Craig Mountain
Wildlife Management Area

Management Plan
2014

Clearwater Region

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2014 – 2023 Management Plan
December 2014

Idaho Department of Fish and Game
Clearwater Region
3316 16th Street
Lewiston, Idaho 83501

Prepared By:
Justin Barrett
Regional Habitat Biologist

Table of Contents

List of Tables

List of Figures

Executive Summary

Idaho Department of Fish and Game (Department) manages 32 Wildlife Management Areas (WMAs). 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 on Clearwater Region WMAs confirms their value to big game, upland 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 in the Clearwater Region.

Wildlife management areas are often associated with other lands such as National Forests, Bureau of Land Management lands, or private lands protected by conservation easement. Due to the wildlife-focused management, WMAs often 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 canyon grassland and ponderosa pine forest), and, in some cases, creating hyper-productive habitats (e.g., food plots, impounded wetlands) to enhance 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*. Priorities, Management Directions, Performance Targets, and Strategies have been developed to be as consistent as possible with all of these documents and to capture the broader conservation values already provided by WMAs and ensure these values are protected and enhanced.

The Department's Clearwater Region manages two WMAs that collectively comprise nearly 125,000 acres of public land. The focus of WMA management is to maintain highly functional wildlife habitat and provide wildlife-based recreation. Red River WMA, in Idaho County, comprises 314 acres and serves as critical spring and calving habitat for elk (*Cervus canadensis*) and spawning habitat for Chinook salmon (*Oncorhynchus tshawytscha*). The Craig Mountain WMA (CMWMA) is located 10 miles south of Lewiston, Idaho in Nez Perce and Lewis counties and comprises 124,224 acres of public land of which 81,800 acres are Department lands. The CMWMA provides critical habitat for many game, nongame, and at-risk species.

Examples of at-risk species partially or potentially dependent on Clearwater Region WMAs include Spalding's catchfly (*Silene spaldingii*), Columbia River tiger beetle (*Cicindela columbica*), Chinook salmon, Steelhead trout (*Oncorhynchus mykiss*) Coeur d'Alene salamander (*Plethodon idahoensis*), ring-neck snake (*Diadophis punctatus*), bald eagle (*Haliaeetus leucocephalus*), flammulated owl (*Psiloscops flammeolus*), mountain quail (*Oreortyx pictus*),

white-headed woodpecker (*Picoides villosus*), fisher (*Martes pennanti*), and Townsend's big-eared bat (*Corynorhinus townsendii*).

Regional WMAs in the Clearwater Region are funded through a combination of hunting license dollars, appropriations from federal excise taxes (Pittman-Robertson Act), and funding provided by the Bonneville Power Administration and Bureau of Reclamation to mitigate habitat loss from construction of various dams that affect fish and wildlife resources in the region. Hunters, through license sales, support a large portion of management costs and are rewarded with management areas that sustain big game herds and provide consistent waterfowl and upland game bird production and hunting opportunities. Non-hunters also benefit from the broad-ranging conservation values associated with Department WMAs. The mission for CMWMA was designed to direct management objectives toward acquisition-related obligations and recreational opportunities for the public.

This document provides guidance for CMWMA management in the form of Priorities, Directions, Targets, and Strategies. The priorities for CMWMA were determined through a combination of public and agency input, mitigation requirements, and Department statewide priorities identified in "*The Compass*." Management actions on the WMA will be guided by these WMA priorities and where appropriate, directed at particular Conservation Targets to provide key benefits for focal species, guilds, and habitats on CMWMA.

This plan serves as a guide for current and future managers in planning for maximum wildlife and habitat benefit, public enjoyment, and efficient operation. As new information and technology becomes available, strategies may be modified to most effectively reach the goals and objectives in this plan. All Management Directions, Performance Targets, and Strategies are dependent on adequate funding, personnel, and public support.

Introduction

This Management Plan is designed to provide broad guidance for the long-term management of Craig Mountain Wildlife Management Area (CMWMA). This version will replace the 1998 CMWMA Management Plan by building upon and updating the management direction and public input as well as addressing new management concerns. This updated plan was completed with extensive public input and 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)
    - bighorn sheep (2010)
    - 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)

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 Wildlife Management Area (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.

Craig Mountain WMA Mission

To protect and enhance wildlife populations and wildlife habitat, to mitigate for the habitat losses associated with the construction and inundation of Dworshak Reservoir, and to provide for compatible uses of these wildlife resources by the public.

Modification of Plan

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

Other Considerations

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

Area Description and Current Status

The 81,880 acre Craig Mountain Wildlife Management Area (CMWMA) is located about 10 miles south of Lewiston, Idaho, north and east of the confluence of the Snake and Salmon rivers (Figure 1). The CMWMA is comprised of two primary management units, the Billy Creek Unit and the Peter T. Johnson Unit.

The Billy Creek Unit consists of 19,550 acres purchased by the Department between 1971 and 2014. The majority of property in this unit was purchased using funds derived from hunting license sales and the Land and Water Conservation Fund. The primary objectives for these lands include providing critical habitat for wildlife (primarily elk and deer (*Odocoileus* sp.), bighorn sheep (*Ovis canadensis*), and recreation access for hunters and anglers along the Snake River. The Billy Creek Unit is comprised of the following acquisitions: Gaiser Ranch, Prince Ranch, Gray Ranch, Limepoint, and Redbird Canyon.

The CMWMA was expanded by approximately 60,000 acres in 1992, with acquisition of the Peter T. Johnson Wildlife Mitigation Unit. The Peter T. Johnson Unit was purchased by Bonneville Power Administration (BPA) under terms of the 1992 Dworshak Dam Mitigation Agreement among BPA, the State of Idaho, and the Nez Perce Tribe (NPT). This property was provided to the State of Idaho as partial mitigation for wildlife losses associated with the 1971 inundation of wildlife habitat along the North Fork Clearwater River resulting from construction of Dworshak Dam. The mitigation agreement included establishment of a $3.019 million trust fund to the Department for the long-term management of this area, and a $7.1 million trust to the NPT for the purchase of future mitigation lands. In 2009, a land exchange between the Department and Idaho Department of Lands (IDL) was conducted to consolidate ownership and improve management throughout the Peter T. Johnson Unit. This resulted in a net gain of 2,125 acres for the Department. In 2010, the Department purchased 120 acres in upper Lake Creek from the University of Idaho Foundation.

In addition to lands owned by the Department, CMWMA is comprised of land owned by two government agencies and one private organization. Of the 124,225 acres comprising the CMWMA, 81,880 are owned by the Department, 28,935 acres are owned by the Bureau of Land Management (BLM), 11,861 acres are owned by IDL, and 1,629 acres are owned by The Nature Conservancy (TNC). Additionally, within the CMWMA boundary are lands owned by private individuals (5,925 acres), the NPT (19,486 acres), and the U.S. Forest Service (USFS) (2,535 acres).

The CMWMA is characterized by a gently rolling forested plateau at higher elevations, surrounded by deeply dissected canyon grasslands along the breaks of the Salmon and Snake rivers. The current forested habitat is dominated by grand fir (*Abies grandis*) habitat types, while the grasslands are dominated by bluebunch wheatgrass (*Pseudoroegneria spicata*), Idaho fescue (*Festuca idahoensis*), and sand dropseed (*Sporobolus cryptandrus*) (Appendix VI).

The topography on CMWMA ranges in elevation from 790' at the Snake River to 5,395' near the head of the South Fork of Captain John Creek. Soils are highly varied and range from deep well-drained loess-formed silt loams in the forested uplands to rocky scablands along ridgetops to a mixture of residual and colluvial materials within the canyons. Basalt is the dominant parent material. Rocky outcrops and lava rock rims predominate in canyon areas.

In the Hells Canyon region, temperatures differ substantially with elevation during all seasons. Summer temperatures tend to be moderate at higher elevations, while in the river canyons, one can experience an average of 80-90^{o} F and frequently over 100^{o} F temperatures during the same time. In general, January is the coldest month of the year and July is the warmest.

Mean annual precipitation ranges from 13.4 inches along the canyon bottoms to 20.0 inches at higher elevations. Most precipitation falls as snow and spring rains with up to 100 inches of snow falling in the upper elevations. Throughout the Hells Canyon region, precipitation is minimal during July and August, averaging only 10% of the yearly total. The area is prone to severe summer thunderstorms. Weather systems on Craig Mountain frequently originate from the southwest and are strongly influenced by the Blue Mountains.

Vegetation throughout the area is diverse and differs by elevation, aspect, soil type, and degree of disturbance. The major vegetation types within the Craig Mountain landscape can be generally categorized into temperate grassland, meadow, and shrubland (54%) which includes canyon grasslands and shrublands; forested (20%); agricultural (11%); and recently disturbed or modified (6%) (Appendix VI). Some other habitat types on CMWMA such as riparian (1.7%) and mesic meadow (<1%) provide wildlife values that are disproportionate to their abundance across the landscape. Canyon grasslands include bluebunch wheatgrass, Idaho fescue, and sand dropseed cover types and can be found from the river corridor up to 4000' in elevation. Shrubland habitat types in this area predominantly include mallow ninebark (*Physocarpus malvaceus*), common snowberry (*Symphoricarpos albus*), Woods' rose (*Rosa woodsii*), and smooth sumac (*Rhus glabra*) species. Snowberry can be found throughout the canyon grasslands on mesic north-facing slopes down to 1500' in elevation. Smooth sumac can be found in patches on all aspects of lower elevation canyon grassland habitat.

Riparian vegetation on CMWMA is generally classified into four types: coniferous forest, white alder (*Alnus rhombifolia*), mixed tall shrub, and netleaf hackberry (*Celtis laevigata* var. *reticulata*). Common associated tall shrubs include mountain alder (*Alnus incana*), water birch (*Betula occidentalis*), red-osier dogwood (*Cornus sericea*), and syringa (*Philadelphus lewisii*). Meadow and spring habitats can be found in the upper reaches of some of the larger drainages and support a wide variety of mesic shrubs, forbs, grasses, and sedges (*Carex* spp.). Plant communities reflect the environmental gradient from wet meadows to mesic and dry meadows. Characteristic wet meadow and spring-source plants include beaked sedge (*Carex utriculata*), water sedge (*Carex aquatilis*), tufted hairgrass (*Deschampsia caespitosa*), and bistort (*Polygonum bistortoides*). Mesic meadows (e.g., saturated only briefly in the spring) are characterized by Kentucky bluegrass (*Poa pratensis*) and forbs, including clustered green gentian (*Frasera fastigiata*), Columbian monkshood (*Aconitum columbianum*), common camas (*Camassia quamash*), false hellebore (*Veratrum californicum*), groundsel (*Senecio* spp.), prairie

smoke (*Geum triflorum*), slender cinquefoil (*Potentilla gracilis*), and strawberry (*Fragaria* spp.). Meadows impacted by excessive livestock use, hydrologic disturbance (e.g., beaver removal, stream incision and lowering of water table, historical logging road and railbed construction, ditching, and drainage), and lack of fire, are gradually being invaded by lodgepole pine and other non-meadow species.

Numerous conifer species occur on CMWMA including western larch (*Larix occidentalis*), ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*), Douglas-fir (*Pseudotsuga menziesii*), grand fir, subalpine fir (*Abies lasiocarpa*), and Englemann's spruce (*Picea engelmannii*). Mallow ninebark is a dominant early successional species in a Douglas-fir climax habitat type. Mesic, grand fir-dominated, conifer forests are best indicated by blue huckleberry (*Vaccinium globulare*) in the understory.

Wildfire is a natural component of the ecosystem on Craig Mountain. Historically, a fire cycle of 5-10 years might have been expected in the Canyon Grasslands which would burn finger-like mosaics as it trickled into the higher elevation, open Douglas-fir and ponderosa pine dry mixed conifer forests. Perennial grasslands and dry mixed-conifer dominated sites were adapted to such frequent, low-intensity fires resulting in open-canopy forested areas with large diameter trees and a diverse understory of early-successional plants. Anthropogenic influences such as grazing, non-native plants, logging practices, and wildfire suppression have altered the composition (Mancuso and Moseley 1994) and integrity of these fire-tolerant habitats, increasing the risk of severe, stand-replacing fires. Since 1992, two major wildfires have occurred on Craig Mountain. The Maloney Creek Fire of 2000 initiated in the Salmon River drainage and burned over 74,500 acres. The Chimney Complex Fire of 2007 began on the Snake River and burned 51,000 acres. Both of these fires were ignited in, and primarily restricted to, canyon grassland habitat and contributed to the adapted ecology of this habitat. Where these fires entered the forested habitats, however, the density and composition of trees created severe, stand-clearing fire conditions. In 2005, the Department, IDL, and BLM conducted a 1,600-acre prescribed burn in the Madden Creek drainage to help create a fire break and enhance the health of the grassland and forested habitats. This likely helped protect the community of Waha from the Chimney Complex Fire.

Many management actions are employed on CMWMA to enhance and protect wildlife such as closing some roads to motorized vehicle use, habitat restoration, timber management, noxious weed control, removing old dilapidated barbed wire and woven wire fences, planting of food plots where and when necessary, and installation and maintenance of water guzzlers. Some of the more influential management actions include a substantial reduction in livestock grazing, active noxious weed control, and timber management activities.

Livestock grazing has been conducted across much of Craig Mountain for over 100 years. Since the early 1990s, however, the amount and extent of grazing has been greatly reduced through management directions and interagency cooperation. In 2013, livestock grazing was limited to approximately 10% of land within the CMWMA boundary and less than 3% of Department property. Many miles of dilapidated barbed wire fence has been removed and many additional miles remain across the WMA. Approximately 17 miles of grazing fence are maintained annually in areas where cattle grazing occurs.

On Department lands, forest management continues with the primary objectives of improving habitat for wildlife and restoring the forest composition to natural, healthy, and sustainable forest stands. Over the last 20 years, the Department has conducted two timber sales, six salvage sales, and 40 direct sales. Through these, 12,428 mbf of lumber has been harvested on Department lands.

Noxious and highly invasive weeds are prevalent and pervasive on Craig Mountain and controlling invasive plants is one of the larger management programs on CMWMA. Some of the more problematic weed species include yellow starthistle (*Centaurea solstitialis*), spotted knapweed (*Centaurea maculosa*), whitetop (*Cardaria draba*), Scotch thistle (*Onopordum acanthium*), and common crupina (*Crupina vulgaris*). For this program, the Department, BLM, IDL, NPT, and the Idaho Department of Agriculture (ISDA) cooperate towards implementing an integrated pest management (IPM) program which includes using cultural, mechanical, biological, and chemical control techniques.

Craig Mountain WMA is home to a wide variety of migratory and resident mammals, birds, reptiles, amphibians, and fish. A wildlife inventory survey conducted in the early 1990s found 47 mammal, 123 bird, 10 reptile, and seven amphibian species on CMWMA (Cassirer 1995). This includes populations of bighorn sheep, elk, mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), black bear (*Ursus americanus*), mountain lion (*Puma concolor*), coyote (*Canis latrans*), furbearing species, and upland bird species available for wildlife watching and harvest opportunities. In addition, many nongame species are also available for wildlife watching opportunities throughout this area. A partial list of the common wildlife present on CMWMA can be found in Appendix VI.

Craig Mountain experiences high levels of recreational use by the public including for hunting, fishing, hiking, biking, horseback riding, camping, wildlife viewing, sightseeing, mushroom and berry picking, OHV riding, and winter sports activities. Throughout the year, an average of 2,000 vehicles/month visit the WMA with more people using the property in the summer and fall months associated with camping, wildlife viewing/scouting, and hunting activities. A survey conducted throughout 2012 of 135 individuals and groups on CMWMA estimated that 90.7% of these people found that the WMA met their expectations and 97.7% plan on returning to the WMA (Department, unpublished). The results of public surveys conducted throughout 2012 regarding management of CMWMA can be found below under Management Issues and in Appendix IV.

In addition to general public uses, commercial operations are conducted on CMWMA including grazing, logging, and outfitting. Grazing of domestic livestock on Department lands, including CMWMA, may be permitted through an annual lease. Commercial timber sales on Department lands are administered by IDL under the direction and design of Department staff. As of 2013, commercial outfitting on CMWMA is permitted for bighorn sheep, elk, mule deer, mountain lion, and incidental forest grouse and bobcat. Idaho Department of Fish and Game Policy No.: W-4.0 states that any commercial use on Department lands must be evaluated to assess if the proposed activity:

1. Is consistent with the purpose for which the property was acquired, including the objectives and directives of any relevant management plan for the property.
2. Meets the purpose or objectives more efficiently and effectively than the Department can.
3. Generates a net benefit to the Department's mission.
4. Conflicts with access or opportunity for the non-commercial public.

If the proposed commercial use is determined appropriate, permitting must be conducted "through a written lease, contract, or agreement, with terms and conditions acceptable to the Department, and shall include reimbursement of the Department's administrative costs and may include other payments for the benefit of the Department."

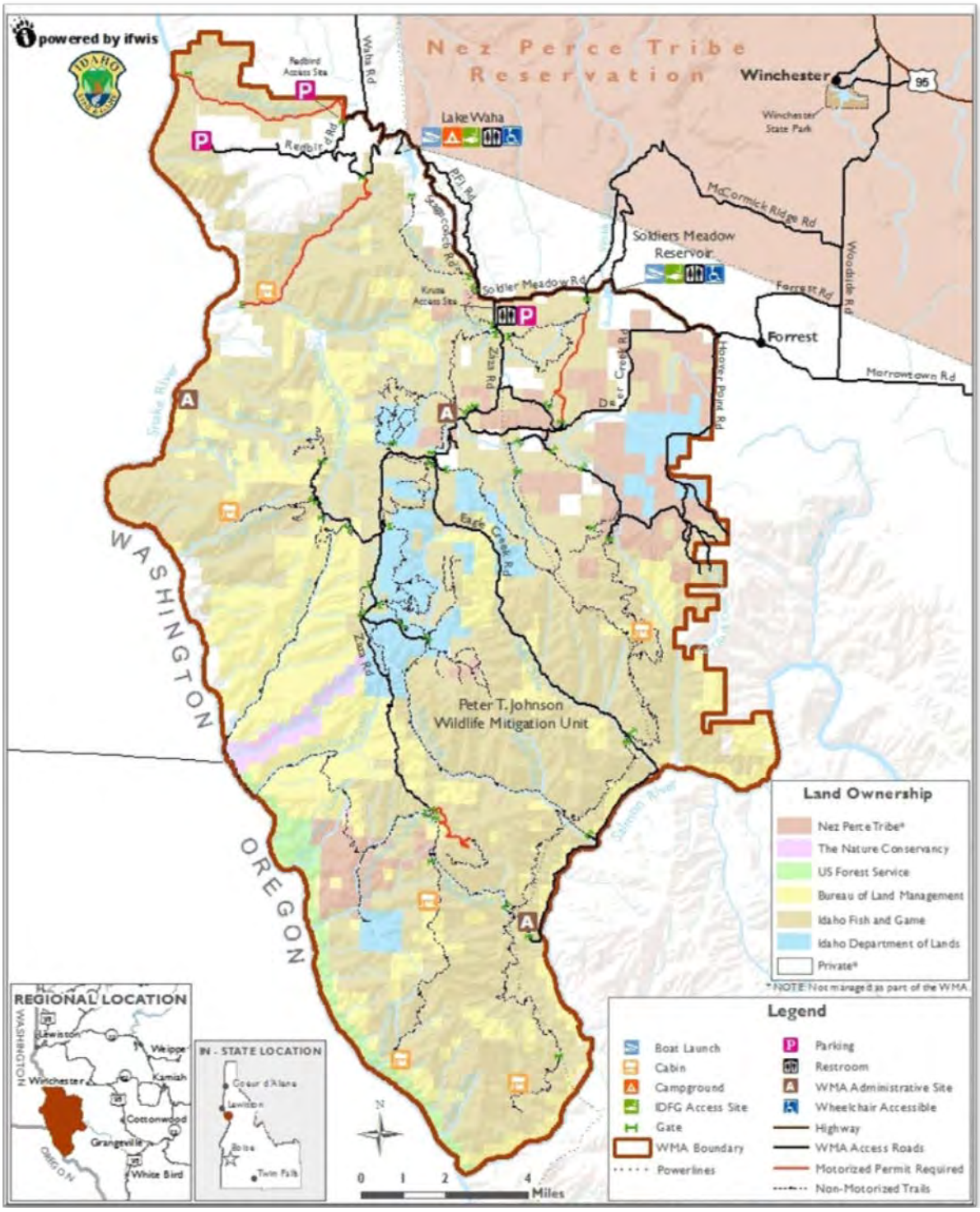

Figure 1. Map of Craig Mountain Wildlife Management Area.

Management Issues

Management issues were identified for CMWMA using extensive input from the public (Appendix IV), other agency personnel, Department staff, Department policy direction, and were guided by management obligations associated with the acquisition of CMWMA lands. Issues identified were grouped, based on similarity, into four general categories: Habitat Management, Wildlife Management, Public Use Management, and Land and Infrastructure Management. Management issues and potential management options are summarized below along with a subset of representative public comments.

Habitat Management

Habitat management is a high priority management issue for CMWMA, is identified in the mission statement for the WMA, and has always been a primary objective associated with acquisition of the properties that comprise the CMWMA. The protection and restoration of habitat was highly supported by the public with ratings of most past habitat management directions ranging from 72% - 88%.

> *"Provide good sustainable habitat and wildlife will follow"*

Two habitat management directions that received only moderate support were grazing (60%) and the use of non-native plant species (55%) for restoration efforts. The highest rated habitat management direction was for the Department to continue an integrated weed management program on CMWMW (88%). There were 259 public comments provided regarding habitat management on CMWMA. A common theme throughout the ratings of management directions and from comments was that maintaining high quality wildlife habitat is a very important, if not the most important, management direction for the benefit of all wildlife in this area.

The priority habitat management issues identified for CMWMA are:

- Habitat for wildlife mitigation species
- Habitat for big game species
- Habitat for special status plant, fish, and wildlife species
- Noxious weed management
- Forest and fire management
- Livestock grazing

1. <u>Habitat for Wildlife Mitigation Species.</u>

Protecting and enhancing habitat for mitigation target species is an obligation tied to acquiring the majority of the CMWMA and was integrated as a management direction for the entire WMA in the 1998 Management Plan. The mitigation target species for Craig Mountain are elk, white-tailed deer, river otter (*Lontra canadensis*), pileated woodpecker (*Dryocopus pileatus*), black-capped chickadee (*Poecile atricapillus*), and yellow warbler (*Setophaga*

petechia). These species were carefully selected by the Department, BPA, and the NPT because they are either priority species for Department and/or Tribal wildlife programs, or are indicator species of habitats lost when Dworshak Reservoir flooded. These species are referred to throughout this plan. The ability to determine whether mitigation for Dworshak has been achieved will, in part, be determined by whether habitat for the target species improves in the long-term as a result of management activities undertaken on CMWMA. In 2012, 84% of the people surveyed support this as an important management direction for CMWMA.

2. Habitat for Big Game Species.

High quality habitat for big game found within CMWMA is a high priority and is a primary objective associated with the acquisition of lands for the Billy Creek Unit (elk, mule deer, bighorn sheep) and the Peter T. Johnson Unit (elk and white-tailed deer). From surveys, managing big game populations on CMWMA was the highest supported direction (94%). In addition, some comments in this regard drew attention to the fact that habitat management in general needs to address the needs of all big game at a landscape level.

> *"Some of the latest logging has not left corridors for elk/deer movement. Also over the last 30 years several times I've seen valuable elk "bedrooms" dark heavy timber stands logged. This really hurts the elk population in my opinion"*

In addition to the immediate effects to big game populations and habitat that result from management actions, the Department needs to estimate the potential long-term benefits and detriments to big game species that result from disturbances such as noxious weeds and wildfire as well as management actions such as chemical use, logging operations, prescribed burning, and fire suppression.

> *'…derive an estimate of forage-based carrying capacity for elk on this area. The population objectives would be more defensible if this info was available'*

3. Habitat for Special Status Plants, Fish, and Wildlife Species.

The Department is responsible for managing all wildlife in the state of Idaho, including game and nongame species. In addition, the Craig Mountain area provides critical and sometimes the only habitat for special status plant, fish, and wildlife species.

> *"Balance the tensions inherent in the policies but build a robust, sustainable ecosystem"*

Under the provisions of the Endangered Species Act (ESA), the Department has the responsibility to ensure that management actions protect threatened and endangered species. As of 2013, there are 17 plant species on or potentially on CMWMA that are listed as either "Species of Greatest Conservation Need" (SGCN) by the Department or as "Sensitive" by the BLM or USFS. These include Spalding's catchfly and MacFarlane's four o'clock (*Mirabilis macfarlanei*) which are listed as threatened under the ESA. In addition, there are

87 fish and wildlife species known or potentially found in this area that have been listed as "SGCN" by the Department or as "Sensitive" by the BLM or USFS. It would be financially and logistically difficult to address all the needs of all sensitive species found on CMWMA. However, setting goals for the future condition of habitats that are important to a wide array of these species but limited in integrity or distribution, and directing conservation actions towards achieving these goals, is an efficient way to provide the most benefits for the most species. Identifying the desired future condition for priority habitats would provide for proper management for a variety of special status species with the CMWMA. It's important to manage these species for inherent values and for values that contribute to a robust ecosystem. It's also important that management responsibilities remain in state control, and recreational and management opportunities are not limited by the need for federal protection of plants or animals. Therefore, any and all management actions on CMWMA should be implemented in a way that considers and accommodates the habitat needs of special-status species and, where appropriate, that conservation actions are taken to benefit these habitats.

4. <u>Noxious Weed Management.</u>

"Noxious weeds are a serious threat to wildlife habitat quality throughout the state. I believe the Department should continue control efforts and continually seek to employ more effective measures whenever possible in their on-going work to maximize habitat quality on the CMWMA"

Many factors associated with noxious weeds contribute to this being a very important and yet challenging program on CMWMA. The Craig Mountain area has experienced domestic livestock grazing since the early 1800s, substantial timber harvest, road construction, high and increasing levels of public use, the influx of weed seeds from the Snake, Salmon, Grande Ronde, and Imnaha rivers, and extremely challenging terrain. Noxious weeds are widely recognized as one of the top issues associated with habitat management. In 2012, 88% of the people surveyed supported the need for managing noxious weeds on Craig Mountain. Out of 91 comments, 97% expressed support for this program. Many thoughts and concerns were submitted including the need, the challenge, and the cost for noxious weed management. The value and effectiveness of the existing weed-free hay program was questioned but also supported. A majority of the comments submitted offered suggestions on how to increase the effectiveness of this program such as the use of volunteers, cooperating with other agencies, conducting outreach programs, and using an integrated management program to include bio-control, mechanical, prescribed burns, and restoration.

"Noxious weed control highest priority in this survey, my opinion"

'It is not solely the Department's responsibility; it should be a joint effort between all land management agencies such as USFS, the Department, IDL, BLM, and the Nez Perce Tribe!'

Management considerations:

- Weed-free hay requirements with enhanced outreach and enforcement
- Collaboration with state, federal, and tribal entities to ensure adequate and cooperative management of noxious weeds using chemical, biological, mechanical, and cultural techniques
- Regulation of motorized vehicular use across the WMA
- Emphasis on right-of-ways, access points, disturbed areas, sensitive habitat areas, and new invaders

5. Forest and Fire Management.

Within the CMWMA, there are approximately 30,000 acres of forest land owned or managed by the NPT, BLM, IDL, Department, and private individuals. Much of this resource had been historically harvested using practices that removed large diameter trees with little to no post-harvest restoration. This, in addition to fire suppression efforts, has resulted in a forest ecosystem that is out of sync with natural succession patterns and at risk to widespread stand-replacing fires and disease. In addition to commercial harvest, there are many other factors associated with forest management on CMWMA including managing forest resources adjacent to privately-owned cabins and houses (the wildland-urban interface), non-commercial treatments, prescribed and natural fire, forests pest infestations (e.g., mountain pine beetle), and the collection of firewood and Christmas trees.

Conducting forest management on Department lands was rated high with 87% support but, how to do it was and will likely always be an issue of contention. Some suggested that forest resources might provide additional funding for management. It is in the best interest for the Department to manage the forest in a fiscally responsible way. The position of the Department and the opinion of most people who have provided comments has been that forest management actions on Department lands should be conducted with the primary purpose of maintaining or improving wildlife habitat. The Department must also consider the landscape as a whole and how the past, current, and future forest management practices on neighboring properties have and will potentially affect wildlife and wildlife habitat in this area.

> *"Some of the latest logging has not left corridors for elk/deer movement. Also over the last 30 years several times I've seen valuable elk "bedrooms" dark heavy timber stands logged. This really hurts the elk population in my opinion"*

> *"Logging appropriate for habitat management and fire salvage. Should not be utilized for revenue generation exclusively"*

The majority of habitat on Craig Mountain is naturally fire-adapted. However, current forest conditions combined with the need for human safety, infrastructure protection, varying land management objectives, and concerns for resource value have a strong influence on treatment plans. Some of the treatment tools used by agencies on Craig Mountain have included timber sales, fuels reduction (thinning), and prescribed burns. Fire management is a primary issue on

Craig Mountain, especially related to timbered lands and is a necessary component to restoring historic forest conditions. The Department collaborates with IDL on forest management issues within CMWMA. IDL is the primary fire management agency for the Craig Mountain area. The Department makes annual payments to IDL ($16,000 in 2013) for wildfire suppression activities on Department lands on CMWMA. NPT also has a fire management program and takes the lead on fire-related activities on tribal ground on CMWMA. Using prescribed burns and providing for a let-it-burn policy of wildfires in certain areas of the WMA may benefit the natural habitat. However, conditions such as the location and maintenance of fire breaks, meteorological tolerance windows, and a geographic prioritization plan must be identified among the affected agencies.

Management considerations:

- Forest harvest actions on Department lands must consider and address potential landscape-level implications toward forest health, fire compatibility, and financial outcome, while providing benefit to conservation targets and focal species.
- All revenue for forest harvest actions on Department lands will be reinvested into the Dworshak mitigation trust to be used for future management of CMWMA.
- Fire management planning on Department lands needs to provide for the benefits of prescribed burning and natural fires.

6. Livestock Grazing.

Grazing of Department lands on CMWMA received only moderate support (60%) and comments that were provided showed this is a contentious management activity on public land. As of 2013, the Department leased cattle grazing on 2,280 acres within the CMWMA, less than 3% of the Department land within the WMA. The Larabee Meadows lease (920 acres) has been grazed since 2008 in cooperation with a grazing lease provided by an adjacent pasture owned by the NPT. The objective for grazing in Larabee Meadows has been to reduce the encroachment of conifer trees into a high-elevation meadow complex. Additional Department property is leased for grazing along with lands managed/owned by IDL and the NPT in a Cooperative Range Management Program on a combined total of 7,970 acres. The 1,360 Department acres associated with this program are located in the northeast corner of the WMA, an area with high levels of fragmented ownership boundaries where managed grazing is preferable to trespass grazing or spending limited resources on building and maintaining fences. Additional grazing occurs on private, tribal, and state-owned land within and around the CMWMA.

“Livestock grazing should not be allowed, for in the past they destroyed all wet area plants”

“Grazing is a good management tool to keep forested meadows productive. Balance between grazing and riparian damage by livestock”

‘I am not impressed with positive effects of livestock use of public lands. It seems like whenever it’s allowed, the opposite of improved habitat always occurs’

'Grazing cattle on these lands if done responsibly will only benefit the land and wildlife'

"I cannot envision any scenario whereby wildlife habitat is improved by allowing livestock grazing -get the cows out"

"Wildlife habitat and controlled permit grazing can and should work together"

"Allow intensive short term grazing of livestock to improve grass quality for game animals"

"…phase out grazing in fragile wet meadows altogether"

Management considerations:

- The use of grazing as a habitat management tool on Craig Mountain must be closely monitored to avoid over-utilization of vegetation, damage to riparian habitat, risk to special-status plants and animals, detrimental influence on water quality, and attainment of grazing management goals.
- Efforts to consolidate fragmented parcels on Craig Mountain through acquisitions and/or land trades so that land-use objectives of agencies and the NPT may be conducted with less compromise of their respective missions should be continued.
- The grazing management plan for Craig Mountain should include rotation plans, grazing rates, specifics for monitoring, and habitat mitigation plans.

Wildlife Management

Of the previous wildlife management directions rated through public surveys, all were highly supported (84% - 94%) except for the action of reintroducing native species such as pine marten (*Martes martes*) and beaver (*Castor canadensis*), which only received 38% support. There were 208 public comments provided regarding wildlife management on CMWMA with the majority of these pertaining to big game population management (116 comments). The wildlife management issues on CMWMA that were identified as high priority by the public are:

- High quality hunting opportunities
- Mitigation target species populations
- Special status species populations

1. <u>High Quality Hunting Opportunities.</u>

Craig Mountain WMA has many high quality hunting opportunities. With healthy populations of white-tailed deer, mule deer, elk, black bear, birds (ruffed grouse, dusky grouse, California quail, gray partridge, chukar, wild turkey) as well as predator and furbearing species, there are few months/year that one cannot be hunting on Craig Mountain. However, hunter surveys across Idaho have shown that a quality hunting experience is often defined with elements that are not necessarily associated with harvesting an animal (Sanyal et al. 2012). Rather, seeing wildlife, being outdoors in a scenic natural area, spending time

with friends and family, and seeing few other hunters are some of the top elements to what constitutes a quality hunting experience. In general, the majority of hunters in Idaho are interested in having the opportunity to hunt each year (Sanyal et al. 2012) and of the people surveyed for the CMWMA plan, 88% supported the population management of white-tailed deer, black bear, mountain lion, and game birds be continued under general hunt opportunities.

Hunters in Idaho also considered the opportunity to harvest a mature or trophy animal as an element to hunting that is very desirable (Sanyal et al. 2012). The CMWMA surveys showed a high level of support (94%) for the continued population management of bighorn sheep, mule deer, and elk in the CMWMA area (Unit 11) through controlled hunts.

Bighorn sheep – The Hells Canyon bighorn sheep metapopulation consists of 16 interconnected populations in Washington, Oregon, and Idaho. The range of the Redbird population largely includes CMWMA. Following local extirpation, this herd was reestablished in 1984 with a transplant of 17 Rocky Mountain bighorn sheep into Captain John Creek. After years of increasing numbers, this population has stabilized at approximately 100-125 individuals over the last few years with low recruitment rates of around 13 lambs/100 ewes. This population is primarily limited by a respiratory disease that can be transmitted from mother to lambs and results in high levels of lamb mortality within their first year. Hunting opportunities for bighorn sheep on Craig Mountain include a lottery tag each year and an auction tag once every two years. The Craig Mountain area is well known for producing trophy rams and, as of 2012, nine of the top 10 trophy Idaho rams were from Unit 11.

Mule deer – Mule deer can be found throughout the Craig Mountain area but are more commonly found in the canyon grasslands, shrublands, and along edges of coniferous forest. Factors that may limit mule deer populations include habitat quality, winter severity, predator populations, and competition with elk (IDFG 2008). Surveys in 2013 estimated an increasing mule deer population in Unit 11 with a total count of 2,118 deer and a recruitment estimate of 43 fawns/100 adults. In 2013, 105 tags were offered for antlered mule deer hunting on CMWMA.

Elk – In 1992, when the Department acquired the Peter T. Johnson Unit, the Unit 11 elk population numbered around 500 individuals. Over the last 20 years, the elk population on CMWMA has more than tripled, providing increased hunting opportunity. However, an aerial survey in 2013 estimated stabile cow elk numbers with a low recruitment rate (17 calves/100 cows) and low numbers of bulls, especially adult and high quality bulls. In 2013, 80 tags were available for bull elk, 525 tags for antlerless elk, and 50 tags for any sex in Unit 11. Of the 116 comments provided by the public about big game populations, a large proportion (50%) suggested that the Department make changes in Unit 11 to increase bull quality. Given that no questions were asked in these surveys regarding bull quality in Unit 11, this clearly is a major concern for the public. The primary objective regarding elk management on Craig Mountain should be to manage for a healthy sustainable population. However, elk hunting on CMWMA should include objectives for maintaining high quality

hunting opportunities such as minimized congestion and higher numbers of adult and trophy class bulls. A closer examination of the existing demographic and environmental variables associated with elk in this area could allow the Department to make more informed decisions regarding habitat and population management on CMWMA.

Management considerations:

- Manage first and foremost for healthy sustainable populations
- Enhance our understanding of factors limiting big game populations on CMWMA through research, surveys, and monitoring
- Maintain general and control hunts to balance hunting opportunities
- Manage for high quality hunting experiences by minimizing hunter congestion and increasing the abundance of trophy-quality animals

2. Mitigation Target Species Populations.

Protecting and enhancing populations of the mitigation target species is an obligation tied to acquiring the majority of the CMWMA and is integrated into the mission of this WMA. The mitigation target species for Craig Mountain are elk, white-tailed deer, river otter, pileated woodpecker, black-capped chickadee, and yellow warbler. These species were carefully selected by the Department, BPA, and NPT because they are either priority species for the Department and/or Tribal wildlife programs, or are indicator species of habitats lost when Dworshak Reservoir flooded.

Management considerations:

- Monitor populations of the mitigation species through field surveys and hunter harvest reports
- Adjust harvest, habitat, and recreational management as needed to ensure healthy robust populations of mitigation species

3. Special-status Species Populations.

The mission of the Department states ‘all wildlife within the state of Idaho shall be preserved, perpetuated, and managed.’ Within and around the Craig Mountain area, there are over 100 different plant and animal species classified as either a “Species of Greatest Conservation Need” by the Department, “Sensitive by the BLM or USFS,” or listed as threatened or a candidate for listing by the U.S. Fish and Wildlife Service (USFWS). Some major limitations to managing for many of these species are a lack of understanding regarding occurrence, distribution, and life-history needs. Management actions on CMWMA should accommodate the needs for special-status species whose occurrence, distribution, and life-history needs are known and for which management direction can benefit populations.

Management considerations:

- Conduct surveys for and monitor populations of special-status species when feasible
- Adjust habitat and recreational management as needed to minimize deleterious effects on special-status species

- Direct habitat management actions to benefit special-status species

Public Use Management

Craig Mountain WMA is widely enjoyed by people for many different activities such as hunting, fishing, camping, motorized recreation, wildlife watching, photography, hiking, and snow sports. The use and appreciation of this public property should be allowed and encouraged as long as these activities do not conflict with the mitigation requirements and/or the management objectives outlined for the property. There were 451 public comments provided regarding public use management on CMWMA. The Public Use Management issues that were identified as high priority for CMWMA are:

- Public access and recreation
- Commercial use of resources
- Funding resources
- Public information, outreach, and volunteers
- Volunteers

1. Public Access and Recreation.

The Craig Mountain area provides a wide array of recreational opportunities that are in close proximity to regional cities and towns. In addition to the widely appreciated hunting and fishing opportunities, the WMA is very popular for activities such as hiking, biking, wildlife watching, horseback riding, sight-seeing, back-packing, picnicking, camping, horn hunting, berry and mushroom picking, sledding, snow-shoeing, cross-country skiing, and riding off-highway vehicles (ATVs, UTVs, and snowmobiles). These activities are encouraged on Department lands as long as they don't conflict with the obligations associated with the acquisition of the property, the management objectives associated with the property, or violate any county, state, or federal laws.

> *"Wildlife and habitat should always come first. Yes the public should have the ability to enjoy the area and the public resource which is wildlife, but only by means which are not detrimental to the habitat and wildlife"*

Across the CMWMA, approximately 150 miles of primary and secondary roads are open to year-round motorized use and nearly 100 miles of additional secondary roads are available for non-motorized public access. During the winter months, when snow conditions are sufficient (18" sustained depth) to minimize disturbance to wildlife and habitat, select gates are opened for snowmobile use. In addition to countless primitive camping opportunities, there are six back-country cabins on the WMA. These cabins are small line-shacks which are open for public use on a first-come basis, are outfitted with basic necessities, and provide unique wilderness-like opportunities.

