MINAM RIVER WILDLIFE AREA MANAGEMENT PLAN

Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive SE
Salem, Oregon 97302

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EXECUTIVE SUMMARY

In September 2024, the Oregon Fish and Wildlife Commission approved the final sales transaction of a multi-phase acquisition of the Minam River Wildlife Area (MRWA). The completed acquisition added 16,646 acres to an existing 441-acre wildlife area along the Minam River. The achievement was grounded in a strong partnership with the Oregon Department of Fish and Wildlife (ODFW), Rocky Mountain Elk Foundation (RMEF), and Manulife Investment Management Timber and Agriculture, Inc. (Manulife). Funding for the purchase was made possible by the U.S. Fish and Wildlife Service's (USFWS) Wildlife Restoration Program (Pittman-Robertson Act), the U.S. Department of Agriculture Forest Legacy Grant Program, and generous private donors.

Situated at the northern edge of the Wallowa Mountains between the towns of La Grande and Enterprise, the MRWA has long been recognized for its exceptional wildlife habitat values. Generations of biologists and wildlife enthusiasts have observed the importance of the MRWA as winter range for Rocky Mountain Elk and Mule Deer. Its location serves as a high value corridor for wildlife migration between the Wallowa and Blue Mountains, and among several areas of high conservation value including the Eagle Cap Wilderness. With 9 miles of the Minam River flowing through the property, the MRWA now has an important role in protecting regional connectivity among aquatic habitats as well as terrestrial.

Habitat management will focus on enhancing habitats that are currently limited by historic land use impacts and building landscape resilience to current and future impacts from climate change. MRWA has areas of high-functioning terrestrial and aquatic habitats in need of protection that are mixed with habitats that need restoration and enhancement. For the latter, ODFW plans on applying active multi-species management principles with an emphasis on a working lands approach. This approach has proven to be effective at conditioning and enhancing forest and grassland habitats, especially where historic natural disturbance regimes (such as fire) are too risky and not socially tolerable. Working lands also offer opportunities for ODFW to partner with local communities so that conservation actions can also provide economic benefit.

Within the themes listed above, examples of terrestrial habitat enhancement include conditioning forage and ensuring a mosaic of habitat types for all wildlife species and life stages. Forest habitat enhancement on the MRWA will seek to open canopy cover within overstocked stands to promote early seral growth of shrubs and assist with stand resistance to disease and insects. These treatments will also balance the need to retain some late seral forest communities that provide important habitat features such as snags for cavity nesters and downed wood for reptiles and amphibians. Grassland habitat actions will focus on conditioning forage at strategic times of the year to sustain the MRWA's role as critical winter range. Aquatic habitat restoration actions will focus on mitigating the legacy effects of splash dam logging practices in the lower reaches of the Minam River and encouraging more interaction with the floodplain and riparian areas. When accomplished, these actions will result in a high-functioning ecosystem

that will have substantial benefits to wildlife species of concern and fish that are listed under the Endangered Species Act.

The MRWA also has a long and rich history of use by ancestral tribes, early settlers, and contemporary recreationalists. ODFW's acquisition of the MRWA provides the ability to recognize and continue this history by providing public access for a myriad of opportunities. Visitors of all interests and abilities will have a means to connect with this incredible landscape, whether that be exploring the rugged backcountry or taking a short day hike from the adjacent state highway. Hunting, angling, foraging and gathering opportunities will be available to the public where they complement wildlife conservation goals. In addition, visitors will connect to the land through various hiking, wildlife watching, and photography opportunities. With the proximity of the MRWA to several local communities and ancestral tribal lands, ODFW looks forward to developing partnerships that emphasize education and the continuance of important cultural uses.

This document conveys ODFW's vision for managing this unique and important landscape. That vision is broken down into goals, objectives, and strategies that relate to the preservation of local and regional connectivity, restoration and enhancement of habitats, and access for enjoyment by all. The plan will provide ODFW staff with direction and guidance and transparently communicate priorities to the public. Capturing all of that in this plan helps ensure future management understands and builds on the original intent of this acquisition and provides a basis for the responsible administration of public resources.

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Plan Overview

The Oregon Department of Fish and Wildlife (ODFW) owns and manages more than 200,000 acres of publicly owned land on 20 unique wildlife areas throughout Oregon. These wildlife areas represent the breadth of species and habitats present in Oregon. Considering that loss of natural habitat poses the greatest threat to native fish and wildlife, and that loss is further accelerated by climate change, wildlife areas play a critical role in achieving ODFW's conservation mission.

In addition to protecting lands and water for wildlife habitat and for people, ODFW manages land to preserve Oregon's natural and cultural heritage, provide access for hunting, fishing, and wildlife-related recreation, and to foster outdoor experiences and exploration throughout the state. ODFW develops management plans for each wildlife area to address specific aspects of resource management, convey stewardship needs, highlight opportunities for public recreation, education, and alignment with statewide conservation goals.

This Minam River Wildlife Area (MRWA) management plan conveys the property's intent and guides ODFW's management actions, and specifically for the following purposes:

- Provide ODFW staff with clear direction for management of MRWA.
- Communicate management priorities for MRWA to its neighbors, visitors, and the public.
- Ensure management programs on MRWA are consistent with the original intent and purpose of the area as first established.
- Ensuring management of MRWA is consistent with federal and state laws, in addition to state and local natural resource plans.
- Provide a basis for budget planning to support the management of MRWA including staffing, operations, maintenance, and capital improvements.

The plan is organized around an overall vision for the MRWA. That vision is supported with goals and objectives that address current limiting factors and desired future outcomes. Each objective outlines proposed strategies (or implementation actions) that contribute to the accomplishment of objectives. All actions described in this plan are focused on maintaining and enhancing key habitats and providing significant wildlife oriented public use and may be implemented during the life of this plan but are always subject to availability of funding and personnel.

This management plan will be reviewed in five years to gauge the progress of implementation and make necessary revisions, and it may be revised in its entirety in ten years.

Introduction

Location

The Minam River Wildlife Area (MRWA) is in northeastern Oregon, approximately 33 miles northeast of the town of La Grande and 31 miles northwest of Enterprise (Figure 1). The MRWA is situated along the State Highway 82 corridor and resides within the Blue Mountains Ecoregion of the State Wildlife Action Plan (SWAP).

The MRWA is surrounded by a mix of public and private lands. The south boundary is shared with the Wallowa-Whitman National Forest / Eagle Cap Wilderness Area. The north boundary is the Wallowa River and Forest Road 8270 and is also adjacent to the Minam State Recreation Area. Both the east and west boundaries of the MRWA are shared with a mix of private lands, Bureau of Land Management (BLM) parcels, and National Forest. The Minam River is a major watershed running from south to north that divides the wildlife area into eastern and western portions. Figure 1 shows the locations and key features of the MRWA.

Terrestrial habitats on the MRWA are characterized by long finger-like ridges that extend from south to north at the northern tip of the Wallowa Mountain range. The MRWA contains seven habitat types which consist of: grassland/shrubland, ponderosa pine, mixed conifer forest, sagebrush steppe, aspen woodland, riparian, and freshwater aquatic (Figure 2). Higher elevations near the southern boundary of the property, in addition to shaded north aspects, support a variety of forested habitats. Towards the northern, lower elevation areas, the landscape transitions from forested to grassland habitats shared by expansive open ridges and steep rugged canyons.

The MRWA has abundant aquatic resources throughout the property. The Minam River flows along the western edge of the MRWA, and Deer Creek forms the eastern border of the wildlife area. The Wallowa River flows along the northern boundary of the wildlife area. The interior includes many perennial and ephemeral streams including Weelikéecet Creek, Gunderson Creek, and the lower reaches of Cougar Creek. For more information about habitat resources, see Appendix A.

The MRWA contains a diverse array of fish and wildlife species found within the Blue Mountain Ecoregion. The most prevalent group of species are birds, with over 131 species inventoried on the MRWA. Mammals are highly represented on the MRWA with 54 total species that include large ungulates, bats, carnivores, and others that reside in various MRWA habitats. The MRWA supports 18 species of fish and includes several that are listed under the Endangered Species Act (ESA). In addition, 13 species of amphibians and reptiles have been found on the MRWA. All groups include species that reside year-round and seasonally on the MRWA and have varied conservation status. For more information on fish and wildlife resources on the MRWA, see Appendix B.

