



Farragut Wildlife Management Area



Management Plan
2014

Panhandle Region



Farragut Wildlife Management Area

**2014 – 2023 Management Plan
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Idaho Department of Fish and Game
Panhandle Region
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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 at Regional WMAs confirm their value to big game, nongame, and many at-risk species identified in Idaho's State Wildlife Action Plan. In some cases, WMAs provide the principal habitat for at-risk species in the Region.

Wildlife Management Areas often abut other protected 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 (e.g., sage-steppe, slough wetlands) and creating hyper-productive habitats (e.g., food plots, impounded wetlands) to enhance the carrying capacity for certain 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 Panhandle Region manages seven WMAs that collectively comprise 54,987 acres of land, which consists of 27,910 deeded acres and another 27,077 acres managed under cooperative agreement or lease. Wildlife Management Area management focus is to maintain highly functional wildlife habitat and provide wildlife-based recreation. Starting in the north and working south across the Panhandle Region these areas include:

- Boundary Smith Creek WMA: This 2,072-acre WMA consists of farmland that was converted back into a mosaic of wetlands and associated Kootenai River flood plain historic habitats.
- McArthur Lake WMA: One of the oldest WMAs in the state; the 1,891 acres of shallow lake, marshes, and adjacent upland forests/ meadows are primarily managed for waterfowl production and hunting.
- Pend Oreille WMA: Primarily acquired as mitigation for Albeni Falls Dam, it consists of 7,432 acres of scattered parcels of critical delta and riverine wetland habitats within the Pend Oreille River watershed.

- Farragut WMA: Another of our oldest WMAs, Farragut was originally a U.S. Navy base and gifted to the Department in 1950. The 1,418 acres is currently cooperatively managed with the Idaho Department of State Parks for public recreation and wildlife.
- Coeur d'Alene River WMA: This WMA consists of 7,538 acres of wetlands and low lying terrestrial habitats throughout the lower Coeur d'Alene and St. Joe River basins. It is primarily managed for waterfowl production and hunting.
- St. Maries WMA: A 2,344-acre mix of forest and meadow habitats, the St. Maries WMA is primarily managed for big game.
- Snow Peak WMA: A very remote, roadless back country WMA located in the upper St. Joe River drainage. The 32,292 acres are cooperatively managed with the U.S. Forest Service for elk habitat and back country hunting opportunity.

There are several outlying land parcels within the Panhandle, previously tied to fishing and boating access sites, that have significant wildlife habitat resources. For management purposes, these parcels will now be included as part of the best-associated WMA, and management priorities will be directed by the WMA plan.

The Panhandle WMAs are managed for a wide diversity of both game and sensitive species. Examples of at-risk species partially dependent on WMAs include black-backed woodpecker, red-naped sapsucker, olive-sided flycatcher, long-eared myotis, northern goshawk, northern pygmy-owl, spotted sandpiper, Vaux's swift, Cassin's finch, common garter snake, Columbia spotted frog, and western toad. Examples of sensitive plants include water howellia, maidenhair spleenwort, purple meadowrue, water pygmy weed, black snake-root, arrowleaf sweet coltsfoot, yellow sedge, and bristle-stalk sedge.

Regional WMAs are funded through a combination of hunting license dollars, appropriations from federal excise taxes derived from the sale of ammunition and firearms (Pittman-Robertson Act), and/or funding provided by the Bonneville Power Administration (BPA) to mitigate habitat loss from construction of the Albeni Falls dam. All of the Panhandle WMAs, with the exception of Snow Peak WMA, have the common management themes of wetland management for waterfowl and waterbird production; terrestrial habitat management for big game, with some emphasis on upland game species; and riparian management for water quality and all species. The WMAs provide important wildlife-based recreation and are used heavily by waterfowl and big game hunters, as well as non-consumptive users such as birdwatchers, hikers and naturalists. The abundance of water resources also attracts water-based activities such as kayaking and fishing.

The Farragut Wildlife Management Area (FWMA) is unique in Idaho in that the Department has a formal agreement with the Idaho Department of Parks and Recreation (IDPR) for co-management of the property by both agencies. Administrative supervision of the WMA is shared with the IDPR through a Memorandum of Understanding (MOU) originally signed by both agencies in 1966 and later revised in 1982 and 2006. Wildlife management activities are the responsibility of the Department while the IDPR is primarily responsible for recreation and supervision of public use. Additional benefits in the form of enhanced public recreational opportunities have been derived through the partnership with the IDPR.

This management plan provides direction in the form of goals, objectives, and strategies for the management of FWMA. Management and resource issues pertaining to FWMA were identified by both trained natural resource professionals and the general public. These issues were developed into goals, objectives, and strategies consistent with the Department Strategic Plan (*The Compass*).

Farragut WMA is comprised primarily of forested habitat, and management priorities focus on forest management and recreational use of WMA lands. Implicit in the Department mission to preserve, protect, and perpetuate the fish and wildlife resources of the state is a need to preserve, protect, and perpetuate the habitats on which they depend. Consequently, restoration of forest communities that are substantially diminished in habitat quantity, quality, or both across the landscape drive the FWMA management priorities.

Management priorities for FWMA are ponderosa pine habitat, western white pine habitat, white-tailed deer winter habitat, wildlife-based recreation and education, and controlling noxious weeds.

Conservation Targets help guide management actions and can be either a focal species or a habitat-type that benefits numerous species. We are not primarily interested in a species by species approach to managing wildlife conservation on the FWMA. Unless a species is vulnerable to extinction or extirpation, managing habitats to support healthy natural communities provides a more integrated and holistic approach to wildlife conservation.

The Conservation Targets that guide management on FWMA are based on the following focal habitats: ponderosa pine habitat, western white pine habitat, and white-tailed deer wintering habitat.

Management direction on the FWMA is both active and custodial. To meet the ponderosa and white pine management objective will require application of selective logging, use of prescribed fire, chemical weed control, and some tree planting to restore historic forest structure and composition. In contrast, white-tailed deer winter habitat that was previously actively managed only requires protection. Management to achieve wildlife-based recreation objectives include both infrastructure maintenance and developments that support recreational activities as well as working with the public and other management stakeholders identify recreational demands and craft policies that address them.

This plan will serve as a guide for current and future managers in planning where to direct efforts and resources to balance and optimize wildlife benefits, public enjoyment, and efficient operation. As new information and technology becomes available, or more property is acquired, strategies may be modified to most effectively reach the goals and objectives in this plan. All goals, objectives, 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 Farragut Wildlife Management Area (FWMA). It replaces an earlier management plan written in 1999 and this updated plan was completed during 2012 and 2013 with extensive professional and public input. This plan is tiered off other Idaho Department of Fish and Game (Department) plans and policies, including:

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

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.

Farragut WMA Vision

Protect and manage the wildlife and habitat resources of the FWMA (Figure 1) through a combination of active and custodial management activities. Seek opportunities to integrate WMA activities with the Idaho Department of Parks and Recreation (IDPR) Farragut State Park activities under the guidance of the active Memorandum of Understanding (MOU) between agencies. This includes but is not limited to both using active management operations as special educational opportunities for Park visitors and close collaboration on management of special recreational facilities of mutual interest like the Farragut Shooting Range and Eagle Boat Launch. Provide high quality wildlife-based recreational opportunities and nature viewing compatible with this primary mission for the benefit of the public.

Modification of Plan

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

Other Considerations

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

Farragut Wildlife Management Area

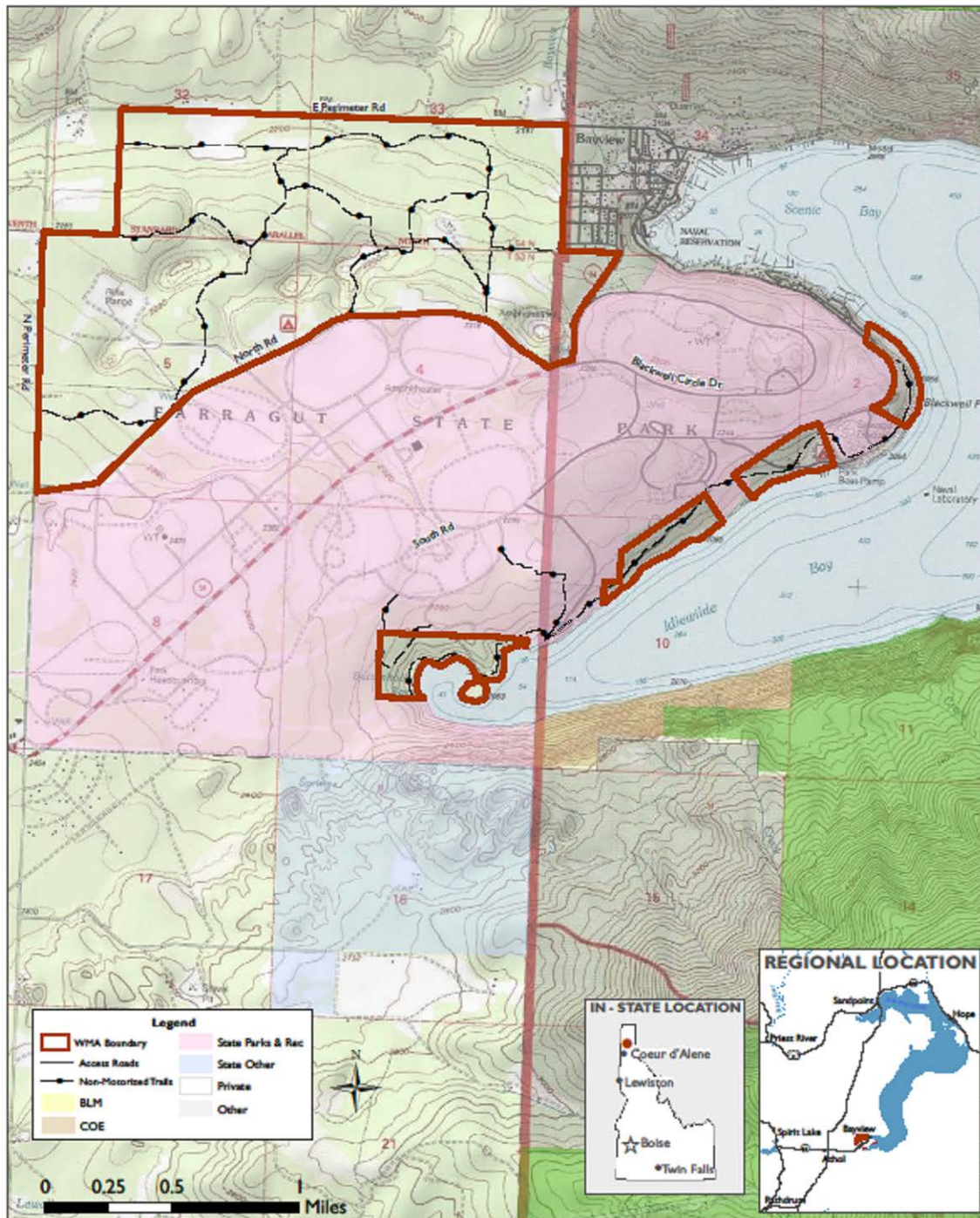


Figure 1. Map of Farragut Wildlife Management Area.

Area Description and Current Status

Climate and Weather

Northern Idaho has a continental climate that is moderated by oceanic influences from the Pacific Ocean. Prevailing westerly winds bring moist maritime air from the Pacific Ocean through the Columbia Gorge and up into northern Idaho. The air moves over the Panhandle of Idaho and is stopped by the Bitterroot and Coeur d'Alene Mountains. The Bitterroot Mountains lay to the east and north of FWMA, while the Coeur d'Alene Mountains are east and south. Occasionally in the summer, moist air comes from the north at high levels and produces thunderstorms. Thunderstorms blow in quickly and build up against the Selkirk Crest. Eventually, these storms move north or south and leave the area over a pass. These episodes cause extreme highs in the valleys. Thunderstorms occur in late May through August. The Lake Pend Oreille area averages 16 thunderstorms a year (Cooper et al. 1991, ORB 1975).

Spring is chilly with frost occurring through May. Temperatures warm rapidly in June due to longer days and normal air masses out of the south and southwest. Dry Chinook winds bring warm, dry air from Wyoming and southern Idaho and melt and evaporate snow. Summers are warm and mild, but can also have periods of hot weather. The average temperature in the summer is 65.0° F. The valleys are much warmer than the mountains. Temperatures will cool in the fall and frosts will occur in September. Winter is from November to March. The valleys are colder than the lower mountain slopes due to cold air drainage. The average temperature in the winter is 30.6° F. Winter winds come from the north and bring cold, wet air into the area. Occasionally, storms rapidly descend on the lake and winds can reach up to 60 mph. The high waves generated by these storms are dangerous for boaters (Cooper et al. 1991, ORB 1975).

The Lake Pend Oreille area is moderately humid and has a mean annual precipitation of 30.16 inches. Most of this precipitation comes in the winter months as snow. Annual seasonal snowfall is 59.3 inches. The largest amount of snowfall is in December and January. Snow can remain on the ground until March or early April. Spring and summer precipitation is moderate at 10.84 inches (Cooper et al. 1991, ORB 1975).