> *"Craig Mountain provides rather remarkable hunting experiences, I encourage maintenance of primary roads from which hikers or horseback access is possible. For*

those hunters lucky enough to get drawn for special tags, the hunt experience is wonderful! The handicap access into Madden Creek allows a hunting opportunity that is probably under appreciated. It is nice to know that you can hike a mile from the primary roads and very seldom meet another hunter or hiker."

Motorized access routes on CMWMA currently provide year-round motorized access to the Salmon River (Eagle Creek Road) and seasonal motorized access to the Snake River (Redbird Canyon). Any non-motorized travel (e.g., hiking, biking, horseback riding, snowshoeing, snow skiing) is permitted on the roads that are closed to public motorized use. In addition, these routes are used in a limited capacity by agencies for administrative use (logging, fire, habitat improvement, noxious weed control, and enforcement). The permitted use of snowmobiles during winter months received moderate support (65%), while the current policies of restricting motorized activity on secondary and tertiary roads, and not allowing any off-road use by motorized vehicles received higher levels of support, 80% and 78% respectfully.

The topic of recreational motorized use on CMWMA generated 158 comments from the public surveys. Of these, 26% expressed an interest in seeing an increase in opportunities for motorized recreation, 15% would like to see some conditional use allowed, 22% requested that the currently allowed motorized activity be reduced or eliminated, and 37% supported the current policies of restricting motorized access from secondary and tertiary roads and not allowing any off-road or off-trail motorized use, but permitting the use of snowmobiles during the winter months when conditions allow.

Of the comments that expressed an increase in motorized access, some suggested specific routes to open and some others would prefer no restrictions at all. Some comments suggested that motorized routes could be opened on a trial basis and then closed if people abused the privilege. A few comments suggested that responsible riders will not cause problems and should not be limited but rather than enforcement, should focus on the people and vehicles that create damage such as 'mudding vehicles'.

"Would like to see roadless area opened up for things like 4-wheelers"

"I believe more roads should be open to ATV's by permit and controlled seasonally, example ATV roads will be closed during elk calving, fire season, and hunting season. Basically early summer only"

"Lewiston snowmobilers and ATV users need a place to play"

"Often times the word "manage" means to control access and limit opportunity for sportsman. Closing areas off in the name of management would be a bad idea"

"Open it up!"

Most people who commented on possible conditional uses for motorized access would like to see managed access for game retrieval and offered suggestions on how this sort of program might work, such as allowing access only during the middle of the day or having a location where someone can pick up a permit or key for game retrieval.

"Unless a hunter owns or has access to stock (expensive for most) why not allow ATV use ONLY for retrieval of downed game. Perhaps one could access such a permit from conservation officers or a Department office"

"Only access to open may be short spur down Cottonwood Creek by OHVs to improve chukar hunting possibilities. Everything else closed or removed"

"Being a 70 yr old hunter, I would like to see a permit issued to allow an old hunter to retrieve his meat with an ATV. The hunter could get the permit the day of the kill and it could be used only by him. A time frame could be set between 12 noon & 1:30 pm so animals would not be disturbed. It is very difficult for us to throw a qtr of elk on a back pack like we did yrs ago"

"I know we can't have a perfect world, but when you hike in 2-5 miles and get an elk down - maybe it should be allowed to ride a 4-wheeler in to get the meat out. There would be a lot less waste of the animal. I don't know how you would enforce it? Someone would take advantage"

The comments suggesting a reduction in the motorized activity allowed on Craig Mountain mostly expressed concerns about potential negative impacts on wildlife and habitat from snowmobiles, mud-bogging trucks, and off-highway vehicles (OHV - includes ATVs, UTVs, motorcycles, and snowmobiles). Additional comments were in regards to the need for safer driving on Craig Mountain, especially of logging trucks and an expressed interest in less motorized use behind gates by administrative staff and logging operations, especially during the hunting season.

"I don't see how wintering wildlife could not be disturbed by noisy snowmobiles"

"Continue and increase strict control of motorized use"

"Suspend logging operations behind locked gates once hunting season opens"

"I support the strictest OHV regulations possible. OHV access to more remote areas will result in decreased wildlife security and lower quality wildlife habitat ultimately leading to declines in the quality of hunting"

Most comments provided expressed support for the current policy of limited and seasonal motorized use only and recognized the value of this policy as a balance in allowing for some motorized activity as long as it doesn't compromise wildlife and habitat management objectives or take away from this unique element of Craig Mountain.

"One of the best qualities of this area is the limited motorized access. It reduces damage to the land, spread of weeds, and poaching. I really hope this continues to be a priority to the management in this area"

"…I feel the current management is a great thing. I hope this continues because it is a great foundation to the management in this area"

"Areas for non-motorized hunting and recreation are the critical components of the Craig Mtn. experience"

"DO NOT open any more roads…"

"Craig Mountain is a special place. I think the Department is doing a good job on this property. I especially like hunting with no-vehicles access"

"Given the close proximity to Lewiston, if motorized restrictions were lifted, it is likely this area would over-whelmed with off-road activity with resulting damage to habitat and wildlife. (This) would likely violate intent of this WMA. Mountain bike allowance very much appreciated and allows recreational activity farther from roads with no minimal impact on habitat"

Craig Mountain WMA is widely appreciated by many people for many recreational activities. As long as these activities do not conflict with the mitigation and management objectives for this property, they should be allowed and encouraged.

Management considerations:

- Work with county, state, and federal agencies to ensure that county roads on CMWMA as well as Eagle Creek, Madden Corrals, and Wapshilla Ridge are kept open for access
- Continue restrictions on motorized use of secondary roads and tertiary roads during the non-snow months in order to maximize wildlife security, reduce disturbance to wildlife, and attain wildlife and habitat management objectives
- Continue to permit the use of snowmobiles when snow depths are sufficient (16" sustained snow depth) but reconsider this program or routes associated with this program if the use by ATVs, UHVs, or fully-tracked vehicles conflict or negatively impact the CMWMA's purpose or goals
- Evaluate the motorized use by agency staff behind closed gates
- Allow logging operations on Department lands during the non-hunting season only
- Work with cooperating agencies on the maintenance, restoration, and decommissioning of secondary and tertiary roads as needed

2. Commercial Use of Wildlife, Vegetation, and Mineral Resources.

The Craig Mountain area has been appreciated by humans for thousands of years and still today, in addition to the high levels of recreational use, there are many people who see the

resources on this land as a ripe opportunity just waiting to be picked. There have been requests for commercial use on Craig Mountain regarding collection of bark from Pacific yew trees to isolate Taxol, (a drug sometimes used to combat cancer); harvest of morel mushrooms and wild berries; wildlife tours; mountain bike trips; firewood collection; and rock and mineral use. As of 2013, the commercial operations allowed on Department lands on Craig Mountain have been limited to grazing, logging, and hunting-related outfitting.

Berry picking, mushroom collection, firewood collection, Christmas tree harvest – In general, people that conducted the survey felt that activities such as berry picking and mushroom collecting should be allowed for personal use only (86% support), and that firewood collections should be allowed by permit if and where it helps meet habitat management objectives (72% support). The collection of Christmas trees on CMWMA by permit received only low-moderate public support (41%). However, out of 68 comments that were provided regarding Christmas tree collection, 68% expressed support for such a program.

3. <u>Commercial Outfitting.</u>

Big game outfitting activities occurred at low levels on Craig Mountain prior to the Department's acquisition of the Peter T. Johnson Unit in 1992. Over the last 20 years, however, the popularity of Craig Mountain for high quality hunting, and other recreational activities, has increased dramatically. Along with an increase in the recreational use by the general public, there has been an interest by outfitters in providing more guided opportunities. Commercial outfitting is currently permitted on state and federal lands across a large proportion of Craig Mountain for bighorn sheep, mule deer, elk, and some predator species.

From all the surveys completed, we had 334 people rate this as a management direction and we received 114 comments. Commercial outfitting on WMAs was the lowest rated of all the management directions with only 30% support.

Of the comments provided, 39% expressed support for commercial outfitting on WMAs. Some comments indicated how commercial outfitting has provided them with opportunities and experiences that they normally wouldn't have taken advantage of and that outfitting clients bring economic benefits to local communities:

"It is imperative local outfitters are allowed to continue the long traditions of introducing the general public to Idaho's back country"

"Why wouldn't commercial outfitting be allowed? Older people and less physically able people that draw controlled hunt tags may need or want one or more of the services provided by an outfitter. To disallow outfitting might put those people in a position where they would have to hire an unlicensed individual to help them"

"I would hope the Department would continue to allow outfitters to aid the public in the Craig Mountain WMA's. As we know, license sales and tag sales bring money to local economies and benefit sporting goods stores, taxidermy, hotels, restaurants, etc. Outfitters help the public more than most know"

A few comments (5%) preferred continuing with outfitting but suggested changes or limits to the existing policy regarding outfitters on Craig Mountain:

"Grandfather in the existing outfitters, not allow new ones on WMA's"

'Yes, (continue) and the Department needs to treat Craig Mountain historical outfitters fairly. One outfitter should not have the monopoly or ability to create that monopoly on Craig Mtn."

"Outfitters are over harvesting I would like to see more limitations. This should be a trophy unit"

"Commercial outfitting should be for trophy species only"

"for a fee"

The majority of comments (58%) considered commercial outfitting on WMAs as unnecessary and counter-productive to opportunities for the non-outfitted public.

"Most WMAs are too small for outfitting. With private access so limited for access, these areas are critical to keeping people interested in hunting so allowing commercial use would only deter those who cannot afford to pay trespass fees"

"Let's keep Waha open to public. I live here and enjoy access -that's why I chose to live in Idaho (Lewiston hunting, fishing, etc…). No commercial outfitting"

"With more and more private land being leased by outfitters, I think public land should be more managed for do it yourself sportsmen"

"Stop outfitting on all Department lands"

"No special tags should be available to commercial outfitters or their clients. They should draw like everybody else"

"No commercial outfitting, Waha is too small"

Management considerations:

- Do not allow commercial collection of plant products.
  - Allow collection of berries and mushrooms for personal use only.

  - Firewood collection will be allowed for personal use if and when it benefits habitat objectives and does not compromise wildlife or habitat objectives. This use will be by permit only.
- Allow use of the Department-owned gravel pit by the Department and other government agencies for the benefit of land, habitat, and recreational management on CMWMA only. Exclude private and commercial use to minimize pit expansion and air-borne dust.
- Do not allow mineral exploration.
- Do not allow for increases in commercial outfitting activities (hunting or non-hunting).
- Administer commercial activities (logging, grazing, outfitting) through a contract or lease.
- Evaluate all commercial outfitting on CMWMA annually and with any change in ownership or control regarding the level of use and the need for the activity.

If commercial operations are used as a tool to achieve wildlife or habitat management objectives, they should be permitted under a lease or contract. However, if a commercial operation does not benefit wildlife or habitat objectives for land management, then an analysis based on the need for the activity and how it might benefit or compromise other objectives or public opportunities should be conducted.

4. <u>Funding of CMWMA Management.</u>

The management of WMAs across Idaho is largely funded by hunters and anglers through license sales and excise taxes on hunting/shooting equipment (Pittman-Robertson Act). However, these lands are experiencing a drastic increase in the use and appreciation for activities other than hunting and fishing by people that don't buy hunting or fishing licenses. The public surveys asked: Should people, who use Idaho State WMAs but don't buy hunting and fishing licenses, be required to buy a permit for such use?

This proposal was supported by 59% of the public (337) and we received 151 comments of which 79% expressed support of finding other funding sources:

"As an avid sportsman I am happy to see my license /tag fees and other assorted money (Pittman-Robertson) spent on areas such as CMWMA however other non-hunter users should also contribute"

"Even non-hunters/anglers should be supporting our wild lands- and help to maintain them- this is a treasured and valued part of Idaho- and the World!"

"Managing wildlife and habitat should be important to hunters and non-hunters alike"

However, many of the supporting comments were cautiously offered with concerns expressed about how this would actually work, how it would be enforced, and most common

were concerns how this might affect hunting and fishing opportunities and public access management decisions.

"Yes - but at what cost to sportsmen?"

"As a hunter I like the idea of funding the WMA for hunters. I've seen how when the non-hunting public shares in funding the anti-hunting portion feels they have the right to call the shots to the detriment of hunting opportunity"

'Maybe, but how would it work? I worry non-hunters would push to restrict hunting or seasons'

"Though having to pay to hike on public land is highly unpopular it might help lessen the influences hunters/fishers have on Department policies"

"While I am accepting fees to access public lands, I feel WMA are unique in that the main goal is protecting wildlife and I fee would lead the public to wanting improvements that would be detrimental to primitive camping & wildlife"

Some comments (16%) expressed opinions for maintaining hunting and fishing interests as the primary recreation management direction for WMAs.

"As a hunter I like the idea of funding the WMA for hunters. I've seen how when the non-hunting public shares in funding the anti-hunting portion feels they have the right to call the shots to the detriment of hunting opportunity"

"Probably not -the funding from sportsmen should at least in theory encourage the Department to continue to manage with the best interest of both wildlife and hunter in mind"

"Not sure if I support this. The Department certainly could use increased funding- however do you really want the non-hunting public to have the opportunity to steer mgt. decisions? If they are paying you will have to listen"

"While I am accepting fees to access public lands, I feel WMA are unique in that the main goal is protecting wildlife and I fee would lead the public to wanting improvements that would be detrimental to primitive camping & wildlife"

5. <u>Public Information, Outreach, and the Use of Volunteers.</u>

Thorough and timely communication with the public is an integral facet of managing public resources. Benefits from maintaining communication can include improved public image; reduced confusion associated with issues such as access and hunting opportunities; receiving comments and feedback; and passing on the culture, heritage, and appreciation of hunting, fishing, and conservation. Comments received from public input process highlighted the

value and importance of maintaining public outreach and engaging the public in ways that facilitate land management.

> *"Continue to educate the public, at large percentage of the population is sporadic users and doesn't understand the cycle of life on wildlands"*
>
> *"Sometimes confusing where and what's available for hunting"*
>
> *"Start a program of volunteers to walk the land with hand sprayers (supervised). Initiate fundraising for expenses. Organize and promote a "weed army." I will join."*

Providing accurate and pertinent information as well as providing educational opportunities for wildlife-related interests and activities is a primary focus for the Department. Craig Mountain staff regularly participates in regional "sportsman breakfast" presentations, hosts volunteer work parties, and facilitates and encourages volunteer groups to assist with management activities on CMWMA.

Craig Mountain WMA maps are provided for public purchase at the Department regional office, and public information kiosks are maintained at two points of entry and six access areas across the WMA. In addition, CMWMA employees maintain a boundary marking program along major roads to help the public understand the location of Department property.

Volunteers are an integral component to all aspects of the Department and this is certainly true for Craig Mountain as well. Volunteers have contributed to projects on the WMA such as planting projects, weed control, fence removal, fence repair trail maintenance, forest thinning, trash pick-up, facility maintenance, public surveys, hunter check stations, and wildlife surveys. An interest in volunteer opportunities was expressed by many through submitted comments as a way to tackle tough management obstacles (noxious weeds) and to propagate interest, responsibility, and ownership regarding land use and conservation ethics. Sometimes volunteers are individuals that are associated with the Department volunteer program, sometimes they are students seeking experience in land management, and sometimes they are affiliated with recreational groups that have a vested interest in Craig Mountain. All bring a valued contribution to the conservation and recreation management of this property.

Land and Infrastructure Management

The Craig Mountain Wildlife Management Area comprises lands managed by IDL, BLM, TNC, and the Department. In addition, there are lands owned by NPT and private landowners interspersed within the WMA boundary. Although land management actions on state and federal lands on the CMWMA need to contribute to agency objectives, building and maintaining cooperative and collaborative relationships among agencies will provide the most benefit for wildlife, habitat, resource, and recreational management.

The Craig Mountain area has been the site of human occupation for thousands of years. Many prehistoric and historic sites exist on the WMA and all are legally protected. There are many buildings across Craig Mountain including ranch houses, barns, cabins, and line shacks in various degrees of integrity. Some of these sites on Department lands are maintained for administrative use (Wapshilla, Billy Creek, and Benton Meadows). Six line shacks across the WMA are maintained with volunteer and user assistance as public cabins (Figure 1).

> *"Unless a building is a danger I think we should save historic buildings. Because they tell a story of the past and its people. Backcountry cabins when used and left responsibly are a benefit to all!"*

The cost of maintaining these buildings must be weighed with the values and carefully scrutinized so that they continue to contribute to the overall goals associated with CMWMA management objectives.

> *"Weigh your costs in regards to historic buildings. I like seeing them but not at an additional cost to hunters. If they serve a purpose, keep them."*

Opportunities to alleviate costs associated with facilities management have been made through the Department adopt-a-cabin program. With this program, a volunteer or group of volunteers adopts a particular remote cabin and conducts annual maintenance and repairs for that building and surrounding habitat.

The long period of cattle grazing on Craig Mountain has left a myriad of barbed wire fences across the landscape. After years of not being used or maintained, these fences are largely broken, rusted, and serving only as a hazard to wildlife and recreational users. The Department, along with substantial help from volunteers, has maintained a constant attempt to remove dilapidated fencing. However, there are still many miles to remove and this project will be continued for years to come.

The Department has the responsibility of integrating management planning for cultural resources with planning for wildlife and habitat as a method of avoiding impacts to historic and pre-historic resources located within the Peter T. Johnson mitigation unit. The Department will avoid sensitive sites in implementing habitat, recreation, or administrative activities.

Management considerations:

- Maintain administrative sites as needed to facilitate WMA management
- Maintain remote cabins as needed with public assistance through the adopt-a-cabin program
- Remove dilapidated barbed-wire fences and corrals.
- Work with the State Historic Preservation Office (SHPO) to evaluate archeological values before ground-disturbance activities
- Avoid disturbance to known prehistoric or historic sites when implementing habitat, recreation, or administrative activities
- Work with SHPO for management decisions on infrastructure that has become unsafe

- Maintain collaborative and cooperative inter-agency relationships

Interagency Management Issues

Since the Department is an agency of the State of Idaho, management of CMWMA is subject to a wide variety of state laws and statutes concerning management for the benefit of Idaho citizens. In addition, CMWMA lands are interspersed with lands owned or managed by other state and federal agencies, the NPT, and private landowners. As might be expected, this intermingling of ownerships and responsibilities has implications for management of CMWMA. A short summary of the concerns involving other agencies follows.

Nez Perce Tribe

The NPT as a sovereign nation owns lands intermingled with CMWMA, as well as nearby reservation lands. Among Tribal concerns are protection and preservation of archaeological sites, allocation of water rights, collection of traditional foodstuffs and medicinal plants, harvest of game animals, forest and fire management, and law enforcement authority.

U.S. Department of Energy, Bonneville Power Administration

Responsibility for wildlife mitigation, the driving force behind the purchase of the Peter T. Johnson segment, lies with BPA. Under terms of the Mitigation Agreement for Dworshak Dam, the State of Idaho has taken on responsibility for 60% of the wildlife losses at Dworshak, and the NPT has taken on responsibility for 40% of the losses.

U.S. Department of Interior, Bureau of Land Management

The BLM manages most public lands intermingled with CMWMA per its Resource Management Plan. The *Dworshak Wildlife Mitigation Project Finding of No Significant Impact and Record of Decision* (June 1995) specifically directs the Department to make special efforts to coordinate management decisions with BLM. The BLM is responsible for livestock lease arrangements on federal public lands (BLM lands on Craig Mountain are not grazed), an interagency Sikes Act agreement, and a Memorandum of Understanding (also signed by the IDL and TNC). In addition, BLM has authority relative to management of noxious weeds, habitat, access, and recreation within the CMWMA. The BLM also administers and manages the Lower Salmon River for commercial and non-commercial uses.

U.S. Department of Interior, Fish and Wildlife Service

The USFWS has authority under the ESA for protection, preservation, and management of federally-recognized threatened and endangered plants, wildlife, and fish.

U.S. Department of Commerce, National Marine Fisheries Service

The National Marine Fisheries Service has authority under the ESA for protection, preservation, and management of threatened and endangered salmon and steelhead.

U.S. Department of Agriculture, Forest Service

The USFS has the lead management role relative to actions within the Hells Canyon National Recreation Area along the Snake River.

Idaho Department of Lands

The IDL owns lands intermingled within and around CMWMA. On January 1, 2008, IDL and the Department renewed a 10-year miscellaneous lease agreement to benefit wildlife and wildlife habitat on 6,427 acres owned by IDL. The IDL is also a cooperator in an interagency Memorandum of Understanding (MOU) signed by representatives of the Department, BLM, and TNC for cooperative management of lands open to the public within the Craig Mountain ecosystem.

Idaho State Historic Preservation Office

The SHPO has concerns about identification, preservation, protection, restoration, and interpretation of archaeological and historic sites, and any necessary mitigation for disturbance of such sites.

Idaho Department of Parks and Recreation

Idaho Parks and Recreation is a partner with the Department in a Land and Water Conservation Agreement within the Billy Creek Unit of CMWMA.

Idaho Outfitters and Guides Board

Idaho Outfitters and Guides Licensing Board is the licensing body for any commercially outfitted recreation providers operating on CMWMA and associated lands.

Lewis and Nez Perce Counties

Portions of CMWMA lie within Lewis and Nez Perce counties, and the counties are concerned with maintenance of public roads, law enforcement, control of noxious weeds, gravel storage, and Department fees-in-lieu-of-taxes (FILT) received by county governments.

The Nature Conservancy

The TNC owns lands intermingled with CMWMA, and as a landowner and cooperator in an interagency MOU signed by representatives of the Department, IDL, and BLM is concerned with noxious weed control, management of rare plants and animals, public use, and use by livestock.

Craig Mountain WMA Management Program

The Department is responsible for the preservation, protection, perpetuation, and management of wildlife, fish, and plants in Idaho. Wildlife Management Areas allow the Department to directly affect habitat to maximize suitability for species in key areas. Management to restore and maintain important natural habitats and wildlife populations, and create hyper-productive habitats to enhance carrying capacity for selected wildlife species, remains a key strategy on CMWMA. However, local populations of species often extend beyond WMA boundaries. In addition, some of the most pervasive threats to WMA ecological integrity, such as noxious weeds, rural residential/commercial development, increased and conflicting land uses on public lands, likely come from outside their boundaries. Therefore, CMWMA managers must recognize and create opportunities to participate in collaborative conservation and management programs with adjacent landowners, enabling a landscape-level influence to maintain the ecological functions that sustain WMA-dependent wildlife.

Conservation of species within landscapes used for other enterprises such as forestry, recreation, agriculture, grazing, and commercial development requires managers to understand 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 CMWMA, a carefully selected suite of species, guilds, or habitats can act as surrogates for the conservation of other species. We propose that an effective way to enable a broad influence over the future of CMWMA is through management directed at selected focal species, guilds, or habitats. According to Lambeck (1997), focal species are “a suite of species, each of which is used to define different spatial and compositional attributes that must be present in a landscape and their appropriate management regimes.” Focal species can also be used by planners and managers to determine the appropriate size and configuration of conservation areas (Noss et al. 1999). By extension, focal guilds comprise multiple species that share similar landscape-level life history traits and focal habitats are biotic communities that may be limited (space, availability) but provide key elements for multiple species of interest.

Identifying landscape-scale species priorities across ownership boundaries comprehensively addresses wildlife-related issues on the CMWMA and creates a platform for conservation partnerships in the surrounding landscape. This step is also crucial for increasing the likelihood that WMA functions are resilient to inevitable changes in their associated landscapes.

The following process was used to create the CMWMA 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) Focal Species/Guild/Habitat Selection
4) Selection of Conservation Targets

5) Spatial Delineation of selected Conservation Targets
6) Creation of Management Program Table

The Management Program for CMWMA will be based on Management Priorities which have been determined by public and agency input and by federal, state, and land acquisition obligations (described below). These management priorities will help determine on-the-ground Management Actions. These Management Actions will be directed at Conservation Targets and will, by design, address conservation toward the focal species, habitats, and/or guilds that are selected for the CMWMA (Figure 2).

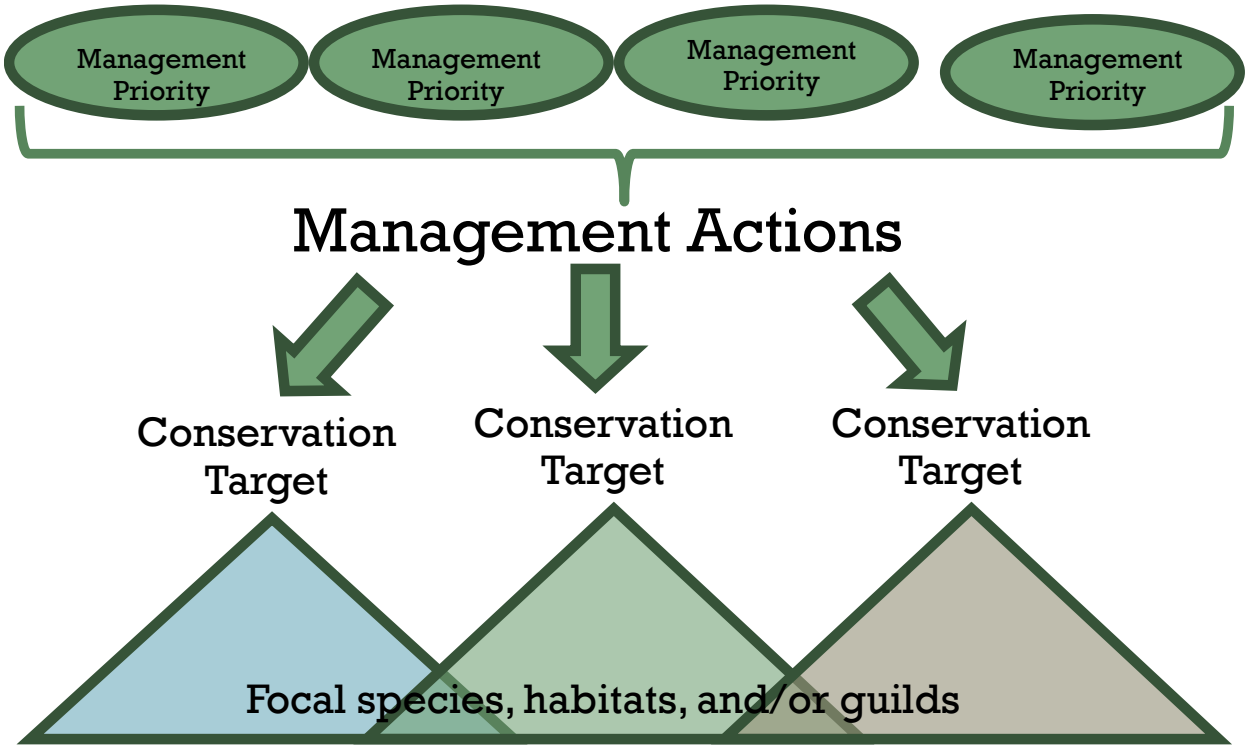

Figure 2. Conservation management actions for Craig Mountain WMA.

Summary of Management Priorities

The development of management priorities for CMWMA was done using substantial input from the public, from Department personnel, and from other state and federal agencies. However, there are several sideboards associated with management of habitat, wildlife populations, Department land, and specific WMAs that helped direct and guide the development of management priorities for WMAs. These include the Department Mission, Strategic Plan (Appendix I), Statewide Vision, and various state and federal laws associated with land, water, cultural, habitat, and wildlife resources (Appendix III). Also, all land acquisitions that contributed to CMWMA were completed with particular objectives and therefore have inherent management priorities associated with the properties (Appendix III).

Craig Mountain Management Priorities (in no particular order):

1. Habitat for Focal Species
2. Noxious Weed Management
3. Forest and Fire Management
4. Livestock Grazing Management
5. Public Use Management
6. Land and Infrastructure Management

Focal Species Assessment

To determine suitable focal species to guide management, we conducted an assessment of various fish, wildlife, and plant species that are known to occur or potentially occur on CMWMA. In addition to the mitigation target species that were selected for the Peter T. Johnson Unit of CMWMA, the focal species assessment (Table 1) includes flagship species (Groves 2003), and/or at-risk species identified by the Department in the Idaho Comprehensive Wildlife Conservation Strategy (IDFG 2005) and 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., canyon grasslands), a threat (e.g., habitat loss or climate change), organization (e.g., state government or non-government organization), or geographic region (e.g., protected area, Department Region or state; Veríssimo et al. 2009). Ungulate big game species are an example of a group that fit the criteria as flagship species. In addition, they are a culturally and economically important species in Idaho and represent a founding priority for establishment of the CMWMA. Therefore, ungulate big game is an important flagship species group considered in the CMWMA assessment of focal species.

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 additionally considering a wide variety of at-risk species (Groves 2003); yielding a more comprehensive assessment that includes culturally and economically important species (e.g., mule deer and elk)

along with formally designated conservation priorities (e.g., white-headed woodpecker and Spalding's catchfly). Categories of at-risk vertebrate species considered in this assessment are: 1) species designated as Idaho Species of Greatest Conservation Need; 2) species designated as Sensitive by the USFS; and 3) species designated as Sensitive by the Idaho State Office of the BLM.

The Idaho SGCN list was developed as part of the Idaho Comprehensive Wildlife Conservation Strategy (IDFG 2005). The Comprehensive Wildlife Conservation Strategy document is now referred to as the State Wildlife Action Plan (SWAP). This name will be used throughout the rest of this document. In 2001, 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 SWAP. Idaho's plan serves to coordinate the efforts of all partners working toward conservation of wildlife and wildlife habitats across the state. The Department coordinated this effort in compliance with its legal mandate to protect and manage all of the state's fish and wildlife resources (IDFG 2005). 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.

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 CMWMA is a mosaic of land ownerships including private, NPT, TNC, IDL, Bureau of Reclamation, USFS, BLM, and the Department. The BLM and USFS are key partners in this landscape as their management actions directly influence ecological function on CMWMA. To maximize coordination, communication, and partnership opportunity, we include both USFS and BLM Sensitive Species in our biodiversity assessment.

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.

BLM 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, beneficial management/conservation actions, and threats were derived through consultation with Department Regional Habitat, Fisheries, and Wildlife staff; occurrence records in 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.

Suitability of assessed species as a focal species were estimated by Clearwater Regional Habitat and Diversity staff based on descriptions in Groves (2003) and the USFWS (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* (USFWS 2005)

For the CMWMA focal species assessment, all flagship and special-status plant and animal species that have been reported within 50 miles of the WMA, as well as the mitigation species, were included in the initial assessment which included 151 plant and animal species. The species on this primary list, for which CMWMA and the surrounding landscape likely do not provide critical habitat (e.g., burrowing owl, Canada lynx, mountain goat) were then removed, leaving 108 plant and animal species (Appendix VIII). From this secondary list, focal species were selected if:

- The species met some of the above listed characteristics for focal species selection,
- There is sufficient understanding of the local distribution and ecological needs of this species and,
- Management actions on or around the CMWMA could be implemented to benefit local populations of this species.

Table 1: Focal species, habitat, and guilds selected for Craig Mountain WMA.

Focal Species

Species	Classification[a]	Issues/Risks	Beneficial Management and Conservation actions
Rocky Mountain elk *Cervus canadensis*	CMWMA-MT CMWMA-F	Elk populations have tripled in Unit 11 since the Department acquired the Peter T. Johnson Unit. Concerns regarding population carrying capacity of this area have resulted in an attempt to reduce the population size through controlled cow harvest.	Identification and restoration of key limiting habitats. Monitoring population health and growth through biological check stations and population surveys.
White-tailed deer *Odocoileus virginianus*	CMWMA-MT CMWMA-F	Sufficient quality and quantity of habitat is the greatest limiting factor on white-tailed deer populations. Disease and severe winters can also create negative impacts on WTD populations.	Ensure that WTD habitats on CMWMA include key elements for this species such as high quality riparian/meadow habitat interspersed with healthy dense forests and security cover.
Mule deer *Odocoileus hemionus*	CMWMA-F	Sufficient quality and quantity of habitat is the greatest limiting factor on mule deer populations. Severe winters and disturbance can also create negative impacts on mule deer populations.	Provide key winter, summer, and transitional habitats that provide for mule deer populations that meet or exceed statewide objectives.
Bighorn sheep *Ovis canadensis*	CMWMA-F	Disease is the largest issue facing bighorn sheep in the Hells Canyon area. There has been very low to no recruitment because of sporadic lamb die offs and pneumonia in adults is the reason populations in this in this area have not grown. Currently, all BHS populations in this area are disease limited. High rates of reproduction and large body and horn size in BHS suggest forage is not limiting.	Continue work with the Hells Canyon Initiative research. Implement management actions as possible to reduce impacts of disease. Continue to improve bighorn sheep habitat by reducing noxious weeds in key areas. Refine habitat modeling to more accurately characterize sustainable population levels. Use radio marked sheep to provide data points for sightability modeling.

Focal Guild-Cavity Nesting Birds

Species benefitting	Classification[a]	Issues/Risks	Beneficial Management and Conservation actions
Flammulated owl *Psiloscops flammeolus*	IDFG-SGCN	Forest practices that remove large-diameter pine and Douglas-fir, manage for even-age stands, and remove snags (including firewood gathering) risk reducing microhabitat and landscape parameters required by this species (Linkhart and Mccallum 2013). Lack of fire disturbance can create high-density vegetation conditions generally unfavorable for owl foraging. Changes in stand structure may also impact insect populations and habitat suitability for woodpeckers, which are essential to the conservation of all cavity-nesting owls.	Snag and coarse woody debris (CWD) retention. Restoration of natural fire-maintained mosaic of ponderosa pine/western larch habitat with key components such as mature trees and large diameter snags.

Northern pygmy owl *Glaucidium gnoma*	BLM-S	Nests in cavities excavated by woodpeckers therefore potentially vulnerable to timber harvest practices that limit woodpecker populations (Holt and Petersen 2000).	Snag and coarse woody debris (CWD) retention. Restoration of natural fire-maintained mosaic of ponderosa pine/western larch habitat with key components such as mature trees and large diameter snags.
Lewis's woodpecker *Melanerpes lewis*	IDFG-SGCN	Habitat loss and degradation are two of the major issues of concern for this species. A reduction of large snags in breeding habitats may limit reproduction (Vierling et al. 2013).	Snag and coarse woody debris (CWD) retention. Restoration of natural fire-maintained mosaic of ponderosa pine/western larch habitat with key components such as mature trees and large diameter snags.
White-headed woodpecker *Picoides albolarvatus*	IDFG-SGCN	Mature ponderosa pine forest with large diameter live and dead trees is the primary habitat used by the White-headed woodpecker (Garrett et al. 1996). Forest practices such as clear-cutting, even-age stand management, and snag removal risk reducing landscape parameters required by this species.	Snag and coarse woody debris (CWD) retention. Restoration of natural fire-maintained mosaic of ponderosa pine/western larch habitat with key components such as mature trees and large diameter snags.
Black-backed woodpecker *Picoides arcticus*	USFS(1)-S	This species has a strong affinity for recently burned conifer forests. Population is potentially vulnerable to fire suppression and post-fire salvage logging practices (Dixon and Saab 2000).	Actions that can benefit this species include identifying areas of CMWMA timbered lands that either be allowed to burn naturally or can be maintained by prescribed burning could benefit this species and, limiting or eliminating post-fire salvage operations.
Pileated woodpecker *Dryocopus pileatus*	CMWMA-MT	Large snags and coarse woody debris are critical components of habitat used by the Pileated woodpecker (Bull and Jackson 2011). Forest practices such as clear-cutting, even-age stand management, and snag removal risk reducing landscape parameters required by this species.	Snag and coarse woody debris (CWD) retention. Restoration of natural fire-maintained mosaic of ponderosa pine/western larch habitat with key components such as mature trees and large diameter snags.
Black-capped chickadee *Poecile atricapillus*	CMWMA-MT	A cavity nester with a preference for continuity in forested habitats (Foote et al. 2010). Threats include excessive harvest and removal of snags.	Snag and coarse woody debris (CWD) retention. Restoration of natural fire-maintained mosaics. Protection and restoration of riparian habitats.

Focal Guild-Sensitive Plant Species

Species benefitting	Classification[a]	Issues/Risks	Beneficial Management and Conservation actions
Spalding's catchfly *Silene spaldingii*	IDFG-SGCN BLM-S USFWS-T	Non-native weed invasion, including several noxious weeds, is the primary threat to this species. Trampling and grazing by cattle may also be a threat.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Eliminating grazing would also be beneficial.
Asotin milkvetch *Astragalus asotinensis*	IDFG-SGCN BLM-S	Non-native weed invasion, including several noxious weeds (e.g., yellow starthistle, common crupina, and Scotch thistle) is the primary threat to this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself.
Purple thick-leaved thelypody *Thelypodium laciniatum* var. *streptanthoides*	IDFG-SGCN BLM-S	Although the rock outcrop habitat in which this species occurs is protected from most threats, non-native weed invasion, including several noxious weeds, may be a threat.	Weed control would help in the conservation of this species (Mancuso and Moseley 1994). Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself.

Focal Guild-Sensitive Plant Species

Species benefitting	Classification[a]	Issues/Risks	Beneficial Management and Conservation actions
Simpson's hedgehog cactus *Pediocactus simpsonii*	IDFG-SGCN BLM-S	Potential threats include cactus collecting, habitat degradation, non-native weed invasion and wildfire.	Minimizing potential disturbances by eliminating grazing and not developing recreation trails near plants along the ridge. Limiting other ground disturbance activities such as off-road vehicles.
Stalk-leaved monkeyflower *Mimulus washingtonensis*	IDFG-SGCN BLM-S	Populations near roads are at risk of destruction by road construction/maintenance, accidental herbicide spraying, and non-native weed invasion.	Road maintenance and noxious weed control along roadsides should be done in a way to avoid harm to these plants. Limiting ground disturbance activities such as grazing and off-road vehicles.
Dwarf gray rabbitbrush *Chrysothamnus nauseosus* ssp. *nanus*	IDFG-SGCN	Populations near roads are at risk of destruction by road construction/maintenance, accidental herbicide spraying, and non-native weed invasion (Mancuso and Moseley 1994).	Road maintenance and noxious weed control along roadsides should be done in a way to avoid harm to these plants. Limiting ground disturbance activities such as grazing and off-road vehicles.
Idaho hawksbeard *Crepis bakeri* ssp. *idahoensis*	IDFG-SGCN BLM-S	Non-native weed invasion, including several noxious weeds, is the primary threat to this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Limiting ground disturbance activities such as grazing and off-road vehicles.
Sticky goldenweed *Pyrrocoma hirta* var. *sonchifolia*	IDFG-SGCN	Livestock grazing may be a potential threat.	Eliminate livestock grazing of meadows where this species is known to exist or has the potential to exist. Limiting other ground disturbance activities such as off-road vehicles.
Palouse goldenweed *Pyrrocoma liatriformis*	IDFG-SGCN BLM-S	Non-native weed invasion, including several noxious weeds, is the primary threat to this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Limiting ground disturbance activities such as grazing and off-road vehicles.
Green-band mariposa lily *Calochortus macrocarpus* var. *maculosus*	IDFG-SGCN BLM-S	Non-native weed invasion, including several noxious weeds, is the primary threat to this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Limiting ground disturbance activities such as grazing and off-road vehicles.
Broad-fruit mariposa lily *Calochortus nitidus*	IDFG-SGCN USFS-S BLM-S	Non-native weed invasion, including several noxious weeds, is the primary threat to this species. Timber harvest may impact plants that occur in open forest. Populations near roads are at risk of destruction by road construction/maintenance and other activities.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Limiting ground disturbance activities such as grazing and off-road vehicles. Logging during the winter would eliminate soil disturbance and would not harm plants as they are inactive aboveground during the winter. Road construction/maintenance should be done in a way to avoid harm to these plants.

