
Landscape	Sensitive species and nongame upland habitat	Provide long term protection to 2,000 acres of habitat by 2023	Working with willing sellers, acquire additional lands through fee title, easement, lease or legal agreement as opportunities arise	Acres protected	B, C, F, G, H
		Improve 5,000 acres of habitat by 2023	Through the Habitat Improvement Program, Mule Deer Initiative, Farm Bill Coordinator, public outreach and technical assistance (BLM, NRCS, USFS.) encourage and facilitate off-site protection and restoration of sensitive species and nongame habitat	Acres improved	
	Sensitive species and nongame population monitoring	Survey nongame and sensitive species by 2018 and then every ten years	Supported by other programs, identified populations monitored	Surveys completed	
		Monitor for disease, toxins and other impacts	Supported by other programs, collect samples for possible West Nile virus, white-nose syndrome (bats) and other diseases or toxins	Samples collected	
WMA Priority: Other Wildlife Production					
Conservation Target: Northern Leopard Frog					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
BRWMA	Sensitive species and nongame wetland and riparian habitat	Complete updated species list and mapped breeding territories by 2018 with emphasis on sensitive bivalves, gastropods, insects, fish, amphibians, reptiles, birds and mammals (Appendices VI and VII)	Supported by other programs conduct surveys of migratory and breeding species	Surveys conducted/lists recorded	B, C, F, G, H
		Monitor 2,400 acres and treat 600 acres annually to control noxious weeds	Use chemical, mechanical, biological and educational methods to control noxious weed infestations	Acres treated	
		Protect and enhance 550 acres of nesting/brood rearing, foraging and storm cover	Balance other wildlife management needs and recreational use with habitat requirements for sensitive and nongame species	Acres protected	
			Assist promotion of local awareness of existing species and habitat needs		
		Maintain 12 miles of boundary fences annually	Work with neighboring landowners to maintain fencing	Miles of fence maintained	
		Remove trespass cattle from BRWMA promptly (at a maximum, within the timeframe outlined in the Idaho State Trespass of Animals [Title 25, Chapter 22] or Estrays [Title 25, Chapter 23] Laws, whichever is applicable)	Work with neighboring landowners, local Brand Inspector and/or Sheriff to ensure trespass cattle are removed	Lawful removal of trespass cattle	

WMA Priority: Other Wildlife Production					
Conservation Target: Northern Leopard Frog					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
BRWMA	Furbearer denning and foraging habitat	Survey riparian furbearer species by 2018 and then every ten years	Supported by other programs, identified populations monitored	Surveys completed and recorded	B, C, F, G, H
			Monitor furbearer activity and manage recreational trapping to prevent and/or address problems with WMA plant communities or toward neighboring properties. Riparian areas protected from trespass grazing		
Landscape	Sensitive species and nongame wetland and riparian habitat	Provide long term protection to 2,000 acres of habitat by 2023	Working with willing sellers, acquire additional lands through fee title, easement, lease or legal agreement as opportunities arise	Acres protected	
		Improve 5,000 acres of habitat by 2023	Through the Habitat Improvement Program, Mule Deer Initiative, Farm Bill Coordinator, public outreach and technical assistance (BLM, NRCS, USFS.) encourage and facilitate off-site protection and restoration of sensitive species and nongame habitat	Acres improved	
	Sensitive species and nongame population monitoring	Survey nongame and sensitive species by 2018 and then every ten years	Supported by other programs, identified populations monitored	Surveys completed	
		Monitor for disease, toxins and other impacts	Supported by other programs, collect samples for possible West Nile virus, chytrid fungus (<i>Chytridiomycosis</i> -amphibians) and other diseases and toxins	Samples collected	
WMA Priority: Public Fishing and Hunting					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
BRWMA	Information aids	Provide four on site information centers	Information centers maintained with posted information and stocked with maps and informational brochures including BRWMA brochure and use restrictions	Information centers maintained	A, E, F, G, I
		Provide off site information	Maps and brochures updated and available web based and at local vendors	Information updated and available	
			Newsletters updated at least annually and available web based and at local vendors		
	Provide directional signage, entrance sign, and boundaries marked every 660 feet	Routes, entrances, boundaries and facilities marked with maintained signage	Signs maintained		
	Facilities and fishing /hunting areas	Provide four parking areas	Parking areas mowed, graded, graveled as needed	Parking areas provided	
		Provide 2,400 acres of accessible cover and 7.5 miles of river frontage	Access to forest woodland, mountain brush, shrub-steppe, riparian and wetlands	Acres provided	
			Access to 7.5 miles of Blackfoot River	River miles provided	
Provide one float boat launch site		Launch site provided near county road bridge	Launch site provided		
Landscape	Off-site access	Provide additional public access	Cooperate with adjacent land managers to facilitate public access	Additional acres available	
			Working with willing sellers, acquire additional lands through fee title, easement, lease or legal agreement as opportunities arise		

WMA Priority: General Wildlife Appreciation					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
BRWMA	Information aids	Provide four on site information centers	Information centers posted with information including interpretive displays and stocked with maps and informational brochures including BRWMA brochure and use restrictions	Information centers maintained	A, E, F, G, H
		Provide off site information	Maps, brochures and interpretive information updated and available web based and at local vendors	Information updated and available	
			Species lists, local history and geology available web based		
			Newsletters updated at least annually and available web based and at local vendors		
		Provide directional signage, entrance sign, and boundaries marked every 660 feet	Routes, entrances, boundaries and facilities marked with maintained signage	Signs maintained	
	Facilities and viewing areas	Provide four parking areas	Parking areas mowed, graded, graveled as needed	Parking areas provided	
	Public trapping	Accommodate trapping opportunity for two trappers	Provide WMA restrictions (consideration for other use) and require trapping report for BRWMA use	Trapping reports	
	Miscellaneous use	Survey year-round public use by 2016, and then every 10 years	With systematic sampling scheme assess year-round public use (including winter over snow travel) and user satisfaction	Use surveyed and reported	A, E, F, G, H
		Patrol once per month	Solicit input through newsletters, surveys, public meetings and personal contact	Violations detected	
	Education	Promote educational opportunities	Limit motorized access or other activity that could negatively impact habitat or legitimate use	Requests accommodated	
	Neighbor relations	Control noxious weeds and other pests over 2,400 acres	Educational tours hosted on request; all facilities available for youth hunts, fishing clinics or educational functions	Acres controlled	G, J, K
		Prevent inadvertent trespass by BRWMA users	Supported by Caribou County and weed cooperatives, monitor and control noxious weeds through approved and current methods	Boundaries marked	
		Manage easements	All facilities and boundaries clearly marked	Easements managed	
Infrastructure and equipment	Maintain infrastructure	Anticipate needs and budget accordingly	Infrastructure maintained	M	
		Schedule routine maintenance			
Landscape	Off-site access	Provide additional public access	Cooperate with adjacent land managers to facilitate public access	Additional acres available	A, E, F, G, H, I
			Working with willing sellers, acquire additional lands through fee title, easement, lease or legal agreement as opportunities arise		
	Neighbor relations	Track and minimize depredations	Support other programs to annually track depredations occurring within BRWMA landscape with particular focus on elk, mule deer and sandhill crane	Depredations tracked	G, J, K

Monitoring

Monitoring and reporting are critical for tracking accomplishment of performance targets identified in the BRWMA Management Program Table. Monitoring can be separated into three categories: compliance monitoring, biological monitoring, and public use monitoring.

In Table 3, future monitoring needs associated with performance targets and strategies identified in the BRWMA Management Program Table are summarized. The goal is to measure success or effectiveness of strategies that are implemented to reach performance targets.

Each WMA will produce a five-year report on implementation of this WMA plan in 2019, including a summary of accomplishments and progress towards meeting performance targets. At that time, staff will determine whether modifications to the plan are appropriate for meeting performance targets or to accommodate changing conditions or opportunities.

Compliance Monitoring

Compliance monitoring documents the completion of regular management tasks that are essential to WMA operations. These include but are not limited to:

- Maintaining WMA facilities
- Providing technical assistance to local agency staff and private landowners
- Maintaining public access sites

Compliance monitoring will be reported annually at work plan meetings between regional and headquarters staff.

Biological Monitoring

Wildlife Management Areas across the state have a range of established biological monitoring programs and needs. Additional monitoring needs may have been identified during development of the BRWMA Management Program Table. Biological monitoring includes wildlife, vegetation, and habitat monitoring. It may also include assessing the effectiveness of management and restoration activities. Monitoring may occur at multiple spatial and temporal scales depending on objectives. Past biological monitoring has included:

Big Game Winter Population Surveys

Winter aerial surveys are periodically conducted for deer and elk within the BRWMA landscape as part of analysis unit surveys. Surveys are conducted by the regional Wildlife Populations section.

Sage-grouse and Sharp-tailed Grouse Lek Surveys

Lek surveys have been conducted within the BRWMA landscape. Surveys are typically conducted by the regional Wildlife Bureau staff but are supported by BLM, USFS, and occasionally private consultants.

Waterfowl Surveys

Waterfowl brood routes were conducted in 1995 and 1996.

Herpetological Surveys

Herpetological surveys were conducted in the vicinity in 1996 (Clark and Peterson 1998) and 2012 (BLM project).

Fisheries Surveys

Regional Fisheries Bureau staff has conducted a variety of population surveys on the main river and tributaries since the 1980s, including mark/recapture techniques and telemetry (see example of data collected below).

Yellowstone cutthroat trout abundance estimates collected from the Wildlife Management Area of the Blackfoot River, Idaho.

Year	Fish Marked	Fish Captured	Fish Recaptured	% Recaptured	Population Estimate	Population Estimate SD
2005	266	202	20	7.5	3,664	569.1
2006	339	450	57	16.8	3,534	352.3
2008	223	186	28	12.6	2,504	336.5
2009	279	319	44	15.8	2,567	286.5
2010	317	272	11	3.5	12,944	4,131.2
2011	318	147	16	5.0	3,222	411.3
2012	137	99	12	12.1	1,672	421.7
Mean ^a	260	234	30	11.6	2,861	396.2

^a Excludes 2010.

