August 2016

Klickitat Wildlife Area Management Plan

Washington Department of FISH and WILDLIFE

Acknowledgements

Washington Department of Fish and Wildlife Staff

Planning Team Members

Susan Van Leuven
David Anderson
Stefanie Berg
David Howe
Amber Johnson
Sandra Jonker
Rod Pfeifle
Mark Teske
John Weinheimer
James Byrne
Jeffrey Wickersham

Plan Leadership and Content Development

Susan Van Leuven, Wildlife Area Manager
Lauri Vigue, Lead Lands Planner
Melinda Posner, Wildlife Area Planning Section Manager
Clay Sprague, Lands Division Manager

Document Production

Michelle Dunlop, Public Affairs
Peggy Ushakoff, Public Affairs
Matthew Trenda, Wildlife Program

Mapping Support

John Talmadge, GIS
Shelly Snyder, GIS

Klickitat Wildlife Area Advisory Committee Roster, May 2016

Name	Organization/Interest	Location
J P Enderby	Agriculture	Goldendale
Marty Hudson	Klickitat Co Weed Board	Goldendale
Bob Ingraham	Agriculture/Forestry	Goldendale
Neil Kayser	Cattle rancher	Centerville
Buzz Ramsey	Avid fisherman & hunter	Klickitat
Jim White	Forester	Trout Lake
Sara Wu	Conservation	Goldendale

Cover Photos: Klickitat WLA by Justin Haug, Western gray squirrels by Theo Anderson, and Western pond turtle by Michelle Tirhi

Jim Unsworth, Director, Washington Department of Fish and Wildlife

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Oregon white oak on Soda Springs Unit
Photo by Sue Van Leuven

Wildlife Area Management Planning Overview

Introduction

Washington's wildlife areas contain important habitat managed for the perpetuation of fish and wildlife as well as public enjoyment. Wildlife area management plans, which are developed with input from the public and other stakeholders, provide guidance related to activities on these lands, including habitat restoration, research, land management and recreation. The plans are updated every two years, and periodically go through a major revision to integrate new agency initiatives, priorities and adapt to changing conditions. The Washington Department of Fish and Wildlife (WDFW) is currently writing new plans for several of the state's 33 wildlife areas, including the Klickitat Wildlife Area (KWLA).

Wildlife Area Management Planning Framework

Each new plan is guided by the Wildlife Area Management Planning Framework (Framework), which summarizes the agency's mission, laws, policies and approaches to management of fish and wildlife, as well as public use and recreation. The framework summarizes priorities and guidance developed in each of the agency's programs – Fish, Wildlife, Habitat and Enforcement. Readers are encouraged to review the framework in advance, or as a companion document to this wildlife area plan: http://wdfw/wa/gov/publications/01810/.

The KWLA is located in south central Washington, about 15 miles west of Goldendale, and within close proximity to the Columbia River Gorge National Scenic Area, a major tourist destination and recreational area. The wildlife area consists of seven separate units and covers nearly 16,000 acres. Four of the wildlife area's seven units border the Klickitat River, which provides a variety of recreation activities including fishing and rafting along the river itself. The Klickitat Trail provides hiking, wildlife viewing and mountain biking and follows the river on an abandoned railroad grade from near Goldendale to the Columbia River just west of Lyle. One unit straddles Swale Creek, a major tributary of the Klickitat River, and one unit lies along Spring Creek adjacent to the Goldendale Trout Hatchery. One unit is situated on basalt benches along the north shore of the Columbia River. See maps beginning on page 11.

The 2016 Klickitat Wildlife Area Management Plan (Plan) describes current conditions, priorities, and strategies for management, and includes provisions to meet anticipated changing needs. As stated in the framework, the plan is intended for two audiences: 1) the public and other stakeholders; and 2) wildlife area staff. This plan covers all seven units of the Klickitat Wildlife Area, listed by name as follows: Soda Springs, Mineral Springs, Dillacort Canyon, Fisher Hill, Swale Creek, Goldendale Hatchery, and Sondino Ponds. The previous plan was completed in 2006 and can be found online at http://wdfw.wa.gov/lands/wildlife_areas/management_plans/klickitat/.

The Klickitat Wildlife Area features eastside conifer forests, riparian shrub and woodlands, open grasslands, cliffs and talus slopes, steppe, emergent marsh, and some of Washington's best examples of Oregon white oak habitat. The area is home to a wide variety of wildlife, including game species such as black-tailed deer, elk, black bear and cougar, as well as rare species such as the golden eagle, western pond turtle and western gray squirrel. The Klickitat River retains natural spawning beds for salmon and steelhead, and is regionally renowned for excellent fishing. The original purpose for the wildlife area was to conserve important winter range for deer, critical stream habitat for steelhead, and provide access for hunting and fishing.

Purpose

The Klickitat Wildlife Area Management Plan guides all management activities that occur on the wildlife area units and establishes management priorities for the next 10 years. The Plan ensures lands are managed consistent with the Washington Department of Fish and Wildlife's mission, strategic plan and the area's original funding sources.

The plan is developed with public input, and when completed, will provide information on what can be found at the wildlife area and how fish, wildlife and their habitats are protected and conserved. It will be used by staff to implement and evaluate management activities consistent with the agency's mission.

Public Outreach and Stakeholder Involvement Process

The agency is committed to a transparent and inclusive public outreach process for all wildlife area management plans. Under the umbrella of the statewide goals listed on page 9, a customized outreach strategy is developed for each area, tailored to the stakeholders and local and out of the area visitors. For the Klickitat planning process, the public process includes three elements: 1) public and Wildlife Area Advisory Committee (WAAC) meetings; 2) development and distribution of fact sheets, meeting announcements and news releases; and, 3) solicitation of public comments through the WDFW website, phone and email. A complete summary of the public outreach activities is included in Appendix I

Vision

The vision for the Klickitat Wildlife Area is to maintain and enhance habitat for black-tailed deer and upland game birds, recover sustainable populations of western gray squirrels through improved forest health; recover sustainable populations of western pond turtles, restore Oregon white oak woodlands; restore salmon habitat, and provide a variety of public recreational opportunities.

Statewide Planning Goals

This Plan sets management priorities for Klickitat Wildlife Area for the next 10 years, consistent with the Statewide Planning Goals listed on page 9 and summarized in the Planning Framework. A complete list of Klickitat Wildlife Area goals, objectives, and performance measures are listed in Appendix A.

Mountain ladies' slippers surrounded by lupine, Soda Springs Unit
Photo by Sue Van Leuven

Statewide Planning Goals

WLA Goal 1	**Restore and protect the integrity of priority ecological systems and sites.** This goal originates from the WDFW Strategic Plan, Goal #1. "Conserve and protect native fish and wildlife". Ecological integrity monitoring on priority sites will be developed as part implementation for each individual wildlife area plan discussed on page 51. The Klickitat Wildlife Area developed forest restoration actions that improve the forest health while maintaining and/or improving western gray squirrel and Oregon white oak habitat (see Forest Management Plan in the appendix).
WLA Goal 2	**Sustain individual species through habitat and population management actions, where consistent with site purpose and funding.** This goal relates to WDFW Strategic Plan, Goal #1. Each individual wildlife area plan will provide a summary of species associated with the wildlife area and will focus on target species for habitat management actions.
WLA Goal 3	**Provide fishing, hunting and wildlife related recreational opportunities where consistent with Goals 1 and 2.** This goal is consistent with the WDFW Strategic Plan, Goal #2. Each plan will provide a summary of recreation activities associated with the wildlife area, aiming toward balancing recreational activities with species and habitat protection.
WLA Goal 4	**Engage stakeholders in consistent, timely and transparent communication regarding WLA management activities.** This goal relates to Strategic Plan Goal #3, "Promote a healthy economy, protect community character, maintain an overall high quality of life, and deliver high-quality customer service". As described under the public outreach section of this document, the public are a key component in the development of the management plan through the wildlife area advisory committee efforts and public meetings. After the plan is adopted the management plan updates will be reviewed by the wildlife area advisory committee on a biannual basis.
WLA Goal 5	**Maintain productive and positive working relationships with local community neighbors, lessees partners and permittees.** As part of day to day business, wildlife area staff strive to maintain positive working relationships with grazing and agricultural lessees and the local community.
WLA Goal 6	**Hire, train, equip, and license, as necessary, WLA staff, to meet the operation and management needs of WLAs.** This goal is consistent with Goal 4 of the Strategic Plan, "build an effective and efficient organization by supporting the workforce, improving business processes, and investing in technology". Specific activities on wildlife areas include staff training and hiring qualified staff.
WLA Goal 7	**Maintain safe, highly functional, and cost-effect administration and operational facilities and equipment.** This goal is consistent with WDFW Strategic Plan Goal 4. Maintenance of facilities and equipment is a key activity on wildlife areas. Annual reporting is required by WDFW and agencies that provide operations and maintenance funding (e.g. U.S. Fish and Wildlife Service, Pittman Robertson).