Focal Habitat-Meadow and Riparian Habitat

Species benefitting	Classification[a]	Issues/Risks	Beneficial Management and Conservation actions
Mountain quail *Oreortyx pictus*	IDFG-SGCN	Primary threat is habitat degradation, particularly activities that reduce early successional deciduous shrub habitat such as grazing and fire suppression (Gutierrez and Delehanty 1999).	Protect and maintain habitats through better management of riparian and forest habitats. Consider reintroductions to expand range into restored habitats (Sands et al. 1998).
Yellow warbler *Setophaga petechia*	CMWMA-MT	Land management activities that reduce deciduous shrub habitat, inhibit recruitment of the deciduous shrubs, or degrade riparian communities pose the greatest threat to this species (Lowther et al. 1999).	Protection and rehabilitation of riparian habitat; retention of deciduous shrubs.
North American river otter *Lontra canadensis*	CMWMA-MT USFS (1)-S	The effects of water quality (environmental toxins and turbidity) on prey abundance and poisoning risk through bioaccumulation are major threats for this species. Habitat loss and deterioration resulting from the impoundment of rivers and fluctuations of water discharged from dams have also have deleterious effects on this species.	Protection and maintenance of riparian habitats and stream conditions along main rivers and lower elevation tributaries where otters occur.
Steelhead (Snake River Basin) *Oncorhynchus mykiss*	IDFG-SGCN USFWS-T USFS(1)-S	Practices that increase sediment delivery, loss or degradation of riparian areas/wetlands, create barriers, or influence the natural stream hydrograph.	Protection/restoration of stream corridors and wetland areas will be beneficial in maintaining/improving stream flow, passage, water temperatures, sediment delivery, and habitat complexity needed by these fish.

[a] Twenty five plants and animals were selected as species that could benefit from management actions on CMWMA. This includes nine bird species, one fish species, five mammal species, and 11 plant species. Of these, six are mitigation target (MT) species for CMWMA, four have been identified as flagship (F) species, five are listed under the ESA by USFWS as threatened (T) or a candidate (C) for listing, 18 are listed as SGCN, 11 are listed as Sensitive (S) by the BLM, and six are listed as Sensitive (S) by the USFS. Of these 25 species, four big game species will be addressed as individual focal species, seven bird species will addressed under a focal guild "Cavity Nesting Birds", all 11 plants will be addressed under a focal guild "Sensitive Plant Species", and conservation for two birds, one mammal, and one fish species will be addressed under a focal habitat "Meadow and Riparian Habitat."

Selection of Conservation Targets

The Conservation Targets selected to guide management on CMWMA are:

1. Ponderosa Pine and Western Larch
2. Meadow and Riparian
3. Canyon Grasslands.

These Conservation Targets were selected because they provide integral components to the landscape, they provide important values for the focal species, and they are limited in integrity or at risk to becoming limited in integrity across the landscape. These Conservation Targets also address all the wildlife-related management priorities for the CMWMA.

The effectiveness of using these Conservation Targets for directing beneficial management actions toward special status plant and wildlife species on the CMWMA was assessed using the 108 species reviewed for focal species selection (Appendix VIII). Through this analysis, these Conservation Targets (Table 2) were predicted to provide ecological benefits for all 26 focal species. Of the remaining 82 species that were not selected as focal species for CMWMA, 19 would potentially receive year-round benefits from management actions towards the three conservation targets. Another 15 species would potentially receive benefit toward a portion of their annual needs. Therefore, directing management actions toward the selected Conservation Targets for CMWMA are predicted to address some of the conservation needs for 60 (55%) of the special status species across the area. The remaining species (48) would potentially not receive benefits from management actions directed at the Conservation Targets and are considered *Conservation Voids*.

Of the 48 species classified as Conservation Voids, nine are not expected to receive benefits because their ecological niches do not overlap with those related to the Conservation Targets. We lacked sufficient understanding about the ecology, abundance, and distribution of 32 species and were not able to make presumptions. The vast majority of these species (29) are gastropods. There is a need to increase our understanding of the distribution, abundance, and limitations of Conservation Void species (e.g., gastropod guild) for which we have little to no data and for species (e.g., bat guild) for which data is lacking.

Table 2. Analysis of the Conservation Targets for Craig Mountain WMA including landscape distribution, limitations, beneficial management actions, and the special status species that may benefit from management actions directed toward these conservation targets.

Conservation Target	Occurrence Context in WMA landscape	Threats	Beneficial Management Actions
Ponderosa Pine and Western Larch Habitat	Once the dominant forest types across the Craig Mountains, this habitat has been drastically reduced from high-grade logging practices, fire suppression, and a lack of restoration management.	The ability to restore ponderosa pine/western larch stands can be limited by forest management actions such as clear-cutting, even-aged forest management, snag removal, fire suppression as well as by insect outbreaks and a lack of forest management.	Map historical distributions. Conduct thinning, prescribed burns, retention of mature trees, work with other agencies on timber sale prescriptions. Conduct noxious weed management.
	Focal species benefitting: mountain quail, flammulated owl, northern pygmy owl, Lewis's woodpecker, white-headed woodpecker, black-backed woodpecker, pileated woodpecker, black-capped chickadee, white-tailed deer, mule deer, elk. Other species benefitting: northern alligator lizard, northern goshawk, great-gray owl, American three-toed woodpecker, Merriam's shrew, pygmy shrew, bat species, Douglas's clover.		
Meadow and Riparian Habitat	Meadow habitat exists within the coniferous forest plateaus on Craig Mountain primarily in low-gradient headwater stream tributaries. Riparian habitats are a limited resource in xeric areas such as the canyon grasslands and provide valuable water, food, and cover for many species.	Threats to meadows and riparian habitat on CMWMA include conifer encroachment (into meadows), grazing by domestic livestock, noxious weeds, and illegal motorized activities.	Assess distribution and condition. Conduct forest thinning and timber harvest in meadows and habitat restoration where needed. Protect from grazing and motorized vehicle damage. Conduct noxious weed management.
	Focal species benefitting: mountain quail, black-capped chickadee, yellow warbler, steelhead, river otter, elk, white-tailed deer, mule deer, sticky goldenweed, broad-fruit mariposa lily. Other species benefitting: Idaho giant salamander, Columbia spotted frog, ring-necked snake, common garter snake, northern goshawk, great-gray owl, spotted sandpiper, lesser goldfinch, Gillette's checkerspot, shrew species, bat species, vanilla grass.		
Canyon Grassland Habitat	Canyon grasslands are the most prevalent habitat type on CMWMA and include bluebunch wheatgrass, Idaho fescue, and sand dropseed cover types. The canyon grasslands contain the greatest number and concentration of rare plant species.	The greatest threat to canyon grassland habitat on CMWMA is from non-native plants. The negative effects of non-native plants on canyon grasslands include the competitive exclusion of native plants and changes in the natural fire cycle and intensity.	Limit motorized access into canyon grassland habitats to reduce soil disturbance and spread of non-native vegetation. Work with partners to identify areas suitable for periodic landscape-level wildfire tolerance.
	Focal species benefitting: elk, mule deer, bighorn sheep, Spalding's catchfly, purple thick-leaved thelypody, Asotin milkvetch, Simpson's hedgehog cactus, stalk-leaved monkeyflower, dwarf gray rabbitbrush, Idaho hawksbeard, sticky goldenweed, Palouse goldenweed, green-band mariposa lily, broad-fruit mariposa lily. Other species benefitting: night snake, Swainson's hawk, prairie falcon, American peregrine falcon, long-billed curlew, short-eared owl, grasshopper sparrow, lesser goldfinch, spur-throated grasshoppers, dwarf shrew, bat species guild.		

Ponderosa Pine and Western Larch Habitat

Ponderosa Pine and Western Larch habitat was selected as a Conservation Target on CMWMA because these forest types are currently limited on the Craig Mountain Landscape when compared to their historical distributions. Prior to European settlement, open ponderosa pine and western larch stands were more extensive and common on the Craig Mountain plateau. These open stands were maintained by relatively frequent under-burning (10-25 year fire interval) that favored fire resistant species like ponderosa pine and western larch. However, most of these historic pine/larch stands were eliminated through a combination of selective logging and fire suppression, and have been replaced by the grand fir and mixed conifer stands present today. Past fire suppression and timber harvest have helped maintain grand fir communities across the Craig Mountain Landscape.

Many species are largely dependent on the ecological conditions provided by ponderosa pine/western larch habitats such as cavity nesting species (pileated woodpecker, Lewis's woodpecker, white-headed woodpecker, Williamson's sapsucker, flammulated owl, white-breasted nuthatch, and pygmy nuthatch) as well as many bat species.

The Department's vision for Ponderosa Pine/Western Larch Habitat includes widespread areas of healthy, fire-maintained forested habitats that are comprised of a mosaic of mixed age-class stands with multiple vegetation layers of grasses, forbs, and shrubs interspersed with open stands of widely spaced mature and old-growth trees all with an ecologically appropriate distribution of coarse woody debris and large-diameter snags.

Meadow and Riparian Habitat

Meadow and Riparian Habitat was selected as a Conservation Target for CMWMA because these areas are limited in distribution within the Hells Canyon area and are susceptible to disturbance from logging, grazing, fire suppression, and motorized recreation.

Wet and mesic meadow habitats are found in the headwaters of the mountain's major tributary streams. Large meadow systems on the CMWMA include Benton Meadows (West Fork of Deer Creek), Larabee Meadows (Deer Creek), Kruze Meadows (Webb and Brown's Creek), and Reeve's Meadow (Deer Creek). Streams forming in these meadows are low gradient in nature and the vegetation is dominated by grasses and sedges with few shrubs or trees present.

Because of the presence of surface or subsurface water in these meadows, the vegetation remains green and productive into the summer when many adjacent habitats have become dry and dormant. Wet meadows are an extremely important habitat type on Craig Mountain. They serve as important calving, fawning, and feeding areas for big game species; provide water for species using the surrounding coniferous forest; serve as year-round habitat for a variety of nongame species such as the spotted frog, western toad, yellow warbler, and three rare plants (plumed clover, vanilla grass, and sticky goldenweed).

Riparian habitat on Craig Mountain transitions from wet meadows on high elevation plateaus (as described above) through coniferous forests, and then into a white alder habitat. All three of these riparian habitats have experience substantial impacts from past (and some current) grazing of domestic livestock. This has resulted in infestations of non-native plants including noxious weeds, degradation of native riparian vegetation such as a decreased deciduous shrub component, and streambank instability. These riparian corridors provide high value to wildlife, particularly where they exist as narrow ribbons in the bottom of deeply dissected canyons dominated by grasslands. As such, by mid-summer they often provide wildlife the only woody cover, shade, and water in what is otherwise a hot, dry landscape.

The Department's vision for riparian areas is healthy and functioning habitats that provide linkage and habitat continuity throughout the watershed. Improving or maintaining highly functional riparian habitat has the potential to directly benefit many species including steelhead, elk, moose, mule deer, river otter, and yellow warbler. Thus, selecting meadow and riparian areas as a focal habitat serves as an umbrella for conservation and has a high probability of improving habitat for a large number of species.

Canyon Grassland Habitat

The Canyon Grassland Habitat was selected as a Conservation Target for CMWMA because it is the most extensive habitat type in the Craig Mountain area but yet it is at risk of being reduced in quality and extent. Most canyon grasslands on CMWMA have been negatively impacted by prolonged intensive livestock grazing, noxious weeds, annual grasses, and other non-native plants. The sites in best condition are the steepest and/or furthest from water, and hence, least impacted by livestock. In addition to the canyon grasslands being key habitat for upland birds (e.g., chukar, gray partridge), big game (e.g., elk, mule deer), and nongame (e.g., prairie falcon, ring-necked snake), the canyon grasslands within the Craig Mountain Landscape also contain the greatest number and concentration of rare plant species including Spalding's catchfly, Simpson's hedgehog cactus, Idaho hawksbeard, broad-fruit mariposa lily, Green-band mariposa lily, and Palouse goldenweed.

The Department's vision for Canyon Grasslands on CMWMA is a large expanse of uninterrupted native grasses that are not fragmented or degraded by noxious weeds (e.g., yellow starthistle (*Centaurea solstitialis*), white-top (*Cardaria draba*), scotch thistle (*Onopordum acanthium*), spotted knapweed (*Centaurea stoebe* ssp. *micranthos*), are maintained by natural wildfire, and continue to support a diverse and robust wildlife community.

Spatial Delineation of Conservation Target across the Landscape

Most of the focal species, guilds, and habitats selected for CMWMA are not limited to the boundary of the WMA. Although management actions directed towards the conservation targets within the WMA are likely to benefit the focal species as intended, the viability of these species and habitats is also influenced by the surrounding landscape and the management actions on these lands. Looking across our fences at the total landscape is imperative to achieving conservation in the long-term. This section of the plan is dedicated to understanding how the

CMWMA fits into the larger landscape—the role it currently plays, future roles it may play and how influences outside the WMA can dramatically influence, for good or bad, the relative value of the WMA to conservation.

Ponderosa Pine and Western Larch Landscape

Eleven focal species would likely benefit from management actions that work towards promoting, restoring, and maintaining mature ponderosa pine and western larch habitats. Managing for these habitats on contiguous forest stands would substantially benefit the regional population viability of these species. Timbered lands that are contiguous with those on CMWMA primarily extend to the north and northeast of the WMA (Figure 3). Coniferous forests are typically found on north-facing slopes of upper riparian reaches and at on the higher elevation plateau of the Craig Mountain area. Beyond the WMA, these lands are owned and managed primarily by private individuals, the NPT, and IDL. Limitations to this type of habitat across the landscape include logging practices such as even-age management, over-harvest of mature timber, insufficient retention of dead wood (snags and coarse woody debris), fire suppression, and the lack of wildfire disturbance.

Meadow and Riparian Landscape

Meadows and riparian habitats are limited in distribution and integrity across the landscape but provide substantial benefits to regional plants, fish, and wildlife. Ten of the focal species would likely benefit from management actions that aim to protect and restore meadow and riparian habitats; many more would benefit indirectly because of the countless inherent values of a healthy watershed, especially in a semi-arid environment.

Limitations to these habitats across the landscape includes intensive grazing, hydrologic alteration, lack of forest disturbance leading to the encroachment of early seral conifer species into meadows, motorized vehicles (mud-bogging), and noxious weed infestations.

Meadows important for maintaining a healthy landscape would be associated with the contiguous forest in this area (Figure 4). Meadow habitats are typically found at the headwaters of the primary drainages and on the higher elevation plateau of CMWMA. Stream headwaters in the Craig Mountain area originate in the meadows, travel through all habitat types and eventually contribute to the Clearwater, Salmon, and Snake watersheds. Protecting and improving the headwaters (meadow) habitat as well as the integrity of riparian habitats throughout this landscape would not only benefit the plants, fish, and wildlife in the Craig Mountain area but also would have far-reaching benefits to the watershed ecosystems in these major rivers.

Canyon Grassland Landscape

Canyon grassland is the most abundant habitat type found in the Craig Mountain area with over 100,000 acres found within a two-mile buffer of the CMWMA boundary (Figure 5). Canyon grassland habitat is typically found from low to mid elevation slopes along the Snake and Salmon rivers. In addition to providing key year-round habitat for big game species such as mule

deer, elk, and bighorn sheep, canyon grassland habitat in the Snake and Salmon river drainages support many other game species, focal species, species of concern, and contain a large number of endemic plant species. Primary limitations to this landscape include livestock grazing, noxious weeds, indiscriminate use of chemicals for noxious weed control, and off-road motorized vehicle use. Vast portions of the canyon grassland habitat within the landscape are public properties managed by state and federal agencies. Working with these agencies on fire management plans, habitat restoration efforts, livestock grazing, access management, and noxious weed control would allow for a more resilient and sustainable resource benefitting many plants and animals.

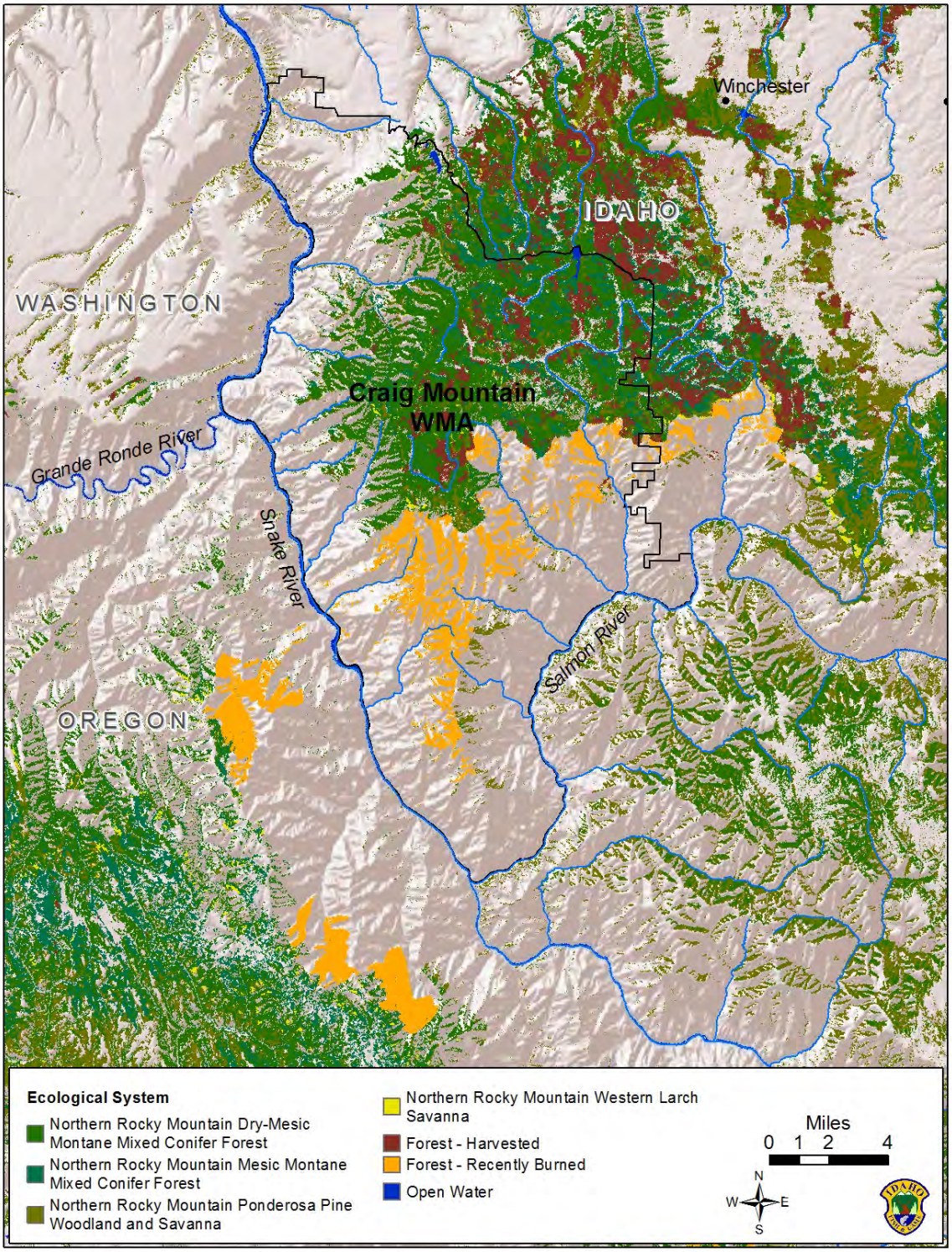

Figure 3. Forest habitat types and distribution throughout the Craig Mountain Landscape.

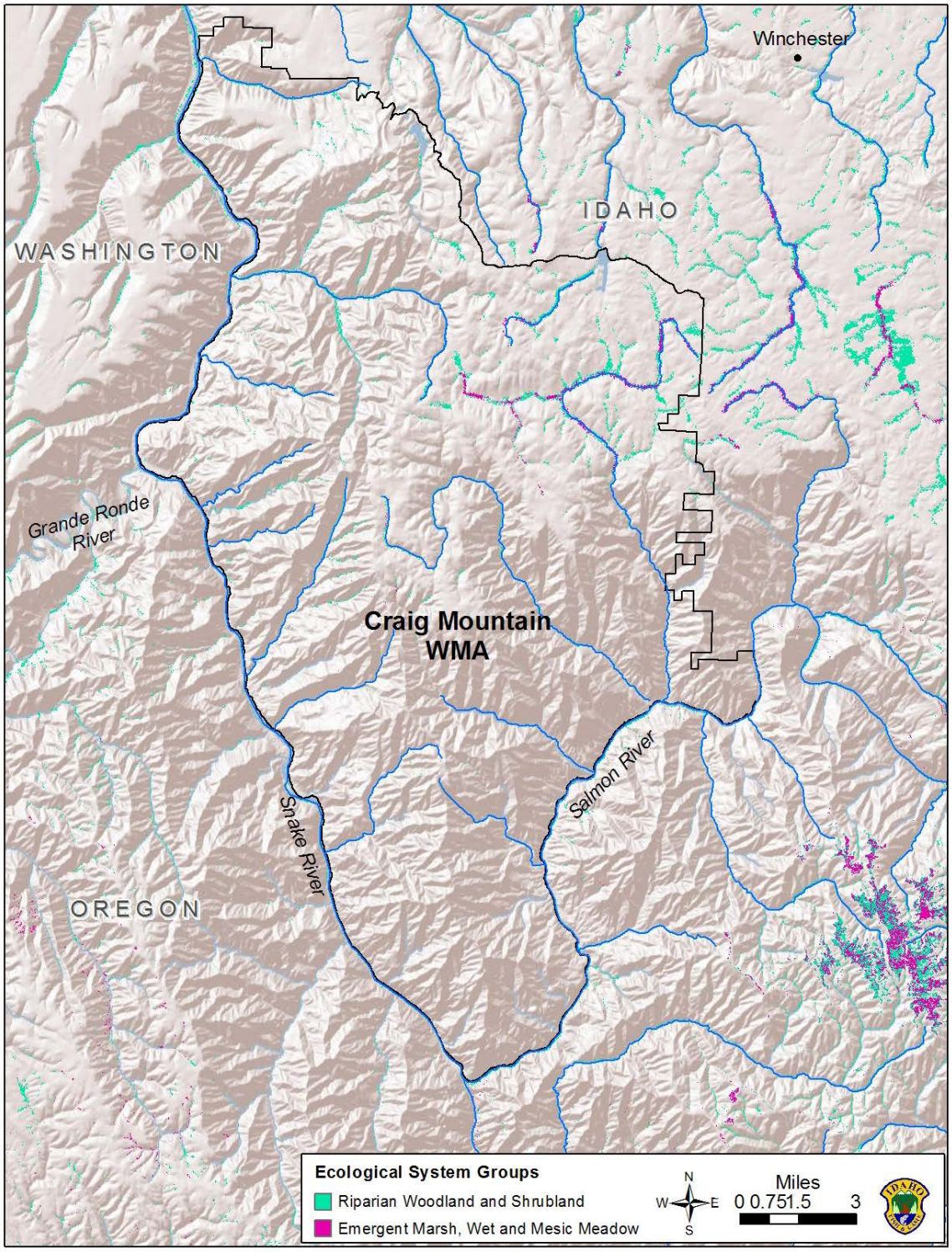

Figure 4. Meadow and riparian habitat distribution throughout the Craig Mountain Landscape area. In addition to the primary habitat shown on this map, many small perennial and intermittent streams throughout the Craig Mountain Landscape also provide riparian habitats.

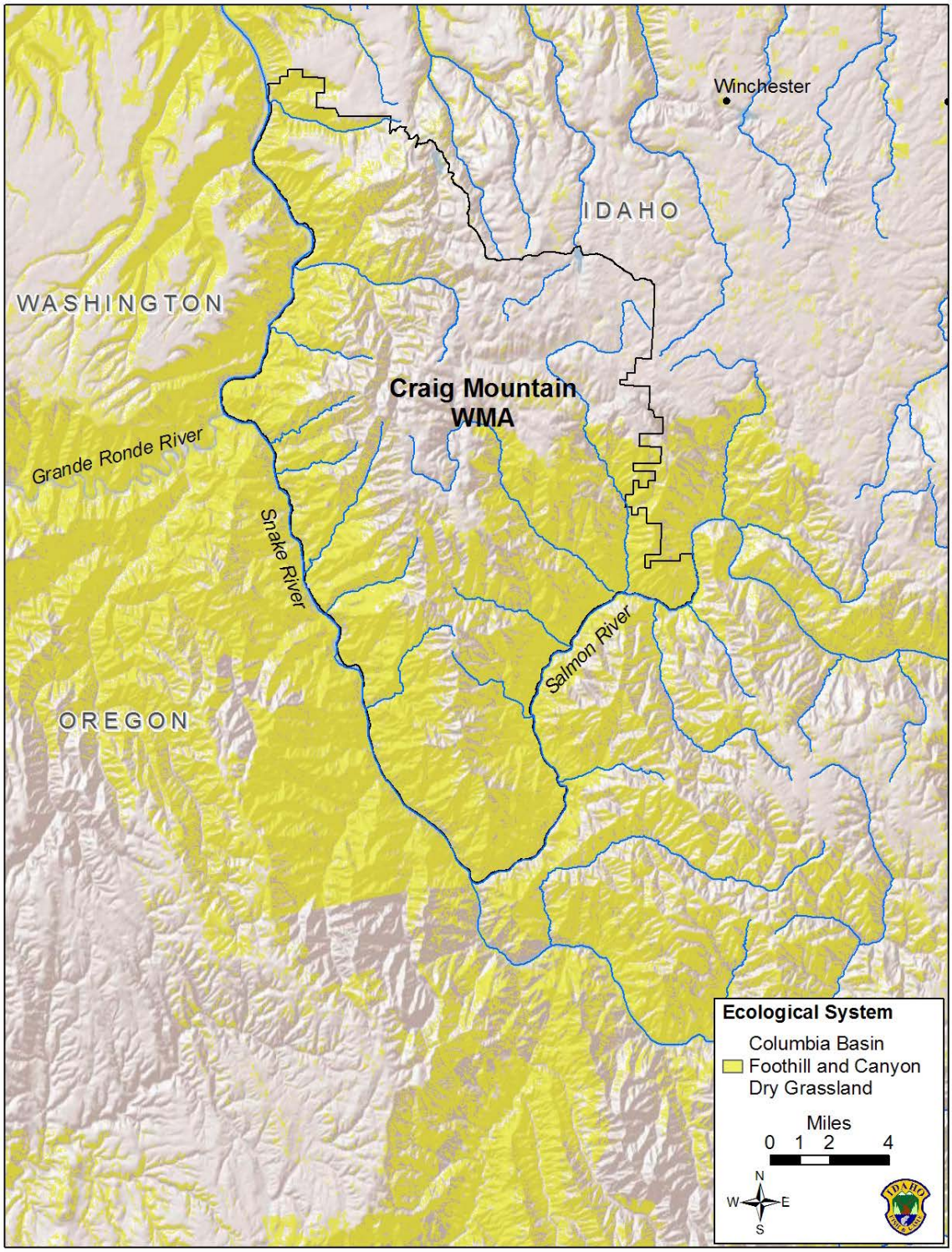

Figure 5. Canyon grassland habitat distribution throughout the Craig Mountain Landscape.

Craig Mountain WMA Management Program Table

The following table outlines the Management Directions, Performance Targets, Strategies, and Outcome Metrics CMWMA staff will use to manage for the Conservation Targets selected (page 45) to represent each CMWMA Priority (page 38) at both the CMWMA 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: Habitat for Focal Species					
Conservation Target: Ponderosa Pine and Western Larch Habitat					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Provide ponderosa pine and western larch habitat with composition, structure, and disturbance regimes within the range natural historic variability to benefit focal species.	Identify areas suitable for restoration and maintenance of ponderosa pine and western larch habitat for focal species by January 2017.	Initiate development of forest management database and GIS map by 2015 based, in-part, on 2012 baseline forest stand inventory and assessment. Map composition, structure, seral-stage, and distribution of current and potential coniferous habitat.	Plan completed	12
			Develop forest management plan by January 2017 to identify, secure funding, and implement restoration projects that will benefit focal species in ponderosa pine and western larch habitats. Include stand treatment plans and fire management plans.		
		Monitor focal bird species every 5 years to assess effects of management actions.	Following established survey protocols for CMWMA, monitor changes in abundance and distribution of focal bird species.	Surveys completed	6
			Support a graduate student to evaluate habitat changes and mitigation effectiveness and provide recommendations for management.		
		Restore and/or maintain ≥ 500 acres of ponderosa pine and western larch-dominated stands in 10 years; maintain large diameter (> 20 inch dbh) trees and snags as possible for wildlife.	Use forest thinning and prescribed fire to restore ponderosa pine and western larch stands to open stand conditions and reduce wildfire threat.	Acres restored or maintained to open ponderosa pine and western larch dominated stands; size/age, cover, frequency of tree species	6, 10, 12, 14, 15
			Control invasive and noxious weed species in disturbed forest openings and along haul routes.		
Landscape	Provide ponderosa pine and western larch habitat with composition, structure, and disturbance regimes within the range natural historic variability to benefit focal species.	Identify areas suitable for protection, restoration, and maintenance of habitat for focal species by January 2016.	Work with cooperating agencies and landowners to identify forest lands to acquire, protect using conservation easements, or trade to benefit focal species dependent on ponderosa pine and western larch habitats.	Acres of ponderosa pine and western larch forest habitat areas identified	13, 14, 35
		Over the next 10 years protect, restore and/or maintain 100 acres of ponderosa pine and western larch habitat identified as suitable for focal species.	Work with cooperating agencies and landowners within and around CMWMA to restore and/or maintain ponderosa pine and western larch-dominated stands using active management methods (e.g., prescribed fire, thinning, and retention of large diameter trees (> 20 inch dbh), snag, and coarse woody debris).	Acres restored or maintained for open ponderosa pine and western larch dominated stands; size/age, cover, frequency of tree species	9, 10, 14, 15, 35
			Work with cooperating agencies to develop a fire management plan to include the use of natural wildfire to restore and/or maintain ponderosa pine and western larch-dominated stands by 2017.		
			Tailor strategies based on need. Actions may include native tree and shrub plantings, livestock exclusion, conifer removal, permanent retirement of secondary or tertiary roads, prescribed burning, IPM management of invasive forest weeds, etc.		

WMA Priority: Habitat for Focal Species					
Conservation Target: Meadow and Riparian Habitat					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Provide high quality meadow and riparian habitat to benefit focal species.	Identify meadow and riparian areas suitable for protection, maintenance, or restoration of habitat for focal species by January 2016.	Initiate development of database and GIS map to include composition, condition, and distribution of current and potential meadow and riparian habitat for focal species based, in part, on 1996 and 2013 assessment data and the Department's existing Wetland and Riparian Landscape Assessment GIS tool.	Database and GIS habitat map developed and maintained	6, 8, 12, 35, 36
			Conduct river-based surveys for river otter use areas documenting animal observations, denning, and latrine sites at least every two years.		
			Conduct surveys for focal bird species every 5 years.		
		Protect, maintain, or restore at least 50 acres of meadow and riparian habitats identified as suitable to focal species over the next 10 years.	Reestablish /enhance native deciduous shrubs and trees by planting riparian areas where this habitat component has been lost or compromised.	Acres protected/ maintained/restored	6, 12, 35, 36
			Protect / maintain properly functioning riparian habitat in good to excellent ecological condition by preventing new road and trail crossings, maintaining 150' wide buffers, preventing access from livestock.		
			Remove conifers that are encroaching on mesic meadows through use of pre-commercial thinning and, where possible, prescribed fire; scatter small logs to disperse overland flow.		
			Protect, maintain, and restore properly functioning meadows by preventing new roads and trails, relocating roads and trails, removing barriers to water flow, eliminating off-road vehicle access, limiting dispersed campsites, minimizing livestock access, building exclosures, etc. where appropriate.		
			Protect spring sources from livestock using temporary or permanent fencing if needed.		
Landscape	Provide high quality meadow and riparian habitat to benefit focal species.	Work with land managers and landowners to protect, maintain, or restore at least 20 acres of meadow and riparian habitats identified as suitable for focal species.	Tailor strategies based on need. Actions may include native tree and shrub plantings, livestock exclusion, conifer removal (in meadows), restoration of hydrologic processes, eliminating and/or preventing human-related disturbance etc.	Acres protected/ maintained/restored	9, 10, 14, 15
WMA Priority: Habitat for Focal Species					
Conservation Target: Canyon Grassland Habitat					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Provide high quality grassland habitat to benefit focal species.	Identify areas suitable for protection, maintenance, or restoration of habitat for focal species by January 2016.	Initiate development of database and GIS map by 2015 based, in-part, on 2012 baseline forest stand inventory and assessment.	GIS map and database	6, 12
			Map composition and distribution of current and potential grassland habitat for focal species.		
		Protect, maintain, or restore at least 500 acres of canyon grassland habitat identified as suitable to focal species over the next 10 years.	Conduct restoration efforts such as noxious weed control, native plant seeding, and prescribed burning in low to mid elevation grassland habitats that have reduced in quality and are accessible for management.	Acres protected/ maintained/restored	8, 11, 12
			Manage recreational access to minimize disturbance to focal species and habitat.		
			Maintain guzzlers to provide supplemental water for big game and upland game during hot and dry summer months.		
			Conduct habitat improvement projects that will benefit focal plant species such as protection from livestock, noxious weed control, and planting.		

WMA Priority: Habitat for Focal Species					
Conservation Target: Canyon Grassland Habitat					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Identify occurrence and distribution of sensitive plant species.	Over the next 10 years, protect, maintain or expand populations of focal plants.	With Diversity staff, develop training materials to help Department staff identify focal plant species.	Acres protected/ maintained/expanded	6, 11, 12, 32
			With Diversity staff and in coordination with BLM and TNC, lead, conduct monitoring and surveys, at the proper plant phenology, to increase our understanding of the distribution, condition, and size of focal plant populations on CMWMA.		
			With Diversity staff lead, recruit volunteers to conduct surveys for focal plant species.		
			With Diversity staff lead, develop a Sensitive Plant Species management plan on CMWMA.		
			With Diversity staff, identify suitable locations for Research Natural Areas (RNA) on Department lands and initiate the certification process.		
Landscape	Provide high quality grassland habitat to benefit focal species.	Identify areas suitable for protection, restoration, and maintenance of focal species habitat by January 2016.	Initiate development of database and GIS map by 2015.	Acres identified	6, 11, 12, 13, 15
			Identify lands to acquire or trade to benefit mitigation species.		
		Protect, maintain, or restore at least 100 acres of grassland habitat for focal species.	Work with cooperating landowners and agencies to minimize disturbance to focal species and curtail development and fragmentation of key habitat.	Acres protected/ maintained/restored	9, 10, 11, 12
	Increase our understanding of elk dynamics in the Hells Canyon Zone.	Investigate demographic limitations on elk in the Hells Canyon Zone by 2017.	Conduct elk herd composition surveys annually by using techniques such as hunter reports, aerial surveys, or ground surveys.	Completed report of findings	4, 10, 12, 35
			With Population and Research staff, monitor elk nutritional condition and recruitment rate to help determine demographic limitations.		
			Look for opportunities within and outside the Department to examine effects of available forage on elk demography.		
	Identify occurrence and distribution of sensitive plant species.	Over the next 10 years, protect, maintain or expand populations of focal plants.	With Diversity staff, work with cooperating agencies and private landowners to identify and protect existing populations of focal plant species.	Acres protected/ maintained/expanded	9
WMA Priority: Noxious Weed Management					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Control and/or eradicate noxious weeds on CMWMA.	Conduct noxious weed control activities on at least 200 acres annually.	Inventory and map invasive species occurrence and treatment actions.	Acres assessed and/or treated	12, 14, 15
			Use an integrated pest management program to reduce invasive species.		
			Cooperate with ISDA, IDL, NPT, TNC and BLM to facilitate noxious weed management program.		
		Annually identify, evaluate, and conduct control projects that specifically benefit focal wildlife species or habitats.	Focus control efforts along access points, motorized access routes, timber project areas, and new invaders.	Acres of weed control projects conducted	14
			Direct weed management resources on specific projects that will benefit focal species habitat.		
			Maintain and/or enhance the Weed-free hay program through education and enforcement.		

WMA Priority: Noxious Weed Management					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
Landscape	Control and/or eradicate noxious weeds throughout the CMWMA area.	Annually conduct assessments and control efforts on at least 50 acres annually.	Cooperate with ISDA, IDL, NPT, BLM, TNC, and private landowners to address noxious weed related issues throughout CMWMA area.	Acres assessed and/or treated	9, 11, 12, 15, 35
			Provide noxious weed control assistance to private landowners within and around the CMWMA when resources are available.		12, 14, 15
WMA Priority: Forest and Fire Management					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Manage for healthy and robust coniferous habitats that provide ecological benefits for focal species.	Identify areas suitable for protection, restoration, and maintenance of coniferous habitat by January 2017.	Initiate development of forest management database and GIS map by 2015 based, in-part, on 2012 baseline forest stand inventory and assessment.	Plan completed	6, 11, 12
			Map composition, structure, seral-stage, and distribution of current and potential coniferous habitat.		
			Complete CMWMA Forest Management Plan.		
		Conduct forest projects on Department lands to maintain healthy timber stands if, when, and in ways that benefit focal species.	Work with IDL to administer commercial timber projects on Department lands under the direction of CMWMA staff.	Acres treated	6, 12, 15, 35,36
			Seek outside funding and assistance to help conduct non-commercial forest projects such as prescribed burning and thinning.		
			Ensure that all revenue generated from timber sales is reinvested into the Craig Mountain Trust for management on the WMA.		
			Provide firewood sale opportunities to the public for personal use only when these projects can help the Department achieve wildlife or forest health objectives.		
	Increase the use and tolerance of fire by cooperators to benefit grassland and forest habitats.	Work with cooperating agencies to develop a fire management plan by 2017.	Identify appropriate and effective fire suppression lines across the WMA along with a maintenance prescriptions and schedules.	Plan complete	5, 15
			Prioritize areas across the WMA for wildfire risk and tolerance.		
			Develop an infrastructure and access map for fire suppression efforts.		
			Seek opportunities for implementing prescribed burns to reduce wildfire risk and improve habitat quality.		
Landscape	Manage for healthy and robust coniferous habitats that provide ecological benefits for focal species.	Provide comments to other agencies and private landowners regarding the potential effects of proposed projects on wildlife and habitat.	Work towards the incorporation of wildlife-friendly practices such as retaining mature trees, snags, and coarse woody debris as well as uneven-age timber management and the use of prescribed burns.	Number of projects reviewed	10, 15
WMA Priority: Livestock Grazing Management					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Manage livestock grazing to help achieve wildlife and habitat objectives.	Assess grazing as a management tool on Department lands and to minimize detrimental impacts of grazing to focal species and habitats.	Use seasonal employees, contracts, and/or partnerships to initiate assessment by April 2015.	Plan completed	6, 11, 12
			Set up and conduct annual utilization survey transects in grazing pastures on Department lands.		
			Monitor focal species populations in grazed habitats.		
			Complete grazing management plan for Department lands by December 2015 to include grazing rates and rotation, monitoring, and habitat mitigation.		