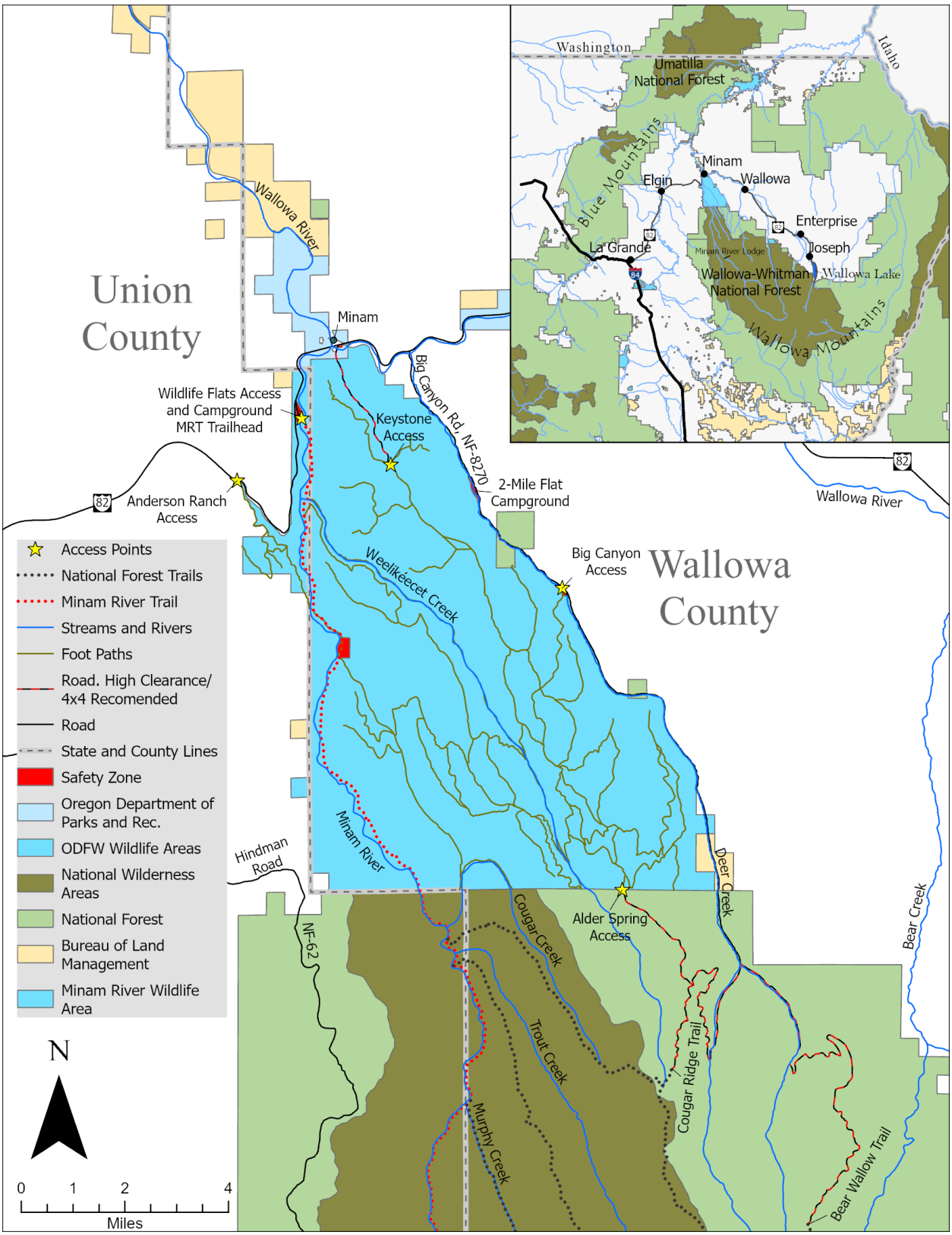

Figure 1. The Minam River Wildlife Area (MRWA), surrounding land ownership and key features including access sites, streams and rivers, trails, and existing road network.

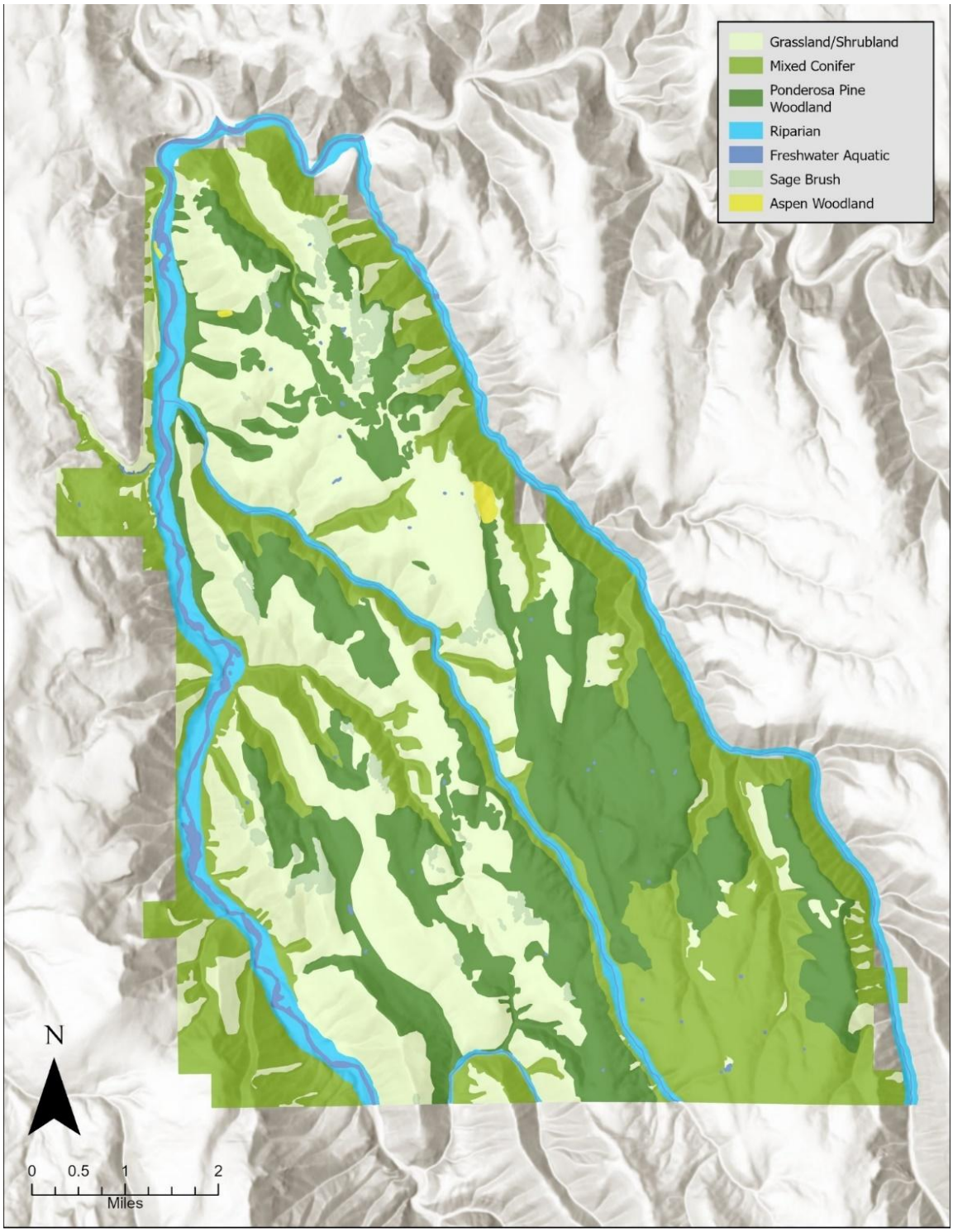

Figure 2. Types of habitats and their distribution across the Minam River Wildlife Area (MRWA)

History

Historic and ethnographic evidence indicates that the vicinity of the Minam River Wildlife Area (MRWA) occurs within the traditional territory of the Waláwama band of Nez Perce (or Niimíipu, meaning "the people"). The area was also used seasonally by the Umatilla and Cayuse (now part of the Confederated Tribes of the Umatilla Indian Reservation). The Nez Perce Tribe and the Confederated Tribes of the Umatilla Indian Reservation have occupied their homelands since time immemorial. Archaeological evidence confirms that ancestors of the Nez Perce have occupied their traditional territory for more than 11,000 years, and numerous traditional use areas near the MRWA support that evidence. These areas suggest the Minam drainage was incredibly important to the Nez Perce, Walla Walla, Umatilla, Cayuse, and Palus for camping, fishing, gathering, and hunting.

The U.S. Treaty of 1855 reserved 7.5 million acres of land for the Nez Perce Tribe. The Minam drainage is within and near the western border of these reserved lands. Old Chief Joseph (Tuekakas) built rock and pole monuments on the west side of the Minam Canyon (outside of the current MRWA boundary) to identify 1855 Treaty lands. Despite the Treaty, settlers and gold miners continued to move into reservation lands. The U.S. government responded by creating a new treaty in 1863 that drastically reduced the size of the reservation and removed all reservation lands in Oregon.

Further displacement of the Nez Perce associated with the 1863 Treaty caused distrust and conflict with the U.S. government and eventually led to the outbreak of the Nez Perce War In 1877. The Nez Perce and U.S. military became embroiled in a long war that spanned 1,300 miles and ended with the Nez Perce surrender near Bear Paw Mountain in Montana (Schwendiman et al. 2023). Following the war, the U.S government did not allow members of the Chief Joseph Band of Nez Perce to return to the Reservation. Instead, they were relocated to the Confederated Tribes of Colville Reservation in northeast Washington.