Geographic Features

Farragut WMA ranges in elevation from 2,051 ft. along the water to 2,953 ft. The most prominent feature on the WMA is Lake Pend Oreille, the largest lake in Idaho. The terrain is nearly flat and 70% of the property has a slope less than five degrees. Soils are composed of glacial outwash and are extremely porous. No live streams or wetlands occur on the WMA.

Wildlife

White-tailed deer (*Odocoileus virginianus*) are the most numerous big game species found on the WMA. The resident deer population is unknown but probably lies within the range of 5-10 deer per square mile.

The area's deer population can increase dramatically during winter months as deep snow drives deer to lower elevations and away from timber stands with poor snow intercept characteristics. Past estimates suggested up to 300 deer wintered on the WMA and adjacent State Park.

Winter use of the FWMA by deer varies with snow depth. Deep snow increases the number of deer using the area. Deer use of the WMA typically peaks between December and February. Habitats used the most by wintering deer are consistent with older forest stands comprised of Douglas-fir (*Pseudotsuga menziesii*) and grand fir (*Abies grandis*). These stands intercept substantial amounts of snow in the tree canopy. Deer select these areas for their cover value to avoid deep snow.

The only hunting season on the WMA occurs during November when the Department authorizes an archery-only deer season. The reported deer harvest is often less than five animals per year. Additional hunting opportunities are currently not allowed under the cooperative agreement with IDPR to prevent user conflicts and prevent possible public safety issues.

Other big game species that can be found on the FWMA include mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), moose (*Alces alces*), mountain lion (*Felis concolor*), and occasionally elk (*Cervus canadensis*). Although not present on the WMA itself, mountain goats (*Oreamnos americanus*) are commonly observed across Lake Pend Oreille from the WMA's shoreline ownership and are an important WMA attraction.

Ruffed grouse (*Bonasa umbellus*) and Merriam's turkey (*Meleagris gallopavo-merriami*) are resident upland game species on the FWMA. Ruffed grouse are commonly flushed in natural forest openings and along trails and old roads. Turkeys were introduced into Farragut State Park in 1989. Their population has spread, colonizing areas outside the state's ownership while bird numbers in the park and WMA confines appear to have stabilized.

In 1991, the Coeur d'Alene Chapter of the National Audubon Society was asked by the Department to compile a list of breeding birds using the WMA. A total of 53 species of birds were identified by visual or auditory means. Nineteen (35%) resident bird species were identified. Twenty-one (40%) obligate neotropical migrant species were identified. Obligate neotropical migrants are birds that migrate from winter areas in Central and South America to nest in northern Idaho. Thirteen (25%) facultative neotropical migrant species were identified. These are species where some individuals migrate from either the tropics or warmer climates in the U.S. to nest in northern Idaho.

Due to concerns expressed about the potential impacts to the avian community from logging activities conducted on portions of the FWMA during the 1992-1993 winter; breeding bird surveys were conducted in May each year from 1993-1996. No significant differences were found in the avian community between logged and unlogged areas.

Those mammals known to occur on the FWMA that have not been previously mentioned include coyote (*Canis latrans*), bobcat (*Felis rufus*), weasel (*Mustela frenata*), Columbian ground squirrel (*Spermophilus columbianus*), pine squirrel (*Tamiasciurus* spp.), chipmunk (*Tamias*

spp.), packrat (*Neotoma* spp.), pocket gopher (*Thomomys talpoides*), white-footed deer mouse (*Peromyscus leucopus*), badger (*Taxidea taxus*), striped skunk (*Mephitis mephitis*), porcupine (*Erethizon dorsatum*), and five species of bats.

Migrating bald eagles (*Haliaeetus leucocephalus*) are seasonal visitors to the FWMA. Eagles arrive in late October and stay until the middle of March. They are commonly found all winter along the shoreline of Lake Pend Oreille where they feed on spawning kokanee salmon (*Oncorhynchus nerka*) and whitefish (*Prosopium* spp.). Perch trees utilized by eagles searching for prey are normally selected within 100 yards of the water's edge. The IDPR has also documented two communal roost sites along the lake's shore.

Fish Resources

There are no live streams or wetlands on the FWMA. Four parcels of the WMA include the shoreline of Lake Pend Oreille. Native game fish in Lake Pend Oreille include westslope cutthroat (*Oncorhynchus clarki lewisi*), bull trout (*Salvelinus confluentus*), mountain whitefish (*Prosopium williamsoni*), and pygmy whitefish (*Prosopium coulterii*). Nine other game fish species have been introduced - Gerrard rainbow (*Oncorhynchus mykiss gairdneri*), kokanee salmon, Lake Superior whitefish (*Coregonus clupeaformis*), brown trout (*Salmo trutta*), lake trout (*Salvelinus namaycush*), black crappie (*Pomoxis nigromaculatus*), yellow perch (*Perca flavescens*), walleye (*Sander vitreus*), largemouth bass (*Micropterus salmoides*), and smallmouth bass (*Micropterus dolomieu*).

Lake Pend Oreille is well known for its trophy-sized Gerrard rainbow and bull trout. An important kokanee salmon spawning area occurs along the shoreline of Idlewilde Bay, including the parcels owned by the Department.

Forest Resources

Current vegetation on the FWMA is dominated by cool temperate forest which comprises 94% of the management area (Appendix VI). Temperate grassland and meadow shrubland comprise 3% of the area and all other cover types are ≤ 1 % (Appendix VI).

Plant community types are composed of several different habitat types. The habitat types are based on potential climax vegetation. Climax is the culminating stage in plant succession for a given habitat type. Plant communities become climax with the absence of disturbances. However, the vast majority of land area included in any one habitat type is recovering from disturbance and thus occupied by seral plant communities. Seral communities are the vegetation stages, which are replaced by other vegetation stages as succession occurs and exists before the climax stage (Cooper et al. 1991).

The Douglas-fir/ninebark habitat type is the most widely occurring Douglas-fir habitat type in northern Idaho. The ninebark phase represents dry and warm sites. Ponderosa pine (*Pinus ponderosa*) is the major seral species while western larch (*Larix occidentalis*) sometimes occurs

as an accidental. Douglas-fir is a climax species within the phase. The habitat type has a frequent fire regime, which maintains ponderosa pine as the dominant species.

The four parcels of Department property that border Lake Pend Oreille slope to the lakeshore and face predominantly south and are mostly comprised of the Douglas-fir/ninebark habitat type. Ponderosa pine and western larch are well represented with numerous large trees (>30"DBH). Douglas-fir and grand fir are also present and increasing in abundance due to the absence of naturally occurring fire. This cover type represents the oldest forest successional stage found on the WMA and covers 157 acres or 11% of the WMA. Most of the large pine trees are 120-150 years old.

The grand fir/queenscup beadlily habitat type is broadly distributed throughout northern Idaho. The queenscup beadlily phase occupies an elevation range of 2,200 to 5,350 ft. It occurs on warm exposures, drained sites, benches, stream terraces, toe-slope to mid-slope positions, low to moderate slopes, and all but northerly aspects. Douglas-fir and grand fir are the dominant seral species. Other seral species within the early succession stages of the habitat type are western larch, lodgepole pine (*Pinus contorta*), ponderosa pine, western white pine (*Pinus monticola*), and Engelmann spruce (*Picea engelmannii*).

Extensive logging, fire suppression, and the introduction of the disease white pine blister rust (*Cronartium ribicola*) have reduced the white pine ecosystem to less than 1% of their historic range. The large northern block parcel of the FWMA is comprised almost entirely of the grand fir/queens cup beadlily habitat type. Grand fir /queenscup beadlily is one of the most important habitat types that have western white pine in northern Idaho and eastern Washington (Graham 1990). Consequently, Farragut provides a superior environment for restoration of this lost ecosystem as well as provides a unique opportunity to educate the public about its plight.

Public Use

An intensive public use survey was conducted in 2004. Total annual use estimates for the Farragut WMA/State Park complex were 208,528 user visits annually. Public use varied seasonally with summer use over 1,200% greater than winter use. Summer camping is a major use of the WMA/State Park co-management area and contributes greatly to the disproportionate seasonal use pattern. However, other factors also contribute. The boat ramp located on Department property is inaccessible at times during the winter due to the steepness of the approach and formation of ice and snow. The north road, which currently provides access to the largest block of FWMA land including the rifle range, is not plowed in winter. Although snowmobiling, cross-country skiing, and snow-shoeing do occur in this area, limited access probably does reduce public use. Finally, because of its close association with the State Park, the Department voluntarily limits hunting opportunity on the WMA to an archery-only deer hunt in November. Consequently, fall hunting opportunities for grouse, turkey, bear, and waterfowl that typically draw users to Department WMA properties in the fall and early winter are not in effect at the Farragut WMA.

Some knowledge of FWMA visitor residency and trip characteristic is useful in assessing who the primary WMA users represent and how broad the recreational impact of the WMA is. Twenty-three percent of survey respondents identified themselves as first time visitors to Farragut. Of those who had visited in the past, 25% made only one trip per year and 40% visited three times or less annually. Only 5.6 % claimed to visit Farragut ≥ 50 times a year with one respondent stating they visited daily. Almost half (49.1%) of the visitors identified themselves as non-Idaho residents with the majority (81.1%) coming from Washington state. Of Idaho residents, 73.1% resided in Kootenai County where the WMA is located. The average one-way travel distance for residents was 48.4 miles, but 25 miles was the median travel distance and only 17.1% traveled ≥ 50 miles. The average one-way travel distance for non-residents was 306.6 miles with a median travel distance of 60 miles. Somewhat surprising was that 15.5% of non-residents traveled ≥ 500 miles to visit Farragut. Only 7.1% of all visitors traveled ≤ 5 miles. Collectively, these data suggest that although a few local residents make extensive use of the WMA/Park complex, they represent a small portion of overall use. A larger group are those residents and non-residents who travel more than an hour to use the facilities, suggesting a fairly broad sphere of recreational impact. Finally, the majority of users are regional Idaho and Washington residents who live within approximately one hour travel distance but not adjacent to Farragut.

During visitor interviews, FWMA users were asked to identify their primary trip activity and also given an opportunity to list subordinate activities planned for the outing. Camping was identified as the Number 1 primary WMA user activity even though no camping opportunity exists on Farragut WMA ownership itself. The boat ramp is located on WMA property and boating and fishing were identified as the Number 2 and 3 primary and Number 1 and 4 overall user activities, respectively. It has been estimated that up to 20% of all Lake Pend Oreille boat access occurs at the Farragut Eagle Boat Launch. This helps to illustrate how interwoven public use of the WMA and State Park are. Wildlife viewing was the first ranked tertiary activity. This suggests that the opportunity to observe wildlife is an important setting feature in support of a broad array of other outdoor recreational pursuits but not a main attraction of the WMA. Farragut WMA has a unique constituency because of its close association with the State Park. It appears that we are meeting our principal wildlife and public use/access objectives, and the survey of user activities demonstrates that the FWMA services a broader constituency than often envisioned. This broader constituency represents an untapped base of public and perhaps financial support for the Department habitat management program that is not in fundamental opposition to our core purposes.

Management Issues

This list of issues was developed after review by natural resources professionals and extensive public input. Three general groups provided input: natural resources agency professionals, WMA users, and neighboring landowners. Department policy direction and FWMA staff management experience also helped shape the list of current issues. The issues identified were grouped, based on similarity, into three general categories, Habitat Management, Wildlife Management, and Public Use Management. Each issue is summarized and some potential management options discussed.

Habitat Management

- 1. Fire suppression has altered the fire frequency in FWMA old growth ponderosa pine habitats resulting in changes in forest structure and composition, and diminishing habitat quality for ponderosa pine-associated wildlife species. Tree density, fuel loads, and development of ladder fuels prevent direct reintroduction of fire to these stands without significant risk of severe damage or total loss of the residual ponderosa pine stand. (Issue identified by the Department and others)**

Discussion: More than 90% of the historical extent of old growth ponderosa pine forest habitat has been lost and many remaining tracks are degraded. Noss et al. (1995) classified it as an endangered ecosystem in the United States. The Idaho bird conservation plan (IPIF 2000) identifies ponderosa pine as a priority habitat. Farragut WMA management direction is to restore and maintain existing stands of mature ponderosa pine, and where possible expand the total areal extent of old growth ponderosa pine on WMA lands.

- 2. Extensive FWMA forested habitats interface with residential and commercial development, especially along the north and east sides of the WMA creating a potential fire hazard at the wildland/urban interface. (Issue identified by the public)**

Discussion: Fire is a natural force in forest ecosystems and plays an important role in the long term health and function of these ecosystems. While recognizing its role in forest ecology, fire can also be a destructive force threatening property and life when it occurs in and around human infrastructure. Farragut WMA direction will be to manage forested habitats along the wildland/urban interface to reduce tree density and fuel loads and create a more fire-defensible boundary while preserving habitat integrity to the extent possible.

- 3. Late seral white pine ecosystems once dominated the northern Idaho landscape but have been reduced to 1% of their historic extent as a result of extensive logging, fire suppression, and the introduced white pine blister rust pathogen (Harvey et al. 2008). (Issue identified by the Department and others)**

Discussion: Habitat types present on the FWMA are suitable for restoration of the white pine forest ecosystem and the opportunity exists to manage a portion of the WMA toward a white

pine community. This has both ecological values in preserving and expanding white pine across the landscape and in educating the public regarding the near loss of the white pine ecosystem. Farragut WMA direction will be to actively manage a portion of the WMA toward a white pine legacy forest condition with forest structural and compositional characteristics of the historic western white pine ecosystem.