WMA Priority: Livestock Grazing Management					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Manage livestock grazing to help achieve wildlife and habitat objectives.	Assess the wildlife costs/benefits of grazing on Department lands within the Cooperative Range Management Plan grazing allotment by April 2016.	Implement adaptive management to reduce detrimental effects of cattle grazing on wildlife and wildlife habitat on Department lands if needed.	Assessment completed	11, 12
		Control permitted grazing on CMWMA through administration, communication, and maintenance annually.	Conduct maintenance on grazing fences throughout the WMA.	Acres managed	N/A
			Work with neighboring landowners to quickly address fencing problems and to quickly remove trespass cattle.		
			Manage permitted grazing on Department lands through an annual lease.		
Landscape	Reduce the amount of trespass cattle on Department lands.	Remove trespass cattle from CMWMA as quickly as possible (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.	When direct communication with the livestock owner isn't possible or does not result in a timely removal of the livestock, work with the county Brand Inspector and/or Sheriff to ensure trespass cattle are removed as quickly as Idaho Law allows.	Trespass head removed/year	N/A
WMA Priority: Public Use Management					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Provide opportunities for wildlife-based recreation.	Manage for high quality, wildlife-based recreational opportunities that are consistent with the CMWMA mission.	Manage hunting of bighorn sheep, elk, and mule deer for high quality hunting experiences through control hunts.	Public opinion of wildlife-based recreational opportunities	22, 24, 25, 26, 30
			Manage hunting of white-tailed deer, black bear, mountain lion, and upland game birds for opportunity through general hunts.		
			Facilitate activities such as hiking, wildlife watching, biking, and horseback riding by working with public groups, providing maps, directions, and access points.		
			Conduct public-use surveys for long-term assessment of quality of experience.		
	Manage public access opportunities.	Maintain and improve public access areas. Reduce damage to habitats and disturbance to wildlife by maintaining or enhancing motorized vehicle restrictions.	Work with county and federal agencies to ensure motorized travel routes and parking areas are kept open and in good condition.	Access projects/year	14, 15, 18, 21, 22, 30
			Maintain and improve non-motorized access points such as horse gates and fence styles where needed.		
			Keep gates, signs, and fences at access points in good functional, informational, and aesthetic condition.		
			Continue with providing motorized access routes by registration for mobility impaired hunters.		
			Prohibit the use of motorized vehicles off-road and on secondary or tertiary roads except by permit or for administrative use.		
		Reduce damage to habitats and disturbance to wildlife by maintaining or enhancing motorized vehicle restrictions.	Permit the use of snowmobiles behind gates on designated routes when snow depths are sufficient (18" sustained snow depth) unless activity negatively impacts other WMA priorities.	Violations detected	9, 11, 12
			Work with County, Tribal, Federal, and Department enforcement staff to reduce the occurrence of illegal motorized vehicle activities.		
		Provide comments regarding all public recreation requests within 30 days.	Review the compatibility of public requests with WMA management priorities, acquisition obligations, and state and federal rules and laws.	Percentage of requests addressed	30

WMA Priority: Public Use Management					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Manage public access opportunities.	Provide information to the public regarding recreational use rules, property boundaries, and wildlife, cultural, and Department mission related topics.	Provide opportunities for recreational groups to adopt management of non-consumptive recreational activities such as mountain bike and hiking trails provided they are compatible with WMA management priorities, acquisition obligations, and state and federal rules and laws.	Non-consumptive recreational projects adopted	14, 15, 29, 30
			Maintain and update public use information signs at Redbird, Gaiser, Kruze Meadows, Billy Creek, and at the two points of entry.	Projects completed	30
	Provide public outreach, education, and volunteer opportunities.	Provide information to the public regarding recreational use rules, property boundaries, and wildlife, cultural, and Department mission related topics.	Keep maps of CMWMA up-to-date and in stock for public purchase.	Meetings hosted/year	25, 26, 28, 30
			Host public meetings to provide information pertaining to CMWMA and open discussion.		
		Recruit volunteers to assist with management objectives on CMWMA.	Work with Department regional volunteer coordinator to solicit volunteers for projects on CMWMA.	Volunteer-days/year	15, 32
	Manage commercial activities on CMWMA.	Provide comments regarding all commercial use requests within 30 days.	Evaluate all commercial use requests as directed in the Department Commercial Use Policy.	Number of requests evaluated	29, 30
		Review all existing commercial use on the WMA and update leases as needed by 2015.	Work with agency partners to standardize commercial use and commercial use policies on CMWMA.	Number of current commercial use leases reviewed	19, 26, 29
			Evaluate all commercial uses on CMWMA as a public need and compatibility with WMA objectives as directed in the Department Commercial Use Policy.		
		Review all existing commercial use on the WMA and update leases as needed by Fall of 2015.	Do not allow any increase in commercial activities (use days, clients, activities, geographic extend) on Department lands within the CMWMA that may conflict with WMA objectives and/or opportunity for the non-outfitted public.	Number of commercial activities permitted	1, 15, 22
	Manage existing facilities and infrastructure for safe and effective use for administrative and public.	Annually conduct inspections and maintenance as necessary of existing facilities.	Maintain safe access to and fire resistant perimeters around buildings.	Facilities maintained/year	33, 34
			Maintain public access for back-country cabins on CMWMA on a first-come, first-serve basis.		
		Remove infrastructure that is deemed unsafe.	Continue to remove dilapidated wire fences.	Number of structures assessed and/or removed	12, 33, 34
			Work with Idaho State Historical Preservation Office to determine proper disposal of unsafe infrastructure.		
	Maintain cultural and historic integrity across the CMWMA.	Protect cultural and historic resources.	Minimize ground disturbance activities whenever possible.	Archeological surveys completed	
			Pursue archeological clearance from SHPO with any ground disturbance activity.		
	Manage administrative access.	Manage administrative access in non-motorized areas.	Manage Department administrative access to reduce wildlife disturbance, road maintenance needs, and conflicts with recreational uses.	N/A	12, 14, 15
			Work with interagency partners on administrative access to reduce wildlife disturbance, road maintenance needs, and conflicts with recreational uses.		

Conservation Gaps and Recommendations					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Improve understanding of the occupancy, abundance, and habitat needs on species of concern on CMWMA.	Bat guild	With Diversity staff lead, identify areas of high concentration of bats and identify habitat use.	Plan completed	6, 7, 12, 32
			With Diversity staff lead, recruit volunteers to monitor bat populations and to increase our understanding of species occurrence around CMWMA.		
			With Diversity staff lead, develop a plan to assist management bat habitat requirements.		

Conservation Gaps and Recommendations					
Scope	**Management Direction**	**Performance Target**	**Strategy**	**Metric**	**Compass Objective (Appendix I)**
CMWMA	Improve understanding of the occupancy, abundance, and habitat needs on species of concern on CMWMA.	Mollusk guild	With Wildlife Diversity staff lead, conduct standardized and directed surveys for special status mollusks to help understand the abundance and distribution of species in this guild.	Plan completed	6, 7, 12, 32
			With Diversity staff lead, develop a plan to ensure that land management activities address mollusk habitat requirements.		
		Forest carnivore guild	Conduct bait station and winter track surveys to assess occupancy of forest carnivores.	Surveys conducted	6, 7, 12, 32
		MacFarlane's four-o'clock	Conduct surveys in suitable habitat on CMWMA to determine presence/absence.	Plan Completed	6, 7, 12, 32
			Incorporate survey information into Sensitive Plant Species management plan for CMWMA.		
	Improve understanding of species, abundance, and timing of migration on CMWMA.	Raptor migration	Conduct fall raptor migration surveys on Wapshilla Ridge to quantify the importance of this landscape to migrating birds of prey.	Plan Completed	6, 7, 12, 32
			With Diversity staff, develop a raptor management plan with special emphasis on raptor migration habitat on CMWMA.		

Monitoring

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

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
- Maintaining infrastructure at ponds and guzzlers
- 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 CMWMA Management Program Table. Biological monitoring includes wildlife, vegetation, and habitat monitoring. It may include assessing the effectiveness of management and restoration activities. Monitoring may occur at multiple spatial and temporal scales, depending on objectives.

Currently, CMWMA staff monitors habitat, habitat treatments, ungulate use, weed infestations, big game populations and harvest, target mitigation species, and other nongame species. Table 3 briefly outlines future monitoring needs associated with performance targets and strategies identified in the CMWMA Management Program Table. The goal is to measure success or effectiveness of strategies that are implemented to reach performance targets. A detailed monitoring plan including specific techniques will be completed for CMWMA by December 31, 2014.

Table 3. Biological monitoring for Craig Mountain WMA, 2014-2023.

Performance Target	Survey Type	Survey Frequency
Restore and/or maintain ≥ 500 acres of ponderosa pine and western larch-dominated stands in 10 years; maintain large diameter (> 20 inch dbh) trees and snags as possible for wildlife	Vegetation transects as necessary	Before project initiation and twice within five years of project completion
Protect, maintain, or improve at least 50 acres of meadow and five miles of riparian habitats identified as suitable to focal species over the next 10 years	Vegetation transects as necessary	Before project initiation and twice within five years of project completion
Protect, restore, and maintain at least 500 acres of canyon grassland habitat identified as suitable to focal species over the next 10 years.	Vegetation transects as necessary	Before project initiation and twice within five years of project completion
Over the next 10 years, maintain or expand populations of sensitive plants; protect from threats.	Vegetation transects as necessary	Before project initiation and twice within five years of project completion
Conduct noxious weed control activities on at least 500 acres over the next 10 years.	Vegetation transects as necessary	Before project initiation and twice within five years of project completion
Focal bird species surveys	Point counts	Every five years
Investigate demographic limitations on elk in the Hells Canyon Zone by 2017.	Hunter harvest samples	As needed
Remove trespass cattle from CMWMA as quickly as possible (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.	Patrols	At least weekly during the grazing season

Habitat Monitoring

Long-term Vegetation Monitoring

A statewide WMA habitat monitoring program began development in 2010 to collect quantitative and comparable baseline data to monitor habitat change on all WMAs due to management actions or other causes. Craig Mountain WMA was inventoried in 2012 and 2013 (IDFG 2013). Four unique monitoring protocols were followed to representatively collect data among dominant habitat types on CMWMA. At 109 grassland/shrubland survey points, a line-point intercept methodology (Herrick et al. 2005) was utilized to quantify vegetation community composition and structure during the spring and summer of 2012. During the summer of 2012, a modified version of the Forest Inventory and Analysis protocol (Woudenberg et al. 2010) was implemented to quantify species composition, canopy coverage, tree density, understory cover, ground cover, and coarse woody debris at 53 forested plots. During the summer of 2013, a rapid assessment method was utilized to assess riparian condition and function (Burton et al. 2011) at eight drainages on CMWMA. At four mountain meadows during the summer of 2013, a rapid meadow assessment method was utilized to qualitatively assess meadow health, vegetation composition, meadow stressors, and stream channel condition (Murphy 2013). The methodologies and results from all of these surveys can be found in the draft report, *Initial Implementation of long-term habitat monitoring at Craig Mountain Wildlife Management Area* (IDFG 2013). Efforts should be made to repeat these surveys every 10 years, but rely on outside funding assistance for implementation.

Sensitive Plant Surveys and Monitoring

Annually since 2004, demographic monitoring of Spalding's catchfly has been conducted on 10 plots throughout the Craig Mountain Area. The protocol includes mapping and monitoring individual plants along 10 contiguous established transects within a 10 x 10 m macroplot. In 1993 and 1994, Michael Mancuso and Robert Moseley surveyed for rare plants within CMWMA. Since then surveys have been conducted for Spalding's catchfly as well as Palouse goldenweed, spacious monkeyflower, membrane-leaved monkeyflower, stalk-leaved monkeyflower, and Asotin milkvetch throughout the CMWMA using habitat stratified area search techniques. While working on these surveys, any plants tracked by Idaho Natural Heritage Program (INHP) were documented. These monitoring and survey efforts on CMWMA were led by the INHP staff within the Wildlife Bureau. Both TNC and BLM have conducted rare plant surveys and monitoring work within the CMWMA. Continued cooperation among agencies is crucial.

Weed Monitoring Plots

Monitoring plots have been established across CMWMA to assess changes in noxious weed abundance and distribution and to monitor the effectiveness of control actions.

Ten monitoring plots have been established throughout CMWMA to monitor the effectiveness of biological control agents on yellow starthistle (YST). At each plot, density of YST is estimated

using a Daubenmire frame along four cardinal-bearing line-transects. Net sweeps are also conducted along transects to estimate insect density. These surveys were last conducted in 2013 and should be repeated every five years to estimate long-term trends of YST and the effectiveness of bio-control on this species.

Noxious weed locations, especially new invaders and new infestations, are mapped and assessed each year using GIS interfaced with a Microsoft Access database. Annual control actions for noxious weeds are also recorded with this system.

Wildlife Monitoring

Diurnal Bird Surveys

Monitoring of most bird species, including three of the six mitigation target species, are conducted during the breeding season using variable circular plot survey techniques. Surveys on CMWMA were conducted in 1993, 1994, 1997, 2002, and 2013 and should be continued every five years. These surveys are conducted on 14 forested transects composed of 134 points and 26 grassland/riparian transects composed of 211 points. Surveys should be started in April to detect woodpecker species and be continued through early July to detect neo-tropical migrant species. Surveys should use the standardized CMWMA Bird Survey Form with a 10-minute count period.

Owl Surveys

Surveys have been conducted on CMWMA to assess the presence and abundance of owl species (Sauder 2005). These surveys were conducted in 2004 and 2005 and detected three species (flammulated owl, northern saw-whet owl, and great horned owl). Basic protocol includes conducting nocturnal playback surveys at 40 point-count locations across the forested habitats on CMWMA. At each station, owl calls are broadcasted followed by a short period of listening for an elicited response. It is recommended that these surveys are conducted annually.

Amphibian Surveys

Extensive surveys for amphibians have been conducted on CMWMA periodically from 1995 until 2004 in cooperation with BLM and resulted in finding seven species of amphibians. It is recommended that these surveys should be repeated every five years pending available funding and resources (Cochnauer 2004).

Mule Deer and Elk

The CMWMA is part of Game Management Unit 11 and is surveyed within the Clearwater Region's big game survey rotation. Surveys are used to estimate long-term population trends of elk and mule deer through population numbers, sex ratios, age classes, and recruitment rates. A project was initiated in 2013 to better understand elk dynamics on CMWMA. This project included collecting biological samples from hunter harvested cow elk (heart, pericardium, kidneys with all associated fat, blood, fecal, udder, liver) to assess the reproductive rate, body

condition, and physiological limitations on this population. A similar project was also initiated in 2013 that entailed capturing and collaring 21 cow elk on CMWMA. Captured animals were assessed for reproductive status and body condition. Telemetry collars used for this project will provide daily GPS locations, have a VHF option, and should last for 4-5 years.

Bighorn Sheep

Bighorn sheep were reintroduced to the Craig Mountain area in 1984 when 17 individuals from Whiskey Basin, Wyoming, were released in Captain John Creek. The Redbird herd is monitored regularly by Department research staff as part of the Hells Canyon Bighorn Sheep Initiative. Monitoring includes annual helicopter surveys, and bi-weekly ground and aerial radio telemetry locations. As of 2013, the Redbird population was estimated at 100 individuals. Approximately 15% of these animals are marked with VHF and/or GPS telemetry collars.

Public Use Monitoring

Traffic Counters

Vehicular traffic on the WMA has been monitored periodically over the last 20 years by both the Department and BLM. The primary traffic counters should be located at the entry points to CMWMA to quantify traffic from Lewiston and from Winchester routes. An additional traffic counter may be placed at the top of the Eagle Creek Road to assess the use of this route. The traffic counters currently deployed are manufactured by TrafX and are magnetic detecting units and can detect full-sized vehicles and off-road vehicles (ATV, UTV, snowmobiles). Vehicle count data is collected in hourly intervals to assess traffic use patterns. Traffic count surveys should be conducted in conjunction with public use surveys.

User Surveys

In addition to quantifying the amount of use, Craig Mountain staff periodically uses public surveys to evaluate satisfaction, recreational activities, harvest success, and to identify issues of concern. These survey data help managers determine whether they are meeting the goals for CMWMA.

Most recently, CMWMA staff intensively monitored public use during 2012 and 2013 using personal contacts, public meetings, and internet surveys. Further in-depth public use monitoring will occur again in approximately 3-5 years. Please see Appendix IV for a summary of that monitoring effort.

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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.

The Compass	
GOAL—Fish, Wildlife, and Habitat	
Desired Outcomes	
• There is no net loss of habitat.	
• The Department is highly regarded as a comprehensive source of objective, scientifically-based information on fish, wildlife, and plants in Idaho.	
A. Objective – Maintain or improve game populations to meet the demand for hunting, fishing, and trapping.	
Strategies	
1.	Set harvest rules and regulations to achieve long-term sustainability of populations and habitat.
2.	Alleviate wildlife damage to agriculture.
3.	Manage predation to achieve a balance between game and predator populations.
4.	Regularly inventory, analyze, and report on game populations and habitats.
5.	Collaborate with tribes, private landowners, and agencies to manage populations and harvest for long-term sustainability.
B. Objective – Ensure the long-term survival of native fish, wildlife, and plants.	
Strategies	
6.	Inventory, monitor, and assess the status of native fish, wildlife, and plants and the habitats upon which they depend.
7.	Identify species with the greatest need for conservation action.
8.	Restore native species where they have declined or disappeared.
9.	Assist public and private landowners in the conservation, restoration, and enhancement of native fish, wildlife, and plants.
10.	Collaborate with interested and affected parties to implement plans to recover threatened and endangered species and conserve native fish, wildlife, and plants
C. Objective – Increase the capacity of habitat to support fish and wildlife.	
Strategies	
11.	Develop measurable and achievable management objectives for fish and wildlife habitat.
12.	Assess and prioritize habitats for protection, restoration, or enhancement.
13.	Acquire interest in property where Department management can provide exceptional benefits to fish and wildlife and associated recreation.
14.	Work in cooperation with other agencies and local governments to prevent the introduction and spread of invasive species.
15.	Develop partnerships with landowners, land management agencies, and others to restore, enhance, and conserve fish and wildlife habitats.

The Compass
GOAL—Fish, Wildlife, and Habitat
D. Objective – Eliminate the impacts of fish and wildlife diseases on fish and wildlife populations, livestock, and humans.
Strategies
16. Monitor fish and wildlife populations for disease.
17. Reduce or eliminate high concentrations of wildlife that pose significant disease risk.
GOAL—Fish and Wildlife Recreation
Desired Outcomes
• Recreational opportunities are abundant and well distributed around the state, while conflicts between recreationists are few and far between.
E. Objective – Maintain a diversity of fishing, hunting, and trapping opportunities.
Strategies
18. Provide opportunities specific to the needs of beginners, youth, people with disabilities, and families.
F. Objective – Sustain fish and wildlife recreation on public lands.
Strategies
19. Protect the public's right to use public waters for hunting, fishing, trapping, and wildlife viewing.
20. Obtain public access across private lands to public lands.
21. In partnership with land management agencies, provide information on fish and wildlife recreational opportunities and access on public land.
22. Provide fish- and wildlife-based recreation on lands owned or managed by the Department.
G. Objective – Maintain broad public support for fish and wildlife recreation and management.
Strategies
23. Support mentoring programs for new hunters and anglers.
24. Promote hunting, fishing, and trapping as legitimate uses of fish and wildlife and compatible with the conservation of all wildlife.
H. Objective – Increase opportunities for wildlife viewing and appreciation.
Strategies
25. Provide wildlife viewing opportunities on lands managed or owned by the Department.
26. Assess participation, demand, and satisfaction with wildlife-viewing and appreciation opportunities. Adjust management to achieve objectives.
I. Objective – Increase the variety and distribution of access to private land for fish and wildlife recreation.
Strategies
27. Collaborate with landowners and commercial operators to provide public recreation opportunities on private lands.

The Compass
GOAL—Working With Others
Desired Outcomes
• Fish and wildlife management is based on sound science and is responsive to the needs and expectations of Idaho citizens.
J. Objective – Improve citizen involvement in the decision-making process.
Strategies
28. Ensure that interested and affected parties are notified of opportunities to participate in decisions and that all voices are heard.
29. Provide quality and timely response to input from citizens and include rationale for decisions.
K. Objective – Increase public knowledge and understanding of Idaho's fish and wildlife.
Strategies
30. Provide user-friendly regulations and information.
31. Promote the use of Department facilities for fish and wildlife educational opportunities.
GOAL—Management Support
Desired Outcomes
• Facilities, equipment, and information systems are safe, reliable, and cost effective.
L. Objective – Attract and retain a diverse and professional workforce.
Strategies
32. Recruit and train volunteers to assist Department employees.
M. Objective – Provide equipment and facilities for excellent customer service and management effectiveness.
Strategies
33. Maintain and upgrade facilities and equipment.
34. Provide a safe, pleasant, and well-equipped work environment.
N. Objective – Improve funding to meet legal mandates and public expectations.
Strategies
35. Obtain funding through grants and partnerships that support the Department's mission.
36. Seek efficiencies and cost savings in all programs.

II. HISTORY

CMWMA has been the site of human occupation for thousands of years. Many sites of historic human occupation have been discovered on the CMWMA. All are legally protected.

European settlers arrived and homesteaded the area early in the twentieth century. Most settlers arrived on CMWMA lands during 1905-1920, although miners had searched the area for gold as early as about 1860. Two of the prominent settlement areas included Zaza and Benton Meadows.

The Zaza area was first settled in 1909 when the General Land Office (now the BLM) issued patents to homesteaders under the 1862 Homestead Act. Within 10 years, most of the section encompassing Zaza was in private ownership. Zaza was not actually a town but was rather a collection of farmsteads, named in order to start a post office. The post office was established in 1916, but was disbanded in 1919 with the mail being sent to nearby Waha. A small store and hotel existed at Zaza, and for many years, Zaza was a stagecoach stop on the route between Lewiston and Grangeville. Today, only remnants of log homes stand in Zaza. The main reasons for settling this area were mining, logging, and cattle ranching. Mining failed for the simple reason that there were few mineral deposits worth developing. Logging ceased because there was no market for timber. Only ranching continued in the area.

Historically, Benton Meadows was a location used by Native Americans. Artifacts from the area indicate that human settlements existed there at least 10,000 years ago. Benton Meadows was named for Henry L. Benton, who first acquired 160 acres from the General Land Office in 1908. Later, he added another 160 acres adjoining the first property. More recently, the meadow was used as a cow camp, where ranchers based themselves for summer cattle operations on Craig Mountain.

In 1909, the Craig Mountain Lumber Company opened a saw mill in the area now known as Winchester, Idaho. At that time, this was one of the largest mills in northern Idaho with 270 employees and capable of processing 120,000 board feet/day. The mill was subsequently sold twice, first to the Hallack and Howard Lumber Company in 1950, and Boise-Cascade in 1960, before being closed in 1965.

By the late 1930s, most of the homesteads on Craig Mountain were abandoned. From the 1930s through the 1970s, the “Howard Ranch” was pieced together, parcel by parcel, by Ross and Nelson Howard, during which time the major land uses were livestock grazing accompanied by periodic timber harvest. The Howard Ranch was purchased by PENE Land Co. in 1984. PENE Land Co. (financed primarily by Aetna Life Insurance Co.), acquired the property as an investment in the timber and livestock industries. Under PENE Land Co. management, the area was intensively logged and grazed during the years 1985-1988. PENE Land Co. failed to meet its financial obligations to Aetna. In 1989, Aetna foreclosed on PENE Land Co., retaining ownership of approximately 60,000 acres. Logging ceased but intensive livestock grazing continued under Aetna management. In early 1992, The Conservation Fund, a private non-profit organization, purchased the property from Aetna. After completing a land trade with TNC, The Conservation Fund sold the property to BPA. Upon acquisition, BPA removed livestock grazing

from the entire mitigation unit in order to reduce disturbance and preserve the mitigation potential of the area. Acquisition of the property by BPA brought the CMWMA into public ownership for the first time since prior to the area being homesteaded in the early 1900s.

The Peter T. Johnson Wildlife Mitigation Unit was selected as a site for wildlife mitigation associated with Dworshak Reservoir because it lies in relatively close proximity to the area of habitat losses, most of the state's mitigation responsibilities could be accomplished in one location, and because these lands included a number of diverse wildlife habitats within a relatively small area. It was believed that a change in management emphasis could greatly improve wildlife habitat and the associated wildlife populations on the area. Also, because the northern extent of the CMWMA lies within 10 miles of the city of Lewiston, Idaho's seventh largest population center, the CMWMA has high recreation potential. Bringing the mitigation unit into public ownership assured public recreational use of the area, most of which was unauthorized while in private ownership.

The Billy Creek Unit is comprised of four major acquisitions occurring between 1971 and 1997. The largest of these entailed acquisition of the Burdette Prince Ranch in 1978, which totaled over 11,500 acres. This ranch, along with the other three acquisitions, was also managed primarily for livestock grazing with limited timber harvest while in private ownership. Since the first parcel was acquired in 1971, the Department has managed the area, and each subsequent acquisition, for the benefit of wildlife and public recreation.

Until a few years ago, access to the Billy Creek Unit was limited to crossing the Snake River from the Washington side by boat. In recent years, the Department, in cooperation with the BLM, have acquired public road access through private land in three locations to allow visitors to reach the area by motorized vehicle.

In 1996, the Department combined management of the Billy Creek Unit and Peter T. Johnson Wildlife Mitigation Unit because of the similarity in resources and habitats present and the philosophy the Department wishes to employ in their management.

Managers (past and present)

Bill Rybarczyk (1992-2009)
Regional Wildlife Habitat Manager

Jim White (2000-2009)
Regional Wildlife Habitat Manager
208-799-5010

Justin Barrett (2009 – Present)
Regional Wildlife Habitat Biologist
208-799-5010

III. MANAGEMENT REQUIREMENTS AND AUTHORITIES

Direction from the Commission and Director

The Idaho Fish and Game Commission (Commission) has established and approved general policies for the management of Idaho's wildlife resources in *The Compass*; Idaho Department of Fish and Game Strategic Plan (2005). This plan is designed to:

- Convey the Department's management goals.
- Assists with the development of policies, priorities, and direction.
- Provide direction to Department staff in developing and implementing of fish and wildlife programs.
- Assist others in plan development and project implementation that are compatible with fish and wildlife conservation and management.
- Encourage a cooperative approach in addressing fish and wildlife issues in Idaho.

The Department has a responsibility to manage lands it controls for the benefit of Idaho wildlife and where opportunities exist, to provide for wildlife-associated recreation opportunities. The Department strives to provide excellent public service and healthy sustainable wildlife populations through partnerships and sharing. The Director of the Department has developed a Wildlife Management Area Planning Process. The Director has directed the CMWMA Management Planning Team to follow that process and ensure that all stakeholder issues and concerns are addressed in the plan.

In addition, the Director has requested that all species and habitat planning efforts by the Department be ecosystem-based. Accordingly, this plan will attempt to look at habitat conditions in both the short- and long-term context (at both fine and broad landscape scales) and opportunities to manage and restore habitats through practices designed to reduce short- and long-term risks to species and their habitats on CMWMA lands.

The planning team has utilized broad-scale ecosystem management information, including that collected under provisions of the Interior Columbia Basin Ecosystem Management Project, to help provide management direction for the CMWMA. The Department will continue to use input provided in partnership with other land managers on Craig Mountain such as the IDL, BLM, TNC, and NPT to encourage this landscape approach to land management. Because of its size and elevational ranges, the CMWMA provides a unique laboratory to study and manage wildlife and habitats on an ecosystem basis.

Agreements and Requirements

As a condition of transfer, the State of Idaho and the Department assumed special responsibilities on the Peter T. Johnson Wildlife Mitigation Unit. These responsibilities were defined in the *Mitigation Agreement for Dworshak Dam* (March 1992), *Wildlife Harvest Management Agreement for Dworshak Mitigation Lands* (February 1995), and *Dworshak Wildlife Mitigation Project Finding of No Significant Impact and Record of Decision* (June 1995).

Waters confined behind Dworshak Reservoir inundated lands within both the Reservation and ceded area of the NPT. Additionally, in the late 1980s the NPT obtained fee-title ownership to approximately 23,000 acres of forested land interspersed with the Peter T. Johnson Wildlife Mitigation Unit. Thus, the NPT was a key participant and signatory to agreements and related materials which provide the basis for Department management of the Peter T. Johnson Wildlife Mitigation Unit.

Specifically, the Department has an obligation, as representative of the State of Idaho, to meet the following requirements or objectives in the management of these lands:

1. **To protect, mitigate, and enhance wildlife and wildlife habitat affected by the construction of Dworshak Reservoir.** The State of Idaho has taken on responsibility to mitigate for 60% of the wildlife losses at Dworshak Reservoir. Specifically, the State of Idaho agreed to take lawful action to indemnify and hold harmless BPA for the term of the Wildlife Mitigation Agreement for 60% of any and all claims, adjudication, rules, suits, or actions binding on BPA, whether by State, Tribe, the Northwest Power Planning Council, Federal and State agencies, tribes, fish and wildlife organizations, or any other entity or individual, that BPA has satisfied any and all of its responsibilities that can be performed under the Northwest Power Planning Act of 1980 to protect, mitigate, and enhance wildlife and wildlife habitat in the state affected by the development of Dworshak Dam. The NPT has taken on responsibility for mitigation of the other 40% of the losses.

2. **Management of the Peter T. Johnson Wildlife Mitigation Unit shall be with the advice and guidance of the Dworshak Wildlife Mitigation Advisory Committee.** The Committee shall be made up of representatives of the State of Idaho, the NPT, BPA, the Northwest Power Planning Council, the Pacific Northwest Utility Conference Committee, the USFWS, the USFS, and the U.S. Army Corps of Engineers.

3. **The Department will develop a plan to monitor and evaluate its activities on the Peter T. Johnson Wildlife Mitigation Unit.** Monitoring will document long-term changes in habitat quality and quantity and long-term trends in target wildlife species populations to assure that the mitigation required is accomplished.

4. **To slow undesirable changes in vegetation patterns, avoid further loss or degradation of habitat, increase populations of target wildlife species, and reduce grazing, timber production, and farming on these lands.** These expected results from future management of the Peter T. Johnson Wildlife Mitigation Unit formed the basis of the *Dworshak Wildlife Mitigation Project Finding of No Significant Impact (FONSI) and Record of Decision* (June 1995). The Environmental Assessment and resulting FONSI and Record of Decision were prepared to meet the requirement of the National Environmental Policy Act of 1969. Target species of wildlife specifically identified include elk, white-tailed deer, river otter, pileated woodpecker, yellow warbler, and black-capped chickadee.

5. **To protect water rights for the benefit of wildlife and anadromous fish.**

6. **To avoid adverse impacts to historic and cultural resources on the Peter T. Johnson Wildlife Mitigation Unit.**

7. **To provide public access and use compatible with protection and enhancement of wildlife and wildlife habitat.** The Department and the NPT have agreed that the Peter T. Johnson Wildlife Mitigation Unit and any other wildlife mitigation lands would be open to the same extent for tribal and nontribal members. Public access onto these lands is encouraged, but is not required as a condition of wildlife mitigation. Where public access is allowed, it is not to result in adverse impacts to wildlife populations, reduce wildlife habitat values, result in destruction of other natural resource values, impede goals for habitat enhancement, or reduce anadromous fish habitat. In the event that public access results in adverse impacts to wildlife, including reducing wildlife habitat values, destroying other natural resource values, impeding goals for wildlife enhancement, or reducing anadromous fish habitat, the Department is required to take actions necessary to prevent further adverse impacts, or be subject to conditions identified in Section 11 of the *Wildlife Mitigation Agreement for Dworshak Dam*. The Department retains authority to manage the property for lawful hunting, fishing, and trapping opportunity, public safety, wildlife habitat conservation, and to preserve and protect cultural, historic and religious sites.

8. **For game species of concern, the State of Idaho and the NPT will cooperatively establish population and/or harvest management goals, objectives, and fair share allocations of the harvest.** The State and the NPT currently agree to cooperatively manage elk, moose, and bighorn sheep as whole populations within the Craig Mountain Area.

9. **To establish a $3.019 million operation and maintenance trust in a separate account.** The principle, interest, and other earnings of the trust fund shall only be used for activities or actions to protect, mitigate, and enhance wildlife and wildlife habitat affected by the development of Dworshak Dam. Any revenues generated from the land are to be invested back into the area for the benefit of wildlife and wildlife habitat. The trust generated approximately $90,483 in fiscal year 2013 for annual operation and maintenance activities.

10. **To provide an undergraduate Idaho student internship in the field of forestry, wildlife biology, outdoor recreation, or a related field.** An additional trust has been established with BPA to fund this position, which is to involve summer work for the Department on the Peter T. Johnson Wildlife Mitigation Unit.

Other Requirements Relative to Funding

The majority of the annual operating funding for the CMWMA derives from interest earned on the Dworshak Wildlife Mitigation Trust Fund. General license funds and USFWS Federal Aid

program funds are used when and where appropriate. Each funding source includes some special requirements as noted below.

- The USFWS Federal Aid funds must be used for *restoration, conservation, and enhancement of wild birds and wild mammals, and the provision for public use of and benefits from these resources* (Federal Aid Handbook).

- The Department general license funds must be used to help meet the mission and policies of the Commission as stated in Idaho Code 36-103(b). This code section states: *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.*
- General license funds are used to provide Fee-In-Lieu-of-Tax (FILT) payments (approximately $43,000 in 2013) and fire protection payments (approximately $16,000 in 2013) for Department lands within the CMWMA.

Federal and State Law Requirements

Federal funds, including those derived from the USFWS Federal Aid Program, Land and Water Conservation Fund, and BPA have been used in part to purchase and manage CMWMA lands. As outlined under the Agreements and Requirements section, management of the CMWMA is directly affected by requirements of the 1980 Northwest Power Act and the National Environmental Policy Act of 1969.

Other federal and state laws also affect management of the CMWMA. The Department has responsibility under provisions of the ESA 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 CMWMA lands and waters.

Under the National Historic Preservation Act, the Department must ensure that historic properties are protected on the CMWMA.

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.

Restrictions by Deed

The quit claim deed that transferred the Peter T. Johnson Unit to the Department from BPA states that the *use and maintenance by the Grantee [State of Idaho] of the Property as a reserve for the conservation of wildlife, and the benefits which shall accrue to the Grantor [BPA] from the continued use of such property for such purpose.*. The quit claim deed also states that wildlife restrictions include that *management of the real property ...shall be to protect, mitigate, and enhance wildlife and wildlife habitat affected by the construction and operation of the Dworshak Project.*

The 11,527-acre Prince property on the Billy Creek Unit was purchased under provisions of the Land and Water Conservation Fund (LWCF) program using federal funding. Compliance with this program is under the direction of the Idaho Department of Parks and Recreation. This program mandates that the property meets federal accessibility guidelines, have adequate maintenance, LWCF signing, and that the property be managed for outdoor recreation.

Regulations

The Department has a published set of regulations governing public use of all Department lands and access areas. Regulations address motor vehicle access, fires, fireworks, dog use, and other land use and recreational activities on Department lands. These regulations are available at the Clearwater Regional Office in Lewiston (208-799-5010) or state office in Boise (208-334-2920) and on the Department website:
http://fishandgame.idaho.gov/public/docs/wma/landUseRules.pdf

The Department will comply with other state and federal regulations as they apply.

Other Agreements

The Department entered into a Sikes Act agreement with the BLM in 1985 governing cooperative management of BLM lands within the Billy Creek Unit of the CMWMA. The Department and BLM signed a 10-year non-use grazing lease for the conservation of wildlife and fish resources on all 27,700 acres of BLM lands within the CMWMA in March 1997. In November 1997, the Department secured a miscellaneous lease to benefit wildlife and wildlife habitat on 9,538 acres of land owned and managed by the IDL within the CMWMA. In December 1997, the Department entered into an MOU with the IDL, BLM, and TNC for the cooperative management of the Craig Mountain ecosystem.

IV. PUBLIC INPUT SUMMARY

Throughout 2012, public input was solicited, through a variety of means, to assess public use and opinion of management direction for CMWMA. An online survey provided an opportunity for the public to comment on statewide management of WMAs and provide comments on specific WMAs. Another survey was developed for management issues associated with Craig Mountain. Multiple meetings were conducted throughout the Clearwater Region with recreational groups and community natural resource committees. Outreach efforts were conducted through email, newspaper, and radio to inform the public of the opportunity to provide comment and to invite them to meetings. A kiosk was set up in the foyer of the Clearwater Regional Office with an information poster and surveys. Surveys were mailed to 1,188 members of the general public who were successful in drawing Unit 11 elk and mule deer tags during the years of 2009-2011. Outreach efforts were conducted through email, newspaper, and radio to inform the public of the opportunity to provide comment and to invite them to meetings.

Craig Mountain-specific surveys requested the reader to rate their opinion (0-10 scale) of various management directions for Craig Mountain. The results were grouped into people showing high support (rated 7, 8, 9, or 10), moderate support (5, 6, or 7), and low support (0, 1, 2 or 3). In addition, with each group of management directions, an area was provided for comments. Statewide surveys requested a similar rating of various objectives associated with their experiences with and management of WMAs in general. From these efforts, 326 Craig Mountain-specific surveys were submitted, 69 statewide surveys were completed that identified Craig Mountain as a primary destination and 1,034 comments were provided by the public. The following pages provide a summary of the results from input provided by the public for each of these management issues.

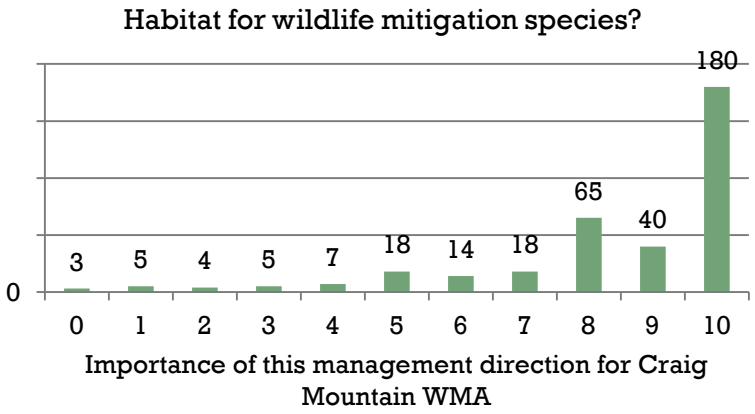
A public comment period was also open during the spring of 2014 for review and opinion of the draft 2014 CMWMA management plan. An online survey was available to assess input. For the CMWMA plan, X emails were sent to members of the public who had provided contact information, the draft plan was made available on the Department website, a kiosk was presented in the foyer of the Clearwater Regional Office, and a request for review was made to cooperating state and federal agencies. We received 49 surveys from public individuals and 1 review from a cooperating agency (BLM). Overall, 80% of the people surveyed agreed and 4% disagreed with the management plan as it was written. In addition, 84% of people surveyed agreed and 4% disagreed with the management priorities selected for the CMWMA. Many helpful comments were provided from both the public and staff from the BLM. Every attempt was made to incorporate suggestions and edits where they were found to be compatible with the management direction for the CMWMA.

Wildlife Management

The Department is responsible for managing all wildlife on Craig Mountain, including game and nongame species. The Department, Bonneville Power Administration, and the NPT identified six target species to specifically address the wildlife losses associated with the inundation of Dworshak Reservoir. These wildlife mitigation species are: black-capped chickadee, yellow warbler, pileated woodpecker, river otter, white-tailed deer, and Rocky Mountain elk.