Success Stories

Fish and Wildlife Habitat Conservation and Recreation

The Klickitat Wildlife Area contains habitats of regional significance for resident and migratory black-tailed deer, and for salmon and steelhead. Wildlife biologists and hunters have long recognized the importance of the Klickitat River Canyon in sustaining healthy game populations, prompting the agency to develop a plan for conserving habitat in this area through strategic land acquisitions and management agreements. This program was also intended to preserve public access for hunting and fishing. WDFW's predecessor agency, the Department of Game, made the first purchase of private land for the Klickitat Wildlife Area in 1948, creating one of the state's oldest wildlife areas. WDFW has since secured 14,000 acres for the protection of fish and wildlife habitat and recreation. The development and maintenance of water access sites along the Klickitat River, as well as easements along the streambank, assures public access to the river. This represents a long-term commitment by WDFW to achieve its original goals for the wildlife area, which is a popular hunting and fishing destination, attracting visitors from across the nation.

Western Gray Squirrel

The Klickitat Wildlife Area provides critical habitat for the western gray squirrel, a focal species for management actions on the wildlife area. Management actions aimed at protecting this sensitive species are consistent with our mission and strategic plan. Forest restoration activities will be achieved in a manner consistent with protection of the western gray squirrel. WDFW began researching the ecology and biology of western gray squirrel on the Klickitat Wildlife Area in the late 1990s. Population surveys at that time had shown that western gray squirrel were absent from large areas of their former range, causing concern for the future of the species and prompting the WDFW to list the species as threatened in Washington state. Based on this research, guidelines for protecting critical habitat were developed for public and private landowners. For example, forest management on private lands adjacent to the wildlife area has shown increases in western gray squirrel nesting based on implementation of the guidelines, and WDFW is currently developing similar projects on the wildlife area (WLA) to replicate those results.

Western Pond Turtle

The Klickitat Wildlife area provides some of the last remaining habitat for the western pond turtle in the state of Washington. The western pond turtle is listed as a state endangered species. Recovery actions focused on the wildlife area include: wetland restoration, control of non-native vegetation and control of bullfrogs (predators). By the 1980s, the western pond turtle, a formerly common species in Washington, had become rare in the state. However, in the 1990s, volunteers affiliated with the Woodland Park Zoo verified the presence of western pond turtles within the Columbia River Gorge. With the help of volunteers and biologists, WDFW located a Gorge-area landowner who was willing to sell property to WDFW for the protection of western pond turtle habitat. This acquisition established the Sondino Ponds Unit, which WDFW has increased in size through additional land purchases. The unit now harbors the largest naturally-occurring population of western pond turtles in Washington.

WDFW biologists and volunteers successfully implemented a "head start" program that improves the survival rate of hatchling turtles. Hatchlings are collected in the wild and reared at zoos. When the turtles are released back into the wild at the age of 10 months, they are the size of 3-year-old wild turtles. The program has allowed significant numbers of young turtles to be reintroduced into protected sites to bolster the population of this species. Great strides have been made in saving western pond turtles from extirpation in Washington, thanks to recovery efforts at the Sondino Ponds Unit. The WDFW estimated there were 251 turtles on the Klickitat Wildlife Area in 2014, and this population has met the recovery goals of having a population of more than 200 turtles, which occupy habitat that is secure from development or major disturbance.

Wildlife Area Management Plan Elements

This section will provide a description of each of the seven units of the Klickitat Wildlife Area including property location and size, resource management, recreation and public use, land ownership and management.

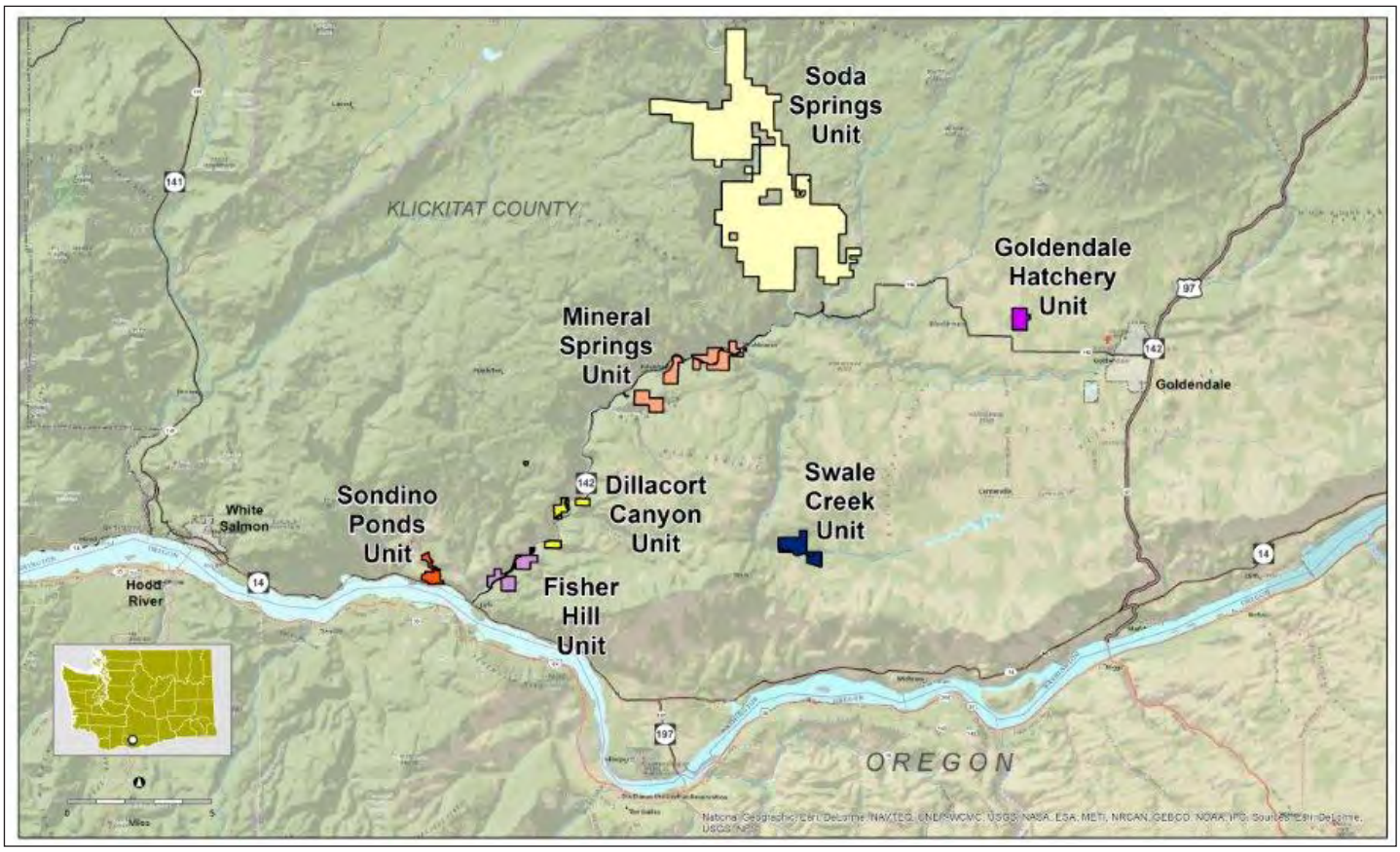
Property location and size

The Klickitat Wildlife Area is located in south central Washington, in the western portion of Klickitat County. It lies on the east slope of the Cascade Mountains, halfway between the Columbia River Gorge to the south and Mount Adams to the north. The elevation for the wildlife area ranges from 80 to 2,220 feet. Map 1 illustrates the Klickitat Wildlife Area on the landscape and includes seven units: Soda Springs, Mineral Springs, Dillacort Canyon, Fisher Hill, Goldendale Hatchery, Swale Creek and Sondino Ponds. Descriptions of each wildlife area unit follow, along with individual maps of each unit.