- 4. The presence and spread of extensive noxious weed infestations has the potential to decrease the quality of wildlife habitat on the FWMA. (Issue identified by the public, the Department, and others)**

Discussion: The FWMA has had an active weed management program for several years and considerable progress has been made in reducing and containing noxious weed infestations on the WMA. We will continue to monitor and cost-effectively manage noxious weed infestations on the WMA to minimize their effect on habitat quality.

- 5. Low elevation closed canopy coniferous white-tailed deer winter habitat is being lost regionally as a result of population growth and real estate development. (Issue identified by the Department)**

Discussion: During the last planning period, preservation and accelerated development of closed canopy coniferous winter habitat was identified as a management issue. Past forest management actions to accelerate development of closed canopy Douglas-fir and grand fir forest stands included commercial and pre-commercial thinning of seral tree species. Where not in conflict with other management priorities, previously treated stands will be protected and allowed to continue to develop a more closed canopy forest structure.

Wildlife Management

- 1. High concentrations of people in wildlife habitat and the presence of food as an attractant can lead to unwanted or dangerous interactions. (Issue identified by the public, the Department, and others)**

Discussion: Wildlife is a significant visitor attraction to the Farragut WMA/Park. The opportunity to interact with wildlife enhances visitor satisfaction and plays an important role in cultivating and maintaining a wildlife stewardship conservation ethic. Some of these interactions hold the potential to be dangerous to humans, wildlife, or both. Farragut WMA management direction is to work with IDPR to educate the public about human/wildlife interactions and minimize unwanted or dangerous interaction between wildlife and WMA/Park visitors. When necessary, the Department will relocate problem animals that threaten human safety.

- 2. Hunting is a traditional use of Department WMA lands but raises concerns among some segments of the public at Farragut because of the close association between the WMA and Park facilities. (Issue identified by the public)**

Discussion: Hunting is a traditional and popular recreational use of the Department WMA system. The close association of the FWMA with Farragut State Park, and the fact that many in the public fail to distinguish the different ownerships and agency missions, creates some management challenges in regard to hunting. These include both high user density and the perception that hunting is not allowed or not appropriate in state parks. The FWMA has limited hunting opportunity to a special archery-only deer hunt each fall. Management direction will be to continue current deer hunting opportunity and consider opportunities to safely expand hunting as a recreational option across the Farragut WMA/Park complex.

Public Use Management

- 1. Under the Department/IDPR co-management MOU, IDPR has primary responsibility for day to day public use management at the FWMA. (Issue identified by the Department and others)**

Discussion: Although under the cooperative management MOU, IDPR assumes management of public recreation on the WMA; that management is subject to review and approval by the Department. Public use management must not interfere with the purposes for which the lands were acquired, developed, or managed. Park and WMA staff regularly communicate to ensure public use management across the WMA/Park complex addresses constituent needs and agency objectives. They also work collaboratively to address and develop management solutions to problems of mutual concern.

- 2. Eagle Boat Launch is the primary public boat access to the southern end of Lake Pend Oreille and serves a large number of anglers and recreational boaters. (Issue identified by the Department and others)**

Discussion: The Eagle boat launch is a substantial public use development with multiple ramps, extensive parking, and restroom facilities. We will continue to work cooperatively with Park management to maintain or improve boating/fishing access and seasonal availability of boat launch facilities to the public.

- 3. Public use of the historic Farragut Shooting Range has raised noise and safety concerns from neighboring landowners and the range currently operates under the conditions of a mediated consent decree adopted by court order (Issue identified by both the public and the Department)**

Discussion: Secondary to a temporary court injunction on operation of the Farragut shooting range, the Department made improvements to safety and noise management as well as improved shooter facilities at the range. After meeting with neighbors and negotiating particular range operational prerogatives and limitations, a settlement was reached. The

injunction was lifted and operation and use of the range is restored subject to the conditions of the settlement agreement. The Department will continue to make physical and operational improvements to the range to meet shooter constituent demands and in consideration of neighboring landowner concerns.

Farragut WMA Management Program

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

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

The following six-step process was used to create the FWMA 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/Habitat Assessment
- 3) Selection of Conservation Targets
- 4) Viability Assessment of Selected Conservation Targets
- 5) Spatial Delineation of Conservation Target Landscapes
- 6) Creation of Management Program Table

Summary of Management Priorities

Farragut WMA is comprised primarily of forested habitat, and management priorities focus on forest management and recreational use of WMA lands. Implicit in the Department mission to preserve, protect, and perpetuate the fish and wildlife resources of the state is a need to preserve, protect, and perpetuate the habitats on which they depend. Consequently, restoration of forest

communities that are substantially diminished in habitat quantity, quality, or both across the landscape drive the FWMA management priorities. These include primarily preservation and restoration of ponderosa pine and western white pine communities. Although Douglas-fir and grand fir are common across the landscape, older closed canopy stands with good snow interception and deer winter habitat qualities are much less common. Managing and maintaining a portion of the WMA in this forest type also maintains continuity with some long-term management direction established in earlier plans.

In addition to the purely habitat driven objectives, supporting public hunting, fishing, wildlife-based recreation and education are also important management priorities. This includes, but is not limited to, noxious weed control and maintaining and improving the Eagle Boat Launch to support fishing and the Farragut Shooting Range to support hunter education and firearm proficiency. Finally, information on which to base management decisions is always incomplete. It is important to identify and, where possible, resolve major gaps in management information.

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

Management Priorities for Farragut WMA (listed in order of priority):

1. Ponderosa Pine Habitat
2. Western White Pine Habitat
3. White-tailed Deer Winter Habitat
4. Wildlife-based Recreation and Education
5. Control Noxious Weeds
6. Information Gaps

Focal Species and Habitats Assessment

The Idaho Comprehensive Wildlife Conservation Strategy, now referred to as the State Wildlife Action Plan (SWAP), provides a framework for conserving the 229 Species of Greatest Conservation Need (SGCN) and the habitats on which they depend (IDFG 2005). This section of the FMWA Plan is an assessment of various fish and wildlife species and habitats on FMWA in order to identify Conservation Targets to guide management. Table 1 evaluates habitats and taxa that are either flagship species (Groves 2003) and/or at-risk species identified by the Department in the SWAP (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., ponderosa pine forest ecotype), a threat (e.g., habitat loss), organization (e.g., state government or non-governmental organization (non-government organization)), or geographic region (e.g., protected area, Department Region or state; Veríssimo et al. 2009). Ungulate big game (primarily white-tailed deer for FWMA) are an example of a group that fit the criteria as both focal and flagship species. In addition, they are a culturally and

economically important species in Idaho and represent a founding priority for establishment of the FWMA. Therefore, ungulate big game is an important flagship species group considered in the WMA assessment.

A principal limitation of the flagship species concept is that by focusing limited management resources on culturally and economically important species, more vulnerable species may receive less or no attention (Simberloff 1998). To overcome this limitation, we are explicitly considering a wide variety of at-risk species (Groves 2003); yielding a more comprehensive assessment that includes culturally and economically important species (e.g., white-tailed deer and elk) along with formally designated conservation priorities (e.g., bald eagle). Categories of at-risk vertebrate species considered in this assessment are: 1) species designated as SGCN; 2) species designated as Sensitive by Region 4 (Intermountain Region) of the U.S. Forest Service (USFS); and 3) species designated as Sensitive by the Idaho State Office of the Bureau of Land Management (BLM).

The Idaho SGCN list was developed as part of the SWAP. Idaho's SWAP serves to coordinate the efforts of all partners working toward conservation of wildlife and wildlife habitats across the state and serves as 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. To maximize coordination, communication, and partnership opportunity, we have included 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.

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

The Intermountain West Joint Venture (IWJV) also maintains a list of priority species. The IWJV has identified 40 priority species from which to base conservation planning.

Information on species status, occurrence, beneficial management/conservation actions and threats were derived through consultation with Department staff, occurrence records in the Department's Idaho Fish and Wildlife Information System database, consultation with various BLM and USFS species lists, and species summaries provided in the Idaho SWAP.

Suitability of assessed species as a focal species were estimated by Panhandle Regional Habitat and Diversity staff based on descriptions in Groves (2003) and USFWS (2005). Potentially suitable focal species and habitats may include those with one or more of the following five characteristics:

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

Table 1. Status of habitat, flagship and special status species on Farragut WMA, including their potential suitability as focal species/habitats for management.

Species	Status Designation(s)	Occurrence Context in Farragut WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Farragut WMA
White-tailed Deer	Flagship	Farragut WMA provides important winter cover for white-tailed deer from Department Game Management Unit 2.	No significant threats.	Protect a portion of the Farragut WMA existing and developing closed canopy (>70%) Douglas and grand fir forest cover types as winter cover.	<i>Potentially Suitable as a focal species.</i> White-tailed deer are a culturally and economically important wildlife species in northern Idaho and are a species with a good potential for developing conservation partnerships.
Ponderosa Pine	Conservation Priority (IPIF 2000, Noss et al. 1995)	Portions of Farragut WMA have historically supported a fire maintained old growth ponderosa pine forest cover type.	Fire suppression, logging, and grazing have resulted in a substantial reduction in the historical extent of this important habitat.	Protect and restore this forest cover type where fire suppression or other factors have degraded and or threaten the persistence of this forest cover type. Use selective logging to restore forest structure and eliminate ladder fuels. Reintroduce fire where feasible. Expand this forest cover type where suitable conditions permit.	<i>Potentially suitable as a focal habitat.</i> Restoration and expansion of the ponderosa pine cover type is identified as an important conservation opportunity on the Farragut WMA in Department/IDPR management plans. Sites suitable for protection, restoration, and expansion have been identified.
Western White Pine	Conservation Priority (USDA 1999, Harvey et al. 2008)	White pine is a seral species present on the Farragut WMA. The WMA's northern block is dominated by habitat types for which western white pine is an important seral species/forest cover type and conducive to western white pine restoration.	Past logging, fire suppression, and blister rust disease have resulted in a substantial reduction in extent of this forest cover type relative to historic distribution.	Restore and expand the extent of this forest cover type on the Farragut WMA where suitable conditions permit. Retard/reset succession through forest management to improve sunlight penetration to the forest floor. Augment natural regeneration with plantings of rust resistant genetic strains.	<i>Potentially suitable as a focal habitat.</i> Restoration and expansion of the western white pine cover type is identified as an important conservation opportunity on the Farragut WMA in IDPR management plans. Sites suitable for protection, restoration, and expansion have been identified.
Closed canopy conifer white-tailed deer winter cover	Flagship	Previous management action protected existing winter cover. Previous management actions removed sparse canopy Lodgepole pine to release and accelerate development of closed canopy Douglas and grand fir forest cover types for white-tailed deer winter cover.	Commercial and residential development as well as financially driven logging outside the WMA results in both fragmentation and decreased availability of deer winter cover.	Protect a portion of the Farragut WMA existing and developing closed canopy (>70%) Douglas and grand fir forest cover types as winter cover	<i>Potentially suitable as a focal habitat.</i> In a landscape context closed canopy conifer winter cover provides an important habitat component facing threats outside the WMA in support of a Farragut WMA flagship species.
N. Rocky Mtn Ponderosa Pine Woodland and Savanna dependent species: Cassin's finch ^{2,5} Northern Pygmy Owl ^{2,5} Black-backed Woodpecker ² Long-eared Myotis ^{2,5} Long-legged myotis ^{2,1,5}	USFS Sensitive ¹ BLM Sensitive ^{3,5} SGCN ²	Species listed have been documented to occur on or near the FWMA but overall use, abundance and distribution occurrence and use is poorly documented	Fire suppression, logging, and grazing have resulted in a substantial reduction in the historical extent of this important habitat Though on its northern extent of its historical range, the ponderosa pine old growth habitat type has seen a significant decline all across the western U.S.	Protect and restore the ponderosa pine forest cover type where fire suppression or other factors have degraded and or threaten the persistence of this forest cover type. Use selective logging to restore forest structure and eliminate ladder fuels. Reintroduce fire where feasible. Expand this forest cover type where suitable conditions permit.	<i>Potentially Suitable as a focal habitat</i> This extensive list of N. Rocky Mtn Ponderosa Pine Woodland and Savanna habitat dependent species includes birds, mammals and a reptile. This habitat type represents a broad group of species sharing the same or similar conservation needs. Though on its northern extent of its historical range, the ponderosa pine old growth habitat type has seen a significant decline all across the western U.S.