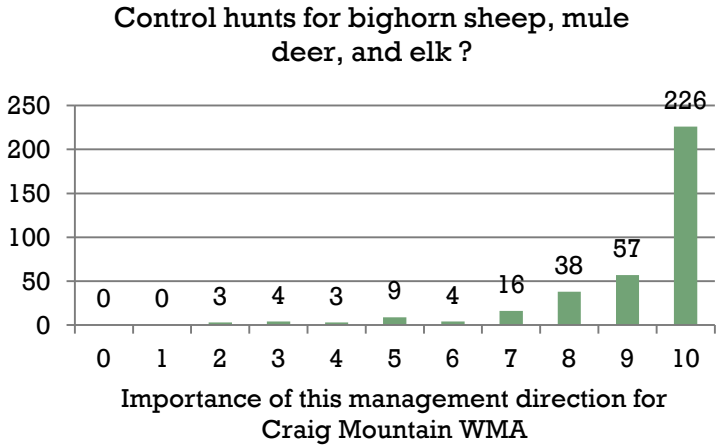
Direction: Provide, protect, restore, and monitor habitat for the wildlife mitigation species.

Number of respondents	359
Average rating	8.42
Percent rated low (0-3)	4.74%
Percent rated medium (4-6)	10.86%
Percent rated high (7-10)	84.40%



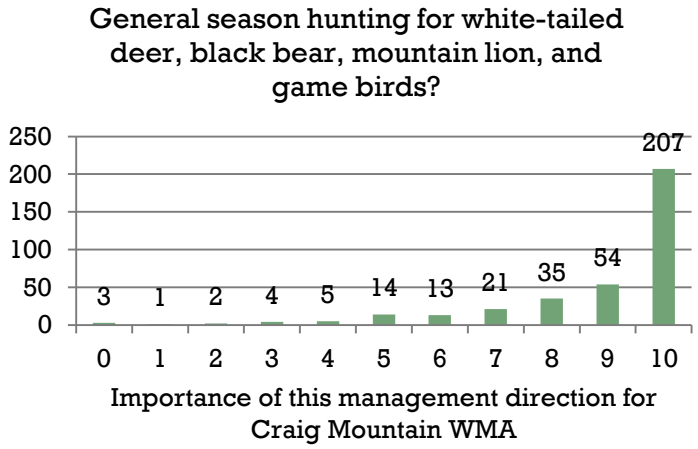
Direction: Manage the population size, age structure, and hunt quality of bighorn sheep, mule deer, and elk through control hunts.

Number of respondents	360
Average rating	9.10
Percent rated low (0-3)	1.94%
Percent rated medium (4-6)	4.44%
Percent rated high (7-10)	93.61%



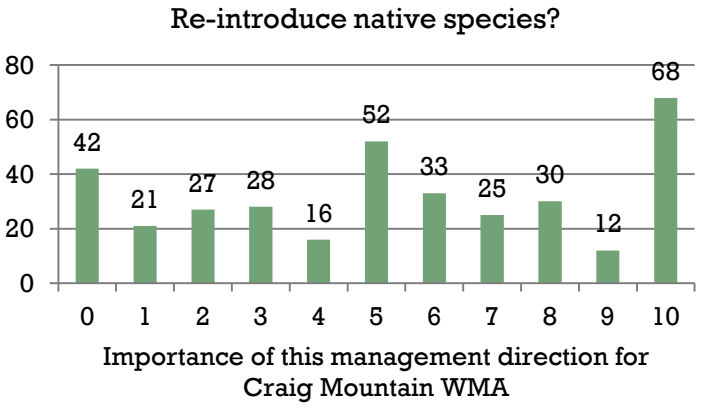
Direction: Provide general season hunting opportunities for white-tailed deer, black bear, mountain lion, and game birds.

Number of respondents	359
Average rating	8.82
Percent rated low (0-3)	2.79%
Percent rated medium (4-6)	8.91%
Percent rated high (7-10)	88.30%



Direction: Re-introduce species such as pine marten and beaver that are native to the area but are no longer present.

Number of respondents	354
Average rating	5.22
Percent rated low (0-3)	33.33%
Percent rated medium (4-6)	28.53%
Percent rated high (7-10)	38.14%

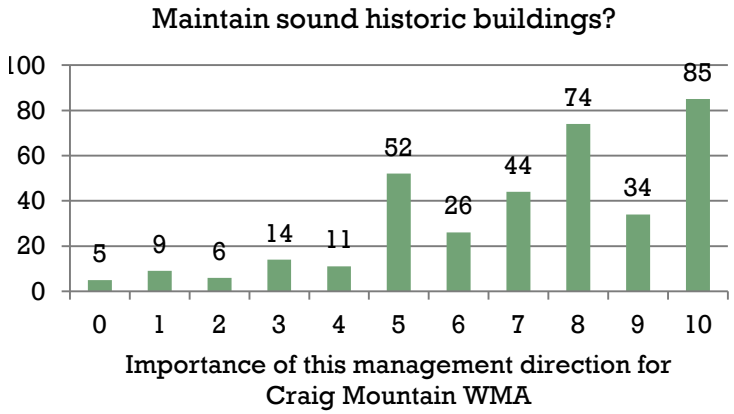


Lands Management

With over 12,000 years of documented human use, the Craig Mountain area has a very rich cultural history. In addition, the area has a diverse range of land ownership including private, non-profit, tribal, state, and federal lands. Department lands on Craig Mountain are managed with respect towards the value of this cultural history and current land ownership.

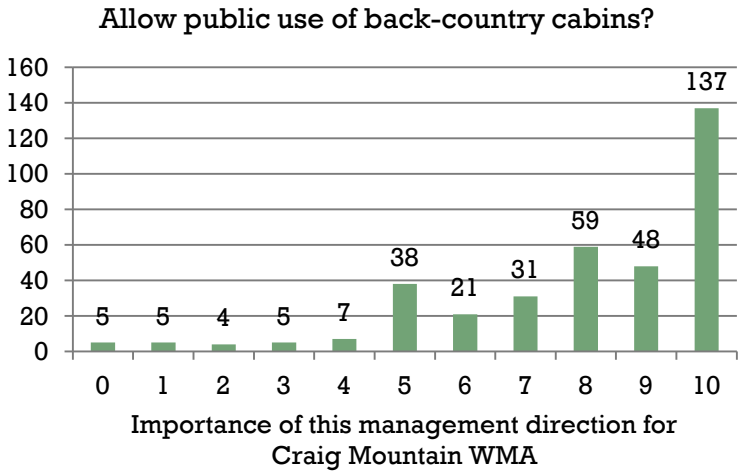
Direction: Continue to maintain sound historic buildings.

Number of respondents	360
Average rating	7.16
Percent rated low (0-3)	9.44%
Percent rated medium (4-6)	24.72%
Percent rated high (7-10)	65.83%



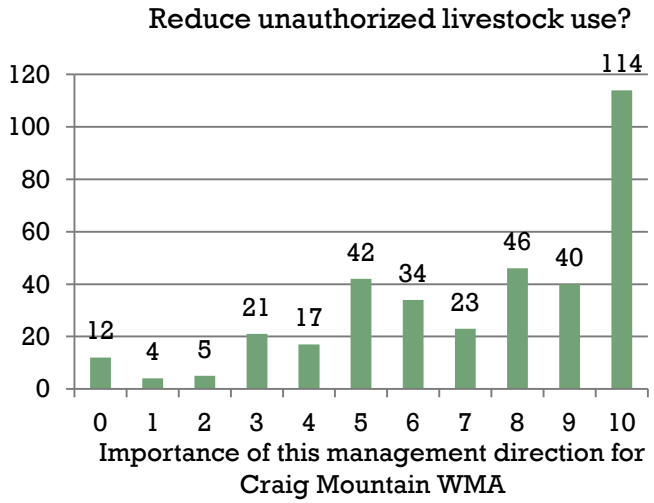
Direction: Continue to allow public use of back-country cabins.

Number of respondents	360
Average rating	7.95
Percent rated low (0-3)	5.28%
Percent rated medium (4-6)	18.33%
Percent rated high (7-10)	76.39%



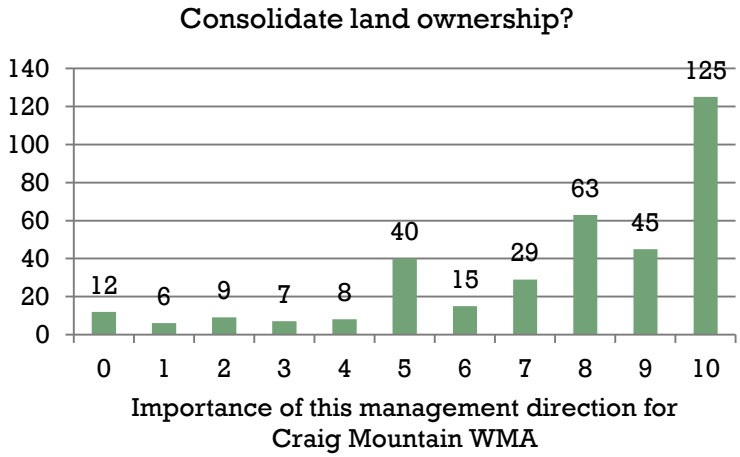
Direction: Seek ways to reduce or eliminate potential for unauthorized livestock use by maintaining perimeter and border fences.

Number of respondents	358
Average rating	7.23
Percent rated low (0-3)	11.73%
Percent rated medium (4-6)	25.98%
Percent rated high (7-10)	62.29%



Direction: Work towards consolidating land-ownership or land use practices through leases, agreements, purchases, donations, land-trades, or other means to minimize public confusion and inadvertent trespass and to enhance benefits provided for wildlife.

Number of respondents	359
Average rating	7.60
Percent rated low (0-3)	9.47%
Percent rated medium (4-6)	17.55%
Percent rated high (7-10)	72.98%

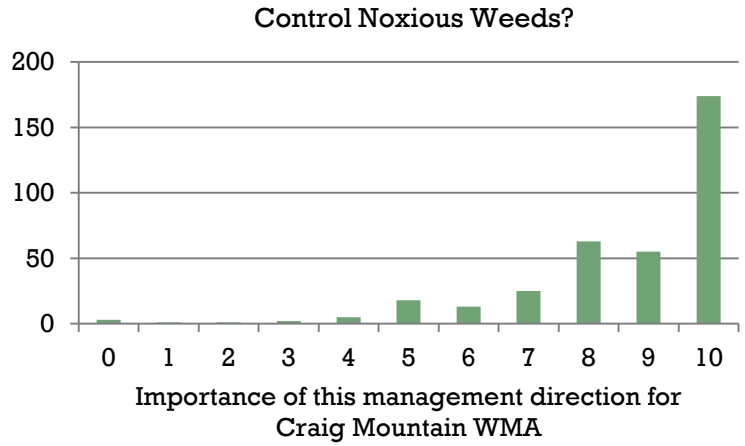


Vegetation Management

Habitats on Craig Mountain include canyon grasslands, shrublands, riparian, high elevation meadows and nearly 30,000 acres of conifer forests. Craig Mountain has at least 13 rare plant species of which three have been classified by the USFWS as Candidates for listing under the Endangered Species Act. There are 24 different species of Idaho State noxious weeds on Craig Mountain. In addition, past logging practices and fire suppression efforts have derailed the natural forest succession. This has resulted in a greater risk of catastrophic wildfires and compromised forest health.

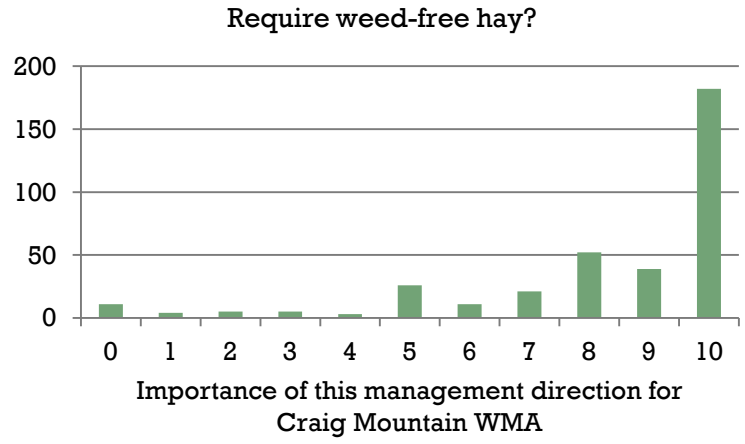
Direction: Control *noxious weeds* through chemical, mechanical, cultural, and bio-control techniques.

Number of respondents	360
Average rating	8.64
Percent rated low (0-3)	1.94%
Percent rated medium (4-6)	10.00%
Percent rated high (7-10)	88.06%



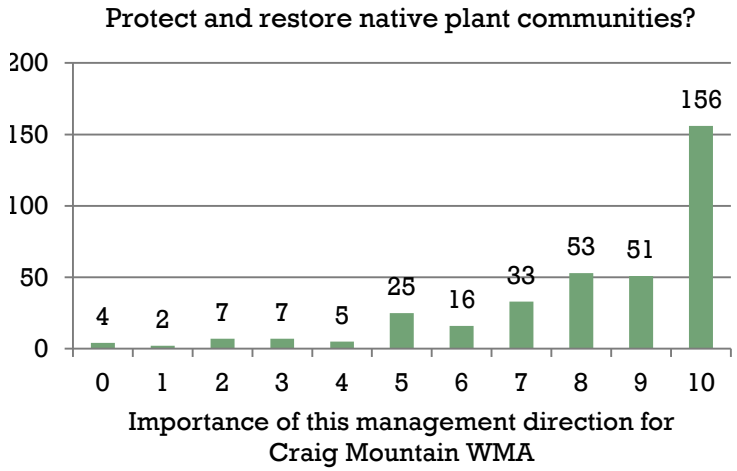
Direction: Require the use of *weed-free hay* or pellets as livestock feed.

Number of respondents	359
Average rating	8.82
Percent rated low (0-3)	6.96%
Percent rated medium (4-6)	11.14%
Percent rated high (7-10)	81.89%



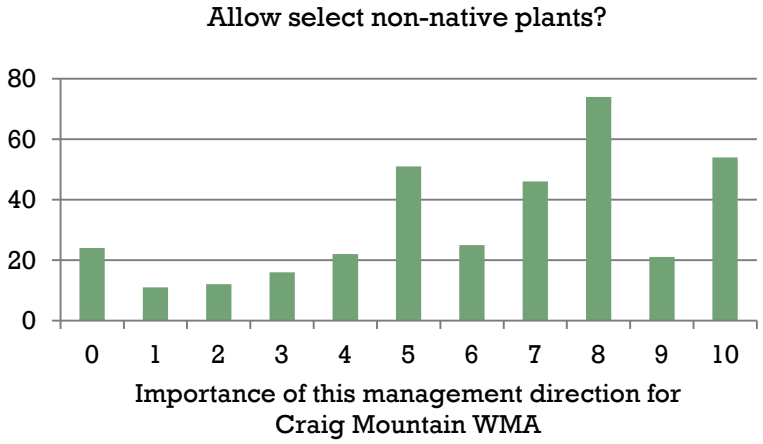
Direction: Strive to protect and restore native grassland, riparian, and forest communities.

Number of respondents	359
Average rating	8.22
Percent rated low (0-3)	5.57%
Percent rated medium (4-6)	12.81%
Percent rated high (7-10)	81.62%



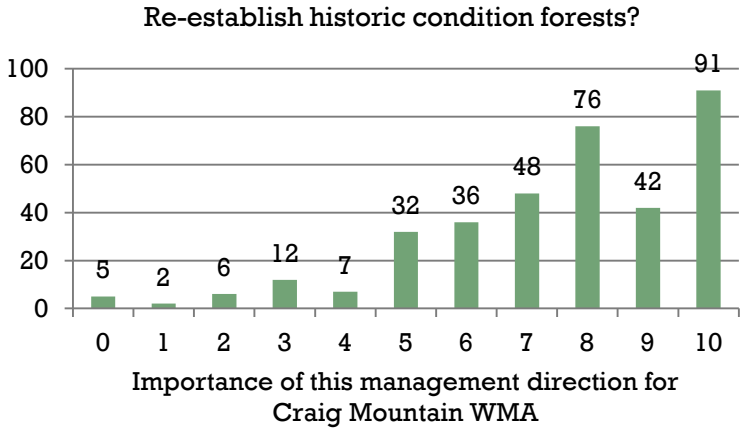
Direction: Allow the establishment of select *non-native species* for ground cover, wildlife food, and other purposes.

Number of respondents	6.23
Average rating	6.23
Percent rated low (0-3)	17.70%
Percent rated medium (4-6)	27.53%
Percent rated high (7-10)	54.78%



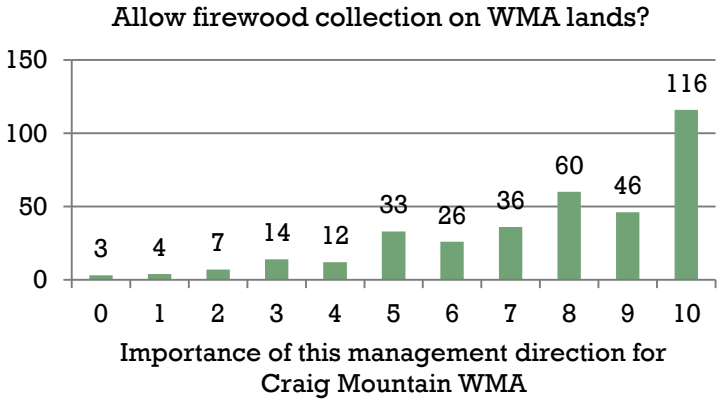
Direction: Re-establish historic-condition Ponderosa Pine/Western Larch forests that can be maintained by prescribed or natural fire.

Number of respondents	357
Average rating	7.52
Percent rated low (0-3)	7.00%
Percent rated medium (4-6)	21.01%
Percent rated high (7-10)	71.99%



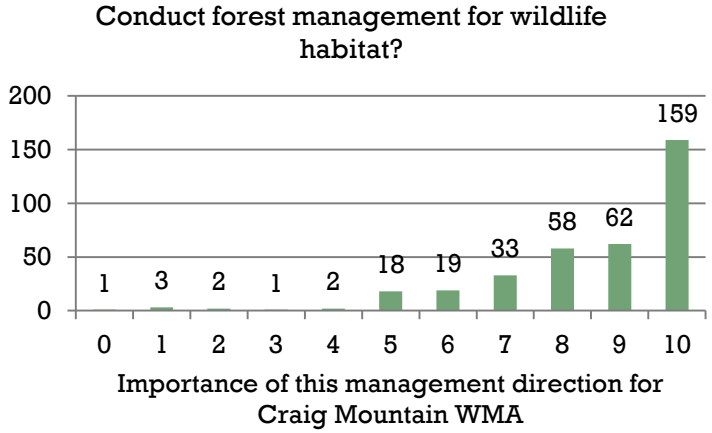
Direction: Provide for cutting of firewood for personal use by permit where and when appropriate.

Number of respondents	357
Average rating	7.66
Percent rated low (0-3)	7.84%
Percent rated medium (4-6)	19.89%
Percent rated high (7-10)	72.27%



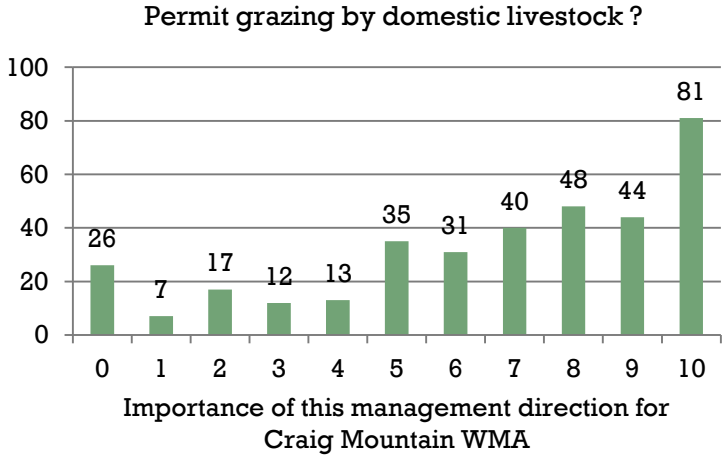
Direction: Conduct forestry activities to improve wildlife habitat, forest health, and to reduce wildfire risks.

Number of respondents	358
Average rating	8.56
Percent rated low (0-3)	1.96%
Percent rated medium (4-6)	10.89%
Percent rated high (7-10)	87.15%



Direction: Permit grazing on Department lands by domestic livestock only for purposes of improving wildlife habitat.

Number of respondents	354
Average rating	6.67
Percent rated low (0-3)	17.51%
Percent rated medium (4-6)	22.32%
Percent rated high (7-10)	60.17%

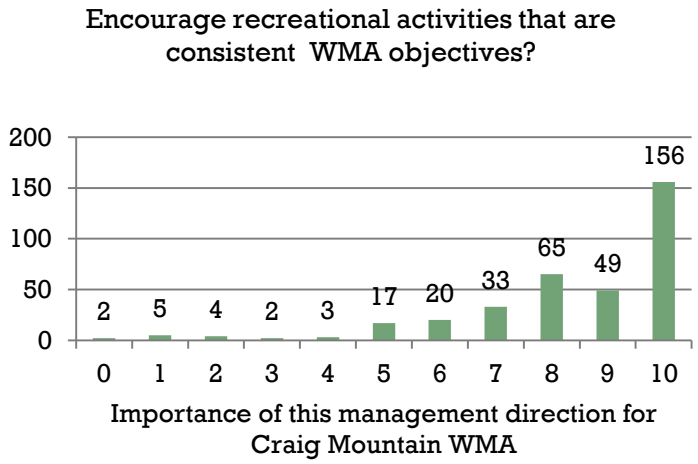


Recreation

Craig Mountain is located approximately 15 miles south of Lewiston, Idaho and is flanked by the Snake and Salmon rivers. In addition to being a popular destination for hunters and anglers, this area is frequently used for many outdoor activities including camping, picnicking, sight-seeing, photography, berry and mushroom picking, hiking, mountain biking, horseback riding, ATV riding, and snowmobile riding.

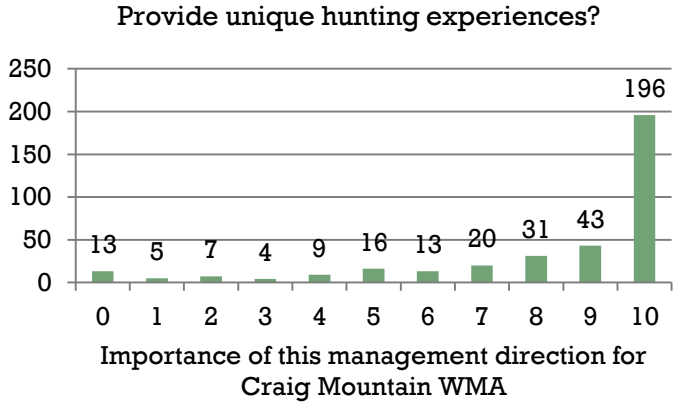
Direction: Encourage recreational activities that are consistent with wildlife mitigation and wildlife management objectives.

Number of respondents	356
Average rating	8.39
Percent rated low (0-3)	3.65%
Percent rated medium (4-6)	11.24%
Percent rated high (7-10)	85.11%



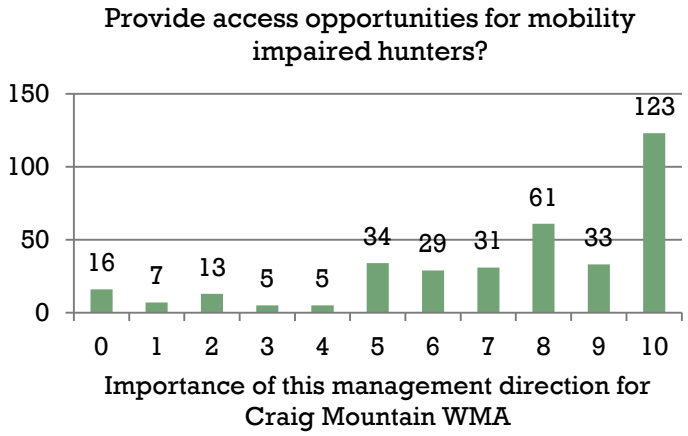
Direction: Promote hunting experiences that are unique such as non-motorized access and high-quality control hunts.

Number of respondents	357
Average rating	8.29
Percent rated low (0-3)	8.12%
Percent rated medium (4-6)	10.64%
Percent rated high (7-10)	81.23%



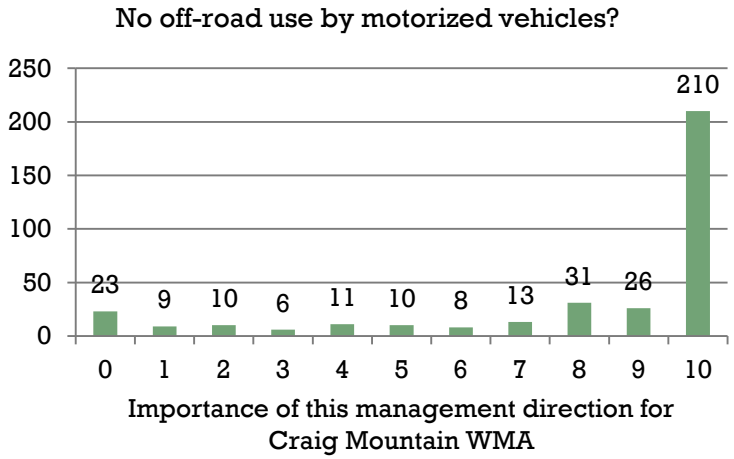
Direction: Provide hunting access opportunities for mobility impaired hunters.

Number of respondents	357
Average rating	7.40
Percent rated low (0-3)	11.48%
Percent rated medium (4-6)	19.05%
Percent rated high (7-10)	69.47%



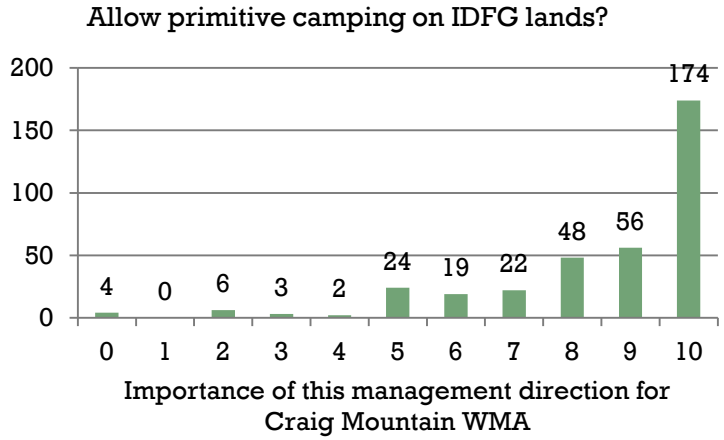
Direction: Continue the existing policy allowing no off-road use by motorized vehicles.

Number of respondents	357
Average rating	8.01
Percent rated low (0-3)	13.45%
Percent rated medium (4-6)	8.12%
Percent rated high (7-10)	78.43%



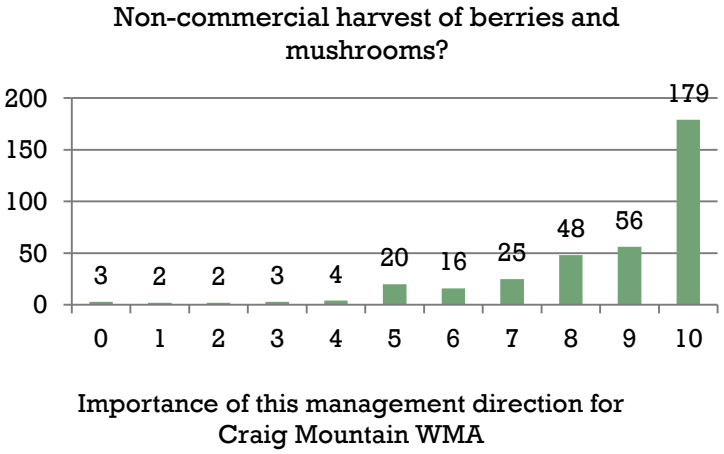
Direction: Allow primitive camping on Department lands.

Number of respondents	358
Average rating	8.51
Percent rated low (0-3)	3.63%
Percent rated medium (4-6)	12.57%
Percent rated high (7-10)	83.80%



Direction: Allow the collection of desirable plants and plant parts (i.e. berries, mushrooms etc.) for personal use only.

Number of respondents	358
Average rating	8.60
Percent rated low (0-3)	2.79%
Percent rated medium (4-6)	11.17%
Percent rated high (7-10)	86.03%

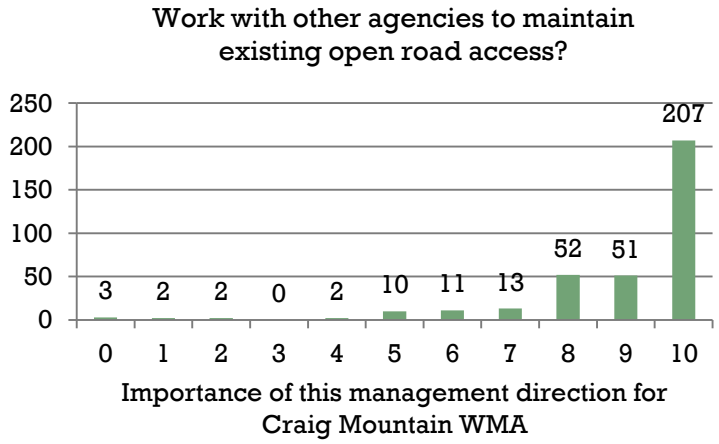


Public Access Management

Approximately 75 miles of primary and secondary roads are currently open to year-round motorized use on CMWMA. An estimated 93 miles of additional secondary roads are closed to year-round motorized use. A total of 77 access points are gated, bermed, and/or signed on CMWMA. Increased access is provided for snowmobilers during the winter months when the potential disturbance to habitat and wildlife is low.

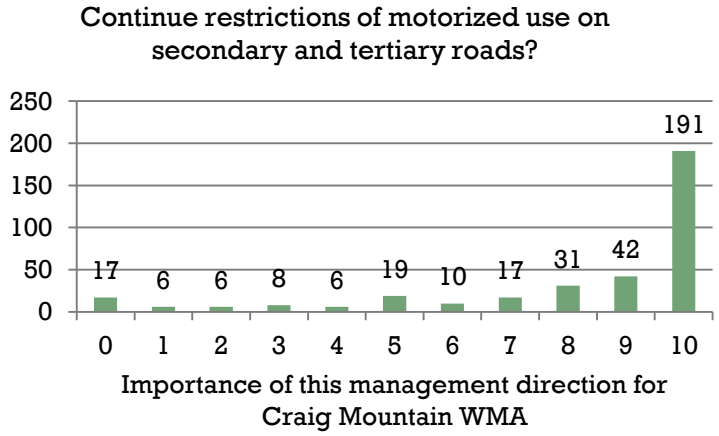
Direction: Work with county and federal agencies to ensure that county roads on CMWMA as well as Eagle Creek, Madden Corrals, and Wapshilla Ridge roads are kept open for access.

Number of respondents	353
Average rating	8.96
Percent rated low (0-3)	1.98%
Percent rated medium (4-6)	6.52%
Percent rated high (7-10)	91.50%



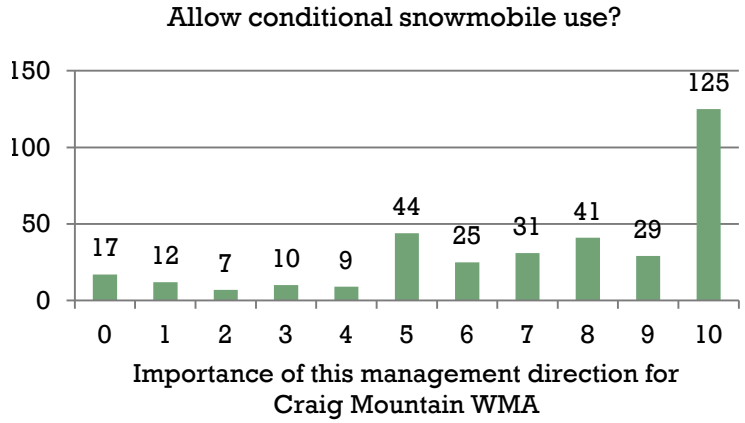
Direction: Continue restrictions on motorized use of secondary and tertiary roads during the non-snow months in order to maximize wildlife security and attain wildlife and habitat management objectives.

Number of respondents	353
Average rating	8.14
Percent rated low (0-3)	10.48%
Percent rated medium (4-6)	9.92%
Percent rated high (7-10)	79.60%



Direction: Continue to permit over-snow use by snowmobiles when the risk of disturbance to habitat and wintering wildlife is negligible.

Number of respondents	350
Average rating	7.19
Percent rated low (0-3)	13.14%
Percent rated medium (4-6)	22.29%
Percent rated high (7-10)	64.57%

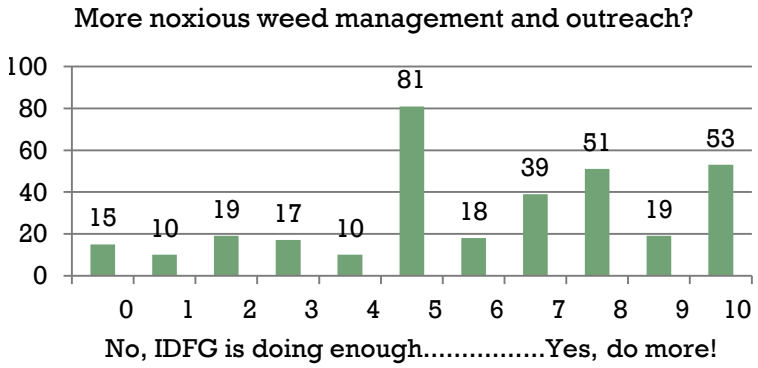


Noxious Weeds

Idaho Department of Fish and Game is currently required to control Idaho State recognized noxious weeds on Department lands. In addition to the control efforts (chemical, mechanical, and bio-control) we require that only weed-free hay/straw be allowed on the Wildlife Management Areas. Are we doing enough?

Should we be conducting more outreach, providing a greater awareness of the problems associated with noxious weeds?

Number of respondents	332
Average rating	6.13
Percent rated low (0-3)	18.37%
Percent rated medium (4-6)	32.83%
Percent rated high (7-10)	48.80%

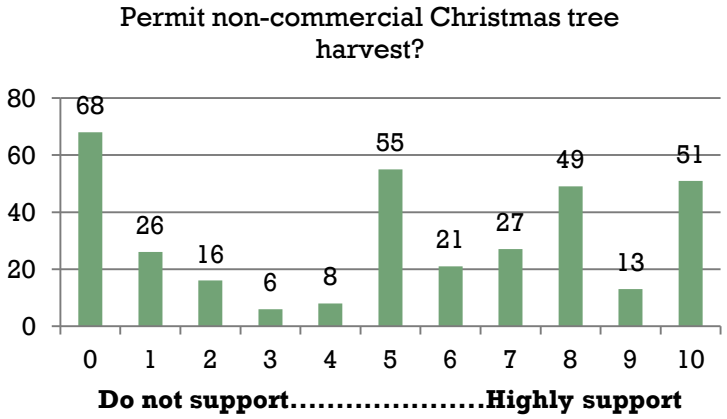


Christmas Trees

On Department lands, it is currently not allowed for anyone to harvest a Christmas tree.

Should the Department adjust the rules to allow the collection of Christmas trees for personal use only through a permit system?

Number of respondents	340
Average rating	5.05
Percent rated low (0-3)	34.12%
Percent rated medium (4-6)	24.71%
Percent rated high (7-10)	41.18%

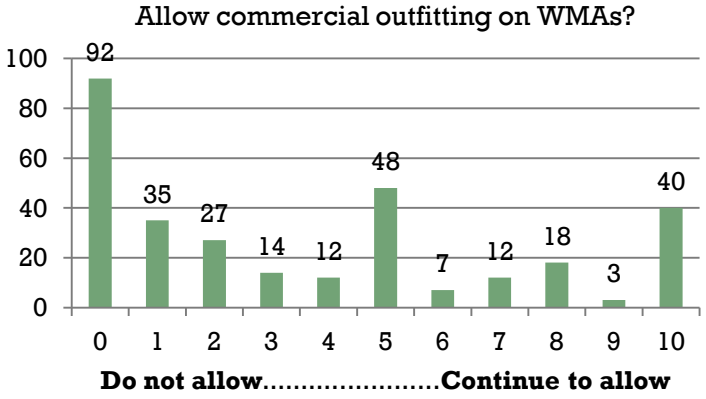


Commercial Use

Across the 32 WMAs in Idaho, commercial outfitting is allowed on only two (Craig Mountain and Snow Peak).

Should the Department continue to allow commercial outfitting on WMAs?

Number of respondents	308
Average rating	3.61
Percent rated low (0-3)	54.55%
Percent rated medium (4-6)	21.75%
Percent rated high (7-10)	23.70%

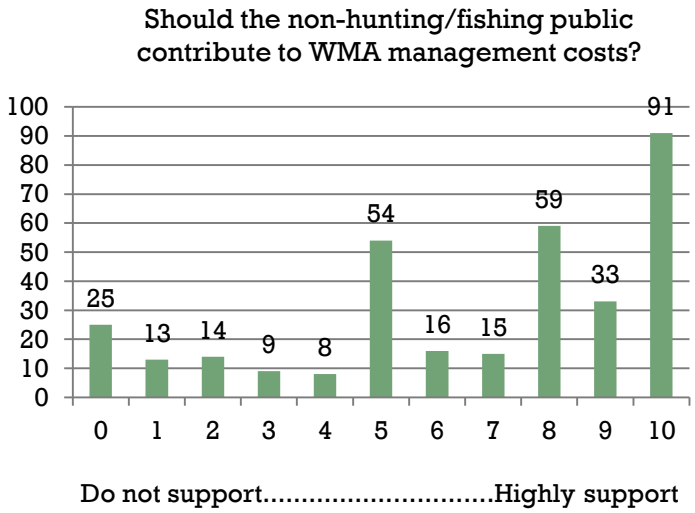


Non-consumptive activities

The WMAs across the state are appreciated by many different people and for many different reasons. However, the majority of funding for managing the WMAs in Idaho comes from sportsmen.

Should the Department provide additional opportunities for the non-hunting/fishing public to also contribute to the management costs of Department lands?

Number of respondents	337
Average rating	6.68
Percent rated low (0-3)	18.10%
Percent rated medium (4-6)	23.15%
Percent rated high (7-10)	58.75%



V. 1998-2013 ACCOMPLISHMENTS

Since the CMWMA plan was revised in 1998, the following accomplishments have occurred.

Emphasis Area: Vegetation management (including timber, noxious weeds, and efforts directed at riparian vegetation.

Objective: Strive to replace annual grasslands with native perennial grassland communities.

Accomplishment:

- Annual grasses such as cheatgrass, medusahead, and ventenata can be found throughout vast areas of the lower and mid elevations of CMWMA. A primary goal of the CMWMA habitat management has been to restore, enhance, and protect native perennial grasslands using a combination of prescribed burning, herbicides, and mechanical seeding. In 2000, approximately 1,400 acres that were largely infested with noxious weeds were chemically and mechanically restored to a mostly native, perennial grassland habitat.

Objective: Use biological/chemical/ and mechanical control methods to limit, reduce, or eliminate noxious weeds.