Vegetation Monitoring

A wetlands conservation strategy for southeastern Idaho, completed in 1997 identified BRWMA as a reference site for Class II wetlands (Jankovsky-Jones 1997). An extensive vegetation survey was completed in 1998 as part of the requirements for an M.S. thesis (Maroney 1998). Photo points along the Blackfoot River corridor were established at nine points in 1998 by regional Fisheries Bureau staff to document stream bank and vegetation changes. The photos have been retaken every five years. Stream bank surveys of some tributaries to the Blackfoot River have also been conducted.

In 2010, the Department initiated a statewide, long-term habitat monitoring program for all WMAs. The goal of the program is to collect quantitative and comparable baseline data to monitor habitat change on all WMAs due to management actions or other causes. The baseline

data collected will be specific to each WMA, based on the habitat types present and unique management issues. Baseline data typically includes:

- Distribution and extent of cover types, including mapping of vegetation cover types
- Vegetation structure, composition, and condition
- Presence or abundance of noxious weeds and other invasive plants
- Riparian and wetland condition and function assessment
- Photo points

To date, this program has collected baseline data on five WMAs, with surveys of all 32 WMAs expected to be completed by 2019. This is a long-term program and will be repeated starting in 2020.

Public Use Monitoring

Public use surveys are conducted to evaluate use patterns, public satisfaction, and identify issues of concern. Hunter check stations or creel surveys conducted by other programs may also gauge user satisfaction.

Blackfoot River WMA User Surveys

User information has been gathered on the BRWMA using volunteer sign-in boxes since 2002 augmented with field contacts each year. The sign-in boxes will be continued. Additional techniques such as traffic counters will also be employed in the future. A year-round systematic random survey will also be a high priority.

Table 3. Monitoring for Blackfoot River WMA, 2014-2023.

Performance Target	Survey Type	Survey Frequency
Survey waterfowl nesting success	Breeding pair/brood counts	Every 5 years beginning in 2015
Survey and monitor breeding populations (nongame and sensitive species)	Presence/absence of breeding activity	Every 10 years beginning by 2018
Survey riparian furbearers	Stream survey for beaver and muskrat sign	Every 10 years beginning by 2018
Survey year-round public use and user satisfaction	Systematic sampling through on site and web-based surveys	Every 10 years beginning in 2016

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Appendices

I. THE COMPASS THE DEPARTMENT'S STRATEGIC PLAN

In 2006, the Department completed a strategic plan—*The Compass*—based on public input and legislative mandates. It continues to guide the Department in 2014 and is the primary guiding document for all other Department plans developed since 2006. The following table presents the goals, objectives, and strategies from *The Compass* that are most relevant to WMA management. *Compass* objectives are lettered on the left side for reference in the Management Program Table.

<i>The Compass</i>	
GOAL—Fish, Wildlife, and Habitat	
A.	Objective Maintain or improve game populations to meet the demand for hunting, fishing, and trapping.
B.	Objective Ensure the long-term survival of native fish, wildlife, and plants.
C.	Objective Increase the capacity of habitat to support fish and wildlife.
D.	Objective Eliminate the impacts of fish and wildlife diseases on fish and wildlife populations, livestock, and humans.
GOAL—Fish and Wildlife Recreation	
E.	Objective Maintain a diversity of fishing, hunting, and trapping opportunities.
F.	Objective Sustain fish and wildlife recreation on public lands.
G.	Objective Maintain broad public support for fish and wildlife recreation and management.
H.	Objective Increase opportunities for wildlife viewing and appreciation.
I.	Objective Increase the variety and distribution of access to private land for fish and wildlife recreation.
GOAL—Working With Others	
J.	Objective Improve citizen involvement in the decision-making process.
K.	Objective Increase public knowledge and understanding of Idaho's fish and wildlife.
GOAL—Management Support	
L.	Objective Attract and retain a diverse and professional workforce.
M.	Objective Provide equipment and facilities for excellent customer service and management effectiveness.
N.	Objective Improve funding to meet legal mandates and public expectations.

II. HISTORY

Blackfoot River WMA includes the ranch that was homesteaded by the Rasmussen family in the 1880s. The Rasmussen home was a two-room log cabin with a separate one-room school located just north of the residence. A teacher came in, stayed with the family, and taught the children. Other buildings on the property included a cheese house and a blacksmith shop.

John Jay Stocking purchased the 160-acre ranch in 1907 and purchased additional land over the next 25 years. The ranch then totaled 1,720 acres. John raised hay, which was shipped by rail to sheep men in Cokeville, Wyoming. The Stockings built a large barn on the ranch. It was a landmark in the area until it was destroyed in the late 1970s. The last member of the Stocking family to operate the ranch was Reverent (Revie). Through all of the years that the Stocking family operated the ranch, it was a sheep operation. For the last 10 years that Revie Stocking owned the property, the ranch was leased out and used to graze cattle.

The Department first became interested in purchasing the Stocking Ranch in 1970. The importance of the Blackfoot River fishery to Idaho sportsmen and the need for public access were the primary considerations. In 1994, The Conservation Fund purchased the Stocking Ranch and subsequently sold the land to the Department.

The original log cabin and remnants of four log structures still exist on the WMA. Department personnel, with the help of reservists and volunteers, refurbished the cabin for use as a field station. This work included construction of a new porch, reconstruction of one wall of the cabin, and the removal of a dump site and discarded materials. A new bunkhouse was constructed in 2012-2013 to increase and improve accommodations for overnight stays by personnel working in the area. The original cabin will be maintained as possible to preserve historical value.

The BRWMA is managed along with three other WMAs by the Regional Wildlife Biologist assigned to the East Habitat District of the Southeast Region under the supervision of the Regional Habitat Manager. The habitat management program on BRWMA is focused primarily on protecting and enhancing habitat for Yellowstone cutthroat trout, waterfowl, and other wildlife while providing opportunities for wildlife and fisheries-related recreation.

Motorized vehicles are restricted to established roads. Four parking areas with maps and information signs are provided for access to the Blackfoot River and surrounding upland areas.

Maintaining good working relationships with neighboring landowners is an important objective. Boundaries are marked and all fences have been maintained and/or replaced. Most original fencing has been converted to high tensile electric, buck and rail, or let-down barbed wire. Noxious weeds are controlled by a variety of methods. Over 600 acres are treated annually with chemical pesticides and biological controls.

Bottom lands along the Blackfoot River and tributaries exhibit a high forage-vegetative productivity potential. Consequently, a majority of the drainage is privately owned and used for cattle grazing. Caribou-Targhee National Forest land in the area is managed for multiple use

including timber production, phosphate mining (see below), cattle and sheep grazing, and recreation. Several stream rehabilitation projects have been undertaken since acquisition of the property. In the late 1990s, a section of Angus Creek which had been artificially diverted was returned to the original channel. Several bank stabilization projects have also been attempted including the installation of revetments and plantings of willow and red osier dogwood cuttings. Removal of livestock from the stream banks has also benefitted renewed vegetation and stabilization.

Extensive phosphate reserves lie in southeastern Idaho in the vicinity of the WMA. Operating mines exist along the Blackfoot River drainage on private and public lands. Open-pit mining techniques employed result in surface disturbances including infrastructure installation, drill pads, access roads, trenches, and mine spoil dumps. Nu-West Industries, Inc. is actively pursuing plans to extract phosphate from both the Rasmussen Valley and North Dry Ridge mining leases. Both operations will impact onto the BRWMA property from the north and south respectively. Most recent exploratory drilling and installation of monitoring wells pertaining to the Rasmussen Valley operation has been ongoing since 2002. To date this has included the installation of roads and drill pads to numerous sites along the northeast boundary of the WMA. Active mining of the lease is expected to commence in the next three to four years. Ultimately up to 400 acres of the BRWMA would be directly impacted by the Rasmussen Valley operation, and up to 80 acres by the North Dry Ridge operation. Both would permanently alter habitat currently in sagebrush steppe, mountain brush, and woodland. Direct impacts to big game security and sagebrush steppe habitat will be significant.

In 2006, the Department was approached by Bonneville Power Administration regarding the possible construction of a new power transmission line across the southern portion of the WMA. The project has since considered a number of routing options which would have avoided the WMA, but the most recent option being considered will again cross onto the WMA. The project would involve a 120' wide cleared right of way for the transmission line itself, with approximately 8,000 feet of line falling within the BRWMA boundary. The accompanying construction and maintenance road would cover considerably greater distance to accommodate topography. Some portions would fall outside of the transmission line right of way requiring additional disturbance approximately 30' in width. Sagebrush steppe, mountain brush, and woodland habitat would be permanently altered and impacts to big game security habitat on the WMA will be significant.

III. MANAGEMENT REQUIREMENTS AND AUTHORITIES

Federal funds, including those derived from the Land and Water Conservation Fund and USFWS Federal Aid Program, have been used in part to acquire and manage BRWMA lands. Certain activities are prohibited from funding with Federal Aid funds, and all provisions of Federal Aid funding will be followed.

Other federal and state laws also affect management of the BRWMA. The Department has responsibility under provisions of the Endangered Species Act to ensure that management actions protect threatened and endangered species, and responsibility under the Clean Water Act to ensure that water quality standards and guidelines are in place on BRWMA lands and waters. Under the National Historic Preservation Act, the Department must ensure that historic properties are protected on the BRWMA.

The Idaho Noxious Weed Law under Idaho Code 22-2405 requires all landowners to eradicate noxious weeds on their lands, except in special management zones. The counties are required to enforce the law and the State of Idaho is required to ensure the counties do so.

Consistent with Idaho Codes 38-101 and 38-111, and through a cooperative agreement with the Idaho Department of Lands, the Department is required to pay a fee for fire protection on all forest and some rangeland acreage it owns, and for residences in forest areas. Fees are submitted annually based on the number of qualified acres and residences owned by the Department.