Species	Status Designation(s)	Occurrence Context in Farragut WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Farragut WMA
N. Rocky Mtn Dry-Mesic Montane Mixed Conifer Forest dependent species (e.g., SGCNs such as: Cordilleran Flycatcher ^{2,5} Hammond's Flycatcher ^{2,3} Olive Sided Flycatcher ^{2,3} Red-naped Sapsucker ^{2,5}	USFS Sensitive ¹ BLM Sensitive ^{3,5} SGCN ²	White pine is a seral species present on the Farragut WMA. The WMA's northern block is dominated by habitat types for which western white pine is an important seral species/forest cover type and conducive to western white pine restoration	Past logging, fire suppression, and blister rust disease have resulted in a substantial reduction in extent of their western White Pine forest cover type relative to historic distribution	Restore and expand the extent of this forest cover type on the Farragut WMA where suitable conditions permit. Retard/reset succession through forest management to improve sunlight penetration to the forest floor. Augment natural regeneration with plantings of rust resistant genetic strains	Potentially Suitable as a focal habitat. This extensive list of Dry Conifer Forest habitat dependent species includes birds, mammals and a reptile. This habitat type represents a broad group of species sharing the same or similar conservation needs. Though on its northern extent of its historical range, the ponderosa pine old growth habitat type has seen a significant decline all across the western U.S.
Northern Goshawk	USFS Sensitive, BLM Sensitive SGCN	No nesting pairs identified. FWMA likely provides foraging habitat for goshawks nesting on adjacent properties.	Goshawks are considered sensitive to large-scale changes to forested habitats associated with timber harvesting, livestock grazing, fire suppression and drought (Reynolds et al. 1992).	Maintain forested habitat on the margins of FWMA in a variety of vegetation structure stages to provide quality habitat for goshawk prey species and that enhance foraging opportunities for goshawk.	Unsuitable as a focal species Due to disturbance caused by the high public recreation use of the WMA it is unlikely that Goshawks would breed or use the WMA consistently.
Great Gray Owl	USFS Sensitive, BLM Sensitive SGCN	FWMA likely provides foraging habitat for Great Gray owls during winter.	Habitat loss and fragmentation through timber harvest and development are the primary threats facing Great Gray Owl populations. Other threats include fire suppression (leading to forested-stand density increases and conifer encroachment into meadows) (Williams 2012).	Retain beneficial habitat features at the landscape-level; particularly open areas for foraging adjacent to stands of mature or old-growth trees for nesting and roosting. When implementing forest management, limit timber harvest unit sizes; utilize variable harvest patch sizes or timber harvests with	Unsuitable as a focal species. Limited information on distribution in the project area. Unknown distribution limits potential management feedback.
Vaux's Swift	BLM Sensitive SGCN	Occurs on or near the FWMA but context of occurrence is poorly documented.	Loss of old growth coniferous forest covers types.	Forest management for older forest and large tree/snag retention benefits swifts.	Unsuitable as a focal species. Limited information on utilization of FWMA habitats limits the potential value of management feedback
Common Garter Snake	USFS Sensitive, BLM Sensitive SGCN	Occurs on FWMA but context of occurrence is poorly documented.	Threats to common garter snakes are most likely related to loss and degradation of riparian and wetland habitats and hibernacula.	Management that protects, restores wet habitats (seeps, springs) and enhances prey species availability (i.e., earthworms, insects, amphibians, and small mammals) will benefit common garter snake. Identifying and protecting hibernacula will also benefit common garter snake.	Unsuitable as a focal species. Limited information on utilization of FWMA habitats limits the potential value of management feedback
Western Small Footed Myotis Yuma Myotis	BLM Sensitive, SGCN	Occurs on FWMA but context of occurrence is poorly documented.	Individuals are long-lived and exhibit low reproductive potential. Roost sites tend to be colonial, and may be limiting in some areas; aggregations are susceptible to disturbance and intentional persecution. Habitat use rates and, at the population level, survival and recruitment rates likely track aerial insect prey availability. Accessible surface water also likely affects local distribution and abundance.	Maintenance of open forest structure and larger diameter trees will generally benefit these species.	Unsuitable as a focal species. Limited information on distribution in the project area. Unknown distribution limits potential management feedback.

Species	Status Designation(s)	Occurrence Context in Farragut WMA Landscape	Threats	Beneficial Management and Conservation Actions	Suitability as a Focal Species for Farragut WMA
Western Toad	USFS Sensitive, BLM Sensitive SGSN	Occurs on FWMA but context of occurrence is poorly documented.	Chytrid fungus, <i>Batrachochytrium dendrobatidis</i> , is the primary threat to western toad populations throughout the Southern Rocky Mountains. This is compounded by habitat alteration around wetlands and human-facilitated expansion of natural and introduced predators. Habitat fragmentation isolates breeding populations, which increases the effects of these widespread threats and the risk associated with other threats, such as local changes in water quality, timber harvest, livestock grazing, fire, and toxic chemicals (Keinath and McGee 2005).	Managing disease, cataloging and monitoring population status, delineating important habitat, protecting delineated habitat, and identifying and protecting current breeding sites from habitat degradation (Keinath and McGee 2005).	<i>Unsuitable as a focal species.</i> Limited information on distribution in the project area. Unknown distribution limits potential management feedback.

Selection of Conservation Targets

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

Conservation Targets for the FWMA Management Plan were selected from species or habitats ranked as potentially suitable focal species in Table 1. Rare and sensitive plants are not included in this assessment due to practical considerations including lack of data and funding.

Conservation Targets could also include habitats that effectively represent suites of the flagship and special status species evaluated in Table 1, regardless of their potential suitability as a focal species. A final consideration in the selection of Conservation Targets was the best professional judgment of the Panhandle Regional Habitat Manager and FWMA staff. Effective Conservation Targets cannot be selected based solely on species assessments. They must reflect regional threats, priorities, existing conservation partnerships, and the limitations of WMA personnel and funding.

We are not primarily interested in a species by species approach to managing wildlife conservation on the FWMA. Unless a species is vulnerable to extinction or extirpation, managing habitats to support healthy natural communities provides a more integrated and holistic approach to wildlife conservation. Healthy habitats and the communities that comprise them are dynamic and resilient to short and long term perturbations that typify the natural world. They provide the greatest hope of long-term security to both our SGCN and a broad array of more common less vulnerable species.

The Conservation Targets selected to guide management on FWMA are based on the following focal habitats:

1. Ponderosa Pine Habitat
2. Western White Pine Habitat
3. White-tailed Deer Wintering Habitat

Ponderosa Pine Habitat

The role naturally occurring fire once played in perpetuating mature stands of ponderosa pine and western larch on the lake shore of Farragut has been interrupted due to modern fire suppression programs during the last 60+ years. In the absence of fire, shade-tolerant species of conifers and dense brush have replaced the more open forest structure and grass/shrub understory that historically occupied the site. Mature ponderosa pine forest is a vanishing habitat in the Idaho landscape. The Idaho Bird Conservation Plan states that Idaho has less than 1% of this habitat remaining when compared to historic conditions. It also identifies mature ponderosa pine forests as one of four priority habitats for conservation and restoration in the state.

Western White Pine Habitat

For centuries, western white pine dominated the moist forest ecosystems of the Inland Northwest. It was perpetuated by both a combination of mixed-severity and stand replacing wildfires, and colonization of smaller natural forest opening created by disease pockets and blow down. In spite of a relatively high fire frequency in this forest type (25 years for mixed severity and 150 years for stand replacing), old growth structure often persisted for centuries. Although western white pine remains one of the most ecologically important species across much of the region, it has been reduced to a relic by past logging, fire suppression, insects, and perhaps most importantly, the disease white pine blister rust. Today western white pine is limited to less than 10% of its former distribution only 100 years ago. The northern block of FWMA is ideally suited for restoration of western white pine because of habitat type, average annual precipitation, and relative absence of white pine blister rust alternative host *Ribes*.

White-tailed Deer Winter Habitat

Winter use of the FWMA by deer varies with snow depth. Deep snow increases the number of deer using the area. Deer use of the FWMA typically peaks between December and February. Habitats used the most by wintering deer are consistent with older forest stands comprised of Douglas-fir and grand fir. These stands intercept substantial amounts of snow in the tree canopy. Deer select these areas for their cover value to avoid deep snow. The vast majority of low elevation land within the northern five counties of Idaho is privately owned and monetary return, not wildlife values, dictate land management practices. As such, properties are perpetually broken into smaller pieces and more intensively managed. The result of these actions has been a reduction in historically common cover types and associated wildlife species, particularly habitats with older-aged trees. Farragut WMA provides a unique opportunity to provide older aged stands with large diameter trees valuable to many wildlife species.

Coverage Assessment of Selected Conservation Targets

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

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

We also evaluated which species or guilds would receive little or no tangible benefit from management actions for specific Conservation Targets; these are designated “conservation needs.” We identified conservation needs for several species or guilds and determined that further data will be useful to inform the next WMA planning process. Recent studies suggest the conservation needs of some of these species (e.g., the Myotis guild) are increasing dramatically. A prudent management strategy is to consider a landscape where these species may be prioritized for management in the future. Broad strategies for addressing these management needs are identified in the following Management Program Table (pages 32-35), but typically include collection of additional baseline data.

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

Species Assessed in Table 1	Conservation Targets ^a			Conservation Need
	Ponderosa Pine Habitat	Western White Pine Habitat	White-tailed Deer Wintering Habitat	
White-tailed Deer	P	P	P	
Black-backed Woodpecker	P	P	P	
Cassin’s Finch	P	P	P	
Cordilleran Flycatcher	P	P	P	
Hammond’s Flycatcher	P	P	P	
Olive-sided Flycatcher	P	P	P	
Red-naped Sapsucker	P	P	P	
Great Gray Owl	P	P	P	
Northern Goshawk	P	P	P	
Northern Pygmy-Owl	P	P	P	
Vaux’s Swift				Yes
Western Toad				Yes
Common Garter Snake				Yes
Western Small-footed Myotis				Yes
Long-eared Myotis	P	P	P	
Long-legged Myotis	P	P	P	
Yuma Myotis				Yes

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

Spatial Delineation of Selected Focal Habitat Landscapes

Each of the focal species selected as Conservation Targets for FWMA also utilize habitats off of FWMA to meet their annual needs. Therefore, it is crucial that we actively participate in habitat conservation efforts within the landscape, beyond the borders of the WMA.

The area of influence of both focal habitats and the FWMA in general is context driven and makes most attempts to delineate them generally arbitrary at best. Individual yellow pine chipmunks (*Neotamias amoenus*) may spend their entire lives within the boundaries of the WMA but act as a genetic reservoir important to broader conservation strategies. Local deer populations may be influenced within a few miles of the WMA as individual deer move on or off the WMA to use closed canopy Douglas-fir dominated forest types in winter. Populations of neotropical migrants (birds that spend the summer in their breeding range in North America but migrate to Central or South America for their non-breeding range in winter) demonstrate an influence that extends greater than a thousand miles. Consequently, we have elected to delineate the area of influence at the WMA/Park complex ownership boundary (Figure 2). However, it is important to remember that the WMA does not exist in isolation. It is part of the larger landscape and is both a contributor to and benefactor of conservation efforts across that landscape at multiple scales.

Farragut WMA - Area of Influence

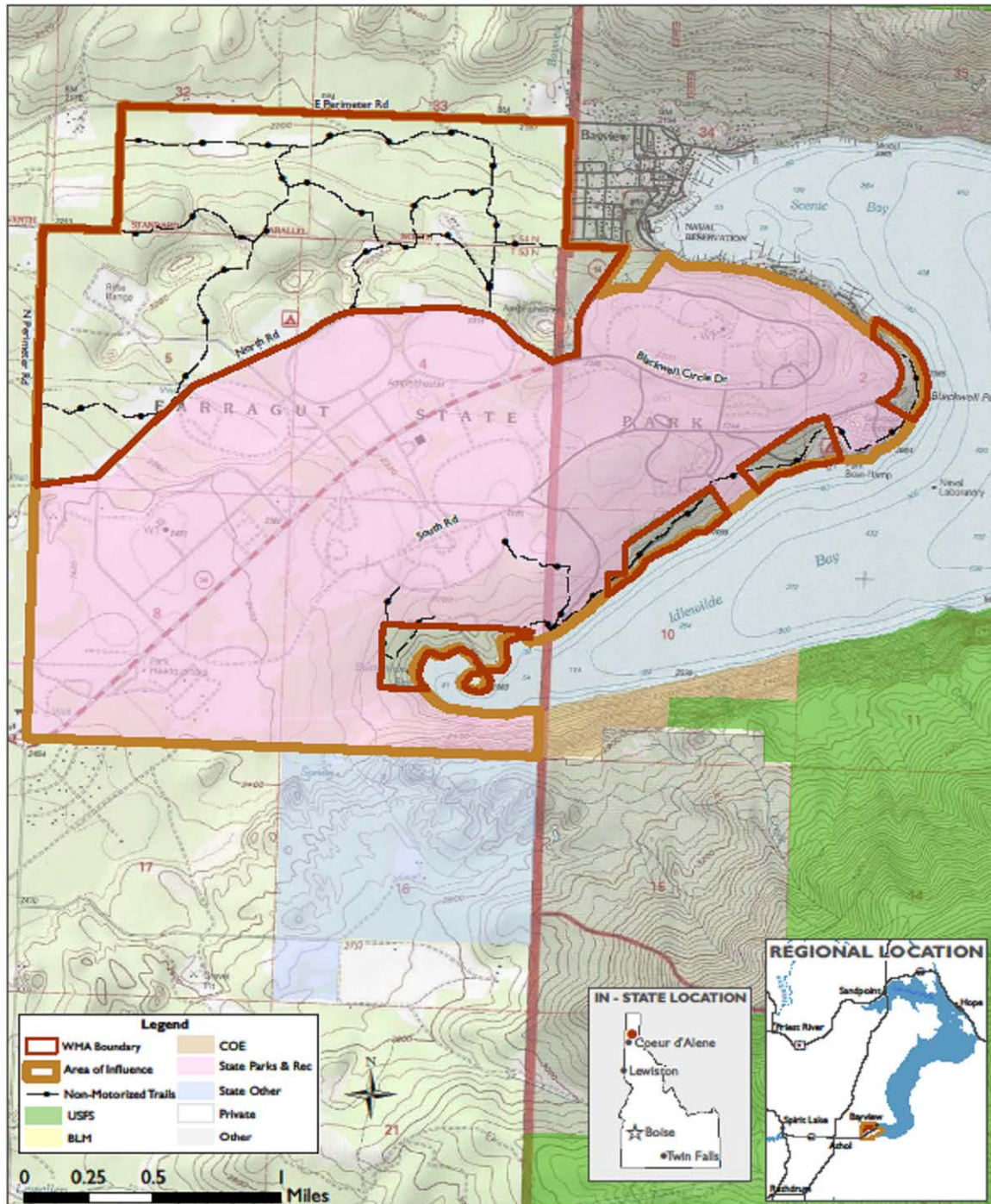


Figure 2. The area of influence map shows the area influenced by all of the chosen focal species and habitats and Conservation Targets.