Accomplishment:

- The Department is an active member of the Tri-State Cooperative Weed Management Area. Every year, the Department cooperates with the BLM, IDL, NPT, and the ISDA to implement a noxious weed control program on CMWMA. All possible control techniques are used including cultural, mechanical, biological, and chemical. Between 1998-2013, the Department has conducted chemical and mechanical control efforts on nearly 15,000 acres of noxious weeds such as whitetop, Canada thistle, Scotch thistle, yellow starthistle, knapweeds, common crupina, rush skeletonweed, field bindweed, puncturevine, perennial pepperweed, houndstongue, dalmation toadflax, poison hemlock and orange hawkweed. As of 2013, the Department has established biological control agents in starthistle stands throughout the WMA. The Department is also actively using biological control to help combat spotted knapweed in the South Fork of Captain John and China Creek and dalmation toadflax along the Snake River.

Objective: Encourage/require use of weed-free hay or pellets as livestock feed.

Accomplishment:

- A mandatory weed-free hay/pellet program has been implemented for Department lands on CMWMA. Every year, Craig Mountain staff replaces signs announcing the program. Habitat and enforcement staff routinely inspect livestock feed at hunting camps to explain the program and to encourage compliance.

Objective: Undertake timber harvest only to meet specified wildlife goals, including but not limited to establishment of desirable understory plant species, production of desirable stand conditions and enhanced wildfire protection where private land abuts the CMWMA.

Accomplishment:

- Since 1998, the Department has completed two timber sales, six salvage sales, and 40 direct sales removing 12,428 mbf of volume. Total revenue received from timber harvest during this period is $1.44 million which has been invested into the Dworshak Mitigation Trust Fund. Expenses directly associated with timber sales have totaled $218,493. Timber sales on Department property are employed to improve forest health, forest composition, wildlife habitat, and to create wildfire fire break abutting private property. Commercial forest projects on Department lands are set-up and administered by IDL under the direction of the Department.

Objective: Any revenues generated through manipulation of vegetation or other activities on the CMWMA will be used only for purposes of managing the WMA.

Accomplishment:

- Revenue has been generated on CMWMA lands through timber sales, removal/recycling of metal material, firewood sales, grazing leases, sale of maps, and the use of Benton Meadows gravel pit. All revenue generated ($1.44 million from 1998-2013) has been reinvested in the Dworshak Mitigation Trust Fund.

Objective: Seek to reestablish mid to late seral ponderosa pine forests maintained by prescribed fire regimes on some portions of the area.

Accomplishment:

- One of the primary goals of conducting silvicultural management on Department lands within CMWMA is to reestablish mature ponderosa pine/larch stands. To date, two timber sales, six salvage sales, and 40 direct sales have been conducted across 4,808 Department acres on the WMA. Tree planting has occurred in areas where wildfire and/or harvest projects have heavily impacted the over-story species. Since 2009, nearly 75,000 trees have been planted following timber sales, wildfires, or in strategic locations across the WMA, benefitting nearly 400 acres.

Objective: Provide for cutting of firewood for personal use by permit where and when it meets wildlife/forestry objectives.

Accomplishment:

- Firewood harvest opportunities have been made available to the general public when these activities improve wildlife habitat without compromising other WMA management

objectives. To date, eight firewood sales have been conducted on CMWMA to improve wildlife habitat and to provide firewood collection opportunities for the public. Proceeds from these sales have generated $3,655 in revenue which has been invested into the Dworshak Mitigation Trust Fund.

Objective: Remove internal fencing within the CMWMA as appropriate.

Accomplishment:

- Since 1993, Department staff and volunteer groups have removed anywhere from ½ to five miles of old and dilapidated internal barbed wire fences per year, removing the inherent risks to wildlife, particularly big game, and recreationists. All metal posts and wire were recycled and revenue reinvested in the Dworshak Mitigation Trust Fund. Many miles of fencing still exist on CMWMA that is no longer needed.

Additional vegetation management accomplishments:

- Fire-fighting equipment was purchased and is stored at the Benton Meadow administrative site during the fire season for staff to assist in fire control and suppression when necessary.
- Craig Mountain staff maintains regular training towards forest health, wildland fire, and the use of herbicides for noxious weed control.
- The Department makes annual payments for fire protection services on lands across the state. For the Craig Mountain area, these payments are made to IDL. In 2013, this payment was approximately $16,000 for fire protection services on CMWMA.
- Two wildfires on the WMA, the Maloney Creek Fire of 2000 (74,500 acres) and the Chimney Complex Fire of 2007 (51,000 acres) substantially modified grassland, shrubland, and forested habitats on CMWMA. In addition to assisting with suppression effort logistics for these fires, the Department worked cooperatively with IDL, BLM, and USFS toward habitat and infrastructure rehabilitation.
- In 2005, the Department, IDL, and BLM conducted a 1,600 acres prescribed burn in the Madden Creek drainage to help create a firebreak and enhance the health of the grassland and forested habitats.

Emphasis Area: Wildlife (including rare species).

Objective: Provide and monitor habitat for wildlife mitigation indicator species.

Accomplishment:

- Bird surveys have been conducted in 1993/1994, 1997, 2002, and 2013 with a particular emphasis towards long-term monitoring of avian mitigation target species. An assessment of these surveys and of changes to the composition and abundance of bird species on CMWMA is currently being conducted (Swearingen 2013). Big game surveys have been conducted in 1991, 1992, 1994, 1996, 2002, 2009, and 2013 with a primary focus of

assessing elk populations in Unit 11, which includes the CMWMA. Since the acquisition of the Peter T. Johnson Unit of CMWMA, there have been two major wildfires; grazing of domestic livestock was retired from the majority of the WMA; and habitat improvement projects, primarily through logging, have been conducted on Department, BLM, and IDL properties.

Objective: Strive to maintain game animal population levels dictated by 1) consideration of the carrying capacity of suitable habitat, 2) compatibility with wildlife mitigation objectives, and 3) demand for recreational opportunities.

Accomplishment:

- Game species on CMWMA whose populations are in high abundance or are resilient to current levels of hunting pressure are managed through general hunts to provide maximum allowable recreational opportunity. These species include game birds, black bear, mountain lion, turkeys, cottontail rabbits, mourning doves and white-tailed deer. Mule deer populations in Unit 11 have fluctuated between 1,300-3,500 since the early 1990s. Populations of mule deer, elk, and bighorn sheep are managed through controlled hunts. Objectives with these controlled hunts include maintaining healthy populations and high quality hunting opportunities. In 2013, an estimated 3,477 mule deer were in Unit 11, the highest number of mule deer since surveys began in 1991. The Unit 11 elk population was estimated at 450 individuals in 1991. After acquiring the Peter T. Johnson Unit in 1993, a goal was set to double the elk numbers for this unit. The 2013 survey estimated the elk population to now be at 1,410 individuals. Concerns regarding the carrying capacity of elk in Unit 11 have been raised, efforts to reduce the herd size for Unit 11 have been enacted, and a closer examination of the health and demography of this population has been initiated. Bighorn sheep in Unit 11 persist with low levels of recruitment due to lamb mortality. Population estimates for the Redbird herd are approximately 110 individuals and one to two tags are available to hunters each year as an auction or lottery tag.

Objective: Reintroduce native but extirpated or rare wildlife species, including pine marten, beaver, and Shiras moose.

Accomplishment:

- A viability assessment of the Craig Mountain area estimated the existing habitat is insufficient for long-term persistence of pine marten. Plans for reintroduction of this species have been stopped until funding for additional habitat evaluations can be procured. A limiting factor for beaver reintroduction has been available/appropriate food sources. Potentially a combination of past grazing practices and natural cold pockets has limited the establishment of deciduous shrubs within riparian zones. In 2012, volunteers assisted the Department in harvesting and transplanting willow saplings into fenced exclosures within Larabee Meadows. Unfortunately, a hot and dry summer resulted in little to no success within nine months. Projects aimed to establish a sustainable food

source for beaver will continue. A harvest management agreement signed by the Department and the NPT in 1995 created a moratorium on moose harvest within the Craig Mountain area to allow for a population to develop. However, moose harvest by tribal members continues on CMWMA and the development of a viable population is still limited. In 2005 and 2006, mountain quail were released on CMWMA as part of a larger graduate study examining the effectiveness of such a translocation project on bolstering a mountain quail population (Stephenson 2008). Birds released in the Craig Mountain area exhibited a high mortality rate and avian predators were predicted as the primary cause. Mountain quail are occasionally found on Craig Mountain in higher elevation habitats with mixed conifer and deciduous habitat components.

Additional wildlife-related accomplishments:

- Since 1998, 12 wildlife guzzlers have been installed to provide a sustained water source for wildlife.

Emphasis Area: Wildlife-associated recreation (including hunting, fishing, and trapping).

Objective: Encourage wildlife-associated recreational activities consistent with wildlife mitigation and wildlife management objectives.

Accomplishment:

- Recreational use occurs year-round on the CMWMA. Hunting, hiking, mountain biking, cross-country skiing, snowshoeing, sledding, riding snowmobiles and ATVs, trapping, horseback trips, ground squirrel hunting, nature viewing, photography, camping, and mushroom and berry picking are among the many activities that occur on Craig Mountain. Many are non-consumptive. Game species are plentiful on CMWMA and provide opportunities to harvest elk, mule deer, white-tailed deer, bighorn sheep, black bear, mountain lion, furbearing species, wild turkey, ruffed grouse, dusky grouse, pheasant, gray and chukar partridge, California quail, cottontail rabbits, and mourning doves as well as many different fish species in reservoirs, lakes, creeks, and rivers. Trappers must register with the WMA prior to setting traps. All these activities are allowed and encouraged as long as they don't conflict with habitat, wildlife, or land management objectives.

Objective: Maintain controlled hunts for mule deer and elk and general hunts for black bear, mountain lion, white-tailed deer, and game birds.

Accomplishment:

- General hunts have been continued for all the huntable species except for mule deer, elk and bighorn sheep in Unit 11. Controlled hunts still closely regulate hunter numbers and harvest for these species for Unit 11; in 2013, 109 mule deer tags were offered across two different hunts, 80 bull elk tags were offered within one hunt, and 525 cow elk tags were

offered across three different hunts. Sheep permit numbers are very restricted and harvested sheep must be presented to the Department for pinning. Two Unit 11 sheep tags, an auction tag and a lottery tag, were available in 2013.

Objective: Provide hunting opportunities for persons with disabilities with managed access.

Accomplishment:

- Three motorized access routes have been created under a permit system for mobility-impaired hunters. A registration and key check-out system has been established at the Clearwater Regional Office. The three routes currently provide opportunities for hunting most of the huntable species available on the WMA. Hunters wishing these routes must have proof of disability. These routes will continue to be evaluated to best balance interests of the public and the management objectives associated with CMWMA. In 2013, 42 hunters used the mobility-impaired access routes on CMWMA.

Objective: Provide map showing ownership and major topographic features for purchase by the public.

Accomplishment:

- Maps of the WMA have been created, printed, and provided to the public for a small fee. As of 2013, these maps have been updated three times to reflect changes in ownership. Presently, these maps sell for $5.00 and revenue generated is deposited in the Dworshak Mitigation Trust Fund.

Additional wildlife-associated recreation accomplishments:

- Starting in 2009, a collaborative effort was initiated among the Department, BLM, IDL, and a hunting outfitter on CMWMA to clarify the permitted boundary, activities, species, tag numbers, and season dates for commercial outfitting on Department lands.

Emphasis Area: Livestock management.

Objective: Authorize grazing by domestic livestock only for purposes of improving wildlife habitat.

Accomplishments:

- Grazing on Department lands is permitted on two leases. The Cooperative Range Management Program (CRMP) lease permits grazing across 7,970 acres of highly fragmented ownership on the eastern edge of the WMA of which 1,360 are Department acres. The Department cooperates with IDL and NPT in managing the CRMP in hopes of reducing negative impacts to Department lands. Within the CRMP, 365 calf/cow pairs are permitted. Of these, 85 calf/cow pairs are on the Department lease with the remainder

being on the IDL or NPT leases. The CRMP is grazed at four acres per animal unit month (AUM).

- The Larabee Meadows lease was managed in conjunction with an adjacent NPT pasture (Tribal T) from 2008-2013. The objectives for grazing on Department lands were to reduce lodgepole pine encroachment into the meadow habitats. This lease permitted grazing of 50 cow/calf pairs on 920 Department acres and was grazed at nine acres per AUM. This pasture was rested in 2014 and the accomplishments toward meeting objectives will be reviewed before grazing is allowed to continue.
- All revenue from grazing leases on Department property associated with CMWMA is deposited in the Dworshak Mitigation Trust Fund.

Objective: Seek methods that reduce or eliminate potential for unauthorized livestock use, preferably methods that preclude the need for expensive internal fence construction and maintenance.

Accomplishment:

- Every year, CMWMA staff works on maintaining open communication and good working relationships with livestock operators within and around Department properties. This has been the most effective means to reduce the amount and duration of trespass cattle on Department lands. However, the adage that good fences make good neighbors certainly applies to the Craig Mountain area. Every year, approximately 15 miles of boundary fences are maintained and at least five additional miles of fence needs to be maintained every other year to help reduce trespass cattle on Department lands. In 2008, seven miles of boundary fence that had been damaged by the Chimney Complex Fire of 2007 were replaced to help manage livestock grazing on the adjacent private property.

Additional livestock-related accomplishments:

- The Department holds the lease to IDL grazing allotments encompassing 6,287 acres (M-4012) to help achieve wildlife and habitat conservation objectives.
- The Department acquired a 10-year lease to three BLM grazing allotments in 1997 for wildlife and habitat conservation objectives. However, the BLM regulations that allowed for 'conservation use' failed to be implemented and the lease was relinquished by the Department in 2003. These three grazing leases, comprising 16,346 acres, remained vacated until they were permanently cancelled in the BLM Cottonwood Office Resource Management Plan in 2009.

Emphasis Area: Public road access.

Objective: Work with county governments to promote county road access maintenance.

Accomplishment:

- The Department regularly communicates and coordinates with the Nez Perce County (NPC) Board of County Commissioners and Road Department to ensure access and safety are top priorities on county roads across the CMWMA. In 2012, a cooperative project between NPC and the Department provided 45,000 tons of gravel to be crushed and stored at the Benton Meadow gravel pit for NPC use to maintain and improve roads in the Craig Mountain area. Coordination with Lewis County is more sporadic with less mileage present on the WMA. Both counties have maintained their roads in good condition with timely grading.

Objective: Work cooperatively with BLM regarding road access down Eagle Creek and along Salmon River.

Accomplishment:

- The accessibility, use, and condition of Eagle Creek Road is routinely discussed at the annual Craig Mountain Coordination meetings. The BLM holds management authority over Eagle Creek Road. It's in the interest of both BLM and the Department to maintain safe open public access for motorized vehicles down Eagle Creek Road for access to the Salmon River. Both agencies work cooperatively in planning and implementing maintenance, signing, enforcement, and recreation use monitoring along this route.

Objective: Work closely with other agencies to identify access routes that should be maintained for administrative purposes, and seek to schedule timing of maintenance activities to minimize conflicts with wildlife management objectives.

Accomplishment:

- As a part of a Craig Mountain Cooperative Management MOU, annual pre-season coordination meetings are held with the Department, BLM, IDL, and TNC as active participants and with the NPT as a visiting participant. A primary topic discussed at annual meetings is the problems and needs associated with road access. Projects discussed include access objectives for public recreation access, management, logging, haul routes needed, and timing associated with wildlife disturbance and to reduce conflicts with hunting season activity.

Objective: Minimize the number of secondary and tertiary roads to reduce associated maintenance costs. Permanently eliminate and re-vegetate these routes or convert them to trails for non-motorized use.

Accomplishment:

- Only roads required for habitat or wildlife management, facilities maintenance, fire, or access for private in-holdings are maintained for access. Unnecessary secondary or

tertiary roads are closed, have been allowed to naturalize, or are maintained for non-motorized access only. In 2003, an Environmental Quality Incentive Program grant was received from the Nez Perce County Natural Waterways Conservation Service to restore habitat in the upper Deer Creek Drainage. One element of this project entailed obliterating an old road bed that created an erosion risk and was no longer needed.

Objective: Continue prohibition of motorized use of secondary and tertiary roads and off-road travel during the non-snow months in order to maximize wildlife security and attain wildlife management objectives.

Accomplishment:

- Craig Mountain WMA staff annually maintains gates and signs enforcing motorized restrictions on secondary and tertiary roads as well as off-road travel. Since 1998, the Department has replaced 14 cable gates with steel rail gates or tubular steel gates and signs to increase effectiveness and safety. As of 2013, 77 access points are gated, signed, or bermed to prevent motorized use across Department lands.

Objective: Continue to permit over-snow use by motorized vehicles (snowmobiles) on designated routes after big game move off summer range to lower elevation winter range.

Accomplishment:

- Snowmobiling is permitted on the WMA over open, groomed runs from December 15 to March 15. The Department meets annually with the Lewis-Clark Snowdrifters and local snow grooming committee to maintain communication and coordination. The Department permits snowmobile access behind gates when snow conditions are sufficient and coordinates with local grooming committee to open and close gates. Conditions considered sufficient for opening gates include 16” of sustained snow depth across upper portions of the CMWMA. Snow depth measurements are taken at the top of Stagecoach Road, Black Pine corner, Kruze Meadows, and Benton Meadows. Other factors considered before opening gates include: possible disturbance to wildlife, disturbance to habitat, projected forecast, amount of time before snowmobile season ends (Mar 15), and available staff. Lewis-Clark Snowdrifters perform all grooming activities including removal of downed trees and operation of the groomer to provide a safe experience.

Emphasis Area: Trail and off-road access management.

Objective: Continue existing policy of not allowing motorized vehicle use behind gated roads, except for seasonal exceptions (Redbird, mobility impaired routes, snowmobiling).

Accomplishment:

- Craig Mountain WMA staff annually maintains gates and signs regulating the use of motorized vehicles on secondary and tertiary roads as well as off-road travel. Since 1998,

the Department has replaced 14 cable gates with steel rail gates or tubular steel gates to increase effectiveness and to increase safety. As of 2013, 77 access points are gated, signed, or bermed to enforce motorized restrictions across Department lands on the WMA.

Objective: Strive to develop map and maintain a system of trails for non-motorized needs, in cooperation with user groups.

Accomplishment:

- Maps identifying hydrography, roads, and land ownership have been produced and are available for purchase by the public. Modifications to the CMWMA map are made as needed to reflect changes in land ownership. As of 2013, the third version of the Craig Mountain map is available for purchase at the Clearwater Regional Office for $5.00. Coordination with user groups is encouraged for input on preferences on trail systems desired.

Objective: Establish a volunteer network to patrol trails, identify maintenance needs, and assist in maintenance and litter-control activities.

Accomplishment:

- A formal volunteer network has not been established solely with the CMWMA; however, many individual volunteers and volunteer groups participate (and adopt) management and maintenance responsibilities associated with the WMA every year. Volunteer projects include: plantings, check stations, fence removal, weed control, facility maintenance, and trail clearing. Volunteers assisted on seven different projects in 2013 for an estimated 922 hours and $14,198 worth of time.

Emphasis Area: Camping.

Objective: Allow primitive camping only.

Accomplishment:

- Primitive camping is permitted within the CMWMA. Multiple pull-out areas along the Zaza County Road are available and maintained to accommodate large campers, RVs, and/or larger groups. No developed campgrounds have been established or are proposed on Department lands within the WMA.

Objective: Provide and maintain toilets at popular trailheads and other areas where necessary for human safety and litter control.

Accomplishment:

- Pre-cast concrete vault toilets have been installed and are regularly maintained at three key recreational locations within and around the CMWMA: Waha Lake, Soldier Meadows Reservoir, and Kruze Meadows. Negotiations are underway with the Nez Perce County Waterways Committee to install a similar toilet near the Redbird Beach that will provide a much needed sanitary facility on one of the most heavily recreated beaches on the Snake River.

Emphasis Area: Protection and interpretation of cultural and historic sites.

Objective: Protect known cultural sites.

Accomplishment:

- The Department regularly cooperates with the Idaho State Historical Preservation Office (SHPO), the NPT, and area universities to ensure that all historical sites are documented and preserved as well as possible. Many sites have already been inventoried via contracted work by the BPA prior to transfer of the property to the Department. Any unrecorded sites that are found during archeological surveys or through management activities are reported to SHPO. In 2012, an MOU was signed among multiple entities including the Department, SHPO, IDL, NPT, and regional colleges and universities to outline cultural research activities on Department lands along the Snake River.

Objective: Minimize ground-disturbing activities.

Accomplishment:

- The Department recognizes the cultural values associated with the Craig Mountain area and upholds the highest standards regarding potential disturbance activities. Ground disturbance activities are only conducted when there are no other options and only if archeological clearances can be obtained for the activity.

Objective: Secure archeological clearances before conducting ground-disturbing activities.

Accomplishment:

- Since 1998, the Department has contracted archeological surveys with the Nez Perce tribe and private contractors and received approval from the State Historical Preservation Office for any ground-disturbing activities within the CMWMA including logging operations, road improvements, gate installation, new fence construction, and facility improvement. In 2001, preliminary work was done in locating historic trails used by the Sergeant Ordway party associated with the Lewis and Clark expedition. Dr. Steve Russell, Historic Trails Research assisted in that effort. In 2002, the Idaho Governor's Lewis and Clark Trail Committee awarded $21,650 to the Department to complete work

in locating trails, developing interpretive materials and signing. In 2004, 25,000 brochures describing this historic trek were printed and distributed. In 2007, an additional $2,200 was granted to construct a kiosk at Kruze Meadows with two 4x6 foot metal signs depicting the trail routes.

Objective: Incorporate existing sound historical buildings worthy of protection into administrative sites or facilities open to the public to maintain historic homesteads, ranch facilities, and cabins to provide shelter to the recreating public.

Accomplishment:

- Since 1998, facilities management has been directed towards maintaining the structural and cultural integrity of three administrative facility sites (Wapshilla Ranch, Benton Meadows, and Billy Creek Ranch). In addition, financial and logistic support has been provided by other agencies and by the public to maintain, improve, and in some cases rebuild six backcountry cabins for public recreation and management activities. Use of these six cabins by the public is on a first come-first served basis. A registration log at each site provide a snapshot of the popularity of these cabins. For example, recently between March and November, Deer Creek recorded over 180 visitors that had either hiked in or used livestock. During this report period, major wildfires destroyed several cabins and ranch facilities. Insurance funds were used to rebuild two cabins and two barns. One barn is at Billy Creek and the other was relocated at Benton Meadows for storage of equipment.

Emphasis Area: Potential future adjustments in land ownership.

Objective: Seek to influence or acquire management authority over in-holdings through cooperative agreements, easements, leases, or other means to minimize public confusion over boundaries and inadvertent trespass.

Objective: Acquire management authority over in holdings, adjacent or nearby properties by agreement, purchase, donation, or other means when such lands include critical or unique wildlife habitat, consolidate property boundaries, or provide benefits to wildlife.

Accomplishments:

- Since 1998, the Department has worked alone and with other cooperating agencies to gain public ownership on over 3,000 additional acres within the CMWMA including the South Fork of Captain John (160 acres), Redbird Canyon (2,816 acres), and Lake Creek (120 acres).
- Since 1992, the Department has made Fee–in-Lieu-of-Taxes (FILT) payments to Nez Perce and Lewis counties to compensate the taxable base for Department-acquired property. For the 2012 tax year (paid in 2013), $43,000 was paid in FILT for lands owned on CMWMA.

Objective: Dispose of lands only by trade for other lands which will enhance wildlife management objectives, and only 1) when exchanged lands are of equal value and such trades result in enhancing desirable wildlife habitat, or 2) when exchanged lands are of equal value economically, provide equivalent wildlife habitat, improve management, and are cost effective.

Accomplishment:

- Department staff is regularly considering potential opportunities to trade lands when such trades will result in enhancing wildlife habitat or the ability to manage for wildlife habitat. In 2008, a land trade between the Department and IDL consolidated ownerships between agencies across CMWMA. This allows both agencies to better achieve management objectives and resulted in a net gain for the Department of 2,125 acres.

Draft Plan Review

An opportunity to review and comment on the draft management plan for Craig Mountain WMA was made available the public and to cooperating agencies from April 20 to June 10, 2014.

VI. VEGETATION

PLANT SPECIES LIST

(*Selected Common Species; additional information available at www.idfg.idaho.gov*)

Trees
Grand Fir (*Abies grandis*)
White Alder (*Alnus rhombifolia*)
Netleaf Hackberry (*Celtis reticulata*)
Western Larch (*Larix occidentalis*)
Englemann Spruce (*Picea englemannii*)
Lodgepole pine (*Pinus contorta*)
Ponderosa Pine (*Pinus ponderosa*)
Douglas-fir (*Psuedotsuga menziesii*)

Shrubs
Serviceberry (*Amelanchier alnifolia*)
Kinnikinnick (*Arctostapholos uva-ursi*)
Utah Honeysuckle (*Lonicera utahensis*)
Syringa (*Philadelphus lewisii*)
Mallow Ninebark (*Physocarpus malvaceus*)
Bittercherry (*Prunus emarginata*)
Smooth Sumac (*Rhus glabra*)
Elderberry (*Sambucus cerulea*)
Current (*Ribes* spp.)
Wild Rose (*Rosa woodsii*)
Coyote Willow (*Salix exigua*)
White Spiraea (*Spiraea betulifolia*)
Common Snowberry (*Symphoricarpos albus*)
Blue Huckleberry (*Vaccinium globulare*)

Forbs
Milkvetch (*Astragalus* spp.)
Arrowleaf Balsamroot (*Balsamorhiza sagittata*)
Yellow Starthistle (*Centaurea solstitialis*)
Desert Parsley (*Lomatium* spp.)
Lupine (*Lupinus* spp.)
Penstemon (*Penstemon* spp.)
Phlox (*Phlox* spp.)
Buckwheat (*Polygonum* spp.)

Grasses
Cheatgrass (*Bromus tectorum*)
Sedge (*Carex* spp.)
Orchard Grass (*Dactylis glomerata*)
Great Basin Wildrye (*Elymus cinereus*)
Idaho Fescue (*Festuca idahoensis*)
Timothy (*Phleum pratense*)
Bluebunch Wheatgrass (*Psuedoregnaria spicata*)
Sand Dropseed (*Sporobolus cryptandrus*)

A more complete list of CMWMA plant species can be found on the Department\WMA website.

HABITAT

For the descriptive purposes of this plan, terrestrial habitats are grouped into four general cover types (Canyon Grassland, Shrubland, Forest, and Meadow and Riparian) that represent approximately 80% of the habitats within and around the CMWMA. A detailed list of the habitat types found within the Craig Mountain Area can be found in Table VI-1.

CANYON GRASSLAND COVER TYPES

The Craig Mountain canyon grassland habitat has high plant diversity with at least 650 known vascular plants of which approximately 77% are native (Mancuso and Moseley 1994). Canyon grasslands can be broadly classified into three cover types: bluebunch wheatgrass, Idaho fescue, and sand dropseed.

Bluebunch wheatgrass communities are the most abundant grassland type on the CMWMA and cover more area than any other non-forested type on Craig Mountain. Where undisturbed, the vegetation appears as well-spaced clumps of bluebunch wheatgrass with an abundance of rock and bare ground. Bluebunch wheatgrass are often mixed with other native grass species such as Sandberg's bluegrass (*Poa secunda*). However, most sites have been disturbed and invaded by various weeds. Cheatgrass (*Bromus tectorum*) and yellow starthistle are particularly abundant. The degree of weed infestation varies from light to severe with some areas completely dominated by yellow starthistle and cheatgrass.

Idaho fescue is the second most abundant canyon grassland cover type on Craig Mountain and can often be associated with other grass species such as prairie junegrass (*Koeleria macrantha*). Idaho fescue communities generally occur in cooler and moister sites than bluebunch wheatgrass. Idaho fescue sites on the CMWMA generally contain less yellow starthistle than bluebunch wheatgrass sites. Yellow starthistle or other weeds are abundant in most sites that have been severely impacted by livestock grazing. Scattered conifers (providing less than 10% canopy cover) may be found in bluebunch wheatgrass and Idaho fescue habitats.

The distribution of bluebunch wheatgrass and Idaho fescue communities are generally determined by aspect and elevation. Bluebunch wheatgrass dominates all areas up to approximately 1,500 ft., at which elevation Idaho fescue may be found on steep northerly slopes. As elevations increase, the extent of bluebunch wheatgrass communities decrease and Idaho fescue increases. Idaho fescue occupies most sites above 4,000 ft., except on steep southerly exposures where bluebunch wheatgrass still prevails.

Sand dropseed is the other canyon grassland cover type and tends to occur mostly on flatter, bench areas below 2,000 ft. elevation along the Snake and Salmon rivers. Native threeawn grass (*Aristida purpurea* var. *longiseta*) is also found associated with sand dropseed cover types. These sites, like low elevation shrubfields and riparian areas, have often been severely impacted by years of winter livestock grazing. Historic disturbance has resulted in extensive invasion of yellow starthistle and cheatgrass, which frequently dominate sand dropseed sites.

Most canyon grasslands on the CMWMA have been negatively impacted by prolonged intensive livestock grazing. The sites in best condition are the steepest and/or furthest from water, and hence, least impacted by livestock. The canyon grasslands also contain the greatest number and concentration of rare plant species. The disturbance created by livestock, particularly at the lower elevations, has allowed for the invasion of aggressive non-native plants, particularly cheatgrass and yellow starthistle. The presence of yellow starthistle currently is the most difficult habitat management issue on the CMWMA.

SHRUBFIELD COVER TYPES

The major shrubfield types on Craig Mountain include mallow ninebark, common snowberry-rose species, and smooth sumac. The mallow ninebark type comprises the most extensive shrubfields on Craig Mountain and is found in two situations. The most extensive mallow ninebark shrubfields are located on burned canyon slopes that previously supported Douglas-

fir/mallow ninebark communities. This vegetation type predominates on north and easterly facing slopes on the west sides of the Eagle and China creek drainages, which burned in 1967. Mallow ninebark and associated shrubs have formed dense stands, although scattered Douglas-fir and ponderosa pine are slowly regenerating. Eventually these sites will likely again support a Douglas-fir forest. Mallow ninebark shrubfields also exist as an extension of the Douglas-fir/mallow ninebark forest at lower elevations adjacent to grasslands along the north slopes of the Snake River breaks. Little or no conifer regeneration occurs on these sites.

Common snowberry/rose shrubfields are a component of the canyon grasslands, and are found on steep northeasterly to northwesterly facing slopes down to about 1,500 ft. in elevation. Smooth sumac occurs in patches on all slopes in the lower elevations of the canyon grassland system. Smooth sumac is most noticeable in early autumn when its foliage turns a brilliant red in sharp contrast to the dormant grasses. Like lower elevation riparian habitats, these sites have been heavily impacted by previous wintering livestock use. The herbaceous component is currently dominated by cheatgrass, yellow starthistle and other weeds.

FOREST COVER TYPES

There are approximately 27,800 acres of coniferous forest on CMWMA found in 617 individual forest stands. Within the canyons, coniferous forest is found primarily on north-facing slopes above approximately 2,000 ft. in elevation. On the mountain plateau, coniferous forest is more contiguous, although interrupted by a mosaic of dry and wet meadows. Eight coniferous tree species are present on Craig Mountain, including Douglas-fir, grand fir, lodgepole pine, ponderosa pine, western larch, Engelmann spruce, and subalpine fir. Pacific yew (*Taxus brevifolia*) is present in the understory in isolated locations.

There are five main coniferous forest cover types on the CMWMA including grand fir, Douglas-fir, ponderosa pine, lodgepole pine, and mixed conifer. Each of these types has varying understories, reflecting differing moisture and soil conditions.

Grand fir is the climax tree species for most of the summit area. Grand fir stands are currently extensive and are found mostly on the plateau, although some grand fir stands occur in canyon riparian situations. Stands generally include a mix of seral species, including Douglas-fir, ponderosa pine, lodgepole pine, and western larch. Historically, wildfire maintained stands of seral species, especially western larch stands, while grand fir stands were probably confined to north slopes and other cool, moist sites. The extensive grand fir-dominated forests present today are the result of a combination of fire suppression, high-grade logging practices (of ponderosa pine, Douglas-fir, and western larch), and livestock grazing. Grand fir is also the cover type found along the major tributaries in the upper canyon elevations.

Douglas-fir forest is the dominant type found within the canyons, occurring on steep north-facing slopes. Coniferous forest communities dominated by Douglas-fir are only found in scattered locations atop the mountain. At the upper elevations, Douglas-fir forests often grade into grand fir types. Historically, Douglas-fir communities in the canyons were subjected to periodic but localized wildfires of varying severity. These fires often resulted in a mosaic of stand

replacement patterns, and were less frequent than on the plateau. Fires resulted in habitat patterns that maintained structure and age diversity across the landscape within the canyon forests.

Ponderosa-pine dominated forests currently are limited on the CMWMA, occurring primarily on the slopes off Wapshilla Ridge. Prior to European settlement, open ponderosa pine–Douglas-fir stands were more extensive and common on the Craig Mountain plateau. These open stands were maintained by relatively frequent under-burning (10-25 year fire interval) that favored fire resistant species like ponderosa pine. However, most of the original ponderosa pine–Douglas-fir stands were eliminated through a combination of selective logging and fire suppression, and have been replaced by the grand fir and mixed conifer stands present today. Grand fir communities are indirectly maintained by fire suppression actions.

Lodgepole pine cover types are scattered across the top of Craig Mountain but are most prevalent in the northeastern one-quarter of the CMWMA. Those stands are relatively young. Lodgepole stands are not present in the canyons.

Mixed conifer stands contain most of the conifer species present on the CMWMA. The composition and density of particular species is highly variable with no one species being clearly dominant over a large area. Many sites occupied by mixed conifer stands today (particularly where not located on north slopes or other moist, cool sites) probably consisted of open ponderosa pine–Douglas-fir forests maintained by fire prior to European settlement.

Wildlife populations currently existing within the CMWMA forests are adapted to natural disturbance (fire) and have withstood heavy man-caused disturbance (logging and grazing). In order to provide suitable habitat for all forest-dwelling wildlife species occurring on Craig Mountain, it would be necessary to provide a balance between Douglas-fir, grand fir, lodgepole or mixed conifer forest habitats that benefit wildlife species such as white-tailed deer and elk, and ponderosa pine–Douglas-fir forests maintained by fire that benefit mule deer, wild turkey, pileated woodpecker, white-headed woodpecker, and pygmy nuthatch. At the present time, this balance does not exist. The current forest habitat is skewed toward grand fir, lodgepole pine, and mixed conifer cover types. In order to restore a balance of forest cover types, it would be necessary to manage for a greater percentage of forest dominated by large ponderosa pine and Douglas-fir, having an open understory containing grass and shrub-dominated areas. The current abundance of grand fir, lodgepole, and mixed conifer cover types require active management to reach a mature ponderosa pine–Douglas-fir forest. These large unnaturally developed mixed conifer stands will be at risk of loss to insect and disease epidemics and/or stand-replacing fire. Where possible and appropriate, linkages would be beneficial between stands of each cover type, including mature ponderosa pine–Douglas-fir types.

Various short- and long-term management actions could be used to restore mature ponderosa pine–Douglas-fir cover types in areas they naturally occurred. These actions could include the use of selective logging, thinning, prescribed fire, and planting of desired tree species. Carefully controlled and monitored livestock grazing might also be used in local areas to help achieve desired habitat conditions. These actions could reduce the risk of stand-replacing fire.

The Douglas-fir dominated canyon forests were historically maintained by fire which created a diversity of age and structure across the forested canyon landscape. These forests provide the vast majority of security cover for elk and mule deer within the Salmon and Snake River canyons. Consequently, manipulation of these canyon forests could have a major impact on wildlife security within a critical portion of the CMWMA. In the mid to upper elevations of the canyon forests, water is often in short supply and impacts the distribution of deer and elk in this habitat during the summer months.

MEADOW AND RIPARIAN COVER TYPES

Meadow and riparian areas are really two distinct cover types. However, both can be considered riparian habitats, the wet meadows occurring in higher elevation headwater positions in a watershed.

Meadow Habitats

Wet and mesic meadow habitats are found in the headwaters of the mountain's major tributary streams. Large meadow systems on the CMWMA include Benton Meadows (West Fork Deer Creek), Larabee Meadows (Deer Creek), and Kruze Meadows (Webb and Brown's Creek). Other smaller unnamed meadows also exist. Streams forming in these meadows are low gradient in nature and the vegetation is dominated by grasses and sedges with few shrubs or trees present. Meadows occur where seasonal saturation and cold-air accumulation limit the growth of forests. Because of the presence of surface or subsurface water in these meadows, the vegetation remains green and productive well into the summer when many adjacent habitats have become dry and dormant. These wet, productive conditions serve as a magnet to grazing livestock in mid-to-late summer, concentrating much of the summer livestock use on these very limited acres. Intensive use by livestock has changed the hydrologic function of these meadows, lowering the water table and resulting in a corresponding change in the vegetative community, characterized by an increase in non-native plant species. Additionally, livestock grazing has increased sedimentation and seasonal water temperatures, and has reduced water quality and streambank stability.

Wet and mesic meadows are an extremely important habitat type on Craig Mountain. They serve as important calving, fawning, and feeding areas for big game species, provide water for species using the surrounding coniferous forest, serve as year-round habitat for a variety of nongame species such as the sensitive spotted frog and western toad, and also contain two rare plants – plumed clover and sticky goldenweed.

Many dry meadows exist adjacent to wet and mesic meadows. Some of these dry meadows were created by past logging, although natural dry meadows also exist on the CMWMA. These are usually small in size and are characterized by having rocky shallow soils which precludes tree or shrub establishment.

Riparian Habitat

For purposes of this plan, riparian vegetation is classified into four types: coniferous forest, white alder, mixed tall shrub, and netleaf hackberry. Riparian habitats adjacent to the larger

streams on the CMWMA progressively change downstream from wet meadows to coniferous forest and finally to white alder.

The coniferous forest riparian cover type is present in mid to upper elevations along the major streams dissecting the management area. This type is found along stream gradients ranging from low to steep. Primary tree species include Engelmann spruce, grand fir, and Douglas-fir. Some common understory shrubs include Utah honeysuckle (*Lonicera utahensis*), blue huckleberry, and several currant species (*Ribes* spp.). Areas such as upper Brown's Creek and the West Fork of Deer Creek which were in poor condition (characterized by a lack of conifers) in the 1990's have substantially improved as a result of removing cattle grazing. Grazing continues in the upper reaches of Deer Creek however, and this habitat type may still be limited as a result.

The white alder riparian type is found along perennial streams below 2,500 ft. elevation, and is the major riparian type in the larger drainages. Black cottonwood (*Populus balsamifera* ssp. *trichocarpa*) is sometimes present in the overstory. The shrub understory contains various species including red-osier dogwood, syringa, and common snowberry. This type has been moderately to severely impacted by livestock grazing with the greatest impact occurring at the lower elevations. One result of past grazing practices is that the presence of non-native plant species is high, noxious weeds are abundant, the shrub understudy has (often) been removed, and stream bank stability reduced.

The netleaf hackberry riparian cover type is found below the white alder type at the lowest elevations of some area streams. In this type, other trees and shrubs are generally absent. As with the lower elevation white alder type, these areas were often subjected to years of intensive grazing by livestock during winter, resulting in a high degree of disturbance which has allowed heavy invasions of cheatgrass and noxious weeds, particularly yellow starthistle, and in some places, scotch thistle.

The mixed tall shrub riparian cover type contains a wide variety of shrubs, including mallow ninebark, Saskatoon serviceberry (*Amelanchier alnifolia*), bittercherry (*Prunus emarginata*), black hawthorn (*Crataegus douglasii*), oceanspray, blue elderberry (*Sambucus nigra* ssp. *cerulea*), and others. This vegetation type is found along intermittent streams and in the bottom of draws within the canyons. The composition and proportions of various shrub species varies by area, and where undisturbed by livestock, shrub density is high.