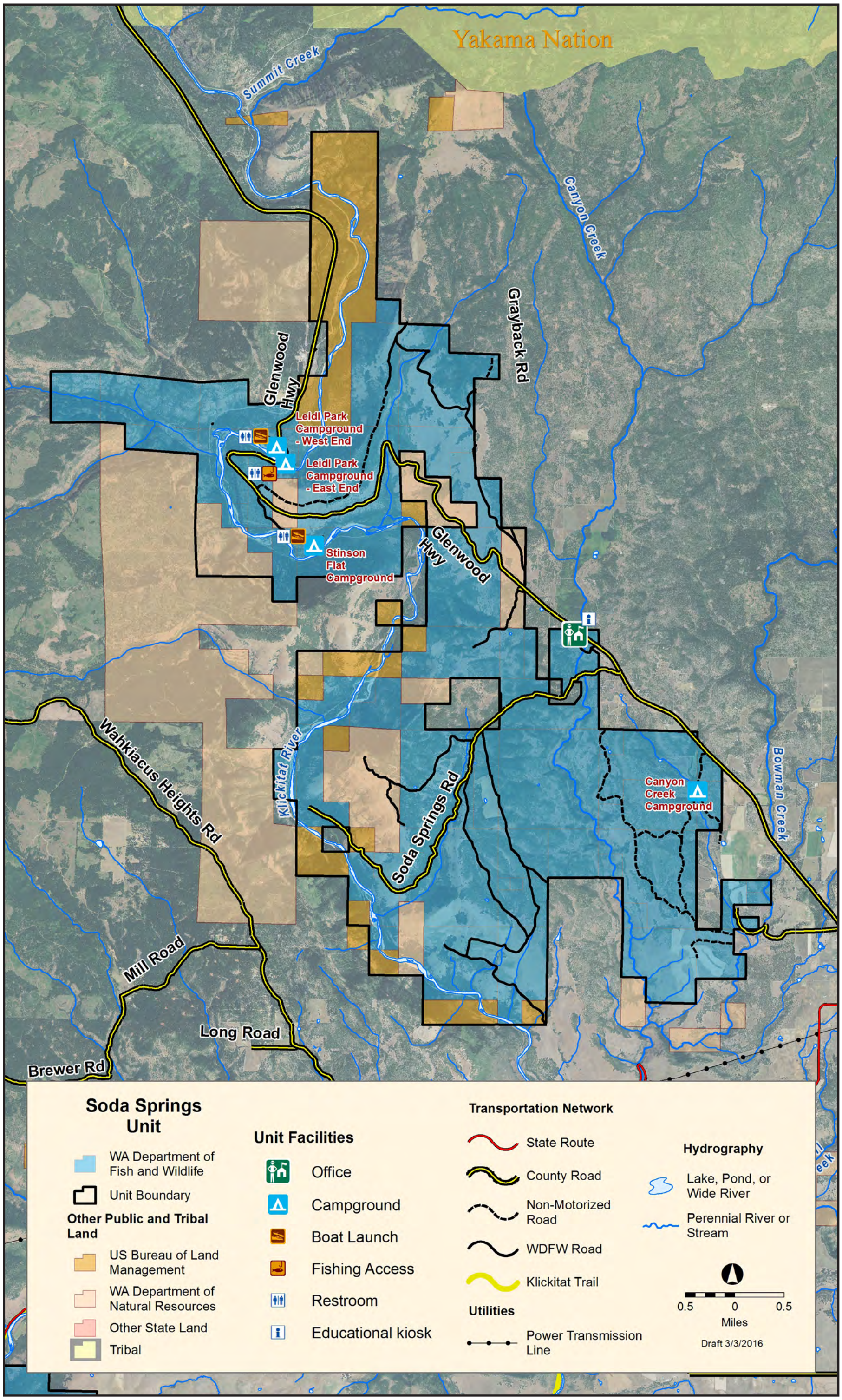
Soda Springs Unit consists of 13,000 acres in mostly contiguous parcels. About 2,100 acres are managed jointly between WDFW and the Bureau of Land Management (BLM). Habitats are varied and consist of conifer forest, mixed pine-oak forest, Oregon white oak woodland, riparian forest, open grasslands, aspen groves, talus slopes, cliffs and bluffs. This unit is managed to preserve and enhance habitat for game species, primarily black-tailed deer and wild turkey. Western gray squirrel also can be found on this unit. Popular activities include hunting, camping, hiking, wildlife watching and sport fishing. The unit is also part of the Audubon Sun and Sage Loop (Great Washington Birding Trail).

Mineral Springs Unit is located in the Klickitat River Canyon. Habitat on the 1,108-acre unit consists of riparian forest, conifer forest, mixed pine-oak forest, Oregon white oak woodlands and grasslands. Wildlife species include