Shortly after the Nez Perce surrender and relocation, European settlers began to occupy the Minam area. Unregulated livestock grazing was the predominant land use during this time. Local ranchers ran several hundred head of cattle on the prairie grasslands of ‘Minam-On-Top’ (now the MRWA) during spring, summer, and fall. Domestic sheep were also brought in by the thousands and thrived in the higher reaches of the Minam drainage where it was inefficient to work cattle (Schwendiman et al. 2023). Several homesteaders built homes, granaries, sheds, and a school from boards produced at a local sawmill. These families planted large fruit tree orchards, farmed and ranched on hundreds of prairie grass uplands, where remnants are still visible today.

Late in the 19th century, near the confluence of the Minam and Wallowa Rivers, the construction of transportation infrastructure supported the development of a town known as ‘Minam City’. Timber at ‘Minam-On-Top’ was abundant, and through congressional acts such as the 1873 Timber Culture Act and the 1878 Timber and Stone Act, non-

local businesspeople claimed sections of land and sold the standing timber to big lumber firms. The lumber industry brought activity to Minam City, which by then had a store, hotel, mill and a planar. In 1918 the mill was bought by the Minam Lumber Company, and timber was harvested up the Minam River and floated to the mill with the assistance of a splash dam. The contract was a huge boost to the Minam City economy until the Minam Lumber Company failed in 1926.

For decades after the Minam Lumber Company and the brief boom at Minam City, the Minam-On-Top community continued to farm and ranch the uplands. Ranching operations continued until the mid-20th century even though most of the families no longer homesteaded there after the 1930s. Eventually, most of the land that comprised Minam-On-Top was bought by large timber companies, logged to an extent most practical, and further held for investment purposes. For a more comprehensive list of historical ownership and land transactions, please see Appendix C.

The Wilderness Act of 1964 bundled the Eagle Cap Primitive Area (which included large portions of the Minam drainage) into the national wilderness system. This act broadened the purpose of the land to also include recreational, scenic, scientific, educational, conservation, and historical endeavors and considerations. In 1962, the Minam River was selected by the USGS as one of only twelve rivers in the western U.S. to compare the chemical and physical characteristics of pristine rivers with those of more developed rivers. The Minam River was the only river in Oregon to receive this selection. In 1988, the Minam River was inducted into the Wild and Scenic Rivers Act of 1968 (Schwendiman et al. 2023).

Acquisition History

Establishment of the MRWA began when ODFW purchased 441 acres along the Minam River in 1967, just upstream from the Minam City townsite. This parcel served as public fishing access to the Minam River and secured public ownership of the Minam River Trailhead. Long recognized for its importance as big game winter range, ecological richness, and public recreation ODFW attempted multiple acquisitions of the current MRWA from various private landowners dating back to the 1960’s.

In 2019, ODFW in partnership with the Rocky Mountain Elk Foundation (RMEF) negotiated a two-phase purchase totaling 15,573 acres with Hancock Natural Resource Group (later Manulife Investment Management Timber and Agriculture Inc., or Manulife). The first phase was completed in 2021 adding 4,609 acres, and the second phase was secured in 2023 adding another 10,964 acres. A third phase acquired another 1,073 acres from Manulife in 2024. The total acreage of the wildlife area is 17,087 acres and forms a contiguous block of protected landscape between Deer Creek and Minam River, from State Hwy 82 south to the U.S. Forest Boundary (Figure 1).

Funding for all phases of the acquisition were secured from multiple sources including generous private donations, the U.S. Fish and Wildlife Service’s (USFWS) Wildlife Restoration Program (Pittman-Robertson Act), and the U.S. Department of Agriculture

Forest Legacy grant program.

Oregon Department of Fish and Wildlife Mission and Authority

The Minam River Wildlife Area is owned and operated by the Oregon Department of Fish and Wildlife (ODFW). The mission of ODFW is “to protect and enhance Oregon’s fish and wildlife and their habitats for use and enjoyment by present and future generations.”

The Department is the only state agency charged exclusively with protecting Oregon’s fish and wildlife resources. The State Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) are the primary statutes that govern management of fish and wildlife resources. Wildlife areas are managed under the Oregon Administrative Rules (OARs), specifically within Chapter 635 - Department of Fish and Wildlife, under Division 8 - Lands: Department of Fish and Wildlife Lands. Specific rules for MRWA are listed under 635-008-0126 (also see Appendix D).

Organizationally, the MRWA operates within ODFW’s Grande Ronde Watershed (East Region). Project coordination is also provided by ODFW’s Wildlife Division that integrates wildlife area management activities with large scale landscape planning. For example, collaboration with federal land agencies, Federal-Private-State-Tribal partnerships (1990 Blue Mountain Elk Initiative), and cooperative agreements with private landowners. In addition, management activities on the MRWA support myriad individual wildlife species plans in Oregon, (e.g. 2025 State Wildlife Action Plan Revision, 2003 Elk Management Plan, 2024 Mule Deer Management Plan, 2003 Bighorn Sheep and Rocky Mountain Goat Management Plan, 2017 Cougar Management Plan, 2019 Oregon Wolf Conservation and Management Plan, and 2018 Wild Turkey Management Plan).

Management Approach

The primary purpose of the MRWA is to maintain and protect landscape level connectivity, conserve key habitats, and sustain ecological functions that support numerous endemic species. ODFW plans to accomplish this with the application of active management principles with an ecosystem-based management philosophy. Of primary importance, enhancing historic winter range for Rocky Mountain elk and other iconic species native to Oregon; including sensitive species identified within the State Wildlife Action Plan (SWAP; for more information about biological resources see Appendix B). When managed to support the goals and objectives outlined below, habitat management techniques employed on the MRWA will ensure protection of the ecological drivers that support healthy, resilient ecosystems.

Minam River Wildlife Area Vision Statement

Protect, enhance, and promote landscape level connectivity and ecological functions that provide high-quality, resilient habitats for terrestrial and aquatic species for use and enjoyment by present and future generations of Oregonians.

Goals, Objectives, and Strategies

ODFW's plan for achieving the vision statement is communicated through goal statements, which are supported by objectives and strategies. Wildlife area goals are broad, qualitative statements regarding desired future conditions. Goals are founded on ecosystem-based management principles whereby habitat enhancements are achieved by integrating diverse natural ecological drivers and processes, including actively managed surrogates.

Primary natural drivers on MRWA include hydrology, local climate conditions, and fire. As a result of historical anthropogenic influences, most habitat types are only partially supported by these natural ecological processes. Where natural functions are limited, active management will serve as a proxy to these processes. For example, active management will include working lands approaches to habitat enhancement. Working lands serve an important role where a landscape has experienced a shift in plant community assemblages, loss of historic ecosystem form and functions, and other anthropogenic related impacts. A host of modern land use practices and management activities serve as a surrogate for the loss of natural disturbance regimes when natural processes are not available or socially tolerable.

Objectives are quantifiable statements, what ODFW plans to achieve, in a manner that supports each goal. Objectives are met with the implementation of related strategies and emphasize how terrestrial and aquatic resources will be managed to protect critical habitats and promote resilience. Resilience is considered in a long-term context as it pertains to the effects of climate change, and in a short-term context such as resistance to short-term disturbances. Objectives provide the basis for determining strategies (implementation actions), monitoring wildlife area accomplishments, and evaluating the success of strategies.

Due to the variety of ecosystems and associated habitats present on MRWA, a wide variety of fish and wildlife species will benefit from proposed management actions, including habitats of conservation concern and sensitive species included in the State Wildlife Action Plan (SWAP; ODFW 2025; Appendix B).

As a state wildlife area, recreational opportunities are important and will be available to the public when compatible with other goals and objectives and balanced with resource needs.

Goal 1: Protect and enhance connectivity at a regional and local scale in a manner that supports critical ecological functions for fish and wildlife species.

The location of the MRWA is uniquely positioned to connect some of the most intact, highly functioning ecosystems in Oregon. The MRWA creates a contiguous corridor of public land; specifically with the 600-acre Minam State Recreation Area, 1,750 acres of Bureau of Land Management (BLM) managed lands, and the 2.4 million-acre Wallowa-Whitman National Forest (including the 360,000-acre Eagle Cap Wilderness, Figure 1). This corridor links local and meta-populations of native flora and fauna, protects the movement of individuals, and supports population level gene flow.

At a regional scale, the MRWA is the only point of forested habitat connectivity between the Blue and Wallowa Mountains, which at a larger scale connects the Rocky and Cascade Mountains. A large portion of the MRWA is designated as a 'Region' within ODFW's Priority Wildlife Connectivity Area network (ODFW 2024). This designation highlights the wildlife area's role in providing the highest-value habitat for facilitating the movement of wildlife throughout the state of Oregon. Big game collar data shows MRWA as crucial winter, year-round, and transitional habitat along this migration corridor. Protecting and enhancing connectivity in this area is key to implementing ODFW's Elk and Mule Deer Management Plans in northeast Oregon. With the rich diversity of terrestrial and aquatic habitats, ODFW will emphasize the protection and enhancement of connectivity between uplands and riverine ecosystems.