Together, the white alder, netleaf hackberry, and mixed tall shrub riparian cover types comprise a very small percentage of the entire CMWMA. However, these types provide high value wildlife habitats, particularly where they exist as narrow ribbons in the bottom of deeply dissected canyons dominated by grasslands. As such, by mid-summer they often provide wildlife the only woody cover, shade, and water in what is otherwise a hot, dry landscape.

Table VI-1. Cover types across the Craig Mountain WMA and across the Craig Mountain Landscape defined as including a two mile buffer around the WMA boundary. Data estimate using remote sensing (Northwest ReGap-Aycrigg et al. 2013) and ArcGIS software (ESRI). Data has not been field verified and may have inconsistencies.

Formation	Macrogroup	Ecological System	Craig Mountain WMA	CMWMA + 2mi Buffer
Agriculture	Agriculture	Cultivated Cropland	3,191.14	13,329.21
		Pasture/Hay	29.80	183.92
Cool Semi-Desert Cliff, Scree & Rock Vegetation	Intermountain Basin Cliff, Scree & Rock Vegetation	Columbia Plateau Ash and Tuff Badland	2.89	11.34
		Inter-Mountain Basins Cliff and Canyon	1,798.50	3,100.62
Cool Semi-Desert Scrub & Grassland	Great Basin & Intermountain Dwarf Sage Shrubland & Steppe	Columbia Plateau Scabland Shrubland	133.88	242.41
Cool Temperate Forest	Northern Rocky Mountain Lower Montane & Foothill Forest	Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	29,064.07	37,076.94
		Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	5,821.18	9,572.53
		Northern Rocky Mountain Ponderosa Pine Woodland and Savanna	5,542.52	12,028.87
		Northern Rocky Mountain Western Larch Savanna	441.23	508.84
	Rocky Mountain Subalpine & High Montane Conifer Forest	Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	0.22	0.44
		Rocky Mountain Aspen Forest and Woodland	36.92	113.20
		Rocky Mountain Lodgepole Pine Forest	0.22	0.22
		Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland	70.50	109.20
	Intermountain Singleleaf Pinyon - Western Juniper Woodland	Columbia Plateau Western Juniper Woodland and Savanna	256.87	272.88
		Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland	47.59	1,981.09
Developed & Urban	Developed & Urban	Developed, Low Intensity	5.56	33.80
		Developed, Open Space	254.64	635.60
		Developed, Medium Intensity		4.00
Introduced & Semi Natural Vegetation	Introduced & Semi Natural Vegetation	Introduced Upland Vegetation - Annual Grassland	621.15	1,920.82
		Introduced Riparian and Wetland Vegetation	18.01	18.01
Open Water	Open Water	Open Water (Fresh)	500.39	3,399.74

Formation	Macrogroup	Ecological System	Craig Mountain WMA	CMWMA + 2mi Buffer
Recently Disturbed or Modified	Recently Disturbed or Modified	Harvested Forest - Northwestern Conifer Regeneration	5,222.71	10,910.45
		Recently burned forest	8,571.53	9,266.96
		Recently burned grassland	4.67	591.79
		Recently burned shrubland	0.00	416.54
Salt Marsh	Cool Semi-Desert Alkali-Saline Wetland	Inter-Mountain Basins Alkaline Closed Depression	1.33	1.33
		Inter-Mountain Basins Greasewood Flat	1.56	6.00
Temperate & Boreal Cliff, Scree & Rock Vegetation	Rocky Mountain Cliff, Scree & Rock Vegetation	Rocky Mountain Cliff, Canyon and Massive Bedrock	794.39	2,192.36
Temperate & Boreal Freshwater Wet Meadow & Marsh	Warm Desert Freshwater Shrubland, Meadow & Marsh	North American Arid West Emergent Marsh	6.23	7.78
	Western North American Montane Wet Meadow & Low Shrubland	Rocky Mountain Alpine-Montane Wet Meadow	344.27	524.18
Temperate Flooded & Swamp Forest	Rocky Mountain and Great Basin Flooded & Swamp Forest	Columbia Basin Foothill Riparian Woodland and Shrubland	482.15	1,032.36
		Rocky Mountain Lower Montane Riparian Woodland and Shrubland	1,414.87	2,367.83
Temperate Grassland, Meadow & Shrubland	Northern Rocky Mountain-Vancouverian Montane & Foothill Grassland & Shrubland	Northern Rocky Mountain Lower Montane, Foothill and Valley Grassland	1,904.81	2,904.25
		Northern Rocky Mountain Montane-Foothill Deciduous Shrubland	3,901.02	8,009.98
		Northern Rocky Mountain Subalpine Deciduous Shrubland	18.01	33.80
		Northern Rocky Mountain Subalpine-Upper Montane Grassland	5.12	6.45
		Columbia Basin Foothill and Canyon Dry Grassland	75,579.66	131,896.40
		Columbia Basin Palouse Prairie	418.10	588.23
	Rocky Mountain-Vancouverian Subalpine & High Montane Mesic Grass & Forb Meadow	Rocky Mountain Subalpine-Montane Mesic Meadow	0.44	19.13
Total Acres			146,508.16	255,319.56

VII. WILDLIFE AND FISH SPECIES

(*Selected Common Species; additional information available at www.idfg.idaho.gov*)

Common Name	**Scientific Name**	**Common Name**	**Scientific Name**
Birds		***Birds (cont.)***	
Cooper's Hawk	*Accipiter cooperii*	Pileated Woodpecker	*Dryocopus pileatus*
Northern Goshawk	*Accipiter gentilis*	Hammond's Flycatcher	*Empidonax hammondii*
Sharp-shinned Hawk	*Accipiter striatus*	Willow Flycatcher	*Empidonax traillii*
Northern Pygmy Owl	*Aegolius acadicus*	Prairie Falcon	*Falco mexicanus*
Chukar	*Alectoris chukar*	American Kestrel	*Falco sparverius*
Golden Eagle	*Aquila chrysaetos*	MacGillivray's Warbler	*Geothlypis tolmiei*
Black-chinned Hummingbird	*Archilochus alexandri*	Dark-eyed Junco	*Junco hyemalis*
Long-eared Owl	*Asio otus*	Red Crossbill	*Loxia curvirostra*
Cedar Waxwing	*Bombycilla garrulous*	Western Screech Owl	*Megascops kennicottii*
Ruffed Grouse	*Bonasa umbellus*	Wild Turkey	*Meleagris gallopavo*
Great Horned Owl	*Bubo virginianus*	Song Sparrow	*Melospiza melodia*
Red-tailed Hawk	*Buteo jamaicensis*	Clark's Nutcracker	*Nucifraga columbiana*
California Quail	*Callipepla californica*	Mountain Quail	*Oreortyx pictus*
Cassin's Finch	*Carpodacus cassinii*	Gray Partridge	*Perdix perdix*
Swainson's Thrush	*Catharus ustulatus*	Gray Jay	*Perisoreus canadensis*
Canyon Wren	*Catherpes mexicanus*	Black-billed Magpie	*Pica hudsonia*
Brown Creeper	*Certhia americana*	Downy Woodpecker	*Picoides pubescens*
Northern Harrier	*Circus cyaneus*	Hairy Woodpecker	*Picoides villosus*
Northern Flicker	*Colaptes auratus*	Spotted Towhee	*Pipilo maculatus*
Olive-sided Flycatcher	*Contopus cooperi*	Western Tanager	*Piranga ludoviciana*
Western Wood-pewee	*Contopus sordidulus*	Black-capped Chickadee	*Poecile atricapillus*
Common Raven	*Corvus corax*	Mountain Chickadee	*Poecile gambeli*
Steller's Jay	*Cyanocitta stelleri*	Flammulated Owl	*Psiloscops flammeolus*
Dusky Grouse	*Dendragapus obscures*	Ruby-crowned Kinglet	*Regulus calendula*

Common Name	Scientific Name	Common Name	Scientific Name
Birds (cont.)		***Mammals (cont.)***	
Rock Wren	*Salpinctes obsoletus*	Townsend's Big-eared Bat	*Plecotus townsendii*
Say's Phoebe	*Sayornis saya*	Red Squirrel	*Tamiasciurus hudsonicus*
Yellow-rumped Warbler	*Setophaga coronata*	Black Bear	*Ursus americanus*
Yellow Warbler	*Setophaga petechia*	***Amphibians***	
Townsend's Warbler	*Setophaga townsendi*	Long-toed Salamander	*Ambystoma macrodactylum*
Mountain Bluebird	*Sialia currucoides*	Western Toad	*Anaxyrus boreas*
Red-breasted Nuthatch	*Sitta canadensis*	Pacific Tree Frog	*Pseudacris regilla*
Red-naped Sapsucker	*Sphyrapicus nuchalis*	Bullfrog	*Rana catesbeiana*
Pine Siskin	*Spinus pinus*	Columbia Spotted Frog	*Rana luteiventris*
Lesser Goldfinch	*Spinus psaltria*	***Reptiles***	
Chipping Sparrow	*Spizella passerina*	Racer	*Coluber constrictor*
Great Gray Owl	*Strix nebulosa*	Western Rattlesnake	*Crotalus viridis*
Barred Owl	*Strix varia*	Gopher Snake	*Pituophis catenifer*
Western Meadowlark	*Sturnella neglecta*	Sagebrush Lizard	*Sceloporus graciosus*
Winter Wren	*Troglodytes hiemalis*	Western Fence Lizard	*Sceloporus occidentalis*
American Robin	*Turdus migratorius*	Western Terrestrial Garter Snake	*Thamnophis elegans*
Cassin's Vireo	*Vireo cassinii*		
Mammals		***Fish***	
Coyote	*Canis latrans*	White Sturgeon	*Acipenser transmontanus*
Elk	*Cervus canadensis*	Channel Catfish	*Ictalurus punctatus*
Mountain Lion	*Felis concolor*	Smallmouth Bass	*Micropterus dolomieu*
Snowshoe Hare	*Lepus americanus*	Rainbow Trout	*Oncorhynchus mykiss*
Striped Skunk	*Mephitis mephitis*	Steelhead	*Oncorhynchus mykiss*
Long-tailed Weasel	*Mustela frenata*	Chinook Salmon	*Oncorhynchus tshawytscha*
Mule Deer	*Odocoileus hemionus*	Black Crappie	*Pomoxis nigromaculatus*
White-tailed Deer	*Odocoileus virginianus*	Brook Trout	*Salvelinus fontinalis*
Bighorn Sheep	*Ovis canadensis*		
Deer Mouse	*Peromyscus maniculatus*		

Wildlife

The wildlife inventory conducted during 1993 and 1994 (Cassirer 1995) indicated the presence of at least 196 vertebrate species inhabiting the CMWMA. This included 133 bird, 47 mammal, nine reptile, and seven amphibian species. A list of common species found in the Craig Mountain area is provided below.

The CMWMA provides habitat for several big game species that are important to the Department's wildlife program. Most notably these include elk, mule deer, white-tailed deer, and bighorn sheep. Elk are found throughout the CMWMA year-long, but in most winters move off the mountain plateau and onto the steep canyon grasslands along the Snake and Salmon rivers.

Mule deer are found primarily within the Snake and Salmon River canyon forests, shrublands, and grasslands year-long. After a long period of gradual decline, mule deer numbers in Unit 11 have increased over the last 10 years. Factors that influence population trends of mule deer in Unit 11 are not fully understood. It is believed that adequate habitat exists in this area. Since the 1970s, the Department has managed CMWMA mule deer to provide a high quality hunting experience with an abundance of mature bucks in the population.

White-tailed deer are most abundant on the plateau of Craig Mountain and within the northern half of the CMWMA. Whitetails prefer the dense coniferous forests created by human intervention, which are dominated by grand fir, lodgepole pine, or mixed conifers. During winter, most whitetails migrate to lower elevations on private land between Lewiston and Craig Mountain or southeast of the CMWMA near Cottonwood Butte.

Rocky Mountain bighorn sheep were extirpated from the area during the first half of the twentieth century. The Department reintroduced bighorns into the Billy Creek Unit in 1983. Accompanied by reintroductions in neighboring Oregon and Washington, bighorns have expanded in Idaho to inhabit the Snake River breaks southward to the confluence of the Salmon and Snake rivers. An abundance of unoccupied habitat exists within the lower Salmon River corridor including the CMWMA. The potential exists for additional sheep transplants into that area.

Other big game species occur on CMWMA including healthy populations of black bears, mountain lions, and coyotes. Wolves have been observed on the WMA but as of 2013, the reported observations have suggested only a few individuals and no pack has been documented. There are potential opportunities to foster or bolster populations of other species on the CMWMA that are important to the Department's wildlife program, including beaver, pine marten, and possibly moose. As of 2013, beaver observations are sporadic and limited to the Snake and Salmon river drainages; pine marten has not been detected on the WMA but suitable prey and habitat exists; and a few moose are observed on the WMA each year but numbers are too few to suggest a population that could sustain a harvest season.

The CMWMA supports robust populations of several upland game birds, including wild turkey, chukar, gray partridge, California quail, dusky grouse, and ruffed grouse. Among these game birds, only the grouse are native; all the others have been introduced by the Department.

Many nongame species inhabit the management area as indicated by Cassirer (1995). These include the target species yellow warbler, black-capped chickadee, pileated woodpecker and several Species of Special Concern including the northern goshawk, flammulated owl, white-headed woodpecker, and pygmy nuthatch.

Target Species

The Department is responsible for managing all wildlife on Craig Mountain, including game and nongame species. The Department, BPA, and NPT selected six target species to specifically address the wildlife losses associated with Dworshak Reservoir. These species are elk, white-tailed deer, river otter, pileated woodpecker, black-capped chickadee, and yellow warbler. These species were chosen because they are either priority species for Department and/or Tribal wildlife programs, or are indicator species of habitats lost when Dworshak Reservoir flooded. These species have been referred to throughout this plan. The ability to determine whether mitigation for Dworshak has been achieved will, in part, be determined by whether habitat for the target species improves in the long-term as a result of management activities undertaken on the Peter T. Johnson Wildlife Mitigation Unit.

Fisheries

Aquatic habitats on Craig Mountain consist of springs, perennial and intermittent streams, and man-made ponds. The largest water bodies are the Salmon and Snake rivers which border the CMWMA, and Soldiers Meadows, a man-made irrigation reservoir owned by the Bureau of Reclamation. Soldiers Meadows lies immediately adjacent to the northeast perimeter of the CMWMA. The larger streams on the CMWMA are Deer, Eagle, China, Cottonwood, Wapshilla, and Captain John creeks.

The main fisheries associated with these waters include rainbow trout (*Oncorhynchus mykiss*), smallmouth bass (*Micropterus dolomieu*), channel catfish (*Ictalurus punctatus*), white sturgeon *Acipenser transmontanus*), spring/summer steelhead (*Oncorhynchus mykiss*), and fall Chinook salmon (*Oncorhynchus tshawytscha*) in the Snake and Salmon rivers; crappie (*Pomoxis nigromaculatus*) and rainbow trout in Soldiers Meadow Reservoir; brook trout (*Salvelinus fontinalis*) in man-made ponds; and brook trout, rainbow trout, wild steelhead and spring/summer Chinook salmon in the larger tributary streams. Of these, only steelhead and spring/summer Chinook salmon are native. Special management direction was provided to protect habitat for these two species.

Special Status Species

At least 101 species that are considered rare or sensitive by state and federal agencies are found or have the potential to inhabit the Craig Mountain area. These include two amphibians, four reptiles, 18 birds, nine fish, 14 insects, 11 mammals, 29 mollusks, and 14 plants.

Two species that occur in the Craig Mountain area, the Snake River fall Chinook salmon and wild steelhead, are listed as threatened. These species spawn in the Snake and Salmon rivers and are reared in adjacent tributary streams, including those associated with the WMA. The National Marine Fisheries Service has primary management authority for salmon and steelhead.

VIII. FOCAL SPECIES ASSESSMENT

Species	Status Designation(s)	Occurrence Context in Craig Mountain WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Craig Mountain WMA
Amphibians and Reptiles					
Idaho Giant Salamander (*Dicamptodon aterrimus*)	IDFG BLM	One reported occurrence in China Creek, 1997. The next nearest occurrence is 37.6 miles away from this location.	Habitat destruction and fragmentation from logging are threats to riparian habitat, particularly in the Lochsa and North Fork Clearwater drainages. Carstens et al. (2005) attributed the absence of larval giant salamanders in logged tributaries of these rivers to reduced cover availability. Logging operations can decrease available cover, increase sedimentation, and affect bank undercutting necessary for successful breeding (Parker 1991).	Protection of bank and bed structure, as well as maintaining downed woody debris and riparian conditions benefit this species. Also, efforts to maintain natural, perennial flow regimes are necessary for aquatic life stages.	Not suitable Lack of known distribution on the WMA
Columbia Spotted Frog (*Rana luteiventris*)	USFS(4)	Prevalent on CMWMA. Found in the Salmon, Snake, and Clearwater river drainages.	Loss and degradation of wetland and riparian habitat is a pervasive threat. Considered as independent units, small populations are susceptible to breeding failure and other catastrophic events.	A focus of spotted frog conservation should be the stabilization and rehabilitation of habitat for extant breeding populations. Emphasis is needed in stream and riparian restoration to increase wetland habitat and restore corridors among occupied habitats (IDFG 2005).	Potentially suitable
Northern Alligator Lizard (*Elgaria coerulea*)	IDFG	One reported occurrence, in 1939, was 10.84 miles outside the WMA boundary in the Snake River drainage.	Insectivorous species often associated with rock talus and downed, woody debris. Often associated with edge habitat and small forest openings. Local threats may include road mortality.	Undoubtedly responds to forest management programs, but beneficial management protocols have not been identified.	Not suitable No known distribution on the WMA
Ring-necked Snake (*Diadophis punctatus*)	IDFG USFS(1)	One reported occurrence, 1993, was near the confluence of China Creek and the Salmon River. The next nearest occurrences is 11.65 miles outside the WMA boundary in the Clearwater River drainage.	Possible threats include habitat loss and changes in the prey base arising from habitat change and species introduction.	Maintaining integrity of riparian/meadow habitats by minimizing development and disturbance and conducting restoration. Conduct surveys.	Potentially suitable
Night Snake (*Hypsiglena torquata*)	BLM	One reported occurrence, in 1995, was near the confluence of Eagle Creek and the Salmon River.	Possible threats include habitat loss and changes in the prey base arising from habitat change and species introduction.	Conduct surveys.	Not suitable Limited known distribution on the WMA
Common Garter snake (*Thamnophis sirtalis*)	BLM	Multiple occurrences within the WMA in both the Salmon and Clearwater river drainages.	Possible threats include habitat loss and changes in the prey base arising from habitat change and species introduction.	Maintaining integrity of riparian/meadow habitats by minimizing development and disturbance and conducting restoration. Conduct surveys.	Potentially suitable

Species	Status Designation(s)	Occurrence Context in Craig Mountain WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Craig Mountain WMA
Birds					
Northern Goshawk (*Accipiter gentilis*)	USFS(4) BLM	Multiple occurrences within and around CMWMA.	Habitat loss and degradation resulting from aggressive forestry practices such as clearcuts and even-aged management.	Uneven-age forest management practices and preservation of contiguous stands of mature forested habitat.	Potentially suitable
Swainson's Hawk (*Buteo swainsoni*)	IDFG	Known to breed in the southern half of the state and in the Palouse region of northern Idaho. Found in open woodlands, and in agricultural areas with scattered trees (Groves et al. 1997a). Nests in trees or shrubs near riparian zones adjacent to agricultural lands. Forages in open stands of grass-dominated habitat, sparse shrublands, small open woodlands, and agricultural areas. Few records for of this species on the WMA.	Main issues affecting SWHA relate to the vulnerability of this species where it congregates in large numbers during migration and on the wintering grounds. In Idaho, conversion of native grasslands t alfalfa fields and other hay crops seems to cause negligible impacts; conversion to woody perennial crops and urban development, on the other hand, is known to eliminate SWHA (England et al. 1997). A more recent concern is the development of wind farms.	Maintaining and/or restoring native grasslands in order to retain adequate foraging and nesting habitats while other areas are inevitably lost to urban development.	Not suitable Limited distribution on the WMA
Bald Eagle (*Haliaeetus leucocephalus*)	IDFG BLM	Some occurrences in the CMWMA including likely breeding around Waha Lake.	Disturbance during the nesting season from activities such as forestry, recreation, and construction (Buehler 2000)	Create buffer zone around active nests where disturbance is minimized during late winter/early spring (CWCS)	Not suitable Limited potential benefits from WMA actions.
Prairie Falcon (*Glaucidium gnoma*)	BLM	A relatively common year-round species in the Snake and Salmon river canyons.	Reductions in the quality and quantity of habitat for prey species and resulting fluctuations of prey populations.	Monitor population trends through breeding season surveys. Maintain integrity of mid to low elevation grassland habitat through noxious weed control and habitat restoration projects.	Not suitable Limited potential benefits from WMA actions.
Peregrine Falcon (*Falco peregrinus anatum*)	IDFG BLM	Multiple observations within five miles of the WMA associated with aerie just north of WMA in Snake River drainage. Within 50 mile buffer there are three additional occurrences.	Loss of habitat (nest sites and wetlands) and human activities are currently the greatest threats to Peregrines (White et al. 2002)	Conduct surveys, protect and monitor known nesting locations. Maintain integrity of wetland habitats near known or potential nesting areas.	Not suitable Limited potential benefits from WMA actions.
Mountain Quail (*Oreortyx pictus*)	IDFG BLM	Mountain quail breed and winter in deciduous shrub-dominated habitats (Gutierrez and Delehanty 1999) and exhibit seasonal movements in elevation (Herman et al. 2002) In Idaho, mountain quail are currently restricted in their range to areas of west-central Idaho, with remnant population strongholds in the Riggins area. Multiple occurrences within around the WMA.	Habitat loss or alteration from fire succession, weed invasion, forestry practices, and human developments (Gutierrez and Delehanty 1999).	Protect and maintain habitats through better management of riparian and forest habitats. Use reintroductions to expand range into restored habitats (Sands et al. 1998).	Potentially suitable
Spotted Sandpiper (*Actitis macularia*)	BLM	Inhabits the WMA along river corridors.	Loss or degradation of wetland habitat and reductions in water quality.	Preservation and/or restoration of wetland habitats.	Not suitable Limited potential benefits from WMA actions.
Long-billed Curlew (*Numenius americanus*)	IDFG	Three occurrences (1989-1992) near Tolo Lake. No reported occurrences within 10 miles of the CMWMA.	Loss of habitat resulting from the conversion of native grasslands to agriculture and residential developments is the primary threat. Also, disturbance from off-road vehicles and pesticides.	Protect nesting habitat from fragmentation and recreational disturbance.	Not suitable No known distribution on the WMA
Short-eared Owl (*Asio flammeus*)	IDFG	This species can be found across nearly all of Idaho throughout the year (Stephens and Sturts 1997). Typically associated	Habitat loss and degradation, and human disturbance (Holt and Leasure 1993) are primary threats to this species.	Protect, enhance, or restore potentially suitable foraging and breeding habitats (e.g., Conservation easements, restoration).	Not suitable Limited distribution on the WMA

Species	Status Designation(s)	Occurrence Context in Craig Mountain WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Craig Mountain WMA
		with open landscapes such as marshes, grasslands, and agricultural lands. No records of this species on the WMA.	Development, agricultural practices, and potential collision with vehicles along roads all can adversely affect populations.	Projects designed to benefit other grassland and shrub-steppe species (e.g., sage-grouse, sharp-tailed grouse, mule deer) also would benefit short-eared owls.	
Great Gray Owl (*Strix nebulosa*)	IDFG USFS(4) BLM	Many occurrences within the CMWMA.	Loss or degradation of high elevation meadow/forest ecotone habitats. Also, disturbance during early spring months.	Preservation and restoration of high elevation meadow habitat.	Potentially suitable
Flammulated Owl (*Psiloscops flammeolus*)	IDFG BLM	Multiple occurrences within and around WMA but in isolated groups especially within WMA.	Threats include habitat loss from timber harvest, fire suppression, stocking rates, altered tree species composition and cutting of dead trees for firewood (McCallum 1994, Groves et al. 1997). These threats are amplified due to the low reproductive potential of this species. Forest practices that remove large-diameter pine and Douglas-fir, manage for even-age stands, and remove snags risk reducing microhabitat and landscape parameters required by this species (McCallum 1994). Lack of fire disturbance has created undesirable high-density vegetation conditions generally unfavorable for owl foraging and conditions favoring stand-replacing fires and insect and disease outbreaks. Changes in stand structure may also impact insect populations and habitat suitability for woodpeckers, which are essential to the conservation of all cavity-nesting owls.	Participate in coordinated statewide monitoring. Work towards restoring ponderosa pine habitats.	Suitable
Northern Pygmy-Owl (*Glaucidium gnoma*)	BLM	Found during the breeding season in coniferous and deciduous habitat on the WMA. Found year-round throughout the WMA.	A cavity nesting species. Affected by abundance of snags and cavity excavating birds (woodpeckers). May be negatively impacted by over-harvest or removal of snag habitat.	Land management practices that result in snag retention and riparian habitat restoration.	Potentially suitable
Lewis's Woodpecker (*Melanerpes lewis*)	IDFG BLM	Detected 23 times during surveys in 2013 predominately in mid to low riparian habitat sites.	Habitat loss and degradation are the major issues of concern for this species. In particular, a reduction of large snags in breeding habitats (Tobalske 1997).	Forest management practices that result in open forests with large snags and a well-developed understory (Saab and Vierling 2001)	Potentially suitable
American Three-toed Woodpecker (*Picoides dorsalis*)	IDFG	This species is present but not common on the WMA (detected three times during surveys in 2013). Found in higher elevation coniferous forested habitat.	Fragmentation and habitat loss resulting from the removal of dead and decaying trees (Leonard 2001). Also, loss of mature forests (Hoyt and Hannon 2002)	Retain large patches of dead and decaying trees for nesting and foraging.	Potentially suitable
White-headed Woodpecker (*Picoides albolarvatus*)	IDFG BLM	Multiple occurrences have been documented within around the CMWMA.	Loss of live and dead large-diameter ponderosa pine habitat loss resulting from clear-cutting forests, even-aged stand management, snag removal, fire suppression (which favors the replacement of fir species over PIPO), and forest fragmentation (Garrett et al. 1996).	A greater understanding of population, demographic, and ecological dynamics is needed for this species (CWCS)	Potentially suitable

Species	Status Designation(s)	Occurrence Context in Craig Mountain WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Craig Mountain WMA
Black-backed Woodpecker (*Picoides arcticus*)	USFS(1)	One occurrence within the CMWMA (2002) near Kruze Meadows.	Fire suppression and over-harvest following forest fires.	Allow for periodic natural or prescribed forest fires. Incorporate needs of wildlife in post-fire harvest plans.	Potentially suitable
Pileated Woodpecker *Dryocopus pileatus*)	Mitigation Target	Pileated woodpeckers can be found throughout the contiguous forested habitats on CMWMA.	Large snags and coarse woody debris are critical components of habitat used by the Pileated woodpecker (Bull and Jackson 2011). Forest practices such as clear-cutting, even-age stand management, and snag removal risk reducing landscape parameters required by this species.	Snag and coarse woody debris (CWD) retention. Restoration of natural fire-maintained mosaic of ponderosa pine/western larch habitat with key components such as mature trees and large diameter snags.	Suitable
Black-capped Chickadee (*Poecile atricapilla*)	Mitigation Target	Common within and around CMWMA. Over ½ of detections are in mid to lower elevation riparian habitat.			Suitable
Yellow Warbler (*Setophaga petechia*)	Mitigation Target	Common within and around CMWMA predominantly found in mid to lower elevation riparian habitat.	Land management activities that reduce deciduous shrub habitat, inhibit recruitment of the deciduous shrubs, or degrade riparian communities pose the greatest threat to this species (Lowther et al. 1999).	Protection and rehabilitation of riparian habitat; retention of deciduous shrubs	Suitable
Grasshopper Sparrow (*Ammodramus savannarum*)	IDFG	No documented occurrences within or around the WMA.	Greatest threats are activities that result in grassland habitat loss, degradation, or fragmentation.	Restoration of large contiguous patches of native perennial grassland habitats	Not suitable No known distribution on the WMA
Lesser Goldfinch (*Spinus psaltria*)	IDFG	Found in lower elevation riparian habitats.	Use of herbicides on weeds.	Restoration of riparian habitats throughout the breeding range.	Not suitable Limited distribution on the WMA
Fish					
Pacific Lamprey (*Lampetra tridentate*)	BLM IDFG USFS(1)	Pacific lamprey use the Snake and Salmon rivers as migratory habitat only.	Minimal	NA	Not suitable Limited potential benefits from WMA actions.
White Sturgeon – Snake River system (*Acipenser transmontanus*)	BLM	White sturgeon utilize the Snake and Salmon rivers for spawning and rearing.	Minimal	NA	Not suitable Limited potential benefits from WMA actions.
Sockeye Salmon – Snake River (*Oncorhynchus nerka*)	IDFG	Utilizes only the Snake and Salmon rivers as migratory habitat.	Minimal	NA	Not suitable Limited potential benefits from WMA actions.
Chinook Salmon – Snake River fall-run (*Oncorhynchus tshawytscha*)	IDFG BLM NMFS	Fall Chinook predominately use the Snake and Salmon rivers for spawning, rearing and migratory habitat only. Juvenile Chinook have been found to inhabit lower portions of a few Snake River tributaries.	Practices that increase sediment delivery, loss or degradation of riparian areas/wetlands, or influence the natural stream hydrograph.	Protection/restoration of stream corridors and wetland areas will be beneficial in maintaining/improving stream flow, passage, water temperatures, sediment delivery, and habitat complexity needed by these fish.	Not suitable Limited potential benefits from WMA actions.
Chinook Salmon – Snake River spring/summer-run (*Oncorhynchus tshawytscha*)	IDFG BLM NMFS	Spring Chinook use the Snake and Salmon rivers as migratory habitat only.	Minimal	NA	Not suitable Limited potential benefits from WMA actions.

Species	Status Designation(s)	Occurrence Context in Craig Mountain WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Craig Mountain WMA
Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*)	IDFG BLM USFS(1)	Does not occur in this area.	NA	NA	Not suitable Cutthroat trout are not known to exist near CMWMA.
Steelhead – Snake River Basin (*Oncorhynchus mykiss*)	IDFG BLM USFS(1) USFWS	Spawning and rearing populations occur in the larger tributaries where sufficient flow and gradients occur.	Practices that increase sediment delivery, loss or degradation of riparian areas/wetlands, create barriers, or influence the natural stream hydrograph.	Protection/restoration of stream corridors and wetland areas will be beneficial in maintaining/improving stream flow, passage, water temperatures, sediment delivery, and habitat complexity needed by these fish.	Suitable
Inland Redband Trout (*Oncorhynchus mykiss gairdneri*)	BLM IDFG	Regionally, all rainbow trout are considered as steelhead unless they are above a barrier at which time they are considered Inland Redband trout. No rainbow trout are known to exist on CMWMA above natural barriers.	NA	NA	Not suitable Redband trout are not known to exist near CMWMA.
Bull Trout (*Salvelinus confluentus*)	BLM IDFG USFWS	Bull trout are known to use the Snake and Salmon rivers as migratory and overwinter habitat.	Minimal	NA	Not suitable Bull Trout are not known to exist near CMWMA
Insects					
A Mayfly (*Paraleptophlebia traverae*)	IDFG	This species has only been detected in one location in Idaho County, Idaho.	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect mayfly species.	Surveys across all potential habitat to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.
A Mayfly (*Parameletus columbiae*)	IDFG	One occurrence within 50 miles of the WMA, in Latah County, Idaho	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect mayfly species.	Surveys across all potential habitat to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.
A Spur-throat Grasshopper (*Melanoplus daemon*)	IDFG	This species has only been detected in one location in Adams County, Idaho.	Potential threats include pesticides and habitat modification.	Surveys across all potential habitats to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.
A Spur-throat Grasshopper (*Melanoplus digitifer*)	IDFG	No occurrences within 25 miles of the WMA.	Potential threats include pesticides and habitat modification.	Surveys across all potential habitats to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.
A Spur-throat Grasshopper (*Melanoplus payettei*)	IDFG	No occurrences within 25 miles of the WMA.	Potential threats include pesticides and habitat modification.	Surveys across all potential habitats to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.
Columbia River Tiger Beetle (*Cicindela columbica*)	BLM IDFG	One occurrence within the WMA (1979) at the confluence of Deer Creek and the Salmon River. Other occurrences along the lower Salmon River.	Primary threat within the CMWMA landscape is habitat loss resulting from anthropogenic fluctuations in water discharge (dams) and the use of motorized vehicles on lower Salmon River sandbars & beaches.	Preservation and protection of suitable riparian sandbars and beaches.	Potentially suitable
A Stonefly (*Capnia zukeli*)	IDFG	No occurrences within 25 miles of the WMA.	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect stonefly species.	Surveys across all potential habitats to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.

Species	Status Designation(s)	Occurrence Context in Craig Mountain WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Craig Mountain WMA
A Stonefly (*Perlomyia collaris*)	IDFG	No occurrences within 10 miles of the WMA.	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect stonefly species.	Surveys across all potential habitats to understand population distribution.	Not suitable The distribution and local population risks to the species are unknown.
A Stonefly (*Soyedina potteri*)	IDFG	No occurrences within 25 miles of the WMA.	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect stonefly species.	Surveys across all potential habitats to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.
A Stonefly (*Utacapnia nedia*)	IDFG	No occurrences within 50 miles of the WMA.	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect stonefly species.	Surveys across all potential habitats to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.
A Stonefly (*Capnia lineate*)	IDFG	No occurrences within 25 miles of the WMA.	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect stonefly species.	Surveys across all potential habitats to understand population distribution.	Not suitable-The distribution and local population risks to the species are unknown.
A Stonefly (*Taenionema Umatilla*)	IDFG	One occurrence within 25 miles of the WMA.	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect stonefly species.	Surveys across all potential habitats to understand population distribution.	Not suitable The distribution and local population risks to the species are unknown.
A Spring Stonefly (*Malenka tina*)	IDFG	No occurrences within 10 miles of the WMA.	Specific threats to this species are unknown. In general, any loss or degradation to aquatic habitat will negatively affect stonefly species.	Surveys across all potential habitats to understand population distribution.	Not suitable The distribution and local population risks to the species are unknown.
Gillette's Checkerspot (*Euphydryas gillettii*)	IDFG	One verified occurrence on the WMA in 2013. One reported occurrence adjacent to the WMA.	Fire suppression can result in changes in the composition and integrity of key habitats.	Permit and prescribe fires that enhance forest/meadow habitat.	Not suitable The distribution and local population risks to the species are unknown.
Mammals					
Merriam's Shrew (*Sorex merriami*)	IDFG	This species is known to occur in scattered localities across Idaho. Populations occur primarily in areas dominated by xeric shrubs and grasses. Habitats include sagebrush steppe and grassy openings in dry coniferous forests. One reported occurrence (1993) near Deer Creek.	Distribution and status of populations are poorly understood. Livestock grazing is a potential threat because of soil compaction, litter layer reduction, and changes in vegetation structure and composition.	Surveys are needed to determine the current status of populations.	Not suitable The distribution and local population risks to the species are unknown.
Dwarf Shrew (*Sorex nanus*)	IDFG	Throughout much of its range, the dwarf shrew is associated with rocky, montane habitat, especially talus fields and rocky areas in alpine and subalpine habitat. Also has been found in mixed-shrub meadows in lower elevation forests, sagebrush, pinyon-juniper woodland, shortgrass prairie, or stubble fields as low as 2000' elevation.	Information regarding the distribution and status of populations is lacking. Few data are available to suggest habitat associations or threats to habitat integrity or population viability. Ever-increasing levels of human activity in alpine and subalpine ecosystems have the potential to affect habitat.	The population status, trends, distribution, and habitat associations are poorly known. Baseline surveys are needed throughout the potential range.	Not suitable The distribution and local population risks to the species are unknown.
Pygmy Shrew (*Sorex hoyi*)	IDFG	In Idaho, this species has been documented in a few, scattered localities north of the Clearwater River (Foresman	Information regarding the distribution and status of populations is lacking. Few data are available to suggest habitat associations or	Surveys to determine the distribution, current status, and habitat associations of populations.	Not suitable The distribution and local population risks to the species are unknown.