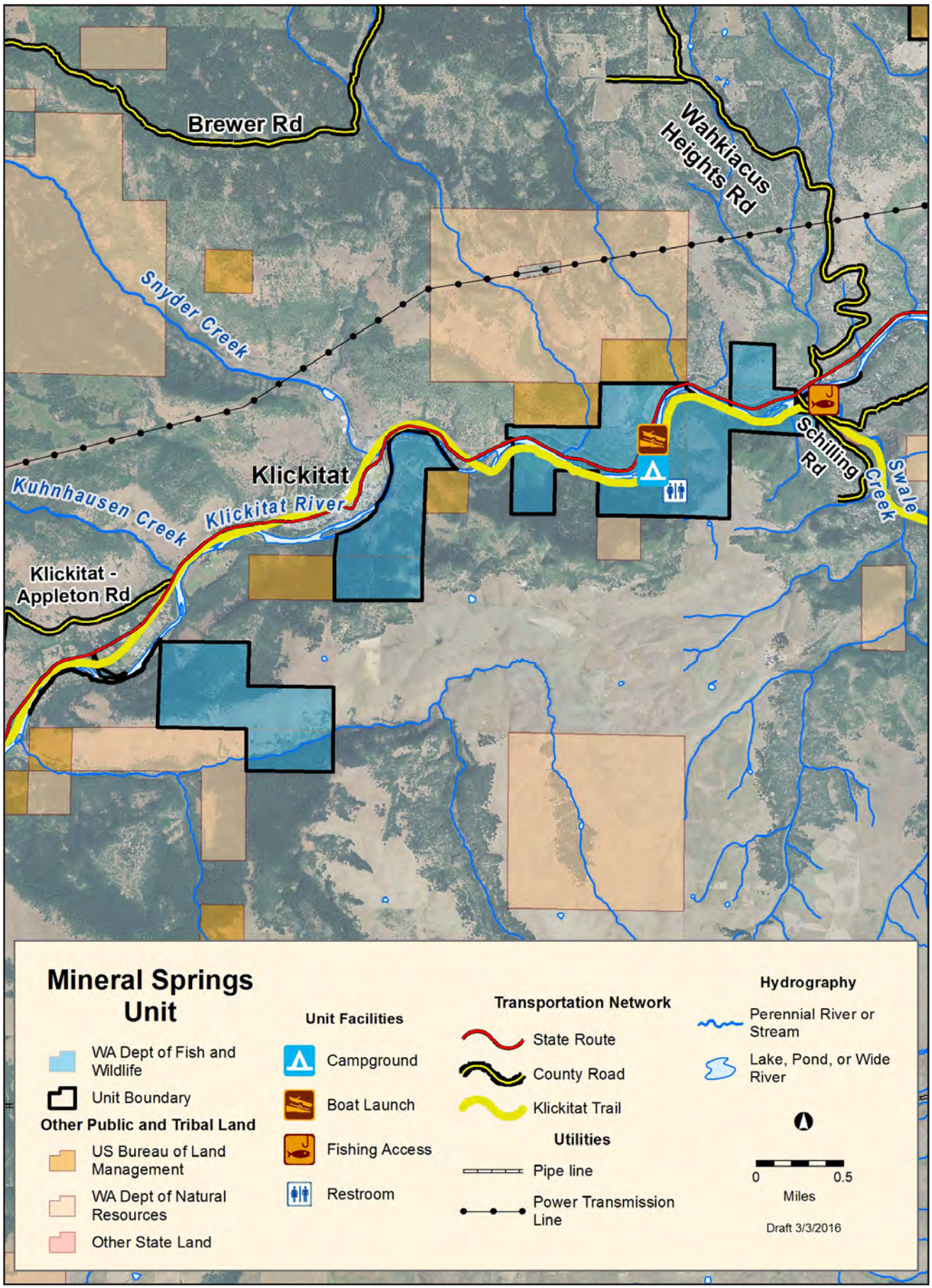
Map 1. Klickitat Wildlife Area



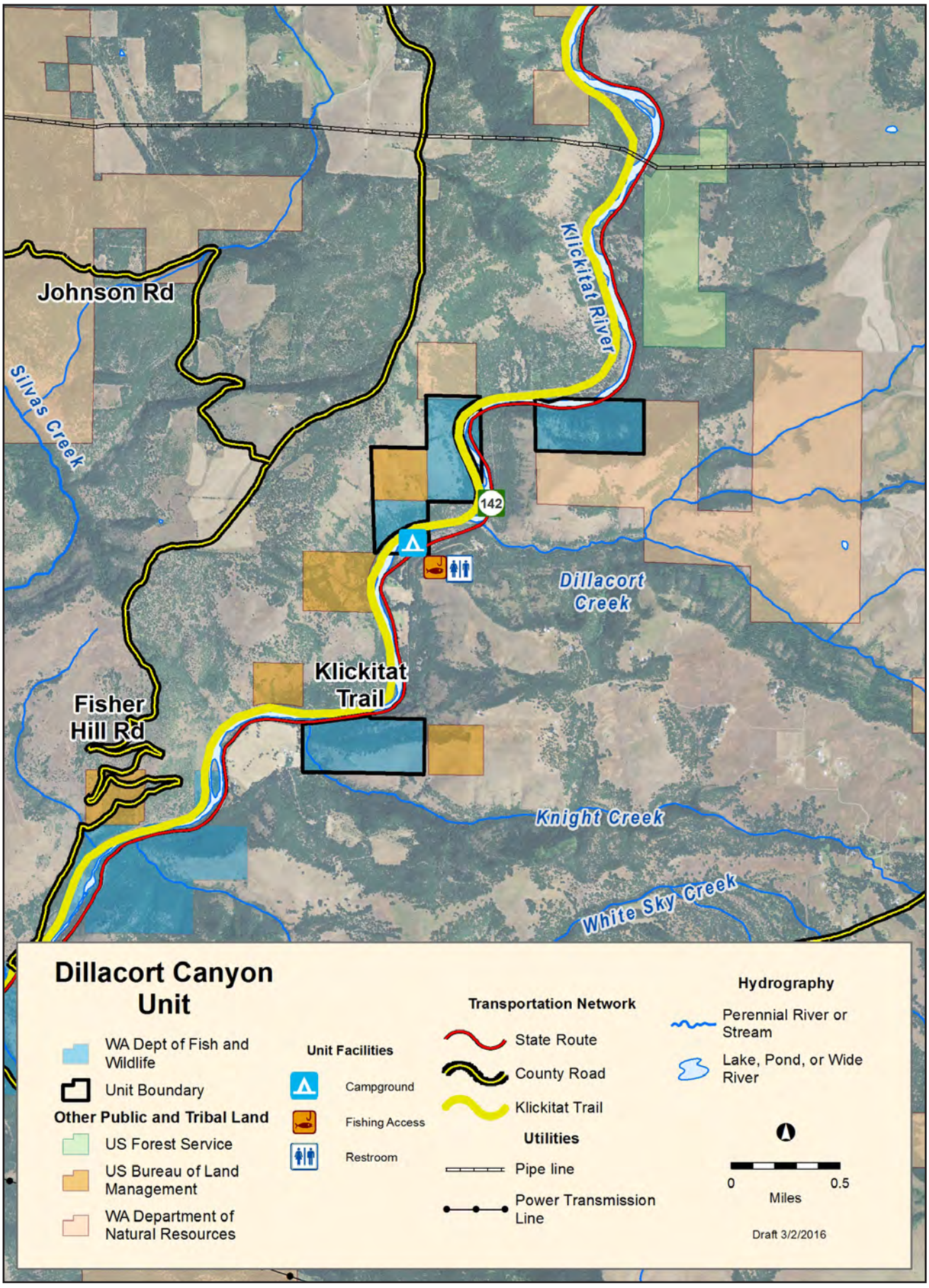
Map 2. Soda Springs Unit



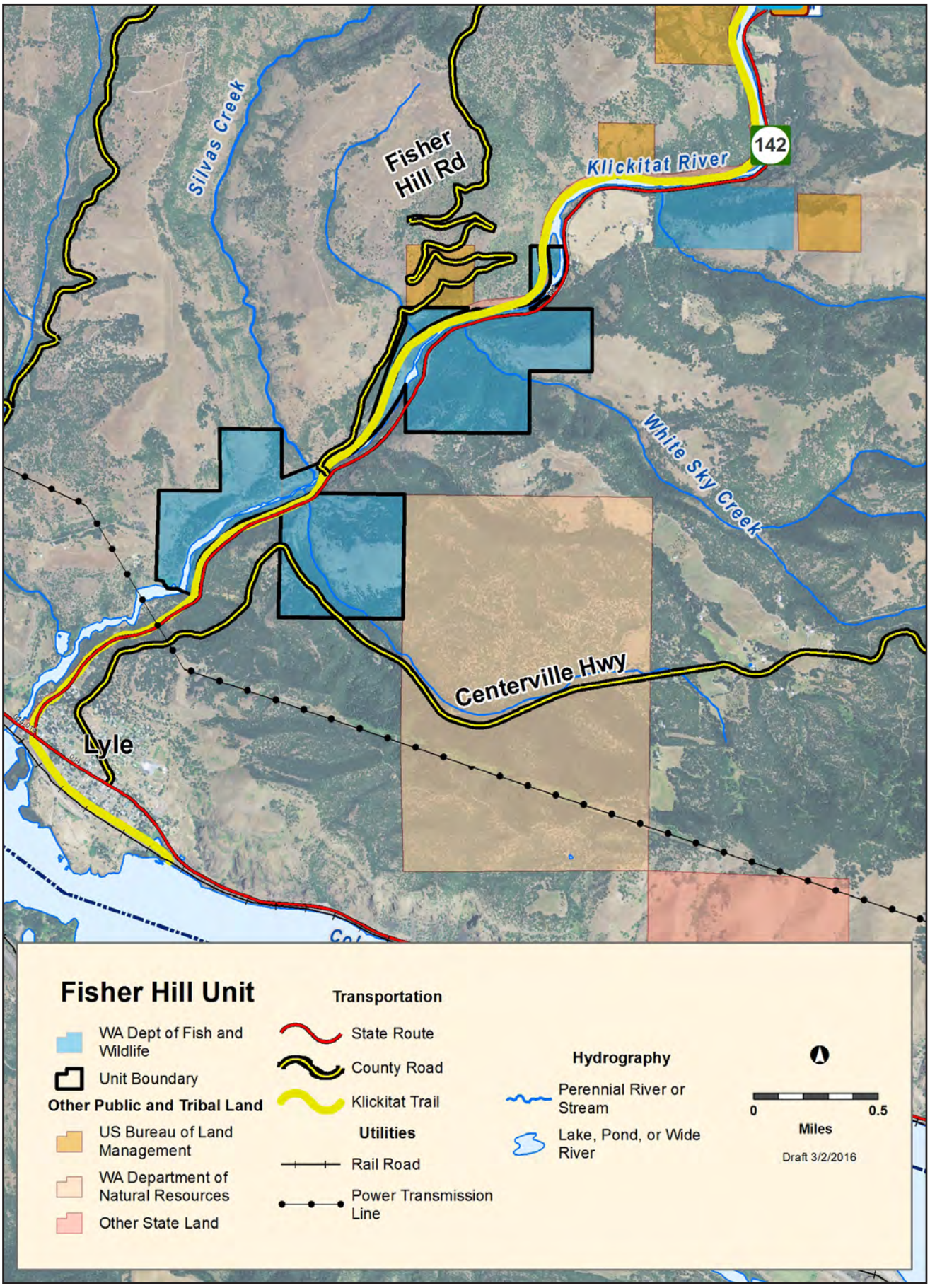
Map 3. Mineral Springs Unit



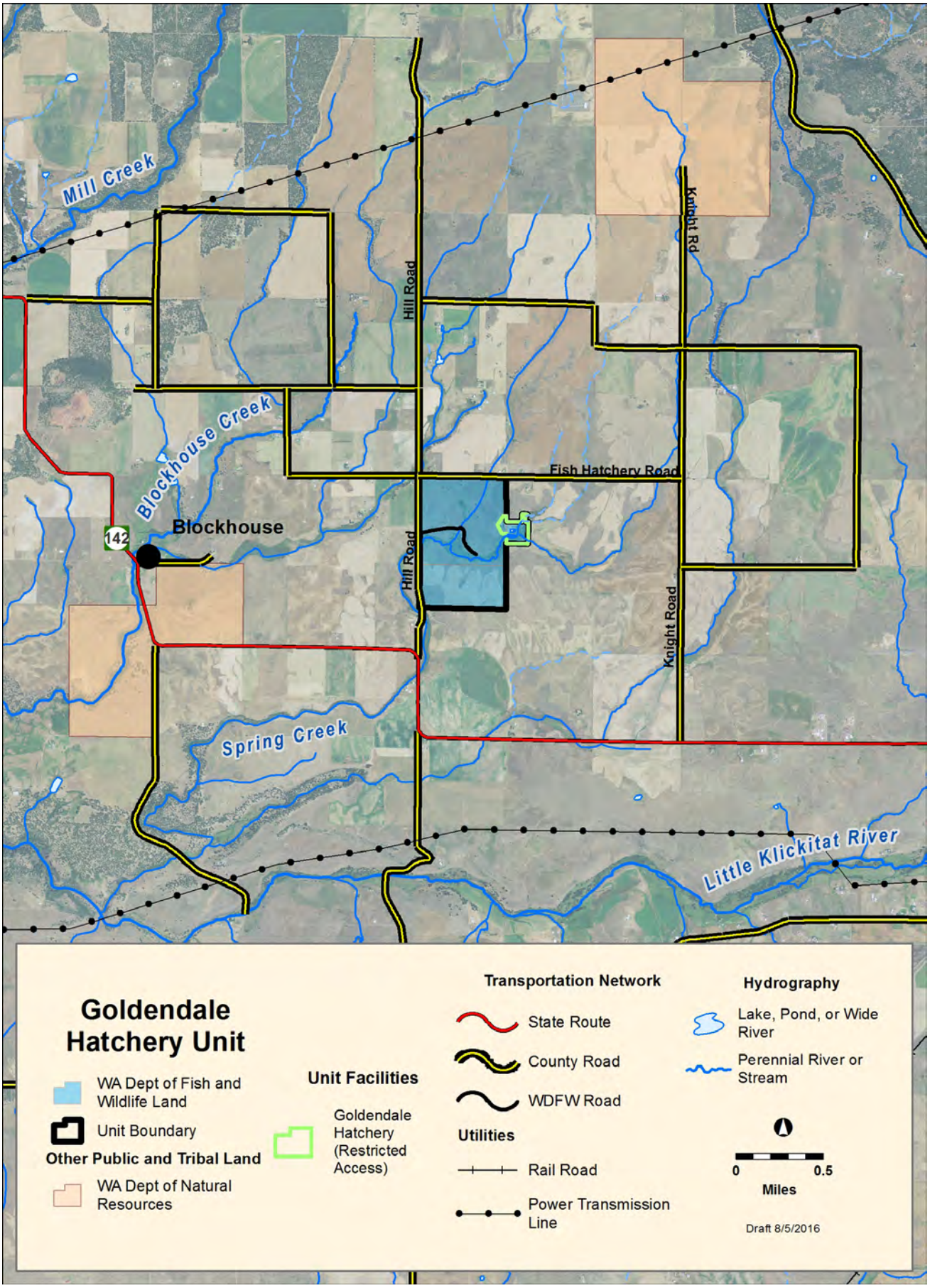
Map 4. Dillacort Canyon Unit



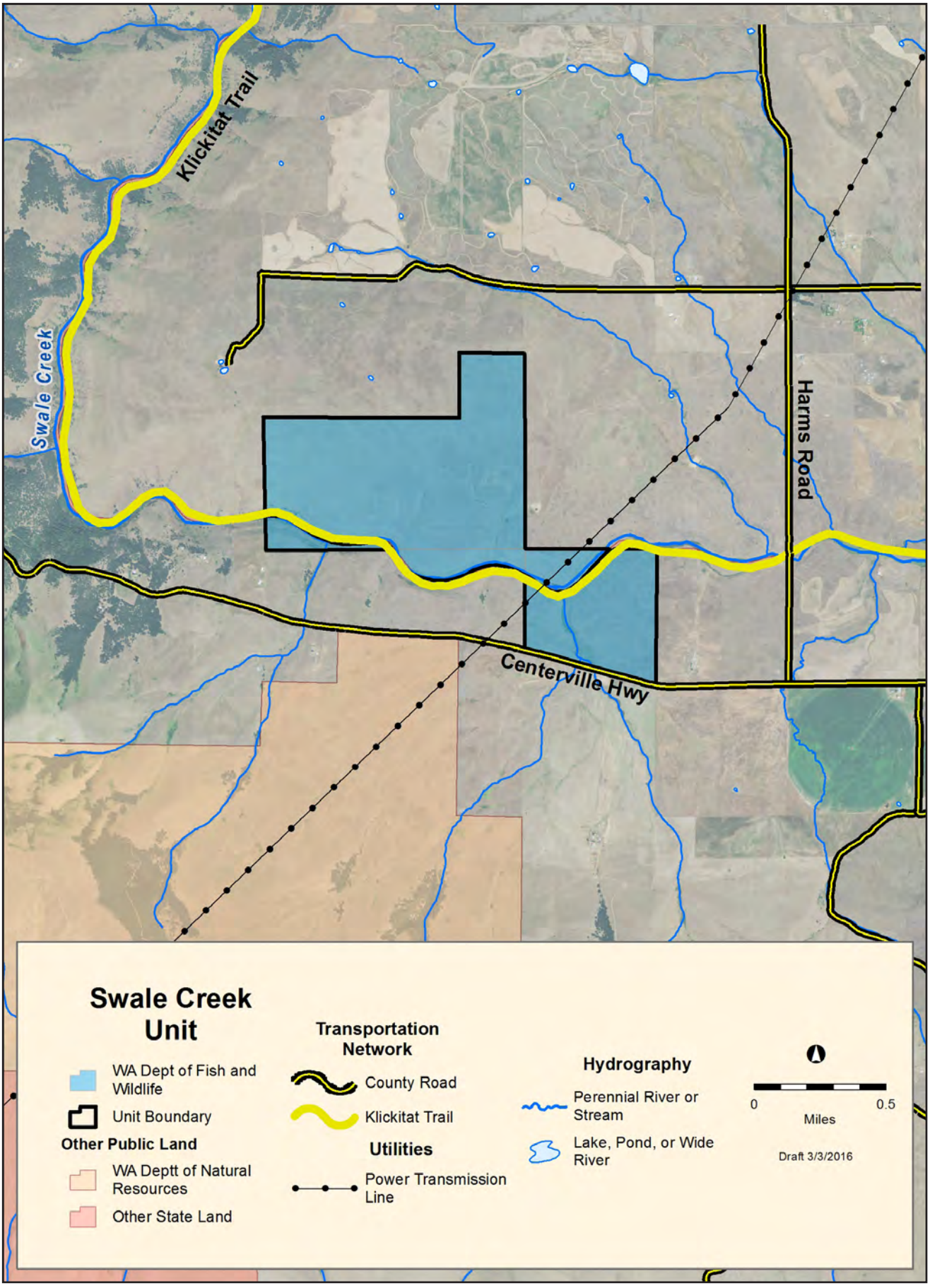
Map 5. Fisher Hill Unit



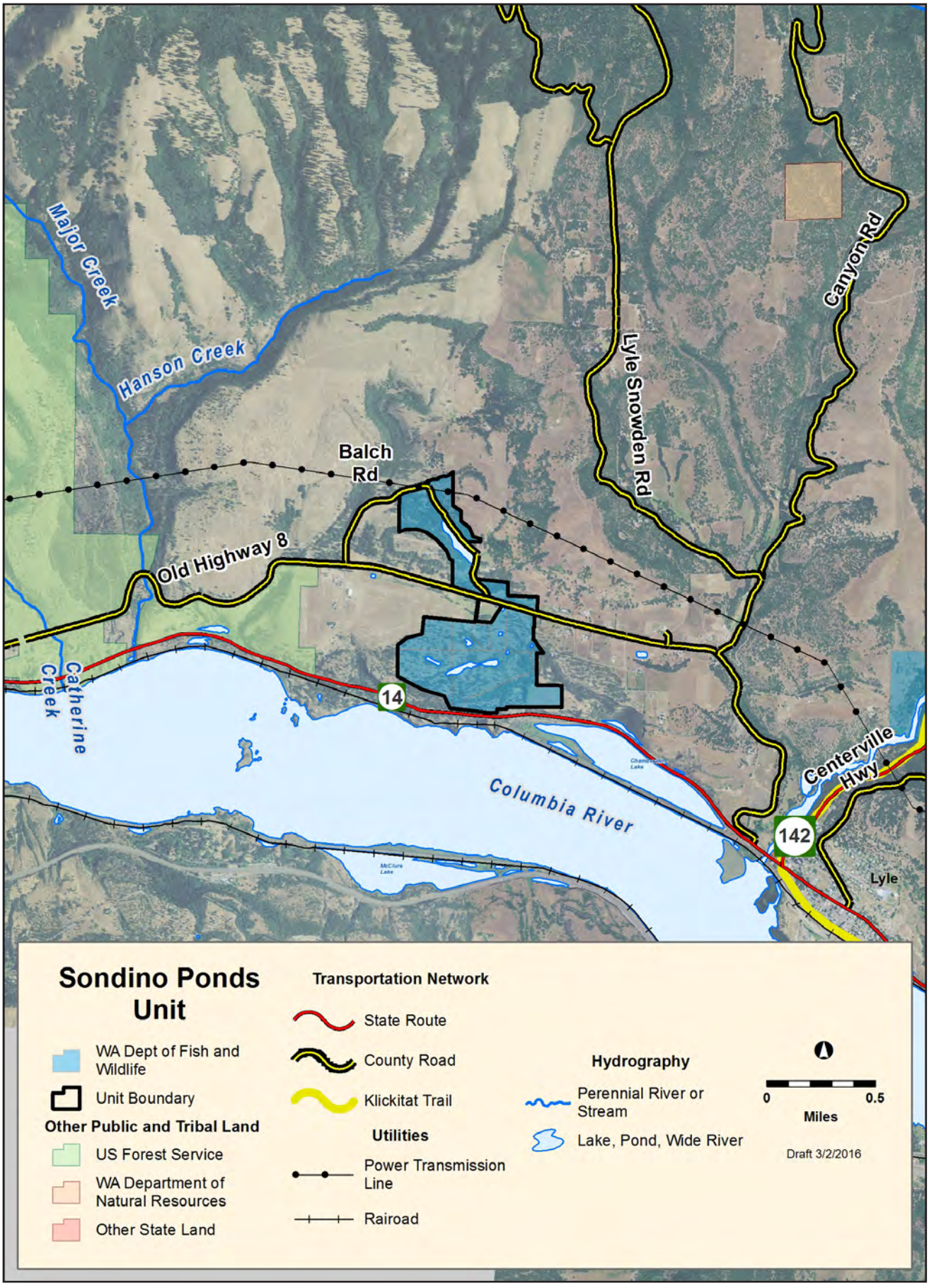
Map 6. Goldendale Hatchery Unit



Map 7. Swale Creek Unit



Map 8. Sondino Pond Unit



deer, grouse, turkey and songbirds associated with the riparian habitat. The chimney of an old water-bottling plant on the property serves as a roosting site for Vaux's swifts (a state candidate species). Popular recreation activities include fishing and hunting, and overnight camping.

Dillacort Canyon Unit consists of 340 acres within the Klickitat River Canyon. WDFW and BLM jointly manage portions of the property. Habitat types include pine-oak forest, Oregon white oak woodlands, cliffs, bluffs, talus slopes, grasslands and riparian areas. Western gray squirrel and black-tailed deer are present on the property. A water access site along the Klickitat River is popular for camping and fishing.

Fisher Hill Unit consists of several parcels of land that total roughly 480 acres. This unit is located on the Klickitat River, downstream from the Dillacort Canyon unit. This segment of the river flows through a narrow channel that has been fished by members of the Yakama Nation for centuries and remains an important fishing site today. Habitat types at Fisher Hill include cliffs, pine-oak forest, Oregon white oak woodlands, and open grasslands similar to Dillacort Canyon. Wildlife species include wild turkey, western gray squirrel, Lewis' woodpecker, bald eagle and black-tailed deer.