The Department is required by Idaho Code 63-602A to pay a fee-in-lieu of taxes (FILT) for lands that are owned by the Department and meet certain code requirements. These fees are submitted annually to affected counties based on the number of qualifying acres and agricultural tax rates.

IV. VISITOR USE DATA AND USER SURVEY

Voluntary sign-in stations to assess public use have been maintained on BRWMA since 2002. Visitors are asked to register their visit using sign-in boxes provided at all the main entrances. Annual use is estimated at the BRWMA as it is likely not all visitors register. Since 2002, 1,946 visitors have registered their visit. The following table indicates documented types of use compiled mostly from voluntary sign-in stations posted at all parking areas.

Blackfoot River WMA user visits based on voluntary registration (2002-2012).

Entries	Visitors	Fishing	Hunting	Viewing	Other
933	1,946	1,380	293	132	141

Access Facilities

All lands are available for wildlife-based recreation with some restrictions regarding motorized traffic (see below).

Four parking areas are provided along county roads bisecting BRWMA. Parking areas are posted with pertinent information and are equipped with voluntary sign-in stations. Parking areas also serve as “information centers” and are stocked with maps and brochures including pertinent harvest regulations. Parking areas are equipped with “horse stiles” intended to facilitate foot and horse travel. A primitive launch site for float boats is also provided at the Diamond Creek Road bridge crossing.

Educational Use

Use of the property for outdoor education and workshops by schools and other organizations is encouraged. Tours of the BRWMA are provided by appointment, but most organized educational opportunity to date has been limited to volunteer efforts with plantings and other habitat projects.

Restrictions and Special Use

The BRWMA is open to public travel use with the following restrictions:

- Vehicles must remain on public roads and parking areas provided
- Open fires and firewood cutting are not permitted
- All animal feed, straw, or mulch must be certified weed-free

All rules pertaining to public use of Department-controlled lands are in effect (IDAPA 13.01.03, posted at maintained parking areas), and users must also comply with pertinent Idaho hunting, trapping, and fishing regulations (available at all license vendors and BRWMA information centers). Special use provisions can be authorized by permit issued from the Pocatello regional office.

2012 USER SURVEY

The Idaho Department of Fish and Game (IDFG) has 32 Wildlife Management Areas (WMAs) covering 350,000 acres. In 2012, the Department will begin updating the long-term management plans for each WMA. This survey will help us know more about the public uses and opinions about these important wildlife habitats.

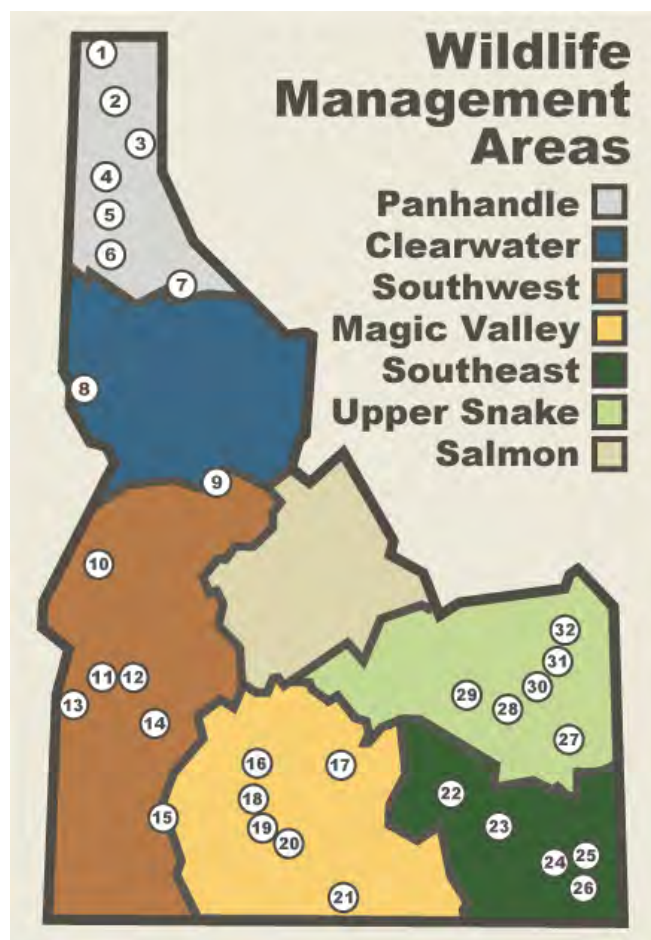
If you have any questions about the management of the WMA contact the regional office associated with that WMA.

1. Have you visited any of the WMAs in Idaho during 2011?

☐ Yes ☐ No

2. During 2011 which WMAs have you visited and how many days did you spend at each? Please count partial days as one day. (An estimate is fine)

Days	WMAs
_____	1 Boundary Creek WMA
_____	2 McArthur Lake WMA
_____	3 Pend Oreille WMA
_____	4 Farragut WMA
_____	5 Coeur d' Alene WMA
_____	6 St. Maries WMA
_____	7 Snow Peak WMA
_____	8 Craig Mountain WMA
_____	9 Red River WMA
_____	10 Andrus (formerly Brownlee) WMA
_____	11 Payette River WMA
_____	12 Montour WMA
_____	13 Fort Boise WMA
_____	14 Boise River WMA
_____	15 C. J. Strike WMA
_____	16 Camas Prairie/Centennial Marsh WMA
_____	17 Carey Lake WMA
_____	18 Billingsley Creek WMA
_____	19 Hagerman WMA
_____	20 Niagara Springs WMA
_____	21 Big Cottonwood WMA
_____	22 Sterling WMA
_____	23 Portneuf WMA
_____	24 Blackfoot River WMA
_____	25 Georgetown Summit WMA
_____	26 Montpelier WMA
_____	27 Tex Creek WMA
_____	28 Market Lake WMA
_____	29 Mud Lake WMA
_____	30 Deer Parks WMA
_____	31 Cartier Slough WMA
_____	32 Sand Creek WMA
_____	32 Sand Creek Chester Segment WMA



Please answer the following questions for each WMA that you visited during 2011.

If you did not spend time at any WMAs, please skip to Question 8.

IF you visited more than 4 WMAs during 2011 please answer for the 5 WMAs that you spent the **most** days at.

_____ WMA (please write the WMA you spent time at)

3. What were the three most important activities at **this** WMA? Please number 1-3 with 1 being the **most** important.

_____ ATV Riding	_____ Horseback Riding
_____ Being outside	_____ Hunting/Scouting
_____ Biking	_____ Photography
_____ Birding	_____ Picnicking
_____ Camping	_____ Running
_____ Canoe/Kayak/Boat	_____ Snowmobiling
_____ Dog training	_____ Swimming
_____ Dog Walking	_____ Trapping
_____ Fishing	_____ Wildlife Viewing
_____ Hiking	_____ Other (please describe) _____

4. How satisfied were you with your visit to this WMA?

Very Unsatisfied	Unsatisfied	Neutral/No Opinion	Satisfied	Very Satisfied
<input style="width: 30px; height: 30px;" type="checkbox"/>	<input style="width: 30px; height: 30px;" type="checkbox"/>	<input style="width: 30px; height: 30px;" type="checkbox"/>	<input style="width: 30px; height: 30px;" type="checkbox"/>	<input style="width: 30px; height: 30px;" type="checkbox"/>

5. How likely is it that you will visit this WMA again?

Very Unlikely	Unlikely	Neutral/No Opinion	Likely	Very Likely
<input style="width: 30px; height: 30px;" type="checkbox"/>	<input style="width: 30px; height: 30px;" type="checkbox"/>	<input style="width: 30px; height: 30px;" type="checkbox"/>	<input style="width: 30px; height: 30px;" type="checkbox"/>	<input style="width: 30px; height: 30px;" type="checkbox"/>

6. What could IDFG do to improve your visits to this WMA?

7. Do you have any specific suggestions or comments about the management of this WMA?

8. Where do you get most of your information about WMAs?

_____ Fish & Game office

_____ Fish & Game website

_____ Newspaper

_____ Radio

_____ Signage

_____ Social media (such as Facebook or Twitter)

_____ Television

_____ Word of mouth

_____ Other internet site, please list: _____

_____ Other, please tell us how you get information about IDFG WMAs:

IDFG manages Idaho WMAs to achieve these goals:

- Provide high quality habitat
- Provide high quality wildlife-based public recreation (hunting, fishing, wildlife viewing, etc.)
- Educate users about wildlife and the habitats they use
- Maintain positive working relations with neighbors

9. Do you agree with these goals?

Strongly Disagree	Somewhat Disagree	Neutral/No Opinion	Somewhat Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Do you have specific suggestions or comments on how to improve these goals or current management of IDFG WMAs?:

11. To the best of your knowledge, what is the primary source of funding for operation and maintenance of IDFG WMAs?

_____ State taxes

_____ Federal taxes

_____ Idaho Fish & Game license sales

_____ I don't know

_____ Other, please describe _____

Historically, hunters and anglers have been Fish and Game's primary constituents. They have provided most of our agency funding through the sale of licenses and tags and through a FEDERAL tax on firearms, ammunition, and fishing supplies. No State taxes are used to operate WMAs.

Fish and Game is experiencing increasing demands on its lands and services by a growing constituency who are neither hunters nor anglers. This includes use of Fish and Game land for outdoor recreation other than hunting and fishing.

12. One option to better fund operation of these WMAs is to require WMA users 18 or older who do not possess a fishing, hunting or trapping license to purchase conservation permit to use Fish & Game WMAs.

To what extent do you disagree or agree with this option?

Strongly Disagree	Somewhat Disagree	Neutral/No Opinion	Somewhat Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. If a conservation permit is required for WMA users who do not possess a hunting, fishing or trapping license how much should it cost?

_____ \$ 5 - \$10
_____ \$ 11 - \$15
_____ \$ 16 - \$20
_____ \$ 21 - \$30
_____ Do not support requiring a permit.

14. If WMA users were required to purchase either a hunting, fishing, or trapping license OR a conservation permit to use WMAs, how likely are you to continue to use WMAs?