Farragut WMA Management Program Table

The following table outlines the Management Directions, Performance Targets, Strategies, and Outcome Metrics FWMA staff will use to manage for the Conservation Targets selected (page 27) to represent each FWMA Priority (page 21) at both the FWMA 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: Ponderosa Pine Habitat					
Conservation Target: Ponderosa Pine Habitat					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Manage ponderosa pine habitat to maintain historic presence and structure on suitable sites.	Restore, maintain, or create ≥160 acres of mature ponderosa pine dominated habitat by 2023.	Use pre-commercial and commercial thinning to move existing ponderosa pine stands toward a more historic density, basal area, and composition and to reduce fuel loads prior to the reintroduction of prescribed fire. Density, basal area, and species composition increasingly reflect historic structure.	≥160 acres meeting desired conditions	A, B, C, H, K, M
			Use prescribed fire to reduce fuel loads, expose mineral soils to encourage natural regeneration, and maintain open low density forest structure typical of old growth ponderosa pine. As conditions allow fire is reintroduced as a natural component of this ecosystem.		
			Evaluate and plant ponderosa pine in regeneration gaps and other sites to supplement natural regeneration and accelerate the restoration process where desirable. Through natural or artificial regeneration young Ponderosa pine are present on site.		
			Re-seed native grasses and forbs across disturbed sites to reestablish a productive understory and compete with non-native invasive species. Increased total herb/grass layer cover.		
			Monitor and control noxious weeds for three years post treatment or as required. Noxious weed presence is minimal and reflects background conditions or better.	Acres Treated for Noxious Weeds; control success as measured by % cover and/or density of weeds	
WMA Priority: Western White Pine Habitat					
Conservation Target: Western White Pine Habitat					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Manage suitable sites toward re-establishment of the late seral western white pine ecosystem on the FWMA.	Restore, maintain, or create ≥160 acres of mixed coniferous forest where western white pine is the dominant/co-dominant tree species by 2023.	Use selective logging to remove shade tolerant competing vegetation and increase sunlight penetration to the forest floor to change forest species composition and promote regeneration and rapid growth of white pine. Post treatment shading is <50%.	≥160 acres meeting desired conditions	A, B, C, H, K, M

WMA Priority: Western White Pine Habitat					
Conservation Target: Western White Pine Habitat					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Manage suitable sites toward re-establishment of the late seral western white pine ecosystem on the FWMA.	Restore, maintain, or create ≥160 acres of mixed coniferous forest where western white pine is the dominant/co-dominant tree species by 2023.	Retain healthy white pine, ponderosa pine, western larch and most large diameter (>20" DBH) Douglas-fir during selective logging. Post treatment overstory reflects desired composition within shading constraints.	≥160 acres meeting desired conditions	A, B, C, H, K, M
			Where conditions allow use prescribed fire to reduce fuel loads and expose mineral soils to encourage natural white pine reproduction. As conditions allow fire is reintroduced as a natural component of this ecosystem.		
			Supplement natural white pine regeneration with planting of blister rust resistant seedlings. All treatment areas receive 50+ genetically resistant seedlings/acre post treatment.	Acres Treated for Noxious Weeds; control success measured as <5 % weed cover	
			Monitor and control noxious weeds for three years post treatment or as required. Control blister rust alternate host <i>Ribes</i> within and adjacent to the treatment as necessary. Noxious weed presence is minimal and reflects background conditions or better.	# of Kiosk	
			Collaborate with IDPR to provide an educational kiosk to inform the public of the history and ecology of white pine in northern Idaho. Kiosk installed within three years post roadside/public access treatment.		
WMA Priority: White-tailed Deer Winter Habitat					
Conservation Target: White-tailed Deer Winter Habitat					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Provide closed canopy Douglas/grand fir forest as white-tailed deer winter habitat.	Maintain development of closed canopy Douglas/grand fir dominated forest on ≥160 acres of previously treated sites.	Largely a custodial action. Identify previously treated habitat and protect from disturbance. ≥160 acres of Douglas/grand fir maintained toward development of closed canopy white-tailed deer winter habitat.	≥160 acres meeting desired conditions	A, B, C, H, K, M
WMA Priority: Wildlife-based Recreation and Education					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Preserve or expand hunting related opportunity across the WMA/Park complex	Maintain the annual or fall Farragut archery only white-tailed deer hunt.	Collaborate with IDPR to address high use area safety zones and other public use management concerns.	Archery only deer season maintained.	F, G, H, K, M, N
		Evaluate and where appropriate implement expanded archery/short-range weapons hunting opportunity across the WMA/Park complex.	Enumerate and evaluate expanded hunting opportunities. Discuss specific proposals with IDPR and the public. Implement new opportunities where justified by adequate public and administrative support.	Specific hunting opportunities are identified, evaluated, and a decision is rendered.	

WMA Priority: Wildlife-based Recreation and Education					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Preserve or expand hunting related opportunity across the WMA/Park complex	Complete Farragut Shooting Range facilities improvements by 2020.	Continue physical improvements to the shooting range including completion of the pistol range, administrative/education building, and archery facilities. Manage public use under the guidance of the range Standard Operating Procedures manual. Review and update S.O.P. as needed to address management challenges but at least annually.	Facilities are constructed and operational	F, G, H, K, M, N
	Preserve or expand fishing and boating access to Lake Pend Oreille across the WMA/Park complex	Annually maintain or improve existing facilities. Evaluate opportunities for expanding access during the life of this plan.	Coordinate maintenance, improvement, expansion, and management of the Eagle boat launch, Buttonhook Bay docks, and lakeshore access with IDPR to ensure adequate resource protection and meet public demand.	No net loss of fishing or boating opportunity measured by use days.	
	Maintain, improve, or expand other wildlife-based recreational opportunity.	Annually provide public access and support infrastructure for other non-consumptive wildlife-based recreation.	Coordinate public access and infrastructure development on WMA property with IDPR to ensure adequate resource protection and meet public demand for non-consumptive wildlife-based recreation.	No net loss of wildlife-based recreational opportunity measured by use days.	
WMA Priority: Control Noxious Weeds					
Scope	Management Direction	Performance Target	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Control weed infestations on the WMA to avoid displacing desirable vegetation	Annually employ an integrated weed management program (chemical, biological, mechanical) on the WMA to control noxious weeds on ≥ 5 acres or as needed	Survey entire WMA ownership for weeds on a 3-year progressive rotation	Acres Treated for Noxious Weeds; control success measured as $<5\%$ weed cover Number of new invader species populations successfully controlled	B, C
			Treat established weed infestations annually to restrict the spread of noxious weeds on the WMA		
			Eradicate newly invading weed species to keep them from becoming established		
	Prevent weed dispersal between neighboring properties and the WMA	Annually work with other parties, with special focus on IDPR, to limit the level of weed infestations and dispersal throughout the surrounding landscape	Participate in the local Cooperative Weed Management Area program	N/A	
			Work with adjoining landowners, with special focus on IDPR, to engage in cooperative weed control projects		
		Communicate and work with surrounding landowners on weed management issues			
WMA Priority: Information Gaps					
Scope	Management Direction	Gaps Identified	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Develop strategies to address gaps identified in the viability assessment	Amphibian and Reptile Guild	With Diversity staff lead, develop an amphibian and reptile monitoring protocol	Projects Completed	E, F, G, H, J, K, M
			With Diversity staff lead, organize volunteers to conduct amphibian and reptile monitoring		
		Gastropod Guild	With Diversity staff lead, develop a plan to ensure that management considers gastropod guild habitat requirements		
			With Diversity staff lead, recruit volunteers to monitor gastropod populations and to develop a species list.		
		With Diversity staff lead, identify areas of high concentrations of gastropods and identify habitat use.			

WMA Priority: Information Gaps					
Scope	Management Direction	Gaps Identified	Strategy	Metric	Compass Objective (Appendix I)
FWMA	Develop strategies to address gaps identified in the viability assessment	Forest Dependent Species	Manage forested areas for diversity of overstory and understory vegetation types by addressing the effects of forest succession	Acres improved	E, F, G, H, J, K, M
			Manage forested areas to more historic species composition consisting of dry forest site habitat of ponderosa pine, western larch and western white pine.		
			Manage forested areas to favor mountain shrub and grass/forb regeneration		
IDL, IDPR, USFS and BLM adjacent lands	Develop strategies to address gaps identified in the viability assessment	Forest Dependent Species	Work with USFS, IDL, IDPR, and BLM to re-introduce fire into the landscape, and to manage forested areas to pre-fire suppression species composition of ponderosa pine, western larch and western white pine. Treatment options include pre-commercial thinning, timber harvest and prescribed fire.	Acres improved	E, F, G, H, J, K, M
			Work with USFS, IDL, IDPR, and BLM to maintain a complex understory in forested areas		
			Work with USFS, IDL, IDPR, and BLM to maintain a canopy mosaic of age and species structure in forest management at a landscape level.		

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

On the FWMA, vegetation monitoring is generally limited to annual ocular surveys of noxious weed infestations to guide WMA weed management efforts. Periodic project-specific vegetation monitoring may/does also occur. Typically this involves basic forest structure measurements to verify that forest management prescription targets were met or tracking survival and establishment of new habitat plantings.

Wildlife monitoring on the FWMA has been limited and infrequent. The Coeur d'Alene Chapter of the Audubon Society assisted the Department with songbird counts in the early 1990s in response to some concerns over the effect of forest management activities occurring on the WMA at that time. Similarly, songbird point counts and small mammal snap trap surveys were conducted in the early 2000s in anticipation of forest management activities aimed at restoring old growth ponderosa pine stands within the WMA/Park complex. These data are housed at the Panhandle Regional Office and available through habitat staff. Future wildlife monitoring will continue to be project-focused on an as needed basis.

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

Table 3. Biological monitoring for Farragut WMA, 2014-2023.

Performance Target	Survey Type	Survey Frequency
Restore, maintain, or create \geq 160 acres of mature ponderosa pine dominated habitat.	Geospatial	Five-year intervals
Restore, maintain, or create \geq 160 acres of mixed coniferous forest where western white pine is the dominant/co-dominant tree species.	Geospatial	Five-year intervals
Maintain continued development of closed canopy Douglas/grand fir dominated forest on previously treated sites.	Geospatial	Five-year intervals
Employ an integrated weed management program (chemical, biological, mechanical) on the WMA to control noxious weeds	Ocular Surveys	Annually

In 2010, the Department initiated a statewide, long-term habitat monitoring program for all WMAs. The goal of the program is to collect quantitative and comparable baseline data to monitor habitat change on all WMAs due to management actions or other causes. The baseline data collected will be specific to each WMA, based on the habitat types present and its unique management issues. Baseline data typically includes:

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

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

Public Use Monitoring

Because of the close association between the FWMA and Farragut State Park, the FWMA receives a very high volume of public use. Under the cooperative management MOU, the IDPR is responsible for public use administration and tracks such things as annual visitor numbers. The Department supplements the Parks normal tracking from time to time to obtain a more detailed picture of both the demographics and attitudes/desires of the FWMA constituents. This was last done in 2004 and the report is available for public review through the Panhandle Regional Office habitat staff.

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Appendices

I. THE COMPASS – THE DEPARTMENT’S STRATEGIC PLAN

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

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

II. HISTORY

Farragut WMA (FWMA) was formerly the site of the Farragut Naval Training Center established by the United States Navy in 1942. The base was established in response to military training needs for World War II. It took only six months from the start of construction until the first of the 293,381 recruits who passed through Farragut Naval Training Center arrived for training. In total, the Farragut Naval Training Station took four years to build and required 22,000 workers for construction. The base cost over 100 million dollars and became the second largest base in the world at the time of its construction.

On June 6, 1946, Farragut Naval Training Center was decommissioned, as surplus to U.S. military needs. From 1947 to 1949, the base was used as the site of Farragut Technical College. The Department began to acquire the Naval Base property in 1949, when it purchased four separate parcels that border Lake Pend Oreille. Acquisition was completed in 1950 when the United States transferred 3,854 acres to the Department with a conditional deed stating that the property must be managed for wildlife conservation purposes; thus, Farragut Wildlife Management Area was established.