Goldendale Hatchery Unit is located along Spring Creek adjacent to WDFW's Goldendale Fish Hatchery. The 240-acre unit historically was a farm and its agricultural fields are now being cultivated under a sharecrop agreement. Habitat consists of wheat fields, steppe, scattered pine trees, wetland shrubs, and escaped ornamental and forage plants. A portion of the wheat produced is left in the field as supplementary feed for upland game birds. Recreation uses include pheasant hunting, supported with birds that are reared and released at the wildlife area. Trout fishing is popular on Spring Creek.

Swale Creek Unit consists of 516 acres straddling Swale Creek, west of Centerville. The habitat is mostly steppe with riparian areas along two creeks, offering upland game bird hunting opportunities. Hiking and wildlife viewing also are popular activities on this unit.

Sondino Pond Unit is considered the most important western pond turtle habitat in Washington. WDFW bought the 219-acre area near Lyle to protect this species. The parcel historically was used for agriculture and contains seasonal and year-round wetlands. Access to the unit is restricted in order to protect the turtle population and restore the native habitat.

Boat ramp at Leidl Park Access, Soda Springs Unit
Photo by Lauri Vigue

Geology and Soils

Three million to 16 million years ago, major geological events shaped southcentral Washington. In central and eastern Oregon, the great basalt floods occurred repeatedly over a four million year period and moved the ancestral Columbia River valley northward. The Cascades mountain range began to fold up into an arch, producing a rain shadow east of the Cascades. As the mountains rose, the Columbia River carved out a deep gorge. The volcanoes of Mt. Adams and Mt. Hood formed about a million years ago. During the Ice Age, ice sheets from Canada advanced and retreated causing changes in climate and increasing precipitation. These changes accelerated erosion of the Gorge, enabling the river to maintain its course while the Cascades were rising. During the melting of the ice sheets in Canada and northern Washington, huge ice dams formed, creating lakes as large as 3,000 square miles. When these dams failed, catastrophic floods flowed (Missoula Floods) down the Columbia River and across eastern and central Washington widening the narrow "V" shaped canyon of the Columbia River Gorge. During a period of 2,500 years as many as 100 floods scoured the Gorge.

The extensive erosion-resistant basalts, which dominate the basin, have formed deep (700 to 1,500 feet) canyons with steep walls. This geomorphology creates a pattern where most of the Klickitat mainstem (main course of the river) is a canyon with steep walls and a narrow valley floor. There are several waterfalls in these reaches, which are among the main factors limiting anadromous fish distribution in the watershed. The stream reaches in the plateau are lower gradient and are able to develop meander patterns. These areas tend to have more agriculture, urban and recreational land use (WDOE 2005).