Very Unlikely	Unlikely	Neutral/No Opinion	Likely	Very Likely
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. Do you have other specific suggestions or comments on a potential WMA conservation permit?

16. Do you have other specific suggestions or comments on how to fund management of WMAs?

Are you an Idaho resident? (If no, please go to Question 19.)

☐ Yes ☐ No

17. If you are an Idaho resident, what county do you live in? _____

18. If you are not an Idaho resident, what City and State do you live in?

City: _____ State: _____

19. In 2011, did you purchase an Idaho fishing, hunting or trapping license?

☐

Yes

☐

No

☐

Not in 2011, but I have before

If you would like to be informed about WMA management in the future, including availability of new draft management plans during the summer of 2012, please provide us your contact information:

Email: _____

Name: _____

Address: _____

City, ST: _____

Zip code: _____

V. 1999-2013 ACCOMPLISHMENTS

Since the 1999 BRWMA Plan approval, the following accomplishments have occurred:

Goal: Restore riparian and upland vegetation vigor on-site and riparian vegetation off-site.

Objective: Improve stream bank and streambed habitat along the Blackfoot River and Angus Creek.

Accomplishments:

- Five hundred feet of sedges and 3,750 willows and red osier dogwood were planted along Angus Creek and the Blackfoot River.
- Thirteen and one-half miles of boundary and county road fences were built or replaced and maintained annually to keep out trespassing cattle and maintain vegetation vigor.
- Utilized the Adopt-a-Wetland program group annually to plant willows or rebuild fences.

Objective: Pursue a land-use trade grazing agreement with upstream neighboring landowners with the commitment that any livestock grazing on the BRWMA be consistent with the mission statement and ultimately benefit wildlife and fisheries on the WMA.

Accomplishments:

- Met with upstream landowners to explain the desired outcome of a land-use trade.
- Worked with Regional Fisheries Manager and grazing cooperator to identify cutthroat trout spawning sites off-site.
- Attempted to arrange for stream bank renovation and riparian fencing to protect trout spawning habitat on cooperator's property.
- A short term land use trade was agreed to in 1999 which allowed access to neighboring properties for stream condition assessments.
- Worked with neighboring landowners to control noxious weeds and maintain fencing.

Goal: Provide secure spring, summer, and fall habitat for big game species.

Objective: Provide secure calving and fawning areas for elk and mule deer.

Accomplishments:

- Boundaries were clearly marked and roads gated to prevent entry by motorized vehicles.
- Thirteen and one-half miles of boundary and county road fences were built or replaced and maintained annually to keep out trespassing cattle to provide secure calving and fawning areas for big game.

Objective: Provide high-quality forage for big game species.

Accomplishments:

- Graduate student from Idaho State University generated a vegetation inventory and monitoring system. Based on information from this vegetation analysis, prescribed burns, aspen cutting, and other habitat manipulation practices are considered.
- Thirteen and one-half miles of boundary and county road fences were built or replaced and maintained annually to keep out trespassing cattle to maintain high quality forage for big game.
- Treated conifers in five acres of aspen stands that were at risk from conifer encroachment to restore aspen and associated understory.
- Chemically treated over 420 acres of noxious weeds annually. Biological controls (insects) have been released on four occasions.
- Annually worked with adjacent cattle and sheep allotment permittees on the Caribou-Targhee National Forest to establish property boundaries and address trespass grazing issues.
- Coordinated with Agrium to minimize impacts of phosphate mine exploration and impending open pit mine.

Goal: Enhance spring, summer, and fall habitat for big game species.

Objective: Enhance calving and fawning areas for elk, mule deer, and moose.

Accomplishments:

- Maintained or improved the diversity of native vegetation types by constructing and maintaining 13.5 miles of boundary and county road fences to reduce trespass grazing and browsing.
- Annually worked with adjacent cattle and sheep allotment holders on the Caribou-Targhee National Forest to educate about boundaries and trespass grazing issues.
- Treated conifers in five acres of aspen stands that are at risk from conifer encroachment to restore aspen and associated understory.
- Chemically treated over 420 acres of noxious weeds annually. Biological controls (insects) have been released on four occasions.
- Coordinated with Agrium to minimize impacts of phosphate mine exploration and impending open pit mine.

Goal: Enhance upland game and nongame nesting and brood-rearing habitat.

Objective: Provide secure nesting and brood-rearing habitat for waterfowl and upland game birds.

Accomplishments:

- Preserved natural perennial and ephemeral springs and seeps, prevented heavy grazing in meadows, seeps and riparian zones and protected big game or waterfowl production by constructing and maintaining 13.5 miles of boundary and county road fences to keep reduce trespass grazing.
- Chemically treated over 420 acres of noxious weeds annually. Biological controls (insects) have been released on four occasions.
- Coordinated with Agrium to minimize impacts of phosphate mine exploration and impending open pit mine.

Objective: Maintain or increase populations of nongame species.

Accomplishments:

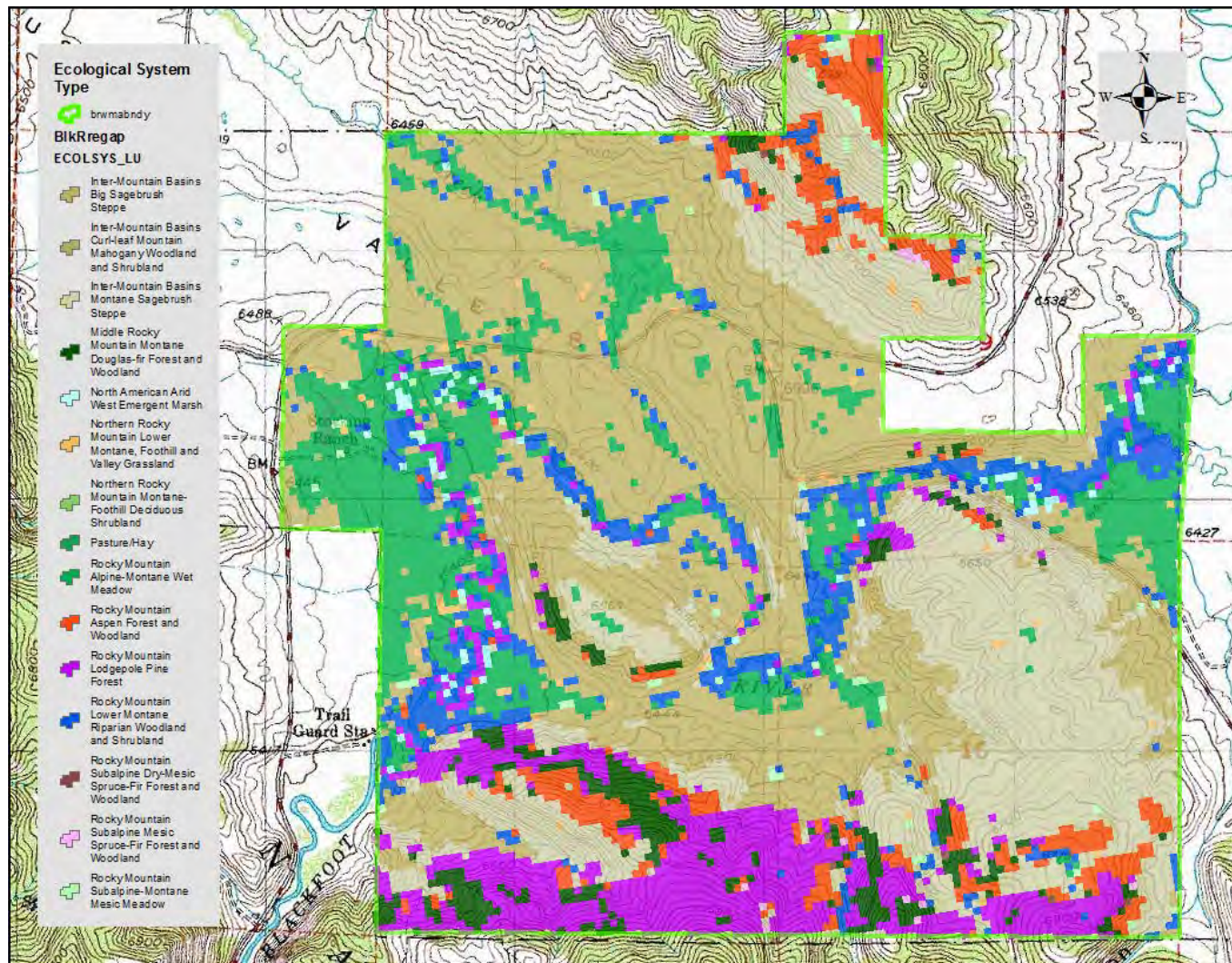
- Maintained or improved the diversity of native vegetation types; enhanced dense, food-bearing shrubby cover in riparian zones by constructing and maintaining 13.5 miles of boundary and county road fences to reduce trespass grazing; and planted willows.
- Chemically treated over 420 acres of noxious weeds annually. Biological controls (insects) have been released on four occasions.
- Coordinated with Agrium to minimize impacts of phosphate mine exploration to wildlife.
- Constructed swallow nesting structure near the old cabin.
- Evaluated habitat needs for nongame wildlife and considered non-target and sensitive species before habitat manipulation practices were put into effect.

VI. VEGETATION

Cover Types

Northwest GAP Analysis Project Land Cover, version 2.0 spatial data (U.S. Geological Survey, Gap Analysis Program, Moscow, Idaho; <http://gapanalysis.usgs.gov>) was used to estimate the ecological system type composition of BRWMA. (Some obvious misclassification, e.g., Lodgepole pine along the Blackfoot River corridor, has been corrected/combined with a more likely type. Also the Blackfoot River and tributaries account for at least 25 acres of open water).