The MRWA connects the Eagle Cap Wilderness Area with the Lower Grande Ronde Conservation Opportunity Area (COA) under the Conservation Strategy, thereby linking Oregon's largest wilderness area with a high-priority area where broad fish and wildlife conservation goals would best be met (ODFW 2016, ODFW 2025). Given the significance of this area for conservation values, MRWA management actions are focused on maintaining regional flow and access to productive habitats.

The primary link between these two high-priority areas is the Minam River, of which 9 miles flow through the MRWA. The Minam River and surrounding watershed is a substantial source of regional biodiversity and has outstanding ecological value. It was identified as a top 20 river in Oregon for Outstanding National Resource Water and top two Wild and Scenic River for protection in Oregon (Conservation Science Partners, Inc. 2021). With the acquisition of the MRWA, all but 0.5 miles of the 51-mile Minam River and its tributaries are in public ownership and connects the headwaters to the confluence with the Wallowa River.

Streams throughout the MRWA support federally threatened Chinook salmon, steelhead, and bull trout. The Minam River is designated as a wild production area for Snake River spring/summer spring Chinook salmon, and Snake River summer steelhead (NMFS, 2017a). The Minam River and its tributaries are listed as critical habitat for bull trout (U.S. Fish and Wildlife Service, 2015a). These waters also serve as habitat for recently reestablished populations of Pacific lamprey and coho salmon. For more information about fishery resources on the MRWA, see Appendix B.

The Minam River watershed has been identified as a high priority area for protection in ODFW's Aquatic Habitat Prioritization Assessment. This high ranking is based on the current and projected state of streamflow, temperature, and adjacent landscape characteristics that are necessary to support native aquatic fish and wildlife populations now and with a changing climate.

Protecting and enhancing connectivity is largely supported through a suite of habitat and administrative management actions that removes barriers and incentivizes fish and wildlife to utilize the MRWA for local and regional movements. As such, Goal 1 objectives are closely related to management objectives and strategies also covered in subsequent sections of this plan. The rationale for those strategies can be referenced within Goals 2 through 4. To highlight the importance of connectivity in the management of the MRWA, ODFW plans to achieve this goal through the following objectives and strategies:

Objective 1.1: Protect large and small-scale connectivity among important habitat types by enhancing movement for terrestrial wildlife across the MRWA.

> **Strategy 1.1.1:** Minimize wildlife disturbance by administering a year-round motorized vehicle closure on the MRWA (see Strategy 4.1.6).
>
> **Strategy 1.1.2:** Enhance security for ungulates and other wildlife during critical periods by closing the MRWA to public access during winter months (12/31 through 3/31; see Strategy 4.1.7).
>
> **Strategy 1.1.3:** Remove fencing as appropriate to facilitate wildlife movements across the MRWA while managing a rotational grazing program (see Strategies 2.2.3, 2.3.3, and 4.14).
>
> **Strategy 1.1.4:** Where needed, replace existing fence with wildlife-friendly and/or virtual fencing to encourage movements between pastures while limiting the risk of entanglement (see Strategies 2.2.3, 2.3.3, and 4.1.4).
>
> **Strategy 1.1.5:** Ensure that habitat enhancement projects are implemented in a manner that provides a diversity of habitat types to support wildlife movement (see Goal 2).
>
> **Strategy 1.1.6:** Condition forage on the wildlife area to be of quality and quantity such that wildlife are incentivized to utilize the MRWA for regional and local movements at strategic times of the year (see Strategies 2.1.3, 2.1.7, 2.1.8, 2.1.9, 2.2.1, 2.2.2, and 2.2.6).
>
> **Strategy 1.1.7:** Collaborate with the USFS Wallowa Whitman National Forest, Vale District BLM and ODF to initiate cross-boundary

restoration initiatives that maintain and promote landscape scale connection, restoration and management actions (see Goal 2).

Objective 1.2: Protect and enhance connectivity among 187 miles of perennial and ephemeral streams and drainages, including 9+ miles of the Minam and Wallowa Rivers.

Strategy 1.2.1: Collaborate with the USFS Wallowa Whitman National Forest to maintain administrative protections that promote connectivity from the Minam River's headwaters within the Eagle Cap Wilderness to its confluence with the Wallowa River (see Strategies 2.1.10 and 2.3.4).

Strategy 1.2.2: Within the MRWA boundary, implement restoration projects on the mainstem Minam River and tributaries that increase the channel width-to-depth ratio, floodplain connectivity, and lower water temperatures to encourage usage by native migratory fish species (see Objective 2.3).

Strategy 1.2.3: Promote aquatic habitat connectivity within MRWA tributaries by assessing and removing man-made barriers to movement, through road obliteration and/or culvert replacement where appropriate (see Objective 2.3).

Strategy 1.2.4: Ensure that aquatic connectivity projects meet the needs of diverse wildlife species, such as amphibians and reptiles, by adhering to aquatic organism passage best management guidelines.

Strategy 1.2.5: Encourage connectivity between riparian and upland habitats for different species and life stages of wildlife by replacing and maintaining riparian livestock exclosure fencing with wildlife-friendly alternatives (see Strategy 2.1.6, 2.2.3, and 2.3.3).

Goal 2: Actively manage MRWA for high-quality and resilient terrestrial and aquatic habitat that supports diverse fish and wildlife species.

The opportunity to protect, restore, and enhance the exceptional habitat values on the MRWA for fish and wildlife is foundational to ODFW's ownership of the property. Habitat management will be supported by a suite of strategies applied to both terrestrial and aquatic ecosystems that sustain a diverse community of fish and wildlife species. Habitat management will focus on two main themes; 1) restoring and enhancing habitats that are currently limited by historical land-use impacts; and 2) building landscape resilience to current and future impacts from climate change.

Conservation of MRWA habitats will include strategies that complement, support and enhance ecosystem functions. This approach to addressing ecosystem structure and

function will be informed with a suite of scientific tools, including the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) Ecological Site Descriptions (ESD) and State and Transition Models (STM). ESD provide detailed descriptions of site characteristics, plant communities, site interpretations and supporting information. STMs are diagrams indicating plant community pathways based on soil properties and disturbance. STMs depict different states, or stable communities, that a site can achieve, and the transitions between those states, including the mechanisms, triggers, and thresholds that drive those transitions.

With an ecosystem approach, management is intended to benefit as many species as possible that reside or migrate through the MRWA. With that, actions may be tailored to support specific life history needs of groups or individual species. For example, management will emphasize the maintenance and enhancement of upland habitats that support winter range, a critical habitat that is regionally limited for Rocky Mountain elk, mule deer and other native wildlife. This especially applies to habitats that support sensitive, threatened, and species of concern that will receive special management consideration, including SWAP species and their habitats.

Where high-functioning habitats exist on the MRWA, ODFW will identify and protect those areas to continue supporting fish and wildlife in their current state (see Appendix A). Where habitats have been impacted by past land-use, or where habitats are not fully functioning, an active management approach may be considered (also see Appendix A). Actively managed lands and waters can play a significant role in reducing risk from extreme events (e.g., flooding, fire) to human health, safety and property (ODFW Climate Policy). For example, many of Oregon's open structured habitats, which are dominated by grasses, forbs, and/or shrubs, were historically maintained by disturbance including wildfire and flood (Oregon Conservation Strategy 2016).

In the presence of climate change and where natural disturbance regimes alone cannot maintain habitats, a working lands approach has proven to serve as an effective surrogate. As referenced in the State Wildlife Action Plan (SWAP), working land and active management can address key conservation issues identified in the Blue Mountains Ecoregion. Working lands are particularly beneficial when ecosystem functions are lost or degraded because of anthropogenic activities. Management practices such as fuels treatments and selective thinning improve forest health while strategic grazing improves plant vigor and increases nutritive values. Other active management techniques include aquatic and riparian restoration to promote habitat connectivity, while active treatment of invasive species protects biodiversity, restores heathy plant communities that improve water quality and quantity. These actions and tools not only protect and enhance habitats, but by partnering with professionals and contractors to accomplish work, also benefit local communities and economies.

Objectives and strategies are presented by habitat types on the MRWA that include forests, shrublands, grasslands, riparian, and rivers and streams. For each objective, current conditions are summarized, and strategies are proposed that will contribute to each habitat type meeting desired conditions.

Objective 2.1: Manage and enhance 9,000+ forested acres, to create and maintain forested habitats that support native ungulates and other wildlife.

Rationale: Roughly 56% of the MRWA consists of forested habitats including Ponderosa pine, dry mixed conifer stands, aspen and their associated habitat types (Table 1). Past land management practices have significantly altered vegetation groups and historic disturbance regimes that maintained MRWA forest communities. Prior to the recent acquisition, fiscal investments were a primary driver of forest management practices on the MRWA. Profitable commercial harvest on the MRWA's remote and rugged landscape proved challenging and eventually resulted in limited forest management due to low cost-benefit ratios. In addition, like many forests throughout the western United States, the monetary value of existing timber stands was preserved through fire suppression.