Generally, the soils within the wildlife area are shallow and rocky. Approximately 50 percent of the wildlife area contains soil known as Leidl-Wahoo complex, which is found within the breaks of the Klickitat River, Dry Canyon (Canyon Creek), Dead Canyon and Sheep Canyon drainages. This shallow, rocky soil ranges in slope from 30 to 75 percent. The bench area of wildlife area is composed mostly of Gunn and Kiakus-Munset-Wahoo complex. Typically, the Gunn soils are up to 60 inches deep with slopes from 2 to 15 percent. Kiakus-Munset-Wahoo complex are soils from 20 to 40 inches deep on slopes of zero to 30 percent. These two soil types, Gunn and Kiakus- Munset-Wahoo complex, cover approximately 30 percent of the wildlife area.

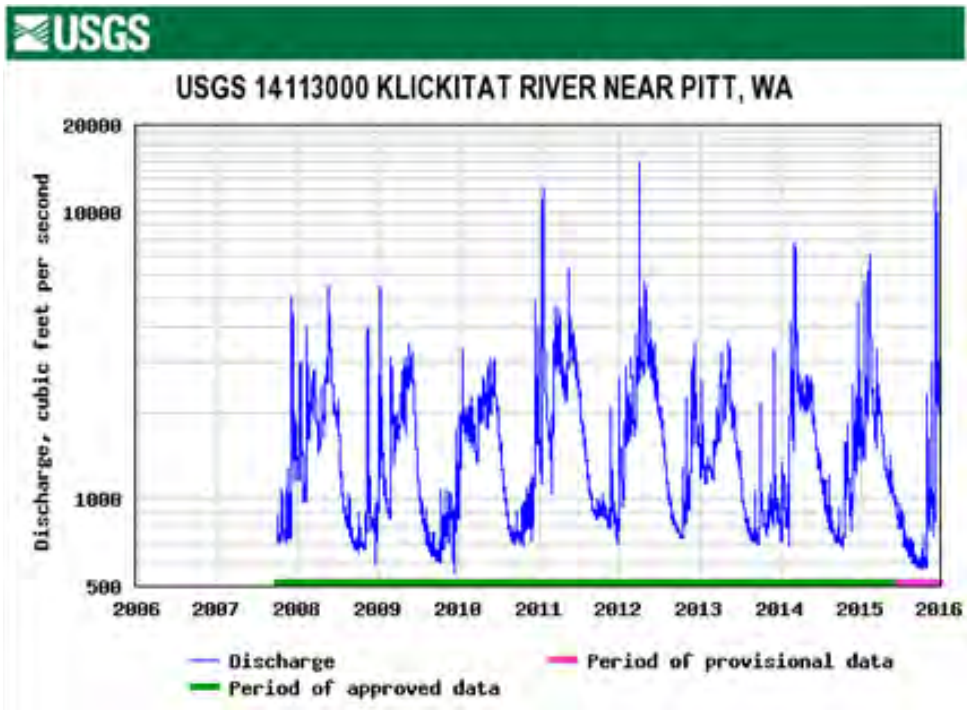
Hydrology and watersheds

The Klickitat River is located on the east slope of the Cascade Range in south-central Washington and drains 1,350 square miles in Klickitat and Yakima counties. The Klickitat River is one of the longest undammed rivers in the northwest, flowing about 95 miles south from its source in the Cascades to the Columbia River at river mile (RM) 180.4, 34 miles upstream of Bonneville Dam. The crest of the Cascade Mountains, dominated by 12,000-foot Mt. Adams (Pahto) forms the western boundary of the basin. Basalt ridges and plateaus separate the Klickitat from other river basins on the north and east (Northwest Power Planning Council 2000). It is also a shoreline of statewide significance. A description of WDOE's definition of shorelines of statewide significance can be found at this link: http://www.ecy.wa.gov/programs/sea/sma/st_guide/jurisdiction/SSWS.html.

The primary tributary to the lower Klickitat River is the Little Klickitat River, which drains the Simcoe Mountains located to the east of the mainstem Klickitat River. The Middle Klickitat sub-basin consists primarily of low rolling hills and steep canyon areas. Such canyons can be found in the lower reaches of the Little Klickitat River, the lower Klickitat River sub-basin, the lower portion of Swale Creek, near the mouths of the tributaries to the Klickitat and Little Klickitat Rivers, and in the smaller tributaries along the Columbia River. The Klickitat River flow is primarily fed by rain and snowmelt in winter and early spring and by glacial meltwater in late spring and summer. Stream flow data from the U.S. Geological Survey (Figure 1) shows the seasonal variation of stream flows for the Klickitat River. The West Fork Klickitat provides most of the summer flow in the Klickitat River, as outlined at this link: http://waterdata.usgs.gov/usa/nwis/uv?14107000.

Numerous springs are present on the wildlife area. There are 29 man-made ponds and one natural pond located on the Soda Springs Unit. Most are filled by runoff, however a few are fed by springs. The flows of these freshwater springs vary from being wet spots to nearly 10 gallons per minute. The mineral springs in the Klickitat River Canyon are naturally carbonated. Some of the mineral springs flow more or less constantly, while others are intermittent and unpredictable. The Sondino Ponds Unit contains a complex of natural and man-made ponds; most are ephemeral, lasting a short time, but three are perennial most years.

Figure 1. Klickitat River Streamflow Data 2016 (USGS)



Discharge per cubic feet per second from 2005 – 2015 area shown in Figure1 below. Streamflow data shows (2007- 2014) peak flows on Jan. 17, 2011, (12,000 cfs) and on March 30, 2012 (14,800 cfs) (USGS 2015).

Hyacinth cluster lily on Soda Springs
Photo by Sue Van Leuven

Resource Management

As summarized in the framework, resource management activities at the state's 33 wildlife areas are prioritized by the requirements of state and federal laws (including the Endangered Species Act) and funding requirements (from property acquisition and/or funds used for ongoing operations and maintenance). Other sources of resource information include statewide plans for species and/or habitats, and other scientific approaches by internal and external parties (e.g. Ecological Integrity Assessments National Heritage Program). Other drivers of management actions on the landscape include collaborative work done with other conservation organizations including tribal governments, land trusts and other land management organizations, academic research programs, and even the specific interests of volunteers if they fit within mission and budgetary sideboards.

All of these are considered in the wildlife area management planning process, and are addressed in each plan consistently. The range and detail of these laws, studies and plans are described in more detail within the framework.

Species Management

Species are managed from two primary perspectives – 1) conservation and protection to manage sustainable populations; and 2) to provide recreational and commercial opportunities, consistent with the agency mission of preserving, protecting and perpetuating fish, wildlife and ecosystems. Either one or both of these factors were a key reason most wildlife area lands were purchased. The funding requirements reflect these goals, which are the fundamental drivers of all management activities on wildlife area lands. The framework defines the different ways species are classified – including listed, threatened and endangered species, and the broader category of Species of Greatest Conservation Need (SGCN). It also includes goals from the WDFW's Game Management Plan which includes protecting, sustaining and managing hunted wildlife; providing stable, regulated recreational hunting to all citizens, protecting and enhancing wildlife habitat and minimizing adverse impacts to residents, other wildlife and the environment.

The Klickitat Wildlife Area supports a wide variety of game and nongame species, including black-tailed deer, wild turkey, black bear, bobcat, gray partridge, western gray squirrel, western pond turtle, white-headed woodpecker, bald eagle, golden eagle, and Lewis' woodpecker. It has 18 documented species of amphibians and reptiles including 14 reptiles (10 snakes) and 4 amphibians (Anderson pers comm.). See Appendix F for a complete list of species that occur on the WLA.

State- and federally-listed, threatened and/or endangered species, as well as priority habitat and species, known as PHS, and SGCN species found on KWLA are identified in Table 1. Bull trout, steelhead and northern spotted owl are federally threatened. Another four species including the bald eagle, western pond turtle, western gray squirrel, and western toad are federal species of concern; four are state listed species, and there are an additional 3 state candidate species (Lewis' woodpecker, northern goshawk, Vaux's swift).