In 1964, the Department deeded 2,566 acres of the FWMA back to the U.S. government. The U.S. government in turn transferred these 2,566 acres to the Idaho Department of Parks and Recreation (IDPR) with a conditional deed that it be used as a Public Park. In 1965, the Idaho legislature passed legislation establishing Farragut State Park. Later, IDPR transferred 80 acres of abandoned railroad right-of-way back to the U.S. government who then gifted it to Kootenai County as a public recreation trail. In 1991, IDPR accepted a donation of five acres of private land adjacent to the Park.

Today the Department and the IDPR cooperatively administer by formal agreement 1,418 acres of FWMA and 2,491 acres of Farragut State Park. The Farragut Shooting Range is located on the FWMA owned by the Department. The shooting range has continued to be used by the Idaho citizenry from 1946 to the present. Daily operational oversight of recreational activities at the range is administered by the IDPR.

III. MANAGEMENT REQUIREMENTS AND AUTHORITIES

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

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

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.

Approximately 1,256 acres of the FWMA were gifted from the Federal government under a conditional use deed. Management activities on those acres of the FWMA comply with deed use restrictions. The Department participates in General Services Administration on-site compliance inspections every five years and no non-conforming uses have been documented by federal auditors.

IV. DEVELOPMENT HISTORY

Year	Development
1951	Portion of the boundary fence rebuilt and relocated.
1951-1955	Portions of the south boundary fence removed and replaced with four strand barbed wire to allow deer passage.
1951-1955	Portions of the property farmed to produce alfalfa hay (250 acres) and barley (65 acres).
1951-1955	Grasses and legumes seeded on 85 acres.
1951-1955	Approximately 12,000 shrubs planted.
1951-1955	A small campground and boat dock were built on Lake Pend Oreille for public recreation.
1951-1955	Several hundred white-tailed deer were trapped and transplanted to southern Idaho.
1951-1962	Demolition and removal of most of the remaining buildings left by the US Navy.
1964	2,566.2 acres quit-claimed to GSA.
1965	GSA deeded 2,566.2 acres back to State of Idaho, Department of Parks and Recreation.
1966	Farragut State Park created by Idaho Legislature.
1970-1971	Vault toilets placed at rifle range and pistol range.
1972	Remaining portion of the railroad spur right-of-way near Athol quit claimed to GSA.
1975-1985	Recreational trail system developed by IDPR.
1975-1990	Improvements to boat access by IDPR including pilings, docks, concrete ramps, restrooms and parking.
1975-1990	Improvements to rifle range by IDPR and other cooperators including shelters, parking and water line.
1988	Shelter added to pistol range by Fish and Game.
1990	Pistol range expanded by Fish and Game.
1991	Timber sale contract for 69,000 board feet let to salvage trees killed by insect attacks.
1992-1993	North boundary fence modified in places to facilitate big game passage.
1992-1993	Timber sale contract for 750,000 board feet let to maintain timber canopy and stand vigor; create a demonstration woodlot; and remove hazard trees from boundary fence.
1993	A tactical pistol range was constructed for Department firearms training and qualifications.
1996	Timber sale completed along the border of Bayview to remove trees which could fall, contact a power line and ignite a fire. Entry gate widened to allow Bayview Fire Department better access in case of fire.
1996	Replace firing line shelter at rifle range.
1996-1998	Timber sale contract for 750,000 board feet let to thin mature lodgepole pine

Year	Development
	stands to accelerate the growth of Douglas-fir/grand fir in the understory. Contract extended to include removing 250,000 board feet of merchantable trees along the Careywood and Good Hope roads to reduce damage from falling trees to the electric and telephone lines and boundary fence.
2002	Bayview Fuel Break. Participate in a federally funded, no cost to the Department, wildland/urban interface fuel break program (Fire-Smart) at the request of the Bayview Chamber of Commerce.
2004	Failing marine pump out at Eagle Boat Launch caused repeated spills and was removed.
2005	Bullet Salvage Timber Sale. Remove approximately 175 MBF of mixed conifer species to facilitate Farragut Shooting Range improvements including safety fencing and road access.
2005	Clear/re-grade/base rock Old Navy access roads from the Farragut Shooting Range to Perimeter Road and along the west side of the upper 600-yard range.
2005	Three-strand smooth-wire perimeter safety fence/signage installed around the Farragut Shooting Range.
2005	Kootenai Electric Cooperative installed the security light at the Perimeter Road access to the Farragut Shooting Range.
2006	Kootenai Electric Cooperative brought power to the Farragut Shooting Range.
2008	Major re-grading of the Farragut Shooting Range including new or reconstruction of backstops and side berms.
2009	Install new 3-sided shooting shed and overhead safety baffles on the 100-yard bay at the Farragut Shooting Range.
2009	Quick Draw Direct Timber Sale. Remove approximately one acre of mixed conifer trees threatening new shooting shed building sites at the Farragut Shooting range.
2009	Eagle Boat Launch handling docks and breakwater replaced. This also included re-pouring an upper portion of ramp and extending the lower ramp with ramp blocks.
2009	New pilings installed at the Buttonhook mooring docks.
2010	Install new 3-sided shooting shed and overhead safety baffles on the 200-yard bay at the Farragut Shooting Range.
2010	Install new 3-sided shooting shed and overhead safety baffles on the 100-yard bay at the Farragut Shooting Range.
2010	Participate in a federally funded, no cost to the Department, wildland/urban interface fuel break program (Fire-Smart) to create a “mid-WMA” defensible space fire break along Shooters Road access to the Farragut Shooting range.
2010	Bayview Fuel Break. Participate in a federally funded, no cost to the Department, wildland/urban interface fuel break program (Fire-Smart) to widen the Bayview Fuel Break at the request of the Bayview Chamber of Commerce and Bayview Community Council.
2011	Viewpoint Timber Sale. Remove approximately 74 MBF of mixed conifer trees from 13 acres under two prescriptions. The first was a clearcut to restore the

Year	Development
	view-shed at Blackwell Point, and the second was a selection cut to begin to restore historic structure and composition to old growth ponderosa pine stands.
2011	An ADA compliant vault toilet was added to the Eagle Boat Launch facilities to provide off season sanitation when flush facilities are winterized and out of service.
2012	A shoreline abutment was added to the Buttonhook moorage docks and the access path underwent revision to meet ADA compliance standards.
2013	At Buttonhook the two southernmost moorage dock strings and shoreline access dock were replaced with galvanized frame poly flotation docks. Insufficient funds were available to replace the northernmost dock so it was rebuilt/restored using the best of the 1966 cedar float docks.

V. 1999-2013 ACCOMPLISHMENTS

Since the Farragut WMA plan was revised in 1999, these accomplishments have occurred.

Goal: Protect and enhance winter habitat for white-tailed deer.

Objective: Manage Douglas-fir/grand fir forest stands for their snow intercepting, thermal cover, and escape cover characteristics.

Accomplishment:

- Existing closed canopy coniferous winter cover was maintained. Stands where lodgepole pine was selectively logged in the early 1990s to release and improve growth of understory Douglas-fir/grand fir are responding as expected.

Goal: Provide habitat for wildlife species associated with late successional, low elevation forests.

Objective: Manage Douglas-fir/grand fir forest stands to provide multi-tiered canopies, vertical diversity of tree species, a high density of large diameter trees, and a large number of snags on a per acre basis.

Accomplishment:

- Primarily a custodial management objective, these forest stands were protected and maintained.

Objective: Use prescribed burning and logging as tools to protect and accelerate the development of stands of mature ponderosa pine and western larch adjacent to Lake Pend Oreille.

Accomplishment:

- Approximately eight acres of mature ponderosa pine were selectively logged in 2011-2012 to improve and restore old growth structure and composition. Conditions have not allowed the application of prescribed fire to date. We will continue to seek a window of opportunity to restore fire to the site.

Objective: Periodically monitor nongame forest birds during the breeding season to evaluate the influence of management activities.

Accomplishment:

- Point counts for nongame forest birds were conducted in 2001 and 2013 on lakeshore ponderosa pine forest sites.

Objective: Attempt to prevent newly introduced noxious weeds from becoming established.

Accomplishment:

- Monitoring of noxious weeds and chemical or mechanical controls were applied annually.

Goal: Provide and enhance public use of the WMA and recreational facilities where compatible with wildlife goals and programs.

Objective: Provide public access facilities for fishing and boating access to Lake Pend Oreille through an interagency MOU with the IDPR.

Accomplishment:

- The interagency MOU with IDPR was updated and signed by the respective agency Directors in 2006. Eagle boat launch has been maintained and improved including parking areas, launch facilities, docks, and substantial revision of the launch area breakwater.

Objective: Provide public shooting range facilities through an interagency MOU with the IDPR.

Accomplishment:

- The interagency MOU with IDPR was updated and signed by the respective agency Directors in 2006. Significant safety, noise abatement, and facility improvements have been added. These include perimeter safety fencing; new baffles, berms, and backstops; shooting sheds; re-grading of the range floor; and road access improvements.

Objective: Provide a system of trails for FWMA visitors through an interagency MOU with the IDPR.

Accomplishment:

- The interagency MOU with IDPR was updated and signed by the respective agency Directors in 2006. Developed a new horse/bike/foot trail along the shooting range perimeter safety fence. Coordinated trail system management as needed with IDPR.

Objective: Provide an archery-only deer season in November. All other wildlife will be managed for non-consumptive use.

Accomplishment:

- Provided annually.

Objective: Maintain the WMA boundary fence.

Accomplishment:

- Maintained annually.

Objective: Randomly monitor WMA visitors for compliance with use restrictions.

Accomplishment:

- Coordinated and provided Department enforcement support as needed with IDPR.

Goal: Continue the partnership with the IDPR for co-management of the Department's property established by the existing MOU.

Objective: Meet annually with IDPR staff to coordinate habitat improvement projects, funding and maintenance needs, user surveys, and planning efforts.

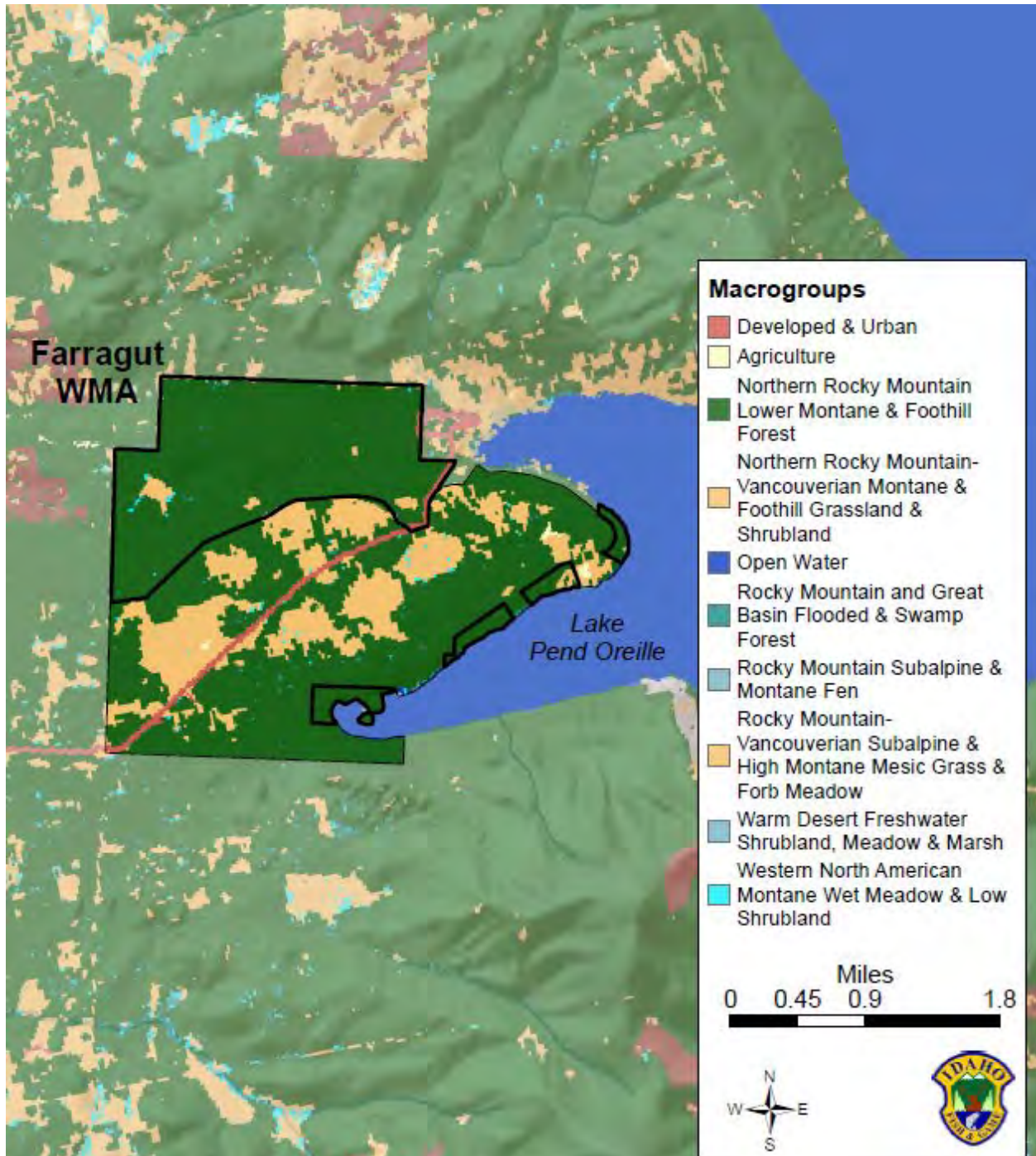
Accomplishment:

- Met at least quarterly with IDPR Farragut manager to coordinate Department/IDPR management activities.