Table 1. Estimated acreage of habitat types found within the Minam River Wildlife Area (MRWA).

Habitat Type	Acreage	Percent of Total
Grassland/Shrubland	**5,864**	**35.23 %**
Mixed-Conifer Forest	**4,931**	**29.63%**
Ponderosa Pine Woodland	**4,276**	**25.69%**
Riparian	**1,061**	**6.37%**
Sagebrush Steppe	**244**	**1.47%**
Freshwater Aquatic	**246**	**1.48%**
Aspen Woodland	**24**	**0.14%**

Prior management eventually led to plant communities transitioning to late seral and climax plant assemblages, which has resulted in overstocked and stressed forest stands. Stressed forest stands result in reduced tree vigor and increased susceptibility to insects and disease. Ultimately, stressed and overstocked forests are more likely to be lost due to high-intensity wildfire. Compounded with climate change resulting in a drier, warmer environment on the MRWA, loss of forested habitats due to catastrophic wildfire is a high concern to ODFW.

Desired future conditions will better represent historic stand densities and plant assemblages providing enhanced forage, nesting cover and resiliency to the effects of climate change. Periodic and low-intensity wildfire was the natural driver that historically managed forests to be productive and resilient. Given the current state of forested habitats on the MRWA, effects of climate change that make catastrophic wildfire more probable, and potential impacts to surrounding landowners and local communities, it is unrealistic to rely solely on natural wildfire to accomplish goals on the MRWA. Therefore, active forest management will serve as a surrogate to natural wildfire to accomplish objectives while recognizing current limitations and social tolerance.

Active forest management will include a suite of forest health applications including pre-commercial thinning, commercial harvest, tree planting, and prescribed burning to protect and enhance forest stands throughout the wildlife area. Forest management strategies and desired conditions will be informed by current site restrictions and desired future conditions. All prescriptions and implementation will use best management practices and comply with the State of Oregon's Forest Practices Act.

Active forest management has considerable benefits to wildlife, particularly to increase the quantity and quality of forage for large ungulates. Overstocked forest stands are associated with high percentages of canopy cover, which limits sunlight from reaching the forest floor. This limits the growth potential for shrubs and browse that ungulates rely on, especially mule deer. Thinning overstory canopy to 20-40% cover provides the greatest benefit to mule deer and elk, and benefits can last for approximately 15 years. In addition, more intensive timber harvest also has shown to provide similar benefits to elk and can last approximately 25-30 years.

Forest management projects will vary in size, space and time to create a mosaic of forest stand conditions on the MRWA landscape. This not only benefits ungulates, but all wildlife that depend on varied stand conditions to provide nesting, cavities, brush piles and other cover types for various birds, mammals, reptiles, and amphibians. Species of Greatest Conservation Need (SGCN) associated with ponderosa pine habits in the Blue Mountain Ecoregion include flammulated owl, Lewis's woodpecker, long-legged myotis, and pallid bat. Applying landscape level planning while incorporating "skips and gaps" to enhance uneven age stands, individual trees and clumps will provide habitat for a variety of wildlife species associated with different forest types and associated age classes.

Habitat improvements are expected to increase forest health, reduce wildfire threats, conserve habitat, enhance forage conditions, and improve access. In addition, these projects have strong potential to provide economic benefits through forestry related jobs that help to support local economies.

Strategy 2.1.1: Maintain a long-standing Intergovernmental Agreement (IGA) with the Oregon Department of Forestry (ODF) that provides expert forestry recommendations and project implementation to meet desired objectives on forested habitats.

Strategy 2.1.2: Scope and implement forest management projects that result in forest stands that are resilient to the potential impacts of insects, disease and catastrophic fire events.

Strategy 2.1.3: Scope and implement forest management projects that increase the prevalence of early seral vegetation communities that increase ungulate forage, biodiversity, and SWAP habitats.

Strategy 2.1.4: Increase spacing, structure, and vigor on 4,000+ acres

of Ponderosa Pine stands to protect against insects and disease while increasing resilience to a changing climate.

Strategy 2.1.5: Diversify age structure, increase spacing, clumping, and forest openings across 4,500+ acres of Dry Mixed-Conifer stands to benefit forest health, resiliency, and ecosystem function. Within this forest type, this strategy will pay special attention to enhance habitat complexity that features hardwood pockets, riparian areas, meadows, and shrub patches.

Strategy 2.1.6: Where appropriate, remove conifers and use exclusion fencing to enhance aspen stands throughout the wildlife area. In addition, aspen stands will benefit from noxious weed control and other measures that protect this unique habitat type from catastrophic fire.

Strategy 2.1.7: Enhance quantity and quality of winter forage and browse through compensatory growth by utilizing a rest rotation livestock grazing program on 9,000+ acres of forested habitat.

Strategy 2.1.8: Reduce fine and woody fuels while increasing plant nutrition, vigor, and desired cover values by utilizing prescribed fire as a tool for native vegetation enhancement and manipulation.

Strategy 2.1.9: Increase species diversity, richness, abundance, cover and forage values by planting desired tree and shrub species within 9,000+ acres of Ponderosa pine, Dry Mixed-Conifer stands and grassland savannah.

Strategy 2.1.10: Protect trees with old growth characteristics within the National Wild and Scenic Corridor, along the Minam River and tributaries. This will enhance carbon sequestration in a manner aligned with ODFW's Climate Change Policy.

Objective 2.2: Manage and enhance 5,500+ grassland and 200+ sagebrush/shrubland acres to benefit ungulates and other wildlife.

Rationale: Grasslands and associated shrubland habitat currently constitute 36% of the total available habitat on the MRWA and support a substantial amount of biodiversity (Table 1, also see Appendix B). Most notably, these habitats serve as winter browse and are especially important to native ungulates in late fall, winter and spring to meet various nutritional demands. Grasslands and shrublands also serve numerous indigenous wildlife species for a variety of habitat purposes and life history needs. Species of Greatest Conservation Need (SGCN) for this habitat type includes Swainson hawks, Long-billed curlews, Common Nighthawks, Grasshopper Sparrows, and Upland sandpipers.

The current condition of shrubland habitat on the MRWA is interrelated to the current condition of forested habitats listed above. The lack of natural ecological drivers and forest management has substantially reduced the growth potential of shrubland habitat, and the habitat's ability to support large amounts of ungulates and other wildlife. Completing forest habitat strategies above, especially opening canopy and promoting early seral growth, will encourage growth and vitality of shrubland habitats on the MRWA.

Grassland habitat dominates the long, open finger-like ridges that characterize the northern portions of the MRWA. These habitats are why the MRWA is recognized as critical winter range and was a primary driver in acquiring the property for conservation values. The quality of grassland habitat on the MRWA has been maintained through the utilization of a well-managed grazing program. The current program increases herbaceous biomass production and conditions forage by removing senesced grass stems and leaves. This results in enhanced plant vigor and increases nutritive value of grasses. In addition, grazing results in compensatory growth (secondary growth) of green stems and leaves by stimulating meristematic tissue and or tillering. A well-managed grazing program also offers other benefits such as seed shattering (dispersal) and hoofing action to incorporate or scarify seeds into the soil.

Management of grasslands in this manner provides abundant, palatable forage and cover for all wildlife. As such, prescribed livestock grazing will continue to be utilized as a fundamental tool to promote desirable forage conditions for wintering big game populations. When timed properly, prescribed grazing will condition forage prior to fall rain events, leading to enhanced compensatory growth. This provides a valuable resource to wildlife that migrate from higher-elevation areas in late fall/early winter. Incentivizing wildlife to hold on the MRWA during the winter not only increases life cycle survival but also helps to reduce human-wildlife conflict in adjacent agricultural lands.

Grassland and shrubland habitats on the MRWA are threatened by several factors including altered fire regimes, changing climate conditions, and invasive species: particularly non-native invasive annual grasses. Management actions such as grazing, noxious weed suppression, and planting can help maintain grassland structure where other natural disturbances such as fire are not practical or desired (Oregon Conservation Strategy 2016).

Climate change and the associated impacts of a warmer and drier environment will certainly influence forage availability on the MRWA. With that, management of these habitats will rely on a thoughtful and strategic grazing management plan, including commensurate range monitoring and adaptive management. Environmental conditions will play a factor in determining stocking rates and any necessary changes to grazing dates. As currently occurs with the existing program, the timing, intensity and duration of livestock grazing will be adjusted to limit competition with elk and deer for forage resources. Additionally, ODFW plans will evaluate pasture design, location and layout to identify opportunities to incorporate virtual fence applications, remove unnecessary fence and convert other segments to wildlife friendly designs consistent with Goal 1

above.

Strategy 2.2.1: Condition ungulate forage, maintain biodiversity, and mitigate effects of catastrophic wildfire by utilizing a deferred, rest rotation grazing program as a management tool.