Ecological System	Acres	Percentage
Inter-Mountain Basins Big Sagebrush Steppe	888	37%
Inter-Mountain Basins Montane Sagebrush Steppe	528	22%
Rocky Mountain Alpine Montane Wet Meadow	336	14%
Rocky Mountain Lodgepole Pine Forest	192	8%
Rocky Mountain Lower Montane-Foothill Riparian Woodland and Shrubland	168	7%
Rocky Mountain Aspen Forest and Woodland	144	6%
Middle Rocky Mountain Montane Douglas-fir Forest and Woodland	72	3%
Open Water	25	1%
Rocky Mountain Subalpine-Montane Mesic Meadow	16	<1%
Northern Rocky Mountain Lower Montane, Foothill and Valley Grassland	15	<1%
North American Arid West Emergent Marsh	15	<1%
Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland	3	<1%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2	<1%
Northern Rocky Mountain Montane-Foothill Deciduous Shrubland	<1	<1%



Ecological System Type composition of BRWMA.

Surveys

No recent vegetation surveys have been conducted; however, an extensive vegetation inventory was completed in 1998 through Idaho State University as part of the requirements for an M.S. thesis (Maroney 1998). In 1997, BRWMA was identified as a Reference Site for recovery of Class II Wetland sites in southeast Idaho (Jankovsky-Jones 1997). Unique plant community types were mentioned and it was suggested analogue sedge (*Carex simulata*) and tufted hairgrass (*Deschampsia cespitosa*) in particular warranted protection. The listing of plant species below is based on previous inventories, known plantings, records of occurrence according to the Idaho Fish and Wildlife Information System and recent observations by field biologists. There is a need for more current surveys to assess occurrence and abundance of a number of groups.

Plant Species List

Common and special status plant species: additional information available at www.idfg.idaho.gov. Status Designation: Idaho Conservation Data Center -sensitive = 1; Federal listing = 2, -e(endangered), -t(threatened), -c(candidate); USFS ranking = 3, -e(endangered), -t(threatened), -s(sensitive); BLM ranking = 4, -1(Type 1), -2(Type 2), -3(Type 3), -4(Type 4), -5(Type 5). Occurrence: Record within BRWMA managed lands = 1, Record within the BRWMA landscape =2.

Common Name	Scientific Name	Status Designations	Occurrence
Trees			
Sub-alpine Fir	<i>Abies lasiocarpa</i>		2
Rocky Mountain Juniper	<i>Juniperus scopulorum</i>		1
Engelmann Spruce	<i>Picea engelmannii</i>		2
Lodgepole Pine	<i>Pinus contorta</i>		1
Narrowleaf Cottonwood	<i>Populus angustifolia</i>		2
Quaking Aspen	<i>Populus tremuloides</i>		1
Common Chokecherry	<i>Prunus virginiana</i>		1
Douglas-fir	<i>Pseudotsuga menziesii</i>		1
Booth's Willow	<i>Salix boothii</i>		1
Sage-leaf Willow	<i>Salix candida</i>		2
Sandbar Willow	<i>Salix exigua</i>		1
Geyer's Willow	<i>Salix geyeriana</i>		1
Tealeaf Willow	<i>Salix planifolia</i>		1
Firm-leaf Willow	<i>Salix pseudocordata</i>		1
Wolf's Willow	<i>Salix wolfii</i>		1
Shrubs			
Western Serviceberry	<i>Amelanchier alnifolia</i>		1
Utah Serviceberry	<i>Amelanchier utahensis</i>		1
Silver Sage	<i>Artemisia cana</i>		1
Prairie Sage	<i>Artemisia ludoviciana</i>		1
Basin Big Sage	<i>Artemisia tridentata tridentata</i>		1
Mountain Big Sage	<i>Artemisia tridentata vaseyana</i>		1
Threetip Sage	<i>Artemisia tripartita</i>		1

Common Name	Scientific Name	Status Designations	Occurrence
<i>Shrubs (cont.)</i>			
Creeping Oregon Grape	<i>Berberis repens</i>		1
Sticky Laurel	<i>Ceanothus velutinus</i>		1
Princes Pine	<i>Chimaphila umbellata</i>		1
Green Rabbitbrush	<i>Chrysothamnus viscidiflorus</i>		1
Gray Rabbitbrush	<i>Ericameria nauseosa</i>		1
Bearberry Honeysuckle	<i>Lonicera involucrata</i>		1
Mountain Lover	<i>Pachystima myrsinites</i>		1
Common Silverweed	<i>Potentilla anserina</i>		1
Glandular Cinquefoil	<i>Potentilla arguta</i>		1
Shrubby Cinquefoil	<i>Potentilla fruticosa</i>		1
Slender Cinquefoil	<i>Potentilla gracilis</i>		1
Antelope Bitterbrush	<i>Purshia tridentata</i>		1
Whitestem Gooseberry	<i>Ribes inerme</i>		1
Woods' Rose	<i>Rosa woodsii</i>		1
Mountain Snowberry	<i>Symphoricarpos oreophilus</i>		1
<i>Forbs</i>			
Common Yarrow	<i>Achillea millefolium</i>		1
Nettle-leaf Giant Hyssop	<i>Agastache urticifolia</i>		1
Short-beaked Agoseris	<i>Agoseris glauca</i>		1
Brandegee Onion	<i>Allium brandegei</i>		1
Geyer's Onion	<i>Allium geyeri</i>		1
Desert Alyssum	<i>Alyssum desertorum</i>		1
Northern Androsace	<i>Androsace septentrionalis</i>		1
Rosy Pussy-toes	<i>Antennaria microphylla</i>		1
Colorado Columbine	<i>Aquilegia coerulea</i>		1
Capitate Sandwort	<i>Arenaria congesta</i>		1
Bluntleaf Sandwort	<i>Arenaria lateriflora</i>		1
Heart-leaved Arnica	<i>Arnica cordifolia</i>		1
Long-leaved Aster	<i>Aster adscendens</i>		1
Engelmann's Aster	<i>Aster engelmannii</i>		1
Few-flowered Aster	<i>Aster modestus</i>		1
Elegant Aster	<i>Aster perelegans</i>		1
Purple Milk-vetch	<i>Astragalus agrestis</i>		1
Lesser Rushy Milk-vetch	<i>Astragalus convallarius</i>		1
Newberry's Milk-vetch	<i>Astragalus newberryi</i>		1
Large-leaved Balsamroot	<i>Balsamorhiza acrophila</i>		1
Arrowleaf Balsamroot	<i>Balsamorhiza sagittata</i>		1
American Yellowrocket	<i>Barbarea orthoceras</i>		1
Douglas' Brodiaea	<i>Brodiaea douglasii</i>		1
Sego Lily	<i>Calochortus eurycarpus</i>		1
Common Camas	<i>Camassia quamash</i>		1
Scotch Bellflower	<i>Campanula rotundifolia</i>		1
Shepherds-purse	<i>Capsella bursa-pastoris</i>		1
Musk Thistle	<i>Carduus nutans</i>		1

Common Name	Scientific Name	Status Designations	Occurrence
Forbs (cont.)			
Yellow Paintbrush	<i>Castilleja flava</i>		1
Common Paintbrush	<i>Castilleja miniata</i>		1
Field Chickweed	<i>Cerastium arvense</i>		1
Common Chickweed	<i>Cerastium vulgatum</i>		1
Douglas' Dustymaiden	<i>Chaenactis douglasii</i>		1
Fremont's Goosefoot	<i>Chenopodium fremontii</i>		1
Canadian Thistle	<i>Cirsium arvense</i>		1
Elk Thistle	<i>Cirsium scariosum</i>		1
Utah Thistle	<i>Cirsium utahense</i>		1
Bull Thistle	<i>Cirsium vulgare</i>		1
Western Spring Beauty	<i>Claytonia lanceolata</i>		1
Columbia Virgin's Bower	<i>Clematis columbiana</i>		1
Hairy Clematis	<i>Clematis hirsutissima</i>		1
Small Flowered Blue-eyed Mary	<i>Collinsia parviflora</i>		1
Narrow-leaf Collomia	<i>Collomia linearis</i>		1
Spotted Coral-root	<i>Corallorhiza maculata</i>		1
Striped Coral-root	<i>Corallorhiza striata</i>		1
Golden Smoke	<i>Corydalis aurea</i>		1
Long-leaved Hawksbeard	<i>Crepis acuminata</i>		1
Common Hounds-tongue	<i>Cynoglossum officinale</i>		1
Upland Larkspur	<i>Delphinium nuttallianum</i>		1
Western Larkspur	<i>Delphinium occidentale</i>		1
Tansymustard	<i>Descurainia sophia</i>		1
Steers-head	<i>Dicentra uniflora</i>		1
Few-flowered Shooting Star	<i>Dodecatheon pulchellum</i>		1
Watsons Willowherb	<i>Epilobium watsonii</i>		1
Bitter Fleabane	<i>Erigeron acris</i>		1
Subalpine Daisy	<i>Erigeron peregrinus</i>		1
Showy Fleabane	<i>Erigeron speciosus</i>		1
Parsnip-flowered Eriogonum	<i>Eriogonum heracleoides</i>		1
Wooly Sunflower	<i>Eriophyllum lanatum</i>		1
Blue Leaf Strawberry	<i>Fragaria virginiana</i>		1
Giant Frasera	<i>Frasera speciosa</i>		1
Yellow Bell	<i>Fritillaria pudica</i>		1
Goose Grass	<i>Galium aparine</i>		1
Northern Bedstraw	<i>Galium boreale</i>		1
Fragrant Bedstraw	<i>Galium triflorum</i>		1
Spreading Groundsmoke	<i>Gayophytum diffusum</i>		1
Pleated Gentian	<i>Gentiana affinis</i>		1
Northern Gentian	<i>Gentiana amarella</i>		1
Smaller Fringed Gentian	<i>Gentiana detonsa</i>		1
White Geranium	<i>Geranium richardsonii</i>		1
Sticky Purple Geranium	<i>Geranium viscosissimum</i>		1