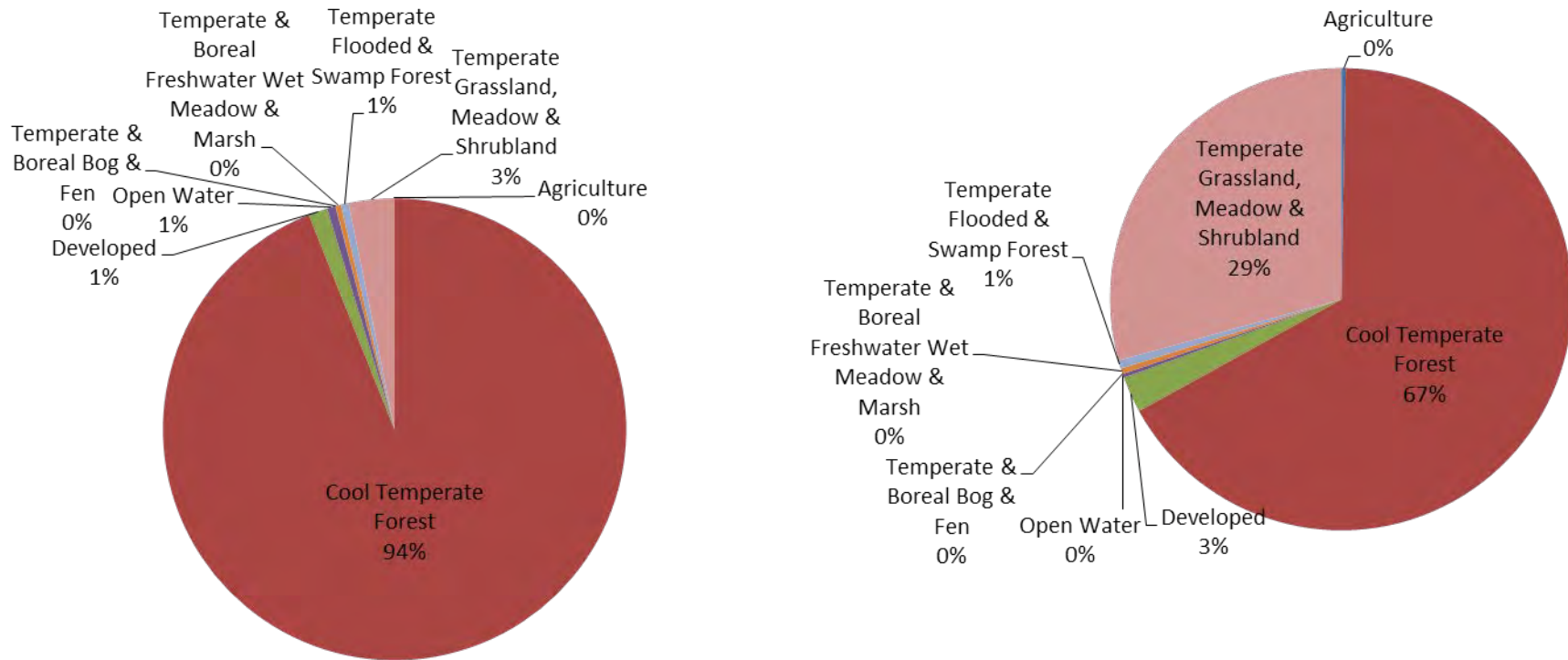
VI. VEGETATION

Area of various REGAP vegetation types for Farragut WMA and surrounding area of influence.

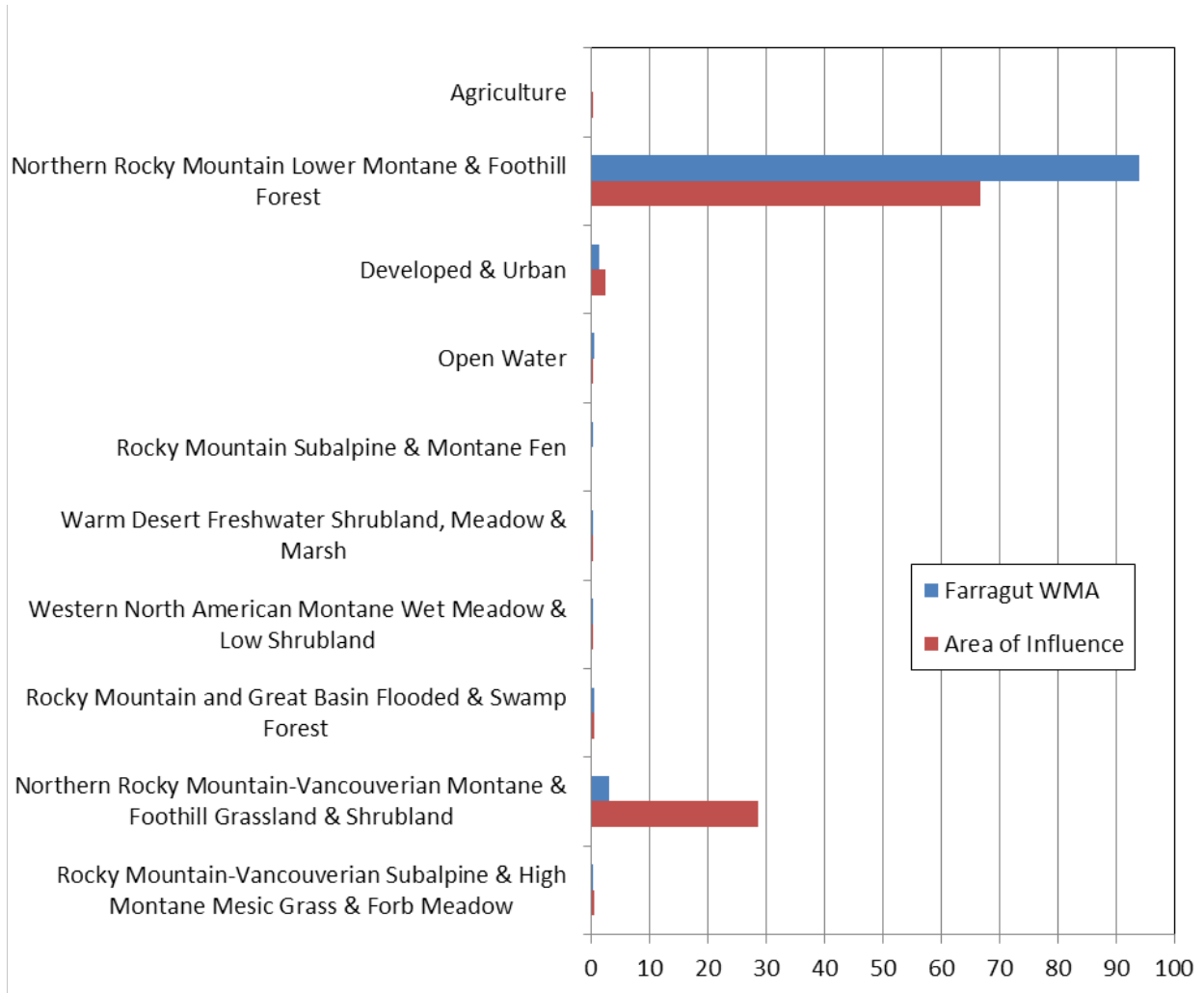
Formation	Macro-group	Ecological System	Farragut WMA	Farragut Area of Influence
Agriculture	Agriculture	Pasture/Hay		8.23
Cool Temperate Forest	Northern Rocky Mountain Lower Montane & Foothill Forest	Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	973.64	2,037.36
		Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	306.68	720.34
		Northern Rocky Mountain Ponderosa Pine Woodland and Savanna	52.71	260.65
Developed & Urban	Developed & Urban	Developed, Low Intensity	9.79	45.59
		Developed, Medium Intensity		5.34
		Developed, Open Space	8.90	31.36
Open Water	Open Water	Open Water (Fresh)	8.45	15.35
Temperate & Boreal Bog & Fen	Rocky Mountain Subalpine & Montane Fen	Rocky Mountain Subalpine-Montane Fen	0.22	0.22
Temperate & Boreal Freshwater Wet Meadow & Marsh	Warm Desert Freshwater Shrubland, Meadow & Marsh	North American Arid West Emergent Marsh	1.78	2.89
	Western North American Montane Wet Meadow & Low Shrubland	Rocky Mountain Alpine-Montane Wet Meadow	3.56	12.45
Temperate Flooded & Swamp Forest	Rocky Mountain and Great Basin Flooded & Swamp Forest	Northern Rocky Mountain Conifer Swamp	0.22	0.67
		Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	7.34	21.35
Temperate Grassland, Meadow & Shrubland	Northern Rocky Mountain-Vancouverian Montane & Foothill Grassland & Shrubland	Northern Rocky Mountain Lower Montane, Foothill and Valley Grassland	38.47	734.35
		Northern Rocky Mountain Montane-Foothill Deciduous Shrubland	6.00	36.03
	Rocky Mountain-Vancouverian Subalpine & High Montane Mesic Grass & Forb Meadow	Rocky Mountain Subalpine-Montane Mesic Meadow	0.89	15.35
Total Acres			1,418.65	3,947.50



Map of Farragut WMA REGAP Vegetation Macrogroups.



Distribution of Formation level vegetation types in Farragut WMA (left) as compared to the surrounding Area of Influence (right).



Percent of Macro-group level vegetation types in Farragut WMA as compared to the surrounding Area of Influence.

Habitat Types and acres on the combined Farragut WMA/Park complex.

Habitat Type*	Number of Acres	Percent of Total
Unknown	11	<1
Douglas-fir	1,302	33
Douglas-fir/ninebark	483	12
Douglas-fir/ninebark & grand fir/twinflower	64	2
Douglas-fir/ninebark & grand fir/queenscup beadlily	41	1
Grand fir/queenscup beadlily & grand fir/twinflower & grand fir/ninebark	387	10
Grand fir/queenscup beadlily & grand fir/twinflower	1,663	42

*Habitat Type descriptions from Cooper et al. 1991

Plant Species List

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

Common Name	Scientific Name	Common Name	Scientific Name
Trees		Shrubs	
Grand fir	<i>Abies grandis</i>	Rocky mountain maple	<i>Acer glabrum</i>
Western larch	<i>Larix occidentalis</i>	Western serviceberry	<i>Amelanchier alnifolia</i>
Lodgepole pine	<i>Pinus contorta</i>	Kinnikinnick	<i>Arctostaphylos uva-ursi</i>
Western white pine	<i>Pinus monticola</i>	Creeping Oregon grape	<i>Berberis repens</i>
Ponderosa pine	<i>Pinus ponderosa</i>	Black hawthorn	<i>Crataegus douglasii</i>
Douglas-fir	<i>Pseudotsuga menziesii</i>	Ocean-spray	<i>Holodiscus bicolor</i>
Western redcedar	<i>Thuja plicata</i>	Twinflower	<i>Linnaea borealis</i>
Western hemlock	<i>Tsuga heterophylla</i>	Utah honeysuckle	<i>Lonicera utahensis</i>
Grasses		Oregon Boxwood	<i>Pachistima myrsinites</i>
Bluebunch wheatgrass	<i>Agropyron spicatum</i>	Syringa	<i>Philadelphus lewisii</i>
Cheatgrass	<i>Bromus tectorum</i>	Ninebark	<i>Physocarpus malvaceus</i>
Columbia brome	<i>Bromus vulgaris</i>	Bittercherry	<i>Prunus emarginata</i>
Bluejoint reedgrass	<i>Calamagrostis canadensis</i>	Common chokecherry	<i>Prunus virginiana</i>
Pinegrass	<i>Calamagrostis rubescens</i>	Nootka rose	<i>Rosa nutkana</i>
Elk sedge	<i>Carex geyeri</i>	Woods' rose	<i>Rosa woodsii</i>
Orchard grass	<i>Dactylis glomerata</i>	Western thimbleberry	<i>Rubus parviflorus</i>
Idaho fescue	<i>Festuca idahoensis</i>	White spiraea	<i>Spiraea betulifolia</i>
Rough fescue	<i>Festuca scabrella</i>	Common snowberry	<i>Symphoricarpos albus</i>
Prairie June-grass	<i>Koeleria cristata</i>	Forbs	
Bulbous bluegrass	<i>Poa bulbosa</i>	Yarrow	<i>Achillea millefolium</i>
Sandberg bluegrass	<i>Poa secunda</i>	Pathfinder	<i>Adenocaulon bicolor</i>
Ferns		Pearly-everlasting	<i>Anaphalis margaritacea</i>
Oak-fern	<i>Gymnocarpium dryopteris</i>	Windflower	<i>Anemone piperi</i>
Swordfern	<i>Polystichum munitium</i>	Sharptooth angelica	<i>Angelica arguta</i>
Bracken fern	<i>Pteridium aquilinum</i>	Spreading dogbane	<i>Apocynum androsaemifolium</i>