Strategy 2.2.2: With strategy 2.2.1, develop a strategic grazing management plan that emphasizes the benefits of conditioning forage for wildlife, and that includes range monitoring and associated adaptive management.

Strategy 2.2.3: Limit trespass livestock and ensure beneficial livestock distribution and placement by maintaining necessary boundary and interior pasture fences. This may also include the removal of fence and incorporating virtual fencing technology.

Strategy 2.2.4: Promote uniform livestock distribution and limit impacts to riparian areas by maintaining and developing off channel watering resources including ponds, troughs, solar operated wells and spring developments. In addition, utilize nutritional supplements on the landscape.

Strategy 2.2.5: Suppress invasive plant species and noxious weeds by utilizing Integrated Pest Management (IPM). Noxious weed control efforts will entail surveying, monitoring, and treating infestations utilizing best management practices and techniques.

Strategy 2.2.6: Enhance plant communities, species diversity, richness, abundance, and/or cover values by planting native and other desirable grass and shrub species within appropriate habitat types. Where needed to promote establishment, consider short-term fencing to protect from excessive browsing.

Strategy 2.2.7: Implement prescribed fire projects for native vegetation enhancement and manipulation by reducing fine and woody fuels.

Objective 2.3: Protect and enhance 1,000+ acres of riparian habitat and approximately 200 miles of rivers and streams for high quality instream habitat, water quality and quantity, and ecosystem functions that sustain native fish and wildlife species.

Rationale: Riparian and freshwater aquatic habitats provide a high level of biodiversity and critical ecological functions. These features support a variety of habitats that fulfill life history requirements for numerous terrestrial wildlife, invertebrates, and aquatic species. For example, forested and riparian habitats provide ungulates with seasonal travel corridors, thermal cover, security cover, fawning and escapement cover. Riparian

habitats also provide high quality ungulate foraging areas during spring and summer months. These habitats also provide foraging, nesting, cover and travel corridor values for many other terrestrial species such as neotropical migrants.

With 9 miles of the Minam River and 187 miles of perennial and ephemeral streams and drainages on the MRWA, riparian and aquatic habitats are an important focal area. With the wildlife species listed above, these habitats on the MRWA are also utilized by several focal fish species including spring Chinook salmon, summer steelhead, and bull trout; all listed as threatened under the Endangered Species Act (ESA). In addition, two other fish species that have been recently reintroduced and documented on the MRWA (coho salmon and pacific lamprey).

Within the MRWA, restoration and enhancement actions are needed on these habitats to correct impacts from current and historical land-use practices. Despite the wilderness characteristics that define the Minam River, much of the river's lower reaches suffered extensive damage from splash-damming (or stop-log) practices early in the 20th century. As a result of periodic, large flushes of water, sediment, and logs; the river channel was extensively scoured and homogenized. Currently, the river channel is wide, shallow, and disconnected from the floodplain. With that, the lower reaches of the Minam River on the MRWA lack diverse, high-quality instream habitat. In addition, and most significantly, the shallow channel and lack of shading cause water temperatures to reach lethal levels for many fish species.

Also resulting from these legacy impacts, floodplains along the Minam River have become disconnected in many areas along the lower 9 miles. This connection between the floodplain and the main channel is important to sustaining wetland habitats, establishment of water-tolerant tree species like cottonwoods, and sub-surface percolation of river flows that moderate river temperatures. Currently, perched floodplain habitats on MRWA are not being seasonally inundated and are not serving to cool high-water temperatures, provide wetland habitats, and are being impacted by conifer encroachment.

Outside the Minam River, a thoughtful assessment and approach to restoring tributary riparian and instream habitats is needed as well. Many miles of tributaries on the MRWA are ephemeral, but the lower reaches of larger tributaries (Weelikéecet Creek, for example) are perennial and serve as important spawning and rearing areas. Along reaches of Weelikéecet Creek, and Deer Creek on the eastern boundary of the MRWA, adjacent logging roads have straightened and limited lateral movement of the stream channel. These tributary riparian habitats are also affected by forest and land management practices that occur adjacent to the riparian area and higher in the watershed, such as logging and livestock grazing.

Management strategies will focus on restoring and enhancing riparian and adjacent forested habitats to provide high quality instream habitat that benefits anadromous and resident fish, aquatic invertebrates and to improve water quality and quantity. Where appropriate, restoration actions will encourage the creation and maintenance of beaver

modified habitat that encourages floodplain connectivity and subsurface flow. The Lower Grande Ronde Conservation Opportunity Area (Oregon Conservation Strategy 2016) is located adjacent to the northern boundary of the MRWA and highlights key strategies to conserve riparian and aquatic habitats that exist throughout the MRWA. These include, but are not limited, to the following strategies:

Strategy 2.3.1: Enhance instream aquatic habitat along the Minam River by implementing habitat improvement projects that include placing large woody debris to increase width-depth ratios and provide diverse instream habitat.

Strategy 2.3.2: Reconnect floodplain habitats along the Minam River to promote off-channel fish habitat, lower water temperatures, and promote wetland environments and cottonwood galleries for native fish, invertebrates and wildlife.

Strategy 2.3.3: Protect riparian areas from livestock entry, in conjunction with a managed grazing program, through the maintenance and addition of fencing as needed and in a manner that compliments Goal 1. In addition, explore virtual fencing to restrict livestock access to riparian areas while removing barriers on the landscape.

Strategy 2.3.4: Protect and enhance riparian vegetation and stream shade within approximately 1,000 acres of riparian and adjacent forested habitats along the National Wild and Scenic River Corridor by managing habitats in a manner consistent with the Oregon Forest Protection Act.

Strategy 2.3.5: Increase species diversity, richness, abundance, and/or cover values by planting desired tree and shrub species within riparian areas.

Strategy 2.3.6: Control invasive plant species and noxious weeds within riparian habitats by utilizing Integrated Pest Management (IPM). Noxious weed control efforts will entail inventorying, monitoring, and treating infestations utilizing best management practices and techniques within these habitat types.

Strategy 2.3.7: Comply with DEQ TMDL implementation requirements as they are finalized. Work to restore natural stream processes and instream flow to mitigate water quality impacts.

Goal 3: Provide access and a variety of recreational opportunities to a diverse array of users, in a manner compatible with Goals 1 and 2.

With connectivity and habitat values described above, the 17,000+ acres of the Minam River Wildlife Area (MRWA) also provides exceptional recreation opportunities. MRWA lands, including the Minam River, have a rich history of enjoyment by hunters, anglers, foragers, and wildlife watchers. These activities are uniquely important to the local community, as these activities provided over $33 million in local spending and 379 jobs in Union and Wallowa Counties in 2019 (Mojica et al. 2021).

Recreation opportunities will be managed to complement wildlife and habitat protection and enhancement goals. ODFW will use existing knowledge of historic recreational use and open interactions with the public to better understand desired opportunities. With that information, administrative decisions will balance managing public use both temporally and spatially to minimize impacts on wildlife and their habitats. Examples may include, but are not limited to, managing public access during certain times of the year or in sensitive habitats, maintaining public access points and signage, and monitoring public use for adaptive management purposes.

ODFW will work to provide recreational opportunities on the MRWA for visitors with diverse interests and abilities. Hunting, angling, wildlife watching, and hiking activities, amongst others, will be supported by allowing public access during key seasons, where those activities are balanced with wildlife and habitat protection. A key component of recreation management will be enhancing and maintaining access points at several locations on the MRWA. In addition, administrative rules will be considered that help support the unique manner and scale of the MRWA.

Objective 3.1: Provide recreational opportunities for visitors with diverse interests and abilities in a manner that is compatible with Goals 1 and 2.

Rationale: Hunting is the major public activity on the MRWA during the fall and spring months. Public use surveys indicate that, proportionally, hunting constitutes the largest annual recreational use on the MRWA. In addition, with the Minam River flowing through the MRWA and adjacent to Minam River Trail #1673, trout angling is an important opportunity during summer and fall. Public access will be emphasized during primary big game hunting and angling seasons; however, access for upland game bird hunting and trapping will be partially limited during the January through March big game winter range closure.

Wildlife viewing, foraging, and other activities outside the hunting and angling seasons constitute an increasing portion of public use for ODFW owned and managed wildlife areas. Management of MRWA will develop and foster those activities including hiking, foraging, gathering, viewing, photography, educational and general enjoyment of the area for a diverse array of visitors where compatible with Goals 1 and 2. As the MRWA is situated in proximity to communities in Wallowa and Union Counties, staff will coordinate with schools and non-profit organizations to provide educational opportunities. In addition, the MRWA is located on ceded and usual and accustomed lands for both the Nez Perce Tribe and the Confederated Tribes of the Umatilla Indian Reservations. ODFW looks forward to developing partnerships with both tribes to utilize

the MRWA for foraging and gathering of ancestral foods.

Strategy 3.1.1: Promote big game hunting opportunities by allowing public access during all primary fall and spring seasons.