Common Name	Scientific Name	Status Designations	Occurrence
<i>Forbs (cont.)</i>			
Large-leaved Avens	<i>Geum macrophyllum</i>		1
Old Man's Whiskers	<i>Geum triflorum</i>		1
Scarlet Gilia	<i>Gilia aggregata</i>		1
Lowland Cudweed	<i>Gnaphalium palustre</i>		1
Rattlesnake Plantain	<i>Goodyera oblongifolia</i>		1
Small-flowered Gymnosteris	<i>Gymnosteris parvula</i>		1
Northern Green Bog-orchid	<i>Habenaria hyperborea</i>		1
Alaska Rein Orchid	<i>Habenaria unalascensis</i>		1
Many-flowered Stickweed	<i>Hackelia floribunda</i>		1
Western Hedysarum	<i>Hedysarum occidentale</i>		1
Sneezeweed	<i>Helenium autumnale</i>		1
Rocky Mountain Helianthella	<i>Helianthella uniflora</i>		1
Dwarf Hesperochiron	<i>Hesperochiron pumilus</i>		1
Common Mares-tail	<i>Hippuris vulgaris</i>		1
Ballhead Waterleaf	<i>Hydrophyllum capitatum</i>		1
Prickly Lettuce	<i>Lactuca serriola</i>		1
Duckweed	<i>Lemna minor</i>		1
Mudwort	<i>Limosella aquatica</i>		1
Butter and Eggs	<i>Linaria vulgaris</i>		1
Wild Blue Flax	<i>Linum perenne</i>		1
Bulbous Woodland-star	<i>Lithophragma glabrum</i>		1
Smallflower Woodland-star	<i>Lithophragma parviflora</i>		1
Gray's Lomatium	<i>Lomatium grayi</i>		1
Silvery Lupine	<i>Lupinus argenteus</i>		1
Spurred Lupine	<i>Lupinus laxiflorus</i>		1
Prairie Lupine	<i>Lupinus lepidus</i>		1
Velvet Lupine	<i>Lupinus leucophyllus</i>		1
Hoary Aster	<i>Machaeranthera canescens</i>		1
Mountain Tarweed	<i>Madia glomerata</i>		1
Scentless May-weed	<i>Matricaria maritima</i>		1
Pineapple Weed	<i>Matricaria matricarioides</i>		1
Black Medic	<i>Medicago lupulina</i>		1
Field Mint	<i>Mentha arvensis</i>		1
Broad-leaf Bluebells	<i>Mertensia ciliata</i>		1
Green Bluebells	<i>Mertensia viridis</i>		1
Yellow Monkey-flower	<i>Mimulus guttatus</i>		1
Nuttall's Povertyweed	<i>Monolepis nuttalliana</i>		1
Water Montia	<i>Montia chamissoi</i>		1
Needle-leaf Navarretia	<i>Navarretia intertexta</i>		1
Long-leaf Evening-primrose	<i>Oenothera subcaulis</i>		1
Linear-leaved Orogenia	<i>Orogenia linearifolia</i>		1
Yellow Owl-clover	<i>Orthocarpus luteus</i>		1
Mountain Sweet Cicely	<i>Osmorhiza chilensis</i>		1
Bracted Lousewort	<i>Pedicularis bracteosa</i>		1

Common Name	Scientific Name	Status Designations	Occurrence
Forbs (cont.)			
Elephants Head	<i>Pedicularis groenlandica</i>		1
Sickletop Lousewort	<i>Pedicularis racemosa</i>		1
Dark-blue Penstemon	<i>Penstemon cyaneus</i>		1
Small-flowered Penstemon	<i>Penstemon procerus</i>		1
Rydberg's Penstemon	<i>Penstemon rydbergii</i>		1
Gairdner's Yampah	<i>Perideridia gairdneri</i>		1
Franklin's Phacelia	<i>Phacelia franklinii</i>		1
Varileaf Phacelia	<i>Phacelia heterophylla</i>		1
Long-leaf Phlox	<i>Phlox longifolia</i>		1
Scouler's Plagiobothrys	<i>Plagiobothrys scouleri</i>		1
Common Plantain	<i>Plantago major</i>		1
Western Polemonium	<i>Polemonium occidentale</i>		1
Prostrate Knotweed	<i>Polygonum aviculare</i>		1
American Bistort	<i>Polygonum bistortoides</i>		1
Closed-flowered Knotweed	<i>Polygonum confertiflorum</i>		1
Douglas' Knotweed	<i>Polygonum polygaloides</i>		1
White-margined Knotweed	<i>Polygonum polygaloides</i>		1
Roughfruit Fairbells	<i>Prosartes trachycarpum</i>		1
Self-heal	<i>Prunella vulgaris</i>		1
Sharp Buttercup	<i>Ranunculus acriformis</i>		1
Water-plantain Buttercup	<i>Ranunculus alismifolius</i>		1
White Water Buttercup	<i>Ranunculus aquatilis</i>		1
Shore Buttercup	<i>Ranunculus cymbalaria</i>		1
Sage Buttercup	<i>Ranunculus glaberrimus</i>		1
Jove's Buttercup	<i>Ranunculus jovis</i>		1
Marsh Yellowcress	<i>Rorippa islandica</i>		1
Western Coneflower	<i>Rudbeckia occidentalis</i>		1
Curly Dock	<i>Rumex crispus</i>		1
Western Dock	<i>Rumex occidentalis</i>		1
Alpine Dock	<i>Rumex paucifolius</i>		1
Swamp Saxifrage	<i>Saxifraga integrifolia</i>		1
Lance-leaf Figwort	<i>Scrophularia lanceolata</i>		1
Alkali-marsh Butterweed	<i>Senecio hydrophilus</i>		1
Balsam Groundsel	<i>Senecio pauperculus</i>		1
Tall Butterweed	<i>Senecio serra</i>		1
Mountain-marsh Butterweed	<i>Senecio sphaerocephalus</i>		1
Menzies Silene	<i>Silene menziesii</i>		1
Western Smilacina	<i>Smilacina racemosa</i>		1
Star-flowered Smilacina	<i>Smilacina stellata</i>		1
Canada Goldenrod	<i>Solidago canadensis</i>		1
Bur-reed	<i>Sparganium fluctuans</i>		1
Hooded Lady's-tresses	<i>Spiranthes romanzoffiana</i>		1
Swamp Hedge-nettle	<i>Stachys palustris</i>		1
Long-stalked Starwort	<i>Stellaria longipes</i>		1

Common Name	Scientific Name	Status Designations	Occurrence
Forbs (cont.)			
Common Dandelion	<i>Taraxacum officinale</i>		1
Gray Horse-brush	<i>Tetradymia canescens</i>		1
Western Madder	<i>Thalictrum occidentale</i>		1
Field Pennycress	<i>Thlaspi arvense</i>		1
Wild Candy Tuft	<i>Thlaspi montanum</i>		1
Goatsbeard	<i>Tragopogon dubius</i>		1
Long-stalked Clover	<i>Trifolium longipes</i>		1
White Clover	<i>Trifolium repens</i>		1
Stinging Nettle	<i>Urtica dioica</i>		1
Tobacco-root	<i>Valeriana edulis</i>		1
California False Hellebore	<i>Veratrum californicum</i>		1
Common Mullein	<i>Verbascum thapsus</i>		1
American Brooklime	<i>Veronica americana</i>		1
Viguiera	<i>Viguiera multiflora</i>		1
Early Blue Violet	<i>Viola adunca</i>		1
Canada Violet	<i>Viola canadensis</i>		1
Yellow Prairie Violet	<i>Viola nuttallii</i>		1
Northern Mules-ears	<i>Wyethia amplexicaulis</i>		1
Heart-leaved Golden Alexanders	<i>Zizia aptera</i>		1
Graminoids			
Letterman Needlegrass	<i>Achnatherum lettermanii</i>		1
Redtop	<i>Agrostis stolonifera</i>		1
Meadow Foxtail	<i>Alopecurus pratensis</i>		1
American Sloughgrass	<i>Beckmannia syzigachne</i>		1
California Brome	<i>Bromus carinatus</i>		1
Fringed Brome	<i>Bromus ciliatus</i>		1
Smooth Brome	<i>Bromus inermis</i>		1
Cheatgrass	<i>Bromus tectorum</i>		1
Slender-beaked Sedge	<i>Carex athrostachya</i>		1
Golden-fruited Sedge	<i>Carex aurea</i>		1
Douglas' Sedge	<i>Carex douglasii</i>		1
Elk Sedge	<i>Carex geyeri</i>		1
Idaho Sedge	<i>Carex idahoa</i>	1, 4-2	1
Woolly Sedge	<i>Carex lanuginosa</i>		1
Small-winged Sedge	<i>Carex microptera</i>		1
Nebraska Sedge	<i>Carex nebrascensis</i>		1
Western Sedge	<i>Carex occidentalis</i>		1
Clustered Field Sedge	<i>Carex praegracilis</i>		1
Northwest Territory Sedge	<i>Carex utriculata</i>		1
Orchard Grass	<i>Dactylis glomerata</i>		1
Tufted Hairgrass	<i>Deschampsia cespitosa</i>		1
Quackgrass	<i>Elymus repens</i>		1
Slender Wheatgrass	<i>Elymus trachycaulus</i>		1

Common Name	Scientific Name	Status Designations	Occurrence
<i>Graminoids (cont.)</i>			
Idaho Fescue	<i>Festuca idahoensis</i>		1
Sheep Fescue	<i>Festuca ovina</i>		1
Needle-and-thread Grass	<i>Hesperostipa comata</i>		1
Meadow Barley	<i>Hordeum brachyantherum</i>		1
Foxtail Barley	<i>Hordeum jubatum</i>		1
Baltic Rush	<i>Juncus balticus</i>		1
Colorado Rush	<i>Juncus confusus</i>		1
Junegrass	<i>Koeleria macrantha</i>		1
Basin Wildrye	<i>Leymus cinereus</i>		1
Purple Oniongrass	<i>Melica spectabilis</i>		1
Timothy	<i>Phleum pratense</i>		1
Fowl Bluegrass	<i>Poa palustris</i>		1
Kentucky Bluegrass	<i>Poa pratensis</i>		1
Bluebunch Wheatgrass	<i>Pseudoroegneria spicata</i>		1
Columbia Needlegrass	<i>Stipa nelsonii</i>		1
<i>Primitive Plants</i>			
Common Horsetail	<i>Equisetum arvense</i>		1
Clubmoss	<i>Lycopodium spp.</i>		1

VII. WILDLIFE AND FISH SPECIES LIST

Surveys

Several wildlife management surveys are undertaken regularly. Species occurrence and abundance surveys have been less thorough. The listing below is based on previous plans, incidental observations, and records of occurrence according to the Idaho Conservation Data Center. There is a need for more current surveys to assess occurrence and abundance of a number of groups.