Species	Status Designation(s)	Occurrence Context in Craig Mountain WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Craig Mountain WMA
		1986, Groves 1994). Approximately five occurrences just beyond 50 miles from the WMA. Generally associated with boreal forest and riparian habitats (Long 1974). In Idaho, mesic and subalpine coniferous forests such as western red-cedar, western hemlock, PIEN, ABGR, and subalpine fir (Groves 1994).	threats to habitat integrity or population viability. Ever-increasing levels of human activity in alpine and subalpine ecosystems have the potential to affect habitat.		
Yuma Myotis (*Myotis yumanensis*)	BLM	Unknown presence on CMWMA likely because of inadequate surveys. Occur primarily in treeless habitat with open water. Although in some portions of the range is found in canyon shrub habitats.	Little is known about the ecological needs of this species. Mine reclamation and recreational caving may threaten roosting and breeding colonies.	Surveys to determine abundance and habitat preferences.	Potentially suitable
Long-eared Myotis (*Myotis evotis*)	USFS(1)	Unknown presence on CMWMA likely because of inadequate surveys.	May be affected by closure of abandoned mines, recreational caving, some forest management practices, and activities that impact cliff faces or rock outcrops.	Surveys to determine abundance and habitat preferences.	Potentially suitable
Fringed Myotis (*Myotis thysanodes*)	BLM IDFG USFS(1)	Populations in Idaho occur in scattered locations in the northern and western parts of the state. Encountered most frequently at low and mid elevation mines. Dominant vegetation at capture sites included sagebrush, Mt. mahogany, and PIPO typically in steep rocky terrain.	Renewed mining in historical mining districts and mine closures have the potential to reduce the availability of roosting habitat. Forest management practices that reduce snag availability could also affect roost site availability. Broad-scale application of pesticides to manage forest and agricultural pests affects densities of insects that serve as prey.	Surveys and monitoring efforts at inactive mines and protection of mines providing roosting habitat. Forest management should maintain a diversity of snags.	Potentially suitable
Long-legged Myotis (*Myotis volans*)	USFS(1)	Unknown presence on CMWMA likely because of inadequate surveys.	May be affected by closure of abandoned mines, recreational caving, and forest management practices.	Surveys to determine abundance and habitat preferences.	Potentially suitable
California Myotis (*Myotis californicus*)	IDFG	Idaho distribution is not completely understood. Distinguishing this bat from a similar species, the western small-footed myotis, is difficult. Dry conifer forest, sagebrush steppe, riparian, and juniper habitats have been reported. Roost types in Idaho may include mines, caves, buildings, bridges, loose bark. Large diameter snags may be used for maternity roosts.	Little is known about the ecological needs of this species. Mine reclamation is a threat to roosting habitat in some areas. Timber harvest practices that remove large diameter snags could be detrimental to maternity colonies and local populations (Brigham et al. 1997).	Surveys to confirm presence of populations. Surveys for this species where mine closures occur are needed, and protection of identified roost sites should be considered.	Potentially suitable
Western Pipistrelle (*Pipistrellus hesperus*)	BLM	Unknown presence on CMWMA likely because of inadequate surveys. Typically found in desert scrub and conifer forests near rocky outcrops (Adams 2003)	Little is known about the ecological needs of this species. Mine reclamation and recreational caving may threaten roosting and breeding colonies.	Surveys to determine abundance and habitat preferences.	Potentially suitable
Townsend's Big-eared Bat (*Corynorhinus townsendii*)	BLM IDFG USFS(1)	Range limits in this part of Idaho are not well understood but distribution and abundance are highly correlated with suitable cavity forming rock formations and historic mining districts.	The primary issue facing this species is disturbance and destruction of roost sites through mine closures, renewed mining, recreational caving, and other roost-disturbing activities. This species is sensitive to anthropogenic disturbances (Pierson et al. 1999).	Work with other land managers on mine mitigation plans and techniques in area.	Potentially suitable

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River Otter (*Lontra canadensis*)	Mitigation Target	River otter are known to inhabit the lower Salmon and Snake river drainages on CMWMA and likely also use major streams at lower elevations.	The effects of water quality on prey abundance and poisoning risk through bioaccumulation of pesticides are threats for this species. Habitat loss and deterioration resulting from the impoundment of rivers and fluctuations of water discharged from dams have may also have deleterious effects.	Protection and maintenance of riparian habitats and stream conditions along main rivers and lower elevation tributaries where otters occur.	Suitable
Rocky Mountain Elk (*Cervus canadensis*)	Mitigation Target	Elk populations have tripled in Unit 11 since the Department acquired the Peter T. Johnson Unit. Concerns regarding population carrying capacity of this area have resulted in an attempt to reduce the population size through controlled cow harvest.	Pull from another plan	Pull from another plan	Suitable
Mule Deer (*Odocoileus hemionus*)	Flagship	Mule deer are common throughout CMWMA primarily in canyon grasslands and along forest edge habitats.	Sufficient quality and quantity of habitat is the greatest limiting factor on mule deer populations. Severe winters and disturbance can also create negative impacts on mule deer populations.	Provide key winter, summer, and transitional habitats that provide for mule deer populations that meet or exceed statewide objectives.	Suitable
Bighorn Sheep (*Ovis canadensis*)	USFS (1) Flagship	Reintroduced in 1983, the Redbird BHS herd is estimated at approximately 110 individuals.	Population is limited by disease. Pneumonia is established in many BHS populations including the Redbird herd and results in high mortality of young lambs.	Monitoring. Landscape-scale habitat protection and restoration.	Suitable
White-tailed Deer (*Odocoileus virginianus*)	Mitigation Target	White-tailed deer are common in the mesic northern and northeastern portions of CMWMA including forests, meadows, and adjacent to agricultural plateaus.	Sufficient quality and quantity of habitat is the greatest limiting factor on white-tailed deer populations. Disease and severe winters can also create negative impacts on WTD populations.	Ensure that WTD habitats on CMWMA include key elements for this species such as high quality riparian/meadow habitat interspersed with dense forests and security cover.	Suitable
Gastropods					
Western Ridged Mussel (*Gonidea angulata*)	IDFG	Historically, populations existed in much of the Snake, Clearwater, Salmon, and little Salmon rivers. Many historical colonies have been extirpated including those in a large portion of the Snake River (Frest 1999). Two occurrences on WMA near the confluence of the Snake and Salmon Rivers. Inhabits creeks and rivers usually in coarse substrates but sometimes in firm mud. Larval WRM are fish parasites, attaching to the fins or gills of host fish.	Habitat loss is the primary threat. Eutrophication from agriculture and development; changes in aquatic temperature and sedimentation patterns from dams; mining; changes to the distribution and abundance of host fish (Taylor 1981, Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Potentially suitable
Western Pearlshell (*Margaritifera falcate*)	IDFG	In R2, populations are thought to be extant in the lower Salmon and little Salmon rivers and in Hells Canyon. Occurrences associated with WMA are near the confluence of Salmon and Snake rivers. Occur in cold, clear streams and rivers, often in reaches having fast current	This species is intolerant of heavy nutrient loads, siltation, and water pollution. Changes in water quality resulting from activities such as livestock grazing, agricultural runoff, development, mining, dam construction, water diversions. Loss of appropriate host fish populations is also a	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs.	Potentially suitable

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		and coarse substrates. Larval WS are fish parasites that attach to the fins or gills of host fish. Host species include Chinook salmon, rainbow trout, brown trout, brook trout, and speckled dace (Frest 1999). A *Margaritifera* species was reported in Deer Creek on the WMA.	threat (Frest 1999).		
Columbia Pebblesnail (*Fluminicola fuscus*)	BLM	Found in fast flowing, shallow, and cold waters with high oxygen content.	Loss and degradation of suitable water conditions.	Protect and preserve existing habitat for this species such as free-flowing rivers.	Not suitable Limited potential benefits from WMA actions.
Pristine Pyrg (*Pristinicola hemphilli*)	IDFG	In Idaho, this species has been found in portions of the lower Snake and lower Salmon river drainages. An aquatic snail inhabiting small springs, seeps, and spring-influenced streams. Usually in semiarid sagebrush-dominated habitat with basalt substrates, but also in dense PSME forests. Habitat is characterized by cobble substrates, slow to moderate flows, and very shallow, cold, clear water (Frest and Johannes 1997). There are two records of this species being within 25 miles of the CMWMA.	Habitat loss. In particular, grazing, road construction and maintenance, damming and water diversion, and campground construction.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Shortspire Pondsnail (*Stagnicola idahoensis*)	IDFG	Endemic to the Little Salmon and lower Salmon rivers. Current population status unknown.	Habitat loss resulting from activities disturbing or altering the river bed and water quality such as road construction, mining, and gravel dredging.	Maintain natural flow regime and water quality standards.	Not suitable The distribution and local population risks to the species are unknown.
Mountain Marshsnail (*Stagnicola montanensis*)	IDFG	Remaining populations are thought to exist in SE Idaho and the lower Salmon River drainage. Only one population in a tributary of the Salmon River was confirmed to be extant in 1994 (Frest 1999). Inhabits mid- to high-elevation streams and springs. Typical habitat is small, shallow perennial streams having cold water and low to moderate velocity. Substrates range from mud to cobbles; aquatic macrophytes are typically absent (Frest 1999).	Habitat degradation arising from livestock use of springs and small streams is pervasive throughout the range of the species (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs.	Not suitable The distribution and local population risks to the species are unknown.
Shortface Lanx (*Fisherola nuttalli*)	BLM IDFG	Occurrences within the WMA have been found in Snake River eddies and along shoreline. This freshwater limpet occurs in large rivers. Occupied habitat is characteristically in river reaches that have a swift current and are highly oxygenated, often near rapids.	Habitat loss arising from damming and degraded water quality is the greatest threat. Effluence from agriculture, industry, and urban and residential developments has reduced water quality in much of the known range (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs.	Not suitable The distribution and local population risks to the species are unknown.
Western Flat-whorl (*Planogyra clappi*)	IDFG	Known to occur at only one site in Idaho along the lower Salmon River. Generally associated with mesic forest habitat at low to subalpine elevations. Occasionally	Habitat loss arising from timber harvest (Frest 1999). Surface disturbance and loss of surface debris and understory vegetation would also be expected to affect this species.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.

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		encountered in partly forested rock taluses or outcrops, marshes, or riparian areas. Usually found under leaf litter.			
Fir Pinwheel (*Radiodiscus abietum*)	IDFG	Inhabits the underside of logs and under woody debris (Burke 2013). Closest occurrence to WMA on Mission Creek.	Habitat loss arising from timber harvest. Surface disturbance and loss of surface debris and understory vegetation would also be expected to affect this species.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Salmon Coil (*Helicodiscus salmonaceus*)	IDFG	Terrestrial snail found in the lower Salmon River valley associated with talus or rock outcrops in dry, open sage scrub at low to moderate elevations in relatively dry conditions (Frest 1999).	No threat is identified in the literature. Often is found associated with other species for which road construction, livestock grazing, quarrying, and residential development are threats (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Nimapuna Tigersnail (*Anguispira nimapuna*)	IDFG	Terrestrial snail; known distribution is limited to areas within the South Fork of the Clearwater, lower Selway, and lower Lochsa river drainages.	Changes in soil moisture regime or chemistry, loss of coarse woody debris, organic detritus, and other changes to surface microclimate and structure have the potential to affect habitat suitability. Factors potential affecting habitat includes grazing, logging, roads and road maintenance, and fire.	Promote natural fire regime. Minimize surface compaction and alteration of surface microhabitat from livestock, timber management, or mineral extraction. Mimic organic deposition with forest management practices.	Not suitable The distribution and local population risks to the species are unknown.
Pale Jumping-slug (*Hemphillia camelus*)	IDFG	This Idaho endemic was historically found in the St. Joe, Selway, South Fork of the Clearwater, and the lower Salmon River. Now thought to be extirpated from the lower Salmon River. Habitat comprises intact closed to nearly closed-canopy PIPO-PSME forests adjacent to major streams. Populations occur in relatively moist areas having a diverse plant understory and a duff layer. Prevalent substrate is basalt but limestone- and schist-derived soils occur at some sites (Frest and Johannes 1997). There are no records of this species within 25 miles of CMWMA.	Logging, grazing, forest fires, roads, pollution, and surface disturbance associated with mining.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Sheathed Slug (*Zacoleus idahoensis*)	IDFG	Historically found in the lower Salmon, Little Salmon, Selway, Lochsa, and CDA river drainages. Once considered to be widespread, they are now thought to exist only in scattered locations within original range. Found in PSME, PIEN, and PIPO forests that have a diverse understory of forbs and bryophytes. Occupied sites are typically in moist valleys, gorges, ravines, and talus fields near permanent water (Frest 1999). There are no records of this species within 25 miles of the CMWMA.	The species has a propensity for diverse, intact, and moist habitats and is absent from sites disturbed by timber harvest and livestock grazing (Frest 1999). Logging and grazing are prevalent activities throughout the known range and are potential threats (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Lyre Mantleslug (*Udosarx lyrata*)	IDFG	In Idaho, this species has been found at scattered sites in the Bitterroot Mountains and in the upper Clearwater and Clark	Thought to be disturbed by timber harvest and livestock grazing and is thought to be intolerant of habitat alteration (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs.	Not suitable The distribution and local population risks to the species are unknown.

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		Fork river drainages. Found in mesic habitats in valleys, ravines, gorges, or talus fields.		Limiting surface disturbance at known sites.	
Thinlip Tightcoil (*Pristiloma idahoense*)	IDFG	Terrestrial snail historically found in Adams, Boise, Benewah, Clearwater, Idaho, Kootenai, and Shoshone counties. Low elevation, low slope PIPO and PSME forests in a variety of substrates.	Primary threat is habitat loss, particularly as a result of land use activities that result in surface disturbance, removal of surface debris or understory plants, reduction of canopy coverage, or changes in soil moisture. Frest (1999) mentions timber harvest and livestock grazing as common sources of habitat alteration.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Shiny Tightcoil (*Pristiloma wascoense*)	IDFG	Four documented sites in Washington, Adams, Boise, and Shoshone counties. Mid to high elevation PSME and PIPO forests.	Primary threat is habitat loss, particularly as a result of land use activities that result in surface disturbance, removal of surface debris or understory plants, reduction of canopy coverage, or changes in soil moisture. Frest (1999) mentions timber harvest and livestock grazing as common sources of habitat alteration.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Selway Forestsnail (*Allogona lombardii*)	IDFG	Lower Lochsa, Salmon, and Selway rivers and in one Selway tributary. Mixed coniferous forests in lower elevation, well-shaded, moist areas along medium or large streams with a substantial duff layer and diverse understory (edge of flood plains).	Logging, grazing, road modifications, mining (limestone).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Dry Land Forestsnail (*Allogona ptychophora solida*)	IDFG	Populations may be extirpated from the lower Clearwater River and in parts of the lower Salmon River. Isolated colonies exist in undisturbed areas of Hells Canyon and lower Salmon River (Frest 1999). Found in large basalt taluses where colonies are protected from weather extremes. Colonies are most often found at the bases of north-facing slopes (Frest 1999).	Surface disturbance and erosion. Livestock grazing, road construction and maintenance, and quarrying and mining (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Potentially suitable
River of No Return Oregonian (*Cryptomastix mullani clappi*)	IDFG	Terrestrial snail, endemic to Idaho, occurring at scattered sites along the lower Salmon River in mesic forest habitats, particularly low-elevation PIPO forests with well-developed understory vegetation (Frest 1999).	Timber harvest, quarrying and mining, livestock grazing, and road construction and maintenance (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Potentially suitable
An Oregonian – Lower Salmon River (*Cryptomastix mullani latilabris*)	IDFG	Terrestrial snail, endemic to Idaho, occurring at scattered sites along the lower Salmon and Clearwater rivers in mesic forest habitats, particularly low-elevation PIPO forests with well-developed understory veg and limestone substrate (Frest 1999).	Surface disturbance, removal of surface debris or understory plants, reduction of canopy coverage, or changes in soil moisture. Timber harvest, quarrying or mining, livestock grazing, and road construction and maintenance (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Potentially suitable

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An Oregonian – Lower Clearwater River (*Cryptomastix mullani tuckeri*)	IDFG	Formerly occurring along the mainstem of the Clearwater River from Orofino to Kooskia. Colonies occur at moist, shaded sites at the base of steep slopes with exposed bedrock and well-developed understory vegetation (Frest 1999).	Habitat losses resulted from grazing, quarrying, housing developments, road construction and maintenance.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
An Oregonian – Hells Canyon (*Cryptomastix populi*)	IDFG	Terrestrial snail occurs primarily in Idaho along the Snake, lower Salmon, and lower Clearwater rivers. Found in basalt talus at the bases along the lower slopes of the river canyons. Sites are xeric and sparsely vegetated with netleaf hackberry, sagebrush, and a variety of forbs and grasses.	Livestock grazing and road construction and maintenance have been noted as the most important threats to this species (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Potentially suitable
Salmon Oregonian (*Cryptomastix harfordiana*)	IDFG	Terrestrial snail endemic to the lower Salmon River canyon between Riggins and Copperville in xeric habitats with hackberry and grasses or somewhat mesic habitats with willow and dogwood. Colonies are associated with talus or boulder fields, often at the bases of slopes or in riparian areas (Frest 1999).	Habitat losses resulted from grazing, quarrying, housing developments, road construction and maintenance (Frest 1999).	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Humped Coin (*Polygyrella polygyrella*)	IDFG	Historically occurred in the CDA, Clearwater, Lochsa, Selway, and lower Salmon river drainages. The current distribution includes three sites in White Bird Canyon with the closest occurrence to the WMA in Mission Creek. Inhabits undisturbed open spruce and PSME forests having diverse forbs, mosses, and deciduous shrubs in the understory.	Logging, grazing, roads, and severe fires.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Lyrate Mountainsnail (*Oreohelix haydeni*)	IDFG	In northern Idaho, this species is known to occur in the lower Salmon River canyon associated with xeric habitat having exposed limestone outcroppings. The subspecies *hesperia* occurs in open ponderosa pine forests. The subspecies *perplexa* occurs in areas dominated by sagebrush, serviceberry, and grasses.	Populations associated with pine forests are threatened by habitat loss arising from timber harvest. All populations are vulnerable to habitat loss caused by livestock grazing and ag development.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Costate Mountainsnail (*Oreohelix idahoensis*)	IDFG	Terrestrial snail endemic to the Salmon River canyon from the mouth of Race Creek to Lucile (Frest and Johannes 1995b). Reported occurrence in Cottonwood Creek (1923). Occurs in association with exposed limestone or calcareous schist. Occupied sites are dominated with xeric vegetation such as sagebrush, hackberry, and prickly pear.	Vulnerable to habitat loss and fragmentation. Activities causing surface disturbance, such as grazing, housing development, and mining or quarrying are threats.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.

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Boulder Pile Mountainsnail (*Oreohelix jugalis*)	BLM IDFG	Salmon River canyon from Hells Gate Creek to Allison Creek. Usually associated with talus or boulder fields in mesic to somewhat xeric conditions; netleaf hackberry, willow, forbs, grasses.	Habitat loss from road construction, mining, and livestock grazing are the primary threats to this species.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Whorled Mountainsnail (*Oreohelix vortex*)	BLM IDFG	Endemic to a few small localities in the lower Salmon River canyon associated with basalt boulder fields and talus in xeric habitat. Grasses and occasionally shrubs (hackberry, sagebrush) or forbs (balsamroot) are the most common plant associates.	Habitat loss from quarrying, road construction and maintenance, and livestock grazing.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Potentially suitable
Lava Rock Mountainsnail (*Oreohelix waltoni*)	BLM IDFG	Restricted to a few sites in the lower Salmon River canyon. Occurs in Xeric habitat. Plant associations include grasses, sagebrush, hackberry. One population is found in basalt talus and other are associated with "mixed schist/alluvium" (Frest 1999).	Habitat loss from grazing, logging, rock quarrying, and road construction and maintenance.	Surveys are needed to assess the current status of Idaho populations and to identify site-specific threats and conservation needs. Limiting surface disturbance at known sites.	Not suitable The distribution and local population risks to the species are unknown.
Plants					
MacFarlane's Four-o'clock (*Mirabilis macfarlanei*)	BLM USFWS	No known occurrences within CMWMA, though potential habitat exists. Occurs in canyon grasslands of the lower Snake and Salmon River drainages, upstream from CMWMA.	Non-native weed invasion, including several noxious weeds, may threaten to this species. Also accidental herbicide application may threaten populations. Trampling and grazing by cattle is also a threat.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Eliminating grazing would also be beneficial.	Potentially suitable
Spalding's Catchfly (*Silene spaldingii*)	BLM IDFG USFWS	Occurs in Canyon grasslands of CMWMA. Two KCAs (Key Conservation Areas) are located on CMWMA (Craig Mt. KCA and Garden Creek KCA). In the recovery plan, a KCA is defined as "Significant populations and habitat of *Silene spaldingii* that have been identified by members of the technical team as the primary areas for recovery actions, protection, and conservation in this recovery plan" (U.S. Fish and Wildlife Service 2007).	Non-native weed invasion, including several noxious weeds, is the primary threat to this species. Trampling and grazing by cattle may also be a threat.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Eliminating grazing would also be beneficial.	Suitable
Purple Thick-leaved Thelypody (*Thelypodium laciniatum* var. *streptanthoides*)	BLM IDFG	Regional endemic found on rock outcrops within canyon grasslands on CMWMA. The majority of known occurrences in Idaho are found on Craig Mountain.	Rock outcrop habitat in which this species occurs is protected from most threats however, non-native weed invasion, including several noxious weeds, may be a threat.	Weed control would help in the conservation of this species (Mancuso and Moseley 1994). Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself.	Suitable
Asotin Milkvetch (*Astragalus asotinensis*)	BLM IDFG	Narrow endemic restricted to calcareous substrates (Björk 2010, Pekas et al. 2012). All known occurrences in Idaho are on CMWMA (near Billy Creek and Camp Creek).	Non-native weed invasion, including several noxious weeds (e.g., yellow starthistle, common crupina, Scotch thistle), is the primary threat to this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself.	Suitable

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Douglas' Clover (*Trifolium douglasii*)	BLM	Specimens collected from Lake Waha, Benton Meadows, Soldiers Meadows, CMWMA. Benton and Soldiers Meadows occurrences could not be relocated in 2007, and Lake Waha occurrence could not be relocated in 1963.	Non-native weed invasion may threaten this species. Logging in the vicinity may also impact this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Any logging in the vicinity of known population should occur in winter to minimize disturbance.	Not suitable
Simpson's Hedgehog Cactus (*Pediocactus nigrispinus* =*Pediocactus simpsonii*)	BLM IDFG	Occurs along Wapshilla Ridge and further downslope toward the Snake River (Mancuso and Moseley 1994). Nearly all known occurrences of this species in northern Idaho are found on CMWMA.	Potential threats include cactus collecting, trampling, fire, and habitat degradation by non-native weed invasion.	Minimize potential disturbances by eliminating grazing and not developing recreation trails near populations.	Suitable
Stalk-leaved Monkeyflower (*Mimulus washingtonensis*)	BLM IDFG	Occurs on seeps of canyon grasslands on CMWMA. Most of the known occurrences in Idaho are on CMWMA.	Populations near roads are at risk from activities such as road construction/maintenance, herbicide spraying, and non-native weed invasion.	Road work should be done in a way to avoid harm to these plants. Weed control would improve habitat quality. Herbicide applicators should be able to identify this species to avoid accidental spraying of plants near roadsides.	Suitable
Spacious Monkeyflower (*Mimulus ampliatus*)	BLM IDFG USFS(1)	One population has been documented on CMWMA on private ground near Lake Waha on seepy basalt outcrops. Similar habitat exists on Craig Mountain.	Population is on road cut and is potentially at risk of destruction by road construction/maintenance. Non-native weed invasion, including noxious weeds, is also a threat.	Road work should be done in a way to avoid harm to these plants. Herbicide applicators should be able to identify this species to avoid accidental spraying of plants. Additional surveys are needed.	Potentially suitable
Dwarf Gray Rabbitbrush (*Ericameria nauseosa* var. *nana* =*Chrysothamnus nauseosus* ssp. *nanus*)	IDFG	Occurs along rocky ridges on CMWMA and is a regional endemic. Almost all known Idaho populations of this species are located on Craig Mountain.	Populations near roads are at risk of destruction by road construction/maintenance, accidental herbicide spraying, and non-native weed invasion (Mancuso and Moseley 1994).	Road construction/maintenance should be done in a way to avoid harm to these plants. Herbicide applicators should be able to identify this species so as to avoid accidental spraying of plants near roadsides.	Suitable
Idaho Hawksbeard (*Crepis bakeri* =*Crepis bakeri* ssp. *idahoensis*)	BLM IDFG	Occurs in upper elevations of canyon grasslands on CMWMA and is a regional endemic.	Non-native weed invasion, including several noxious weeds, is the primary threat to this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Limiting ground disturbance would also be beneficial (no grazing and off-road vehicles).	Suitable.
Sticky Goldenweed (*Pyrrocoma hirta* var. *sonchifolia*)	IDFG	All known populations of this species are found within meadows and open forest on CMWMA. However populations are localized, contain few plants, and may exhibit low viability.	Livestock grazing may be a potential threat.	Eliminate livestock grazing of meadows.	Potentially suitable
Palouse Goldenweed (*Pyrrocoma scaberula* =*Pyrrocoma liatriformis*)	BLM IDFG	Prevalent in canyon grasslands on CMWMA and is a regional endemic. Mostly restricted to northerly aspects.	Non-native weed invasion, including several noxious weeds, is the primary threat to this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Limiting ground disturbance would also be beneficial (no grazing and off-road vehicles).	Potentially suitable

Species	Status Designation(s)	Occurrence Context in Craig Mountain WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Craig Mountain WMA
Green-band Mariposa lily (*Calochortus macrocarpus* var. *maculosus*)	BLM IDFG	Prevalent in canyon grasslands on CMWMA and is a regional endemic. Craig Mountain supports the largest known population of green-band mariposa lily (Mancuso and Moseley 1994).	Non-native weed invasion, including several noxious weeds, is the primary threat to this species.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Limiting ground disturbance would also be beneficial (no grazing and off-road vehicles). This species is likely to survive most fires because of its deep bulb.	Suitable
Broad-fruit Mariposa lily (*Calochortus nitidus*)	BLM IDFG USFS(1)	Prevalent in canyon grasslands and open forest on CMWMA and is a regional endemic. Craig Mountain is one of two strongholds for this species (Mancuso and Moseley 1994).	Non-native weed invasion, including several noxious weeds, is the primary threat to this species. Timber harvest may impact plants that occur in open forest. Populations near roads are at risk of destruction by road construction/maintenance and other activities.	Weed control would improve habitat quality. Altering type of herbicide and timing of application could kill weeds threatening this plant without harming the plant itself. Limiting ground disturbance would also be beneficial (no grazing and off-road vehicles). Logging during the winter would eliminate soil disturbance and would not harm plants as they are inactive above ground during the winter. Road construction and maintenance should be done in a way to avoid harm to these plants.	Suitable
Vanilla Grass (*Hierochloe odorata*)	IDFG	One small occurrence recently discovered in mesic meadow along tributary entering Larabee Meadows. This species is widespread globally but only small, infrequently occurring populations occur in meadows of central Idaho	Excessive livestock grazing is a potential threat. Desiccation of meadows due to stream incision.	Eliminate livestock grazing of meadows. Restore meadow hydrology.	Unsuitable The distribution and local population risks to the species are unknown.

IX. LAND ACQUISITIONS AND AGREEMENTS

Land Acquisitions					
Year	**Funds Used**	**Property**	**Acquired From**		**Acres**
1971	IDFG	Gaiser	Harold Gaiser		1,960
1979	IDFG;BOR	Prince	Burdett and Lula Prince		11,527
1983	IDFG	Gray Ranch	Charles Gray		2,636
1990	IDFG	Limepoint	Washington Water and Power		565
1992	BPA	Howard Ranch	Bonneville Power Administration		62,210
2010	CM Trust	Lake Creek	University of Idaho Foundation		120
2013	IDFG	Redbird Canyon	Idaho Fish and Wildlife Foundation		2,862
			Subtotal		**81,880**
Cooperative Land Agreements					
Initiation	**Expiration**	**Segment**	**Cooperator**	**Type/Purpose**	**Acres**
1997	Perpetual	CMWMA	BLM, IDL, TNC	MOU/Land Management	42,425
2008	2017	Peter T. Johnson	IDL	Lease/Grazing Rights	*6,278
				Subtotal	**42,425**
				WMA Total	**124,305**

*Acreage for IDL grazing lease are part of the acres identified in the MOU and not recounted towards WMA total.

GRAZING ALLOTMENTS

As of spring 2013, there are two grazing allotments defined by the Department that fall within the boundaries of CMWMA. The following provides the identification, size, and use statistics for each of these allotments.

Use Statistics	**Cooperative Range Management Program**	**Larabee Meadows**
Department Acres	1,360	920
Acres in CMWMA	7,970	920
AUMs	2,010	102
Management Status	Maintain	Improve
Available for Grazing?	Yes	Yes
Current Status	Active	Active
Current Use	365 cow/calf pair or equivalent	50 cow/calf pair or equivalent
Current Season of Use	6-1 to 10-1	6-1 to 8-1

WATER RIGHTS

The Department holds 245 water rights throughout the Craig Mountain area. Information associated with these water rights are kept on file at the Department Region 2 office.

Right Number	*Source*	*Tributary*	*Purpose*	*Ownership*
85-11812	Unnamed Stream	Webb Creek	Stockwater	Idaho Fish & Game
85-11813	Unnamed Stream	Webb Creek	Stockwater	Idaho Fish & Game
85-11814	Unnamed Stream	Capt. John Creek, S. Fork	Stockwater	Idaho Fish & Game
85-11815	Unnamed Stream	Webb Creek	Stockwater	Idaho Fish & Game
85-11816	Unnamed Stream	Webb Creek	Stockwater	Idaho Fish & Game
85-11817	Webb Creek	Sweetwater Creek	Stockwater	Idaho Fish & Game
85-11818	Unnamed Stream	Soldier Meadow Reservoir	Stockwater	Idaho Fish & Game
85-11820	Unnamed Stream	Webb Creek	Stockwater	Idaho Fish & Game
85-11821	Unnamed Stream	Webb Creek	Stockwater	Idaho Fish & Game
85-11822	Lake Creek	Lake Waha	Stockwater	Idaho Fish & Game
85-11823	Lake Creek	Lake Waha	Stockwater	Idaho Fish & Game
85-11824	Unnamed Stream	Lake Creek	Stockwater	Idaho Fish & Game
85-11825	Unnamed Stream	Lake Creek	Stockwater	Idaho Fish & Game
85-11826	Unnamed Stream	Lake Creek	Stockwater	Idaho Fish & Game
85-11827	Browns Creek	Capt. John Creek	Stockwater	Idaho Fish & Game
85-11828	Springs	Capt. John Creek	Stockwater	Idaho Fish & Game
85-11829	Webb Creek	Sweetwater Creek	Stockwater	Idaho Fish & Game
85-11831	Capt. John Creek, S. Fork	Capt. John Creek	Stockwater	Idaho Fish & Game
85-11832	Capt. John Creek	Snake River	Stockwater	Idaho Fish & Game
85-11834	Unnamed Stream	Chimney Creek	Stockwater	Idaho Fish & Game
85-11835	Unnamed Stream	Chimney Creek	Stockwater	BLM/Idaho Fish & Game
85-11836	Unnamed Stream	Capt. John Creek, S. Fork	Stockwater	Idaho Fish & Game
85-11837	Unnamed Stream	Capt. John Creek, S. Fork	Stockwater	Idaho Fish & Game
85-11838	Unnamed Stream	Capt. John Creek, S. Fork	Stockwater	Idaho Fish & Game
85-11839	Unnamed Stream	Capt. John Creek, S. Fork	Stockwater	Idaho Fish & Game
85-11840	Unnamed Stream	Capt. John Creek, S. Fork	Stockwater	Idaho Fish & Game
85-11841	Unnamed Stream	Capt. John Creek, S. Fork	Stockwater	Idaho Fish & Game
85-11842	Unnamed Stream	Capt. John Creek	Stockwater	Idaho Fish & Game
85-11845	Webb Creek	Sweetwater Creek	Stockwater	Idaho Fish & Game
85-11846	Unnamed Stream	Big Cougar Creek	Stockwater	Idaho Fish & Game
85-11849	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11850	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11851	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11852	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11853	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11854	Unnamed Stream	Frenchy Creek	Stockwater	Idaho Fish & Game
85-11855	Unnamed Stream	Frenchy Creek	Stockwater	Idaho Fish & Game
85-11856	Unnamed Stream	Frenchy Creek	Stockwater	Idaho Fish & Game
85-11857	Unnamed Stream	Frenchy Creek	Stockwater	Idaho Fish & Game
85-11858	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game

Right Number	*Source*	*Tributary*	*Purpose*	*Ownership*
85-11859	First Creek	Snake River	Stockwater	Idaho Fish & Game
85-11860	Frenchy Creek	Snake River	Stockwater	Idaho Fish & Game
85-11861	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11862	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11863	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11864	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11865	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11866	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11867	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11868	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11869	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11870	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11871	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11872	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11873	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11874	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11875	Unnamed Stream	Cottonwood Creek	Stockwater	Idaho Fish & Game
85-11876	Cottonwood Creek	Snake River	Stockwater	Idaho Fish & Game
85-11877	Unnamed Stream	Frenchy Creek	Stockwater	Idaho Fish & Game
85-11878	Unnamed Stream	Frenchy Creek	Stockwater	Idaho Fish & Game
85-11879	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11880	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11881	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11882	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11883	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11884	Unnamed Stream	First Creek	Stockwater	Idaho Fish & Game
85-11885	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game
85-11886	Unnamed Stream	Snake River	Stockwater	Idaho Fish & Game

X. INFRASTRUCTURE

Location	Building	Size (square ft.)	Year Built	Condition	Cultural Status
Benton Meadows	Cabin #1	408	1999	1	None
	Cabin #2	384	1996	1	None
	Cabin #3	384	1996	1	None
	Barn	660	1960	2	
	Shop	1296	2009	1	
	Shower	256	2013	1	
Billy Creek	Ranch House	1800	1935	1	
	Chicken House	576	1900	2	
	Root cellars (2)	160	1930	2	
	Storage Shed	300	1979	2	
	Shop	864	2008	1	
	Hay shed	1750	1900	2	
Wapshilla	Ranch House	2930	1995	1	Protected
	Spring House	476	1910	3	Protected
	Blacksmith Shop	468	1995	2	Protected
	Grain Shed	240	1910	2	Protected
	Smokehouse	121	1910	2	Protected
	Log Shed	168	1995	1	None
Cabins	Frenchy Creek	320	2007	1	None
	Hermit Springs	320	2002	1	None
	Cottonwood	120	1995	1	None
	Madden Creek	240	1979	1	None
	Dough Creek	224	2008	1	None
	Deer Creek	320	2001	1	None
Zaza Town Site	Building #1	280	1912	4	None
	Building #2	651	Pre-1920	4	None
	Horse Barn	357	Pre-1920	4	None
Reeves Ranch	Line Shack	640		3	None
	Barn	1,739		4	None
Other	Mule Deer Barn #1	255		2	None
	Brown's Creek Warming Hut	512		1	None
	Deer Creek Barn	1000		3	None
	Camp Creek Barn	1000		3	None

2013 Infrastructure condition key:
1=Excellent condition; recently built and/or frequently maintained
2=Good condition; sound structure and/or basic maintenance conducted
3=standing but is in need of maintenance
4=lacking in structural integrity
5=collapsed and beyond repair

Water improvements
9-250 gallon wildlife guzzlers with water catchment roof
3-2500 gallon wildlife guzzler

Earth structures
6 man-made ponds

Roads and trails (lengths are approximate)
60 miles of open roads maintained by Nez Perce and Lewis counties.
18 miles of open roads maintained by the BLM.
13 miles of open roads maintained by multiple agencies.
5.5 miles of trail maintained for seasonal motorized access by the Department.
3.25 miles of open roads maintained by a homeowners association.
93 miles of agency maintained roads for administrative and non-motorized public access only.

Maintained fences (lengths are approximate)
44 miles of 3-strand barbed wire fence
1.5 miles of buck and pole fence

Campsites
Multiple primitive camping areas are available on Department lands within CMWMA.

XI. CONSERVATION TARGET ASSESSMENT

An analysis of how the Conservation Targets selected for CMWMA address the threats of species assessed from Appendix VIII. Species that are unlikely to be found within the landscape of the WMA and/or unlikely to benefit from conservation actions conducted in the Craig Mountain Area were classified as "Not Applicable." Species that exist (or potentially exist) within the CMWMA landscape but are not expected to benefit from the selected Conservation Targets or for which there is an insufficient understanding are classified as a "Conservation Void."

	Conservation Targets[a]			
Common Name	**Ponderosa Pine And Western Larch Habitat**	**Mesic Meadow and Riparian Habitat**	**Canyon Grassland Habitat**	**Conservation Void**
Reptiles and Amphibians				
Idaho Giant Salamander		X		
Columbia Spotted Frog		X		
Northern Alligator Lizard	X			
Ring-necked Snake		X		
Night Snake			X	
Common Garter Snake		X		
Birds				
Northern Goshawk	X	X		
Swainson's Hawk			P	
Bald Eagle				Yes
Prairie Falcon			P	
American Peregrine Falcon			P	
*Mountain Quail	X	X		
Spotted Sandpiper		P		
Long-billed Curlew			P	
Short-eared Owl			P	
Great gray Owl	X	X		
*Flammulated Owl	X			
*Northern Pygmy-owl	X			
*Lewis's Woodpecker	X			
American Three-toed Woodpecker	X			
*White-headed Woodpecker	X			
*Black-backed Woodpecker	X			
*Pileated Woodpecker	X			
*Black-capped Chickadee	X	X		
*Yellow Warbler		P		
Grasshopper Sparrow			P	
Lesser Goldfinch		P	P	

	Conservation Targets[a]			
Common Name	**Ponderosa Pine And Western Larch Habitat**	**Mesic Meadow and Riparian Habitat**	**Canyon Grassland Habitat**	**Conservation Void**
Fish				
Pacific Lamprey				Yes
White Sturgeon				Yes
Sockeye Salmon				Yes
Chinook Salmon guild (2 runs)				Yes
Westslope Cutthroat Trout				Yes
*Steelhead		P		
Inland Redband Trout		X		
Bull Trout				Yes
Insects				
Mayfly species guild (2 spp.)				Yes
Spur-throat Grasshopper guild (3 spp.)			X	
Columbia River Tiger Beetle				Yes
Stonefly species guild (6 spp.)				Yes
Spring stonefly				Yes
Gillette's Checkerspot		X		
Mammals				
Merriam's Shrew	X	X		
Dwarf Shrew		X	X	
Pygmy Shrew	X	X		
Yuma Myotis	P	P		
Long-eared Myotis	P	P		
Fringed Myotis	P			
Long-legged Myotis	P	P		
California Myotis			P	
Western Pipistrelle			P	
Townsend's Big-eared Bat			P	
*River Otter		P		
*Rocky Mountain Elk	X	X	X	
*Mule Deer	X	X	X	
*White-tailed Deer	X	X		
*Bighorn Sheep			X	
Gastropods				
Western Ridged Mussel				Yes
Western Pearlshell				Yes
Columbia Pebblesnail				Yes
Pristine Pyrg				Yes

	Conservation Targets[a]			
Common Name	**Ponderosa Pine And Western Larch Habitat**	**Mesic Meadow and Riparian Habitat**	**Canyon Grassland Habitat**	**Conservation Void**
Shortspire Pondsnail				Yes
Mountain Marshsnail				Yes
Shortface Lanx				Yes
Western Flat-whorl				Yes
Fir Pinwheel				Yes
Salmon Coil				Yes
Nimapuna Tigersnail				Yes
Pale Jumping-slug				Yes
Sheathed Slug				Yes
Lyre Mantleslug				Yes
Thinlip Tightcoil				Yes
Shiny Tightcoil				Yes
Selway Forestsnail				Yes
Dry land Forestsnail				Yes
River of No Return Oregonian				Yes
An Oregonian (Lower Salmon River)				Yes
An Oregonian (Lower Clearwater)				Yes
An Oregonian (Hells Canyon)				Yes
Salmon Oregonian				Yes
Humped Coin				Yes
Lyrate Mountainsnail				Yes
Costate Mountainsnail				Yes
Boulder Pile Mountainsnail				Yes
Whorled Mountainsnail				Yes
Lava Rock Mountainsnail				Yes
Plants				
MacFarlane's Four-o'clock			X	
*Spalding's Catchfly			X	
*Purple Thick-leaved Thelypody			X	
*Asotin Milkvetch			X	
Douglas' Clover	X			
*Simpson's Hedgehog Cactus			X	
*Stalk-leaved Monkeyflower		X		
Spacious Monkeyflower		X		Yes
*Dwarf Gray Rabbitbrush			X	
*Idaho Hawksbeard			X	
*Sticky Goldenweed		X		

	Conservation Targets[a]			
Common Name	**Ponderosa Pine And Western Larch Habitat**	**Mesic Meadow and Riparian Habitat**	**Canyon Grassland Habitat**	**Conservation Void**
*Palouse Goldenweed			X	
*Green-band Mariposa Lily			X	
*Broad-fruit Mariposa Lily	X	X	X	
Vanilla Grass		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 Voids 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.

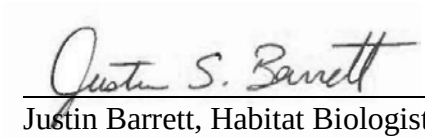
* Denotes species that were selected as focal species.

CRAIG MOUNTAIN

WILDLIFE MANAGEMENT AREA PLAN

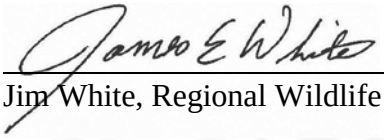
Approval

Submitted by:

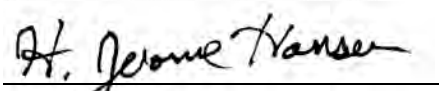


Justin Barrett, Habitat Biologist

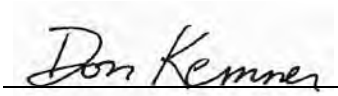
Reviewed by:



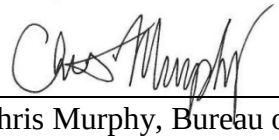
Jim White, Regional Wildlife Habitat Manager



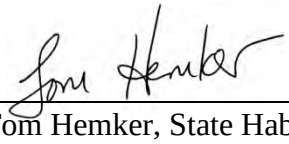
Jerome Hansen, Regional Supervisor



Don Kemner, Bureau of Wildlife

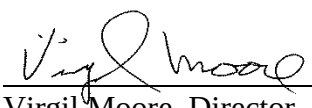


Chris Murphy, Bureau of Wildlife



Tom Hemker, State Habitat Manager

Approved by:



Virgil Moore, Director