Strategy 3.1.2: Promote upland game bird and trapping opportunities by allowing public access outside of annual winter range closures from January 1st through March 31st to protect vulnerable wildlife.

Strategy 3.1.3: Promote angling opportunities by allowing access during primary trout seasons.

Strategy 3.1.4: Contribute to fish and wildlife management by conducting wildlife population and distribution surveys, and with intermittent hunter and angler use surveys on the MRWA. This information will be communicated to district and divisional programs within ODFW for adaptive management purposes.

Strategy 3.1.5: Promote utilization of the MWRA for foraging and gathering opportunities by allowing public access outside the winter range closures from January 1st through March 31st to protect vulnerable wildlife.

Strategy 3.1.6: Promote utilization of the MWRA for hiking, wildlife watching, photography, viewing, and all other compatible uses not listed above by allowing public access during traditional high-use periods for outdoor recreation (late-spring through fall).

Strategy 3.1.7: Provide educational and informational events as requested by schools, non-profit organizations, civic groups, conservation organizations, and/or other institutions.

Strategy 3.1.8: Coordinate with tribes to utilize the MRWA for foraging and gathering of ancestral foods, in addition to other traditional ceremonies.

Objective 3.2: Enhance and maintain access points and infrastructure that supports recreational opportunities listed above in Objective 3.1, and in a manner compatible with Goals 1 and 2.

Rationale: Supporting the variety of recreational uses above depends on visitors having the ability to access the MRWA in a diverse and varied fashion. The size and remote nature of the MRWA will make comprehensive access for all user groups challenging. ODFW will include primitive camping opportunities in a manner that supports Goals 1 and 2 and minimizes risk of resource damage.

Located along Oregon State Hwy 82 (Hells Canyon Scenic Byway), the MRWA provides several visitor access points and opportunities. The northern boundary of the MRWA is adjacent to existing facilities managed by the Oregon Parks and Recreation Department (OPRD). These areas also provide opportunities for day-use activities for visitors.

For all user groups, a primary focus for ODFW will be reconnecting the Minam River Trail (FS Trail #1673) with access points along Hwy 82. The Minam River trailhead at the current northern terminus (Wildlife Flat within the MRWA) is the lowest elevation point of access to the Eagle Cap Wilderness and associated trail network. Final acquisition of the MRWA established public ownership of the entire 49-mile trail. This trail can be used to access remote areas of the 360,000-acre Eagle Cap Wilderness and Huckleberry Mountain Inventoried Roadless Area and can also be used for a short-day hike. However, currently this trail is only accessed by a river crossing which can be difficult and unsafe during most months of the year.

Strategy 3.2.1: Maintain 5 points of access and up to 62 miles of primitive road for walk-in access and administrative use.

Strategy 3.2.2: Support visitors at access points by enhancing and maintaining amenities where appropriate (parking, campsites, toilets, picnic areas, horse handling facilities, etc.).

Strategy 3.2.3: Promote safe use and navigation of the MRWA by improving and maintaining informational signs (entry, boundary, interpretive, etc.), at access points and along the Minam River Trail.

Strategy 3.2.4: Develop administrative rules that allow for overnight camping on the MRWA that supports backcountry hunting opportunities and public use of the Minam River corridor.

Strategy 3.2.5: Partner with Oregon State Parks and Recreation Department (OPRD) for opportunities that reconnect the Minam River Trail #1673 with Minam State Recreation Area.

Strategy 3.2.6: Enhance and maintain the Minam River Trail #1673 for year-round access from the Minam State Park to USFS Eagle Cap Wilderness boundary.

Strategy 3.2.7: Identify funding and partners for developing year-around access to the Minam River Trail #1673 through an equestrian suspension bridge across the Minam River.

Goal 4: Provide administration necessary to accomplish MRWA goals.

The achievement of all the goals listed above in this plan is underpinned by successful

program administration. This occurs by sustainably funding and staffing the MRWA to carry out agency guidance, administrative rules, regulation and statutes that help achieve area management goals. With that, program administration develops and maintains facilities and infrastructure to ensure safe operation and use by ODFW staff and visitors. This attention is not just limited to current infrastructure on the MRWA but also administering the history of this land through preservation of its cultural resources. Finally, to accomplish the myriad strategies listed in the plan, such as habitat management projects, program administration will serve to write grants, work with partners, plan, implement, and execute projects that support the MRWA management plan.

Objective 4.1: Administer MRWA programs to maintain and enhance wildlife area facilities, structures, infrastructure and equipment to conduct habitat management and public access projects on the MRWA.

Rationale: Infrastructure and equipment are integral to the overall operation of the MRWA. On-site facilities are located at Anderson Ranch, a historic collection of buildings and structures within the MRWA. These buildings consist of a residence converted to a bunkhouse for the current grazing program, a corrugated metal barn, and associated corals. Other on-site infrastructure and public facilities include the Minam River Trailhead (currently at Wildlife Flat access), 9 miles of the Minam River trail, Minam River bridge, Deer Creek bridge and access, and over 60 miles of administrative access roads.

The MRWA is administratively divided into five Habitat Management Units (HMU's) and 12 HMU sub-units (Figure 3). Four of the five HMU's are respective boundaries for the main grazing pastures within the MRWA. Lands situated west of the Minam River form the fifth HMU. Sub-unit boundaries reflect distinguishable physical, administrative and operational characteristics. Establishing HMUs reduces the large and varied landscape into smaller manageable sections to focus and monitor treatments and management actions, in addition to more efficient utilization of resources. HMUs also assist with developing rotational management of habitat features and the grazing program. For more detailed information and descriptions of the HMUs, see Appendix A.

MRWA has approximately 20 miles of boundary and pasture fencing associated with the current grazing program. With that, the MRWA contains 90+ ponds/stock water developments, in addition to numerous natural springs and seeps. All the water resources located on MRWA are traditionally used by wildlife and livestock to aid in sufficient distribution across the landscape.

Off-site, staff and equipment for the MRWA are housed at Ladd Marsh Wildlife Area headquarters near La Grande. At the time this plan was developed, ODFW does not have plans to construct new on-site facilities (office or shop space). However, this will be continually evaluated as ODFW learns how to effectively manage the property. Whether on-site or off-site, all facilities that contribute to MRWA must be constructed, maintained, and upgraded as necessary to accomplish habitat and wildlife management

objectives and provide public access.

Strategy 4.1.1. Fund operations of the MRWA through an annual budget that is managed in a balanced manner.

Strategy 4.1.2. Maintain adequate staffing and administrative oversight to carry out provisions within this plan.

Strategy 4.1.3. Maintain and improve office and storage space at various off-site and on-site locations for personnel workspace and equipment storage. Work may include repair and improvements to office and shop facilities, improvements to storage areas and structures, and general structural maintenance and improvement.

Strategy 4.1.4: Support the implementation of goals 1 through 3 by maintaining critical infrastructure across the MRWA. This includes, but not limited to, 20 miles of perimeter and cross fence, two bridges, five parking areas and points of access, campsites and 9+ miles of the historic Minam River Trail (FS Trail #1673). Work will include planning, maintaining, repairing, monitoring, and evaluating the functionality of these elements on an annual basis.

Strategy 4.1.5: Allow for administrative access, emergency response and wildland fire management while protecting wildlife habitat values by maintaining and managing 62 miles of administrative roads. Work will entail improving connectivity of roadways through grading, graveling, pruning, thinning, hand-piling, and prescribed burning. To accomplish goals 1 and 2, work may also include road obliteration.

Strategy 4.1.6: Support goals 1 and 2 by implementing a year-round restriction on motorized access on the MRWA. Motorized access may be allowed for administrative purposes only.

Strategy 4.1.7: Support goals 1 and 2 by maintaining a winter closure of the MRWA January 1 through March 31st and/or adjust as deemed necessary for resource protection.

Strategy 4.1.8: Acquire, maintain, and improve capital items and disposable assets required for wildlife habitat management. Work will entail inventory, maintenance, repair, upgrades, and acquisitions of equipment (e.g. tractors, seeders, sprayers) and supplies (e.g. seed and herbicide).

Strategy 4.1.9: Identify and implement catastrophic fire protection/reduction projects for areas of key habitats and/or habitat attributes. These efforts will entail pruning, thinning, prescribed burning,

and hand-piling vegetation as well as improving emergency response access to applicable areas.