Common and special status species (fish, amphibians, reptiles, birds and mammals) and special status species only of invertebrates: additional information available at www.idfg.idaho.gov. Status Designation: Idaho Species of Greatest Conservation Need = 1; Federal listing = 2, -e(endangered), -t(threatened), -c(candidate); USFS ranking = 3, -e(endangered), -t(threatened), -s(sensitive); BLM ranking = 4, -1(Type 1), -2(Type 2), -3(Type 3), -4(Type 4), -5(Type 5). Occurrence: Record within BRWMA managed lands = 1, Record within the BRWMA landscape =2.

Common Name	Scientific Name	Status Designations	Occurrence
<i>Mammals</i>			
Moose	<i>Alces alces</i>		1
Coyote	<i>Canis latrans</i>		1
Beaver	<i>Castor canadensis</i>		1
Elk	<i>Cervus canadensis</i>		1
Porcupine	<i>Erethizon dorsatum</i>		1
Wolverine	<i>Gulo gulo</i>	1, 2-c, 3-s, 4-3	2
Sagebrush Vole	<i>Lemmyscus curtatus</i>		2
Snowshoe Hare	<i>Lepus americanus</i>		2
River Otter	<i>Lontra canadensis</i>		2
Canada Lynx	<i>Lynx canadensis</i>	1, 2-t, 3-t, 4-1	2
Bobcat	<i>Lynx rufus</i>		2
Yellow-bellied Marmot	<i>Marmota flaviventris</i>		1
Striped Skunk	<i>Mephitis mephitis</i>		1
Long-tailed Vole	<i>Microtus longicaudus</i>		2
Montane Vole	<i>Microtus montanus</i>		1
Ermine	<i>Mustela erminea</i>		1
Long-tailed weasel	<i>Mustela frenata</i>		1
American Mink	<i>Mustela vison</i>		1
California Myotis	<i>Myotis californicus</i>	1, 4-4	2
Long-eared Myotis	<i>Myotis evotis</i>		2
Little Brown Myotis	<i>Myotis lucifugus</i>		1
Long-legged Myotis	<i>Myotis volans</i>		2
Yuma Myotis	<i>Myotis yumanensis</i>		2
Least Chipmunk	<i>Neotamias minimus</i>		2
Bushy-tailed Wood Rat	<i>Neotoma cinerea</i>		2

Common Name	Scientific Name	Status Designations	Occurrence
Mammals (cont.)			
Mule or Black-tailed Deer	<i>Odocoileus hemionus</i>		1
White-tailed Deer	<i>Odocoileus virginianus</i>		1
Common Muskrat	<i>Ondatra zibethicus</i>		1
Deer Mouse	<i>Peromyscus maniculatus</i>		1
Northern Raccoon	<i>Procyon lotor</i>		2
Mountain Lion or Puma	<i>Puma concolor</i>		2
Vagrant Shrew	<i>Sorex vagrans</i>		2
Uinta Ground Squirrel	<i>Spermophilus armatus</i>		1
Mountain Cottontail	<i>Sylvilagus nuttallii</i>		2
Red Squirrel	<i>Tamiasciurus hudsonicus</i>		1
American Badger	<i>Taxidea taxus</i>		1
Northern Pocket Gopher	<i>Thomomys talpoides</i>		1
Black Bear	<i>Ursus americanus</i>		2
Red Fox	<i>Vulpes vulpes</i>		2
Birds			
Common Redpoll	<i>Acanthis flammea</i>		2
Cooper's Hawk	<i>Accipiter cooperii</i>		1
Northern Goshawk	<i>Accipiter gentilis</i>	3-s, 4-3	2
Sharp-shinned Hawk	<i>Accipiter striatus</i>		1
Spotted Sandpiper	<i>Actitis macularius</i>		2
Clark's Grebe	<i>Aechmophorus clarkii</i>	1	2
Western Grebe	<i>Aechmophorus occidentalis</i>	1	2
Boreal Owl	<i>Aegolius funereus</i>	1, 3-s, 4-5	2
Red-winged Blackbird	<i>Agelaius phoeniceus</i>		1
Northern Pintail	<i>Anas acuta</i>	1	2
American Widgeon	<i>Anas americana</i>		2
Green-winged Teal	<i>Anas carolinensis</i>		1
Northern Shoveler	<i>Anas clypeata</i>		2
Cinnamon Teal	<i>Anas cyanoptera</i>		1
Blue-winged Teal	<i>Anas discors</i>		1
Mallard	<i>Anas platyrhynchos</i>		1
Gadwall	<i>Anas strepera</i>		2
Golden Eagle	<i>Aquila chrysaetos</i>		1
Black-chinned Hummingbird	<i>Archilochus alexandri</i>		2
Great Blue Heron	<i>Ardea herodias</i>		2
Short-eared Owl	<i>Asio flammeus</i>		2
Lesser Scaup	<i>Aythya affinis</i>	1	2
Redhead	<i>Aythya americana</i>		2
Ring-necked Duck	<i>Aythya collaris</i>		2
Greater Scaup	<i>Aythya marila</i>		2
Canvasback	<i>Aythya valisineria</i>		2
Cedar Waxwing	<i>Bombycilla cedrorum</i>		2
Bohemian Waxwing	<i>Bombycilla garrulus</i>		2
Ruffed Grouse	<i>Bonasa umbellus</i>		1

Common Name	Scientific Name	Status Designations	Occurrence
Birds (cont.)			
American Bittern	<i>Botaurus lentiginosus</i>		2
Canada Goose	<i>Branta canadensis</i>		1
Great Horned Owl	<i>Bubo virginianus</i>		2
Bufflehead	<i>Bucephala albeola</i>		2
Common Goldeneye	<i>Bucephala clangula</i>		1
Red-tailed Hawk	<i>Buteo jamaicensis</i>		1
Rough-legged Hawk	<i>Buteo lagopus</i>		1
Swainson's Hawk	<i>Buteo swainsoni</i>	1, 4-5	2
Lark Bunting	<i>Calamospiza melanocorys</i>		2
Wilson's Warbler	<i>Cardellina pusilla</i>		2
Turkey Vulture	<i>Cathartes aura</i>		2
Swainson's Thrush	<i>Catharus ustulatus</i>		2
Greater Sage-grouse	<i>Centrocercus urophasianus</i>	1, 2-c, 3-s, 4-2	1
Brown Creeper	<i>Certhia americana</i>		1
Killdeer	<i>Charadrius vociferus</i>		1
Black Tern	<i>Chlidonias niger</i>	1, 4-3	2
Common Nighthawk	<i>Chordeiles minor</i>		2
American Dipper	<i>Cinclus mexicanus</i>		2
Northern Harrier	<i>Circus cyaneus</i>		1
Marsh Wren	<i>Cistothorus palustris</i>		2
Northern Flicker	<i>Colaptes auratus</i>		1
Rock Pigeon	<i>Columba livia</i>		2
Olive-sided Flycatcher	<i>Contopus cooperi</i>		2
Western Wood-pewee	<i>Contopus sordidulus</i>		2
American Crow	<i>Corvus brachyrhynchos</i>		2
Common Raven	<i>Corvus corax</i>		1
Steller's Jay	<i>Cyanocitta stelleri</i>		2
Trumpeter Swan	<i>Cygnus buccinator</i>	1, 3-s, 4-3	1
Tundra Swan	<i>Cygnus columbianus</i>		2
Dusky Grouse	<i>Dendragapus obscurus</i>	4-5	1
Bobolink	<i>Dolichonyx oryzivorus</i>		2
Pileated Woodpecker	<i>Dryocopus pileatus</i>		2
Gray Catbird	<i>Dumetella carolinensis</i>		1
Snowy Egret	<i>Egretta thula</i>	1	2
Willow Flycatcher	<i>Empidonax traillii</i>		1
Horned Lark	<i>Eremophila alpestris</i>		2
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>		1
Merlin	<i>Falco columbarius</i>	1	2
Prairie Falcon	<i>Falco mexicanus</i>		2
Peregrine Falcon	<i>Falco peregrinus</i>	1, 3-s, 4-3	2
American Kestrel	<i>Falco sparverius</i>		1
American Coot	<i>Fulica americana</i>		2
Wilson's Snipe	<i>Gallinago delicata</i>		1
Common Loon	<i>Gavia immer</i>	1, 3-s	2