Common Name	Scientific Name	Common Name	Scientific Name
<i>Forbs (cont.)</i>		<i>Forbs (cont.)</i>	
Wild sarsaparilla	<i>Aralia nudicaulis</i>	White-flowered hawkweed	<i>Hieracium albiflorum</i>
Bigleaf sandwort	<i>Arenaria macrophylla</i>	Common St. John's wort	<i>Hypericum perforatum</i>
Heartleaf arnica	<i>Arnica cordifolia</i>	Nine-leaf lomatium	<i>Lomatium triternatum</i>
Wild ginger	<i>Asarum caudatum</i>	Orange honeysuckle	<i>Lonicera ciliosa</i>
Showy aster	<i>Aster conspicuus</i>	Velvet lupine	<i>Lupinus leucophyllus</i>
Arrowleaf balsamroot	<i>Balsamorhiza sagittata</i>	Side-flowered mitrewort	<i>Mitella stauropetala</i>
Cusick's paintbrush	<i>Castilleja cusickii</i>	Indian-pipe	<i>Monotropa uniflora</i>
Prince's pine	<i>Chimaphila umbellata</i>	Mountain sweet-root	<i>Osmorhiza chilensis</i>
Queenscup eadlily	<i>Clintonia uniflora</i>	Beardtongue	<i>Penstemon</i> spp.
Western goldthread	<i>Coptis occidentalis</i>	Sticky cinquefoil	<i>Potentilla glandulosa</i>
Bunchberry	<i>Cornus canadensis</i>	Slender cinquefoil	<i>Potentilla gracilis</i>
Clustered lady's-slipper	<i>Cypripedium fasciculatum</i>	Pinedrops	<i>Pterospora andromedea</i>
Larkspur	<i>Delphinium nuttallianum</i>	Common pink wintergreen	<i>Pyrola asarifolia</i>
Hooker fairy-bell	<i>Disporum hookerii</i>	Wormleaf stonecrop	<i>Sedum stenopetalum</i>
Shooting star	<i>Dodecatheon pulchellum</i>	False Solomon's seal	<i>Smilacina racemosa</i>
Dog-tooth violet	<i>Erythronium grandiflorum</i>	Starry Solomon seal	<i>Smilacina stellata</i>
Wood strawberry	<i>Fragaria vesca</i>	Western meadowrue	<i>Thalictrum occidentale</i>
Northern bedstraw	<i>Galium triflorum</i>	White trillium	<i>Trillium ovatum</i>
Sticky geranium	<i>Geranium viscosissimum</i>	Mullen	<i>Verbascum thapsus</i>
Rattlesnake-plantain	<i>Goodyera oblongifolia</i>	American vetch	<i>Vicia americana</i>
Western hawkweed	<i>Hieracium albertinum</i>	Round-leaved violet	<i>Viola orbiculata</i>

VII. WILDLIFE SPECIES LIST

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

Common Name	Scientific Name	Common Name	Scientific Name
Mammals		Birds	
Moose	<i>Alces alces</i>	Cooper's hawk	<i>Accipiter cooperii</i>
Coyote	<i>Canis latrans</i>	Northern goshawk	<i>Accipiter gentilis</i>
Elk	<i>Cervus elaphus</i>	Sharp-shinned hawk	<i>Accipiter striatus</i>
Columbian ground squirrel	<i>Citellus columbianus</i>	Northern saw-whet owl	<i>Aegolius acadicus</i>
Red-backed vole	<i>Clethrionomys gapperi</i>	Black-chinned hummingbird	<i>Archilochus alexandri</i>
Big brown bat	<i>Eptesicus fuscus</i>	Cedar waxwing	<i>Bombycilla cedrorum</i>
Porcupine	<i>Erethizon dorsatum</i>	Ruffed grouse	<i>Bonasa umbellus</i>
Yellow pine chipmunk	<i>Eutamias amoenus</i>	Great-horned owl	<i>Bubo virginianus</i>
Red-tailed chipmunk	<i>Eutamias ruficaudus</i>	Bufflehead	<i>Bucephala albeola</i>
Northern flying squirrel	<i>Glaucomys sabrinus</i>	Common goldeneye	<i>Bucephala clangula</i>
Silver-haired bat	<i>Lasionycteris noctivagans</i>	Barrow's goldeneye	<i>Bucephala islandica</i>
Snowshoe hare	<i>Lepus americanus</i>	Red-tailed hawk	<i>Buteo jamaicensis</i>
Bobcat	<i>Lynx rufus</i>	Turkey vulture	<i>Cathartes aura</i>
Marten	<i>Martes americana</i>	Swainson's thrush	<i>Catharus ustulatus</i>
Striped skunk	<i>Mephitis mephitis</i>	Brown creeper	<i>Certhia americana</i>
Meadow vole	<i>Microtus pennsylvanicus</i>	Killdeer	<i>Charadrius vociferus</i>
Ermine	<i>Mustela frenata</i>	Northern flicker	<i>Colaptes auratus</i>
Little brown bat	<i>Myotis lucifugus</i>	Olive-sided flycatcher	<i>Contopus cooperi</i>
White-tailed deer	<i>Odocoileus virginianus</i>	Common raven	<i>Corvus corax</i>
Deer mouse	<i>Peromyscus maniculatus</i>	Steller's jay	<i>Cyanocitta stelleri</i>
Raccoon	<i>Procyon lotor</i>	Pileated woodpecker	<i>Dryocopus pileatus</i>
Masked shrew	<i>Sorex cinereus</i>	Hammond's flycatcher	<i>Empidonax hammondi</i>
Red squirrel	<i>Tamiasciurus hudsonicus</i>	Dusky flycatcher	<i>Empidonax oberholseri</i>
Black bear	<i>Ursus americanus</i>	Brewer's blackbird	<i>Euphagus cyanocephalus</i>

Common Name	Scientific Name	Common Name	Scientific Name
<i>Birds (cont.)</i>		<i>Birds (cont.)</i>	
American Kestrel	<i>Falco sparverius</i>	Calliope hummingbird	<i>Selasphorus calliope</i>
MacGillivray's warbler	<i>Geothlypis tolmiei</i>	Rufous hummingbird	<i>Selasphorus rufus</i>
Northern pygmy owl	<i>Glaucidium gnoma</i>	Yellow-rumped warbler	<i>Setophaga coronata</i>
Bald eagle	<i>Haliaeetus leucocephalus</i>	Townsend's warbler	<i>Setophaga townsendi</i>
Evening grosbeak	<i>Hesperiphona vespertina</i>	Mountain bluebird	<i>Sialia currucoides</i>
Barn swallow	<i>Hirundo rustica</i>	Western bluebird	<i>Sialia mexicana</i>
Varied thrush	<i>Ixoreus naevius</i>	Red-breasted nuthatch	<i>Sitta canadensis</i>
Dark-eyed junco	<i>Junco hyemalis</i>	White-breasted nuthatch	<i>Sitta carolinensis</i>
Red crossbill	<i>Loxia curvirostra</i>	Pygmy nuthatch	<i>Sitta pygmaea</i>
Turkey	<i>Meleagris gallopavo</i>	Pine siskin	<i>Spinus pinus</i>
Brown-headed cowbird	<i>Molothrus ater</i>	American goldfinch	<i>Spinus tristis</i>
Townsend's solitaire	<i>Myadestes townsendi</i>	Chipping sparrow	<i>Spizella passerina</i>
Orange-crowned warbler	<i>Oreothlypis celata</i>	Barred owl	<i>Strix varia</i>
Nashville warbler	<i>Oreothlypis ruficapilla</i>	Western meadowlark	<i>Sturnella neglecta</i>
Savannah sparrow	<i>Passerculus sandwichensis</i>	Tree swallow	<i>Tachycineta bicolor</i>
Gray Jay	<i>Perisoreus canadensis</i>	Violet-green swallow	<i>Tachycineta thalassina</i>
Black-headed grosbeak	<i>Pheucticus melanocephalus</i>	House wren	<i>Troglodytes aedon</i>
Black-billed magpie	<i>Pica hudsonia</i>	Winter wren	<i>Troglodytes hiemalis</i>
Downy woodpecker	<i>Picoides pubescens</i>	American robin	<i>Turdus migratorius</i>
Hairy woodpecker	<i>Picoides villosus</i>	Cassin's vireo	<i>Vireo cassinii</i>
Pine grosbeak	<i>Pinicola enucleator</i>	Warbling vireo	<i>Vireo gilvus</i>
Spotted towhee	<i>Pipilo maculatus</i>	Red-eyed vireo	<i>Vireo olivaceus</i>
Western tanager	<i>Piranga ludoviciana</i>	Mourning dove	<i>Zenaida macroura</i>
Mountain chickadee	<i>Poecile gambeli</i>	White-crowned sparrow	<i>Zonotrichia leucophrys</i>
Chestnut-backed chickadee	<i>Poecile rufescens</i>	<i>Amphibians and Reptiles</i>	
Vesper sparrow	<i>Poocetes gramineus</i>	Northern alligator lizard	<i>Elgaria coerulea</i>
Flammulated owl	<i>Psiloscops flammeolus</i>	Western skink	<i>Eumeces skiltonianus</i>
Ruby-crowned kinglet	<i>Regulus calendula</i>	Common garter snake	<i>Thamnophis sirtalis</i>
Golden-crowned kinglet	<i>Regulus satrapa</i>		

VIII. OTHER PROGRAMS

The Farragut Shooting Range

The primary mission of the Farragut Shooting Range is to provide a friendly, community, family, and sportsmen-based shooting range to learn and participate in shooting sports. The Farragut Shooting Range may also be used for shooting sports competition and training purposes such as, but not limited to, hunter education and firearms safety.

The range is managed as a sub-program of the Farragut WMA and its' operations are governed by a separate Standard Operating Procedure Manual (SOP). The SOP should be viewed as a management plan subject to revision as the need arises. It is intended to meet the requirements of Idaho Title 67 Chapter 91 and is subordinate to all other applicable State Laws and existing agreements (i.e., the 2006 Department/IDPR MOU).

Under Department/IDPR co-management, the range plays host to a broad range of users including military and law enforcement training, organized competitive shooting events, individual recreational shooters, and educational activities such as youth shooting clinics.

IX. LAND ACQUISITIONS AND AGREEMENTS

<i>Land Acquisitions</i>			
Year	Segment	Acres	Acquired From
1949	FG	28.22	U.S. Government
1949	FG	36.12	U.S. Government
1949	FG	35.94	U.S. Government
1949	FG	56.51	U.S. Government
1950	Gift	3,854.18	U.S. Government
	<i>Subtotal</i>	4,010.97	

<i>Land Exchanges</i>			
Year	Segment	Acres	Acquired From
1964	None	2,566.20	Quit claimed back to U.S. Government who in turn deeded property to Idaho Department of Parks and Recreation in 1965 to create Farragut State Park
1972	None	32.36	Quit claimed former railroad right of way near Athol back to U.S. Government
	<i>Subtotal</i>	2,598.56	
	<i>Net WMA Total</i>	1,412.41	

<i>Cooperative Land Agreements</i>	
Year	Agreement Terms
1982	Memorandum of Understanding signed with the Idaho Department of Parks and Recreation for administrative supervision of Fish and Game property at FWMA.
1993	Letter of Intent/Program of Utilization signed with the General Services Administration
1998	Letter of Intent/Program of Utilization renewed with the General Services Administration
2004	Revised Memorandum of Understanding signed with the Idaho Department of Parks and Recreation for administrative supervision of Fish and Game property at Farragut WMA

X. INFRASTRUCTURE

Because of the juxtaposition of the Farragut WMA and Farragut State Park properties and the Cooperative Management MOU between the agencies, the Department and IDPR and their constituents share infrastructure. The following represents the collective developments on the combined management areas.

Building/structures: There are 36 including visitor centers, shop and equipment storage facilities, shower houses, toilet facilities, and shooting sheds at the range.

Earth structures: Berms and backstops associated with the public and enforcement shooting ranges. Sewage lagoons associated with the IDPR sewage treatment/disposal facilities.

Water improvements: Four boat ramps, three loading docks, and three overnight moorage docks.


Roads and trails: Twenty-three miles of roads and 40 miles of non-motorized trails.

Fences: Approximately 32,000 feet of chain link and 7,500 feet of three-strand smooth wire fences.

Campsites: Two-hundred twelve individual campsites and six group camp areas.

FARRAGUT
WILDLIFE MANAGEMENT AREA PLAN
Approval

Submitted by:



David Leptich, Habitat Biologist

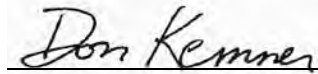
Reviewed by:



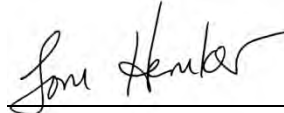
James Teare, Regional Habitat Manager



Chip Corsi, Regional Supervisor

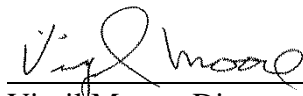


Don Kemner, Bureau of Wildlife



Tom Hemker, State Habitat Manager

Approved by:



Virgil Moore, Director