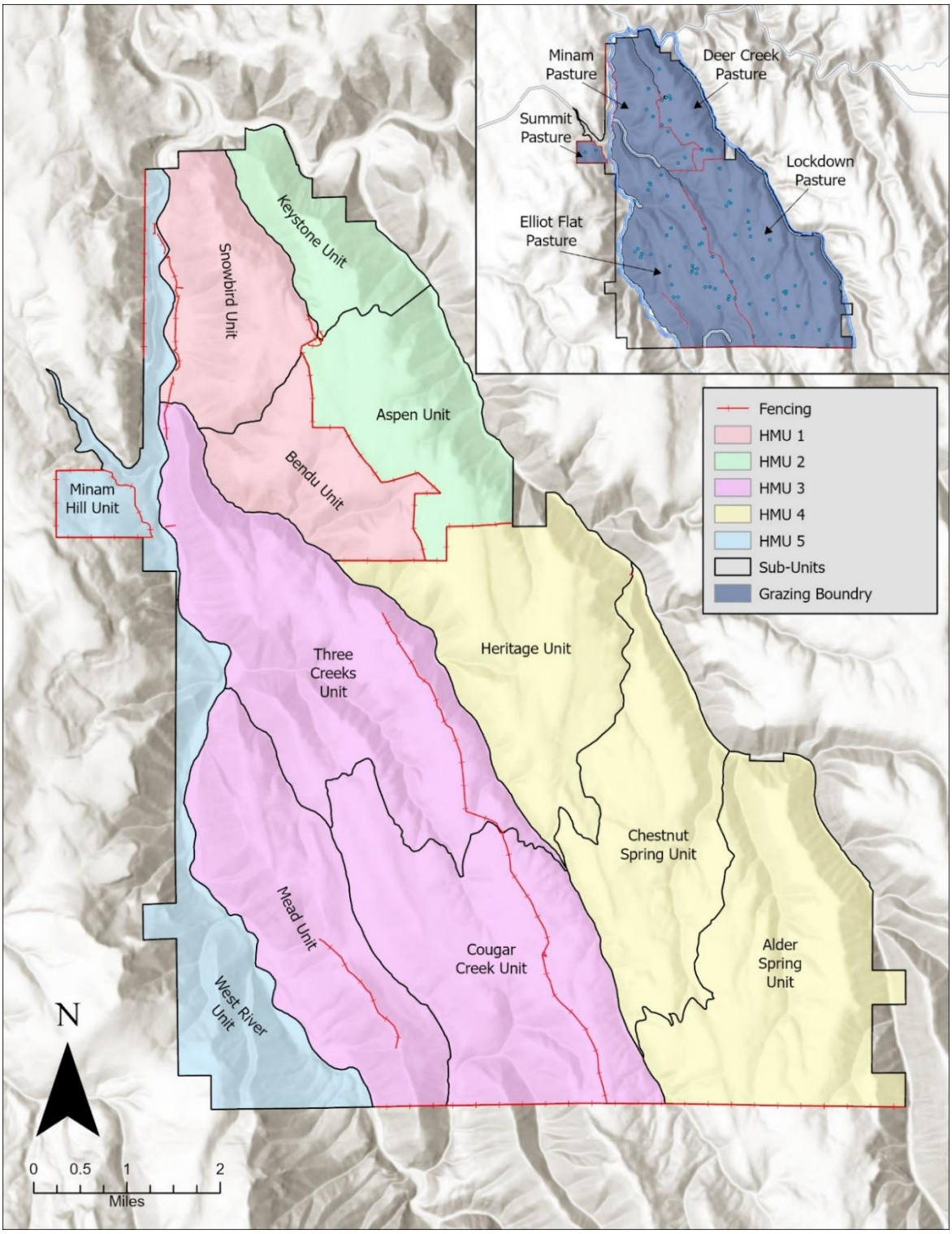

Figure 3. Administrative Habitat Management Units (HMU) and subunits, including

existing pastures (see inset), across the Minam River Wildlife Area (MRWA).

> **Strategy 4.1.10:** Conduct project administration activities to address easements, property boundaries, land uses, and other issues impacting MRWAs operations. Work will entail identifying issues, preparing briefing documents, and soliciting internal and external assistance where appropriate.

Objective 4.2: Preserve the history of the MRWA through compliance with all pertinent laws and regulations relating to cultural resources.

Rationale: As described above, the MRWA has a rich cultural history that extends back to time immemorial. ODFW has a strong commitment to respecting the history of all those that resided on the MRWA before the wildlife area was acquired. All relevant ground disturbing activities are coordinated with the State Historic Preservation Office by ODFW's archaeological staff. Also, per the National Historic Preservation Act, the department also consults on ground disturbing activities through the USFWS when applying for federal grant funds. With that, ODFW does operate under an adopted Programmatic Agreement that includes a list of activities exempted from consultation, because the potential effects of the undertakings upon historic properties are foreseeable and likely to be minimal or not adverse.

Baseline archaeological survey information informs ODFW when proposed actions may impact historic and/or pre-historic resources. A comprehensive baseline cultural resource survey and report were completed for Phase 1 of the MRWA in 2023. A second baseline survey including a built-resources reconnaissance report is contracted for Phase 2 and 3, with completion due June of 2026.

> **Strategy 4.2.1:** Complete a comprehensive baseline cultural resource survey across the MRWA (anticipated completion June 2026).

Plan Implementation

Funding: Operation and maintenance of the MRWA is currently funded through USFWS's Office of Conservation Investment (Wildlife Restoration Program). Authorized by the Pittman-Robertson Act in 1937, funds from manufacturer taxes on ammunition, firearms, and archery equipment go toward projects to restore, conserve, manage and enhance wild birds and mammals and their habitats. Other sources of funding or match available to the MRWA include volunteers, state, federal and private grants. Additionally, timber receipts and grazing fees generated from area programs are directed back to the wildlife area program for use.

Staffing/Organization: Currently the MRWA is operated by staff from the Grande Ronde Wildlife Area program. Minam River Wildlife Area staff includes one full-time

Wildlife Area Program Manager stationed at the Elkhorn Wildlife Area, in North Powder, Oregon and one full-time Senior Fish and Wildlife Technician. A four-month Seasonal Fish and Wildlife Technician assists with area operation from May through September.

In addition to the Wildlife Area program, staff from several other ODFW programs will contribute to implementing elements of this plan. Fish and wildlife resources are primarily managed by staff from the Wallowa and LaGrande/Union fish and wildlife districts. These staff conduct monitoring and make recommendations and management decisions regarding fishing and hunting seasons, habitat enhancement projects, and public access. Habitat enhancement projects will be scoped and implemented by the regional habitat program biologist, and aquatic habitat projects will be led by the Grande Ronde / Umatilla Fish Habitat Program. Staff from several other programs, such as fish/wildlife research, private forest accord, conservation and recovery, and others will also contribute to making recommendations and implementing actions covered in this plan.

Oregon State Police (OSP) has the authority to enforce fish, wildlife, and access laws for the state of Oregon. Regular coordination will occur between ODFW and OSP to plan and implement regular patrols that ensure users are adhering to laws and regulations while recreating on the MRWA.

Partnerships: Partnerships with federal, state and local agencies, Tribes, universities, NGOs, individual volunteers and private landowners are vital to achieving ODFW's mission and MRWA goals. Partnerships occur through project funding assistance, research assistance, public and private land access and/or other types of collaboration. MRWA management will continue to rely on these and other partnerships in the future as new opportunities arise. ODFW welcomes and encourages such participation to assist in the management and operation of the MRWA as desired. The Department recognizes that MRWA is just one component of managing habitat and wildlife at a regional scale and looks forward to participating in regional working groups as opportunities arise.

Adaptive Management / Monitoring: This plan provides for adaptive management of the MRWA. Adaptive management is a flexible approach to long-term management of resources that is directed by the results of ongoing monitoring activities and latest data. Management techniques and strategies are regularly evaluated considering monitoring results, new scientific understanding, and other new information. These periodic evaluations are used over time to adapt both management techniques and strategies to better achieve the wildlife area goals.

Monitoring is an essential component of adaptive management, and specific monitoring strategies have been integrated into goals and objectives described in this plan whenever possible. Monitoring fish, wildlife and habitat within the MRWA will be mainly conducted by Grande Ronde Watershed Wildlife Area personnel and other regional ODFW staff. ODFW may also partner with tribes, universities, non-government organizations or volunteers to assist with conducting monitoring activities.

As a newly established wildlife area, the MRWA has many information gaps to fill. Some baseline information exists, largely big game census data for the Minam Wildlife Management Unit (WMU) along with fisheries information for the Wallowa and Minam Rivers and their tributaries. However, this information is intended for a much larger scope than the MRWA. Wildlife area personnel will work directly with ODFW district and divisional staff to collect fisheries and wildlife data specific to the MRWA and identify additional monitoring and inventories necessary for successful management.

A vegetation monitoring program with formalized protocol will be developed to determine vegetative attributes across the wildlife area. MRWA personnel will develop a landscape photo monitoring program to track changes in area vegetation as management actions are taken. Staff will take photos every year or as necessary at pre-established and monumented sites. Photographs from various cardinal directions at these sites will record visual change over time on the MRWA.

The vegetation monitoring program also intends to survey one pasture each year on a rotational basis, where permanent transects are sampled. These surveys will determine trends for production/yield, species frequency, composition, and percent cover of the current growing season. Vegetation transect locations will be selected randomly with the constraints of soil type, aspect, and distance to water/salt, to yield an accurate representation of the pasture. This adaptively managed program will direct and measure success of management activities on rangeland and forested pastures. Forage cages and vegetation enclosures may also be adapted at each transect site to assist with annual ocular comparison.

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