Common Name	Scientific Name	Status Designations	Occurrence
Birds (cont.)			
MacGillivray's Warbler	<i>Geothlypis tolmiei</i>		1
Common Yellowthroat	<i>Geothlypis trichas</i>		2
Northern Pygmy Owl	<i>Glaucidium gnoma</i>		2
Sandhill Crane	<i>Grus canadensis</i>	1	1
Cassin's Finch	<i>Haemorhous cassinii</i>		1
House Finch	<i>Haemorhous mexicanus</i>		2
Purple Finch	<i>Haemorhous purpureus</i>		1
Bald Eagle	<i>Haliaeetus leucocephalus</i>	1, 3-s,4-1	1
Evening Grosbeak	<i>Hesperiphona vespertina</i>		2
Black-necked Stilt	<i>Himantopus mexicanus</i>	1	2
Barn Swallow	<i>Hirundo rustica</i>		2
Harlequin Duck	<i>Histrionicus histrionicus</i>		2
Yellow-breasted Chat	<i>Icteria virens</i>		1
Bullock's Oriole	<i>Icterus bullockii</i>		2
Dark-eyed Junco	<i>Junco hyemalis</i>		1
Loggerhead Shrike	<i>Lanius ludovicianus</i>		2
California Gull	<i>Larus californicus</i>	1	2
Ring-billed Gull	<i>Larus delawarensis</i>		2
Franklin's Gull	<i>Larus pipixcan</i>	1	1
Gray-crowned Rosy Finch	<i>Leucosticte tephrocotis</i>		2
Hooded Merganser	<i>Lophodytes cucullatus</i>	1	2
Red Crossbill	<i>Loxia curvirostra</i>		2
Belted Kingfisher	<i>Megaceryle alcyon</i>		1
Song Sparrow	<i>Melospiza melodia</i>		1
Common Merganser	<i>Mergus merganser</i>		1
Brown-headed Cowbird	<i>Molothrus ater</i>		1
Townsend's Solitaire	<i>Myadestes townsendi</i>		1
Clark's Nutcracker	<i>Nucifraga columbiana</i>		1
Long-billed Curlew	<i>Numenius americanus</i>	1, 4-5	1
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	1	2
Sage Thrasher	<i>Oreoscoptes montanus</i>		2
Ruddy Duck	<i>Oxyura jamaicensis</i>		2
Osprey	<i>Pandion haliaetus</i>		2
House Sparrow	<i>Passer domesticus</i>		2
Savannah Sparrow	<i>Passerculus sandwichensis</i>		1
Lazuli Bunting	<i>Passerina amoena</i>		1
American White Pelican	<i>Pelecanus erythrorhynchos</i>	1, 4-2	1
Gray Partridge	<i>Perdix perdix</i>		2
Gray Jay	<i>Perisoreus canadensis</i>		2
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>		1
Double-crested Cormorant	<i>Phalacrocorax auritus</i>		1
Wilson's Phalarope	<i>Phalaropus tricolor</i>	1, 4-5	2
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>		1
Black-billed Magpie	<i>Pica hudsonia</i>		1

Common Name	Scientific Name	Status Designations	Occurrence
<i>Birds (cont.)</i>			
Downy Woodpecker	<i>Picoides pubescens</i>		1
Hairy Woodpecker	<i>Picoides villosus</i>		1
Pine Grosbeak	<i>Pinicola enucleator</i>		2
Green-tailed Towhee	<i>Pipilo chlorurus</i>		2
Spotted Towhee	<i>Pipilo maculatus</i>		1
Western Tanager	<i>Piranga ludoviciana</i>		1
Snow Bunting	<i>Plectrophenax nivalis</i>		1
White-faced Ibis	<i>Plegadis chihi</i>	1, 4-4	2
Horned Grebe	<i>Podiceps auritus</i>		2
Red-necked Grebe	<i>Podiceps grisegena</i>		2
Eared Grebe	<i>Podiceps nigricollis</i>		2
Pied-billed Grebe	<i>Podilymbus podiceps</i>		2
Black-capped Chickadee	<i>Poecile atricapillus</i>		1
Mountain Chickadee	<i>Poecile gambeli</i>		2
Vesper Sparrow	<i>Pooecetes gramineus</i>		1
Sora	<i>Porzana carolina</i>		2
Virginia Rail	<i>Rallus limicola</i>		2
American Avocet	<i>Recurvirostra americana</i>	1	2
Ruby-crowned Kinglet	<i>Regulus calendula</i>		1
Bank Swallow	<i>Riparia riparia</i>		2
Calliope Hummingbird	<i>Selasphorus calliope</i>		1
Broad-tailed Hummingbird	<i>Selasphorus platycercus</i>		1
Rufous Hummingbird	<i>Selasphorus rufus</i>		2
Yellow-rumped Warbler	<i>Setophaga coronata</i>		2
Yellow Warbler	<i>Setophaga petechia</i>		1
Mountain Bluebird	<i>Sialia currucoides</i>		1
Red-breasted Nuthatch	<i>Sitta canadensis</i>		1
White-breasted Nuthatch	<i>Sitta carolinensis</i>		1
Pine Siskin	<i>Spinus pinus</i>		1
American Goldfinch	<i>Spinus tristis</i>		1
Brewer's Sparrow	<i>Spizella breweri</i>	1, 4-3	1
Chipping Sparrow	<i>Spizella passerina</i>		1
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>		2
Caspian Tern	<i>Sterna caspia</i>	1	2
Forster's Tern	<i>Sterna forsteri</i>	1	2
Great Gray Owl	<i>Strix nebulosa</i>	3-s, 4-5	1
Western Meadowlark	<i>Sturnella neglecta</i>		1
European Starling	<i>Sturnus vulgaris</i>		1
Tree Swallow	<i>Tachycineta bicolor</i>		1
Violet-green Swallow	<i>Tachycineta thalassina</i>		2
Lesser Yellowlegs	<i>Tringa flavipes</i>		2
Greater Yellowlegs	<i>Tringa melanoleuca</i>		2
Willet	<i>Tringa semipalmata</i>		2

Common Name	Scientific Name	Status Designations	Occurrence
Birds (cont.)			
House Wren	<i>Troglodytes aedon</i>		1
American Robin	<i>Turdus migratorius</i>		1
Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>	1,3-s, 4-3	1
Eastern Kingbird	<i>Tyrannus tyrannus</i>		2
Western Kingbird	<i>Tyrannus verticalis</i>		1
Barn Owl	<i>Tyto alba</i>		2
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>		2
Mourning Dove	<i>Zenaida macroura</i>		1
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>		1
Reptiles			
Rubber Boa	<i>Charina bottae</i>		2
Western Yellow-bellied Racer	<i>Coluber constrictor</i>		2
Western Skink	<i>Eumeces skiltonianus</i>		2
Gopher Snake	<i>Pituophis catenifer</i>		2
Common Sagebrush Lizard	<i>Sceloporus graciosus</i>		2
Western Terrestrial Garter Snake	<i>Thamnophis elegans</i>		1
Common Garter Snake	<i>Thamnophis sirtalis</i>	4-3	1
Amphibians			
Tiger Salamander	<i>Ambystoma tigrinum</i>		1
Western Toad	<i>Anaxyrus boreas</i>	1, 4-3	2
Boreal Chorus Frog	<i>Pseudacris maculata</i>		1
Northern Leopard Frog	<i>Rana pipiens</i>	1, 4-2	1
Fish			
Utah Sucker	<i>Catostomus ardens</i>		1
Bluehead Sucker	<i>Catostomus discobolus</i>		1
Mottled Sculpin	<i>Cottus bairdii</i>		1
Paiute Sculpin	<i>Cottus beldingii</i>		1
Common Carp	<i>Cyprinus carpio</i>		2
Utah Chub	<i>Gila atraria</i>		1
Yellowstone Cutthroat Trout	<i>Oncorhynchus clarkii bouvieri</i>	1, 3-s, 4-2	1
Rainbow Trout	<i>Oncorhynchus mykiss</i>		1
Longnose Dace	<i>Rhinichthys cataractae</i>		1
Speckled Dace	<i>Rhinichthys osculus</i>		1
Redside Shiner	<i>Richardsonius balteatus</i>		1
Brook Trout	<i>Salvelinus fontinalis</i>		1
Bivalves			
Western Pearlshell	<i>Margaritifera falcate</i>	1	2
Gastropods			
Bear Lake Springsnail	<i>Pyrgulopsis pilsbryana</i>	1	2
Insects			
Spur-throat Grasshopper	<i>Melanoplus digitifer</i>	1	2
Stonefly	<i>Pictetiella expansa</i>	1	2

VIII. LAND ACQUISITIONS, AGREEMENTS, AND INFRASTRUCTURE

<i>Land Acquisitions Fee Title</i>			
Year	Funds Used	Acres	Acquired From
1995	DU, HB530, Teton Mitigation	1,720	The Conservation Fund
	<i>Subtotal</i>	1,720	
<i>Leases</i>			
Year	Funds Used	Acres	Acquired From
2012 (20 yr.)		640	Idaho Department of Lands
	<i>Subtotal</i>	640	
<i>Cooperative Land Agreements</i>			
Year	Type	Acres	Leased From
1995	Fencing	40	Bureau of Land Management
	<i>Subtotal</i>	40	
	<i>BRWMA Total</i>	2,400	

<i>Water Rights*</i>				
Number	Source	Diversion	Amount	Use
27-11276	Spring	T7S,R44E,S8	.04 cfs	Domestic, Stock
27-11272	Angus Creek	T7S,R44E,S8	.09 cfs	Stock
27-04095	Blackfoot River	T7S, R44E,S9,17	.02 cfs	Stock
27-04094A	Dip Creek	T7S,R44E,S16	.09 cfs	Stock


*Water rights on Dip Creek, Pine Creek, Angus Creek, and the Blackfoot River were transferred to the Department when we purchased the property. The Department also controls the water right to an unnamed spring near the cabin. These water rights are for stock watering and domestic use. Several irrigation water rights were also transferred to the Department with the property, but are subject to revision under the Snake River Basin Adjudication. The following stock water and domestic water rights were recommended by the Idaho Department of Water Resources for approval under the Snake River Basin Adjudication in 1998 with beneficial use as the basis for the claims

<i>Infrastructure</i>
2 Buildings (original cabin and bunkhouse)
4 Parking Areas/Information Centers
5 Administrative Trails (Miles)
13.5 Fences (Miles)

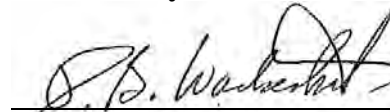
BLACKFOOT RIVER WILDLIFE MANAGEMENT AREA PLAN

Approval


Submitted by:


Don Jenkins, Habitat Biologist

Reviewed by:

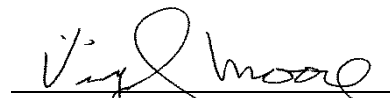

Paul Wackenhut, Regional Habitat Manager


Mark Gamblin, Regional Supervisor


Sal Palazzolo, Bureau of Wildlife


Tom Hemker, State Habitat Manager

Approved by:


Virgil Moore, Director