All seven units combined provide habitat for 11 Species of Greatest Conservation Need (SGCN), defined in the framework as species not yet listed but of conservation concern and may need additional research attention; and 22 Priority Habitat and Species (PHS), PHS is defined as habitats and species determined by WDFW to be priorities for conservation and management (Table 1). Additionally the Priority Habitat and Species list of Klickitat County is available in Appendix F.

Table 1 . State and Federal Conservation Status, WDFW Priority Habitats and Species (PHS) and Species of Greatest Conservation Need (SGCN) Criteria and Priority Areas that may occur on the wildlife areas.

Common Name	Scientific Name	Federal/State Status/SGCN	PHS Criteria	PHS Priority Area	Wildlife Area Unit
Bald eagle	*Haliaeetus leucocephalus*	FSC/SS/SGCN	1	Breeding area, communal roost, regular concentrations	Fisher Hill
Black-tailed deer	*Odocoileus hemionus columbianus*	--	3	Regular concentration/ Migration corridors	All
Bull trout	*Salvelinus confluentus*	FT/SC	1, 2, 3	Any occurrence	
California mountain kingsnake	*Lampropeltis zonata*	SC/ SGCN	1	Occurrence	Fisher Hill , Sondino Ponds
Chinook salmon	*Oncorhynchus tshawystcha*	--	1, 2, 3	Occurrence, migration	
Coastal resident cutthroat	*Oncorhynchus clarki clarki*	--	3	Occurrence	
Coho	*Oncorhynchus kisutch*	--	1, 2, 3	Occurrence	
Common sharp-tailed snake	*Contia tenuis*	SC/SGCN	1	Occurrence	Soda Springs, Sondino Ponds
Desert nightsnake	*Hypsiglena chlorophaea*	SGCN			Sondino Ponds
Lewis' woodpecker	*Melanerpes lewis*	SC	1	Breeding areas	Soda Springs
Marten	*Martes americana*	SGCN	3	Occurrence	Soda Springs
Merriam's wild turkey	*Meleagris gallopavo merriami*		3	Regular occurrence	Soda Springs
Mule deer	*Odocoileus hemionus hemionus*	--	3	Regular occurrence, breeding areas, migration corridors,	All
Mountain quail	*Oreortyx pictus*	--	3	Occurrence	Fisher Hill Soda Springs
Northern goshawk	*Accipiter gentilis*	SC	1	Breeding areas	Soda Springs
Northern spotted owl	*Strix occidentalis caurina*	FT/SE/ SGCN	1		Soda Springs
Rainbow trout	*Oncorhynchus mykiss*	--	1, 3	Occurrence, migration	Goldendale Hatchery
Ring-necked snake	*Diadophis punctatus*	SGCN			Mineral Springs, Soda Springs, Sondino Ponds
Steelhead	*Oncorhunchus Mykiss*	FT/SC	1, 3		
Vaux's swift	*Chaetura vauxi*	SC	1	Communal roost	Mineral Springs, Soda Springs
Western (Pacific) pond turtle	*Actinemys marmorata*	FSC/SE/SGCN	1	Any occurrence	Sondino Ponds
Western gray squirrel	*Sciurus griseus*	FSC/ST/SGCN	1	Any occurrence	Soda Springs, Dillacort Canyon, Mineral Springs, Sondino Ponds, Fisher Hill
Western toad	*Anaxyrus boreas*	FSC/SC/SGCN	1	Any occurrence	Soda Springs, Sondino Ponds
White-headed woodpecker	*Picoides albolarvatus*	SC/SGCN	1	Any occurrence	Soda Springs
Wood duck	*Aix sponsa*	--	3	Breeding areas	Sondino Ponds

Abbreviations: State endangered (SE), State threatened (ST), State Sensitive (SS), State Candidate for listing (SC), Federal endangered (FE), Federal candidate (FC), Federal species of concern (FSC); Species of Greatest Conservation Need (SGCN).

Game Species

There are 14 game species on the wildlife area and they include: black-tailed deer, elk, black bear, pheasant, cougar, bobcat, coyote, ruffed grouse, sooty grouse and mallard; chuckar, turkey, gray paratridge and California quail are introduced species. Ruffed grouse and chukar occur on the Soda Springs unit and gray partridge occurs on the Swale Creek and Soda Springs unit.

Game Management

Game species that require specific management actions in this plan include deer, elk, bear, cougar and pheasant. A summary of each species and the factors contributing to the emphasis on management actions is discussed below. The other game species present are managed incidentally as management actions are focused on priority species on the wildlife area. Hunting season regulations and habitat management for priority species on the wildlife area provide adequately for other game species. The WDFW Game Management Plan, available online at http://wdfw.wa.gov/publications/01676/, provides more detailed information regarding WDFW's statewide strategy for the management of these species.

Deer

Black-tailed deer are year-round residents on the wildlife area, and the population expands significantly during the winter when migratory deer are also present. In fact, WDFW initially established the wildlife area primarily to provide habitat for wintering black-tailed deer. Most black-tailed deer are migratory and use similar travel corridors from year to year from their higher elevation summer range to their winter range. Some travel long distances in order to spend the winter in the Klickitat Wildlife Area. They have a strong association with oak habitat and cultivated fields in the winter and typically use older forest stands on the wildlife area for summer habitat. Deer tend to avoid open roads.

In game management units (GMU) 578 (West Klickitat) and 388 (Grayback), black-tailed deer are managed with the common goal of providing recreational hunting opportunities and maintaining the health of the local herd. On the Klickitat Wildlife Area, the primary goal is to provide year-round habitat to support a healthy deer population. This is accomplished by maintaining forest cover and foraging habitat on south-facing slopes, and growing crops attractive to deer on agricultural fields.

Although deer on the Klickitat Wildlife Area are considered black-tailed deer, many animals share traits of mule deer, which are very closely related. These two types of deer comingle where their preferred habitats overlap. For management purposes (hunting), the Klickitat River is considered the boundary between western and eastern Washington. All deer east of the Klickitat River in GMU 388 are managed as eastside mule deer even though they may have more black-tailed deer characteristics.

Elk

Elk are managed under two GMUs for the Klickitat Wildlife Area and they include GMU 578 (West Klickitat) and GMU 388 (Grayback). Elk in these GMUs are considered part of the larger Mount St. Helens elk herd. GMU 578 includes all lands in the Klickitat Wildlife Area west of the Klickitat River. GMU 578 is managed to keep elk numbers at a stable level and to monitor the population to address local damage issues associated with the White Salmon drainage and Glenwood Valley. Damage issues with elk in GMU 578 are primarily associated with dairy farms, orchards and some pasture land in the White Salmon River drainage. WDFW has a program in place to minimize elk damage to crops and pasture lands through management agreements with landowners. This cooperative program is designed to assist landowners by implementing fencing, hazing and through specific damage hunts to reduce pressure from elk. More information can be found at this link: http://wdfw.wa.gov/publications/00771/.

GMU 388 includes all lands east of the Klickitat River and this unit is managed primarily for elk suppression as this portion of the Klickitat Wildlife Area is prioritized for resident and migratory deer. In order to restrict expansion of the Mt St Helens elk herd, the GMU has a liberal hunting season. This strategy has been implemented to reduce forage competition from elk with resident and migratory deer.

Bear and Cougar

Bear and cougar are both found on the Klickitat Wildlife Area and managed as game species with the goal of

long-term population stability. Currently, there are no concerns for bear or cougar predation on existing big game populations associated with the wildlife area.

Black Bear: Black bears use the forests and open meadows in the wildlife area for habitat. WDFW manages black bear habitats to ensure a healthy and productive bear population. Black bear hunting occurs on the Klickitat Wildlife Area. Black bears on the wildlife area are managed as part of the East Cascades Hunt Zone, which is open from Aug. 1 – Nov. 15. The majority of bear harvest takes place in conjunction with the more popular fall general deer seasons. There have been few conflicts between bears and humans (while camping or hiking) in the wildlife area.

Cougar: The WDFW similarly manages cougar habitat to ensure a healthy and productive cougar population. WDFW manages cougar hunting to ensure that no more than 12 to 16 percent of the cougar population within each management unit is harvested annually. Although some hunters specifically target cougar during the appropriate seasons, most cougar harvest on the wildlife area is in conjunction with the general fall deer seasons.

The wildlife area is part of two cougar hunt areas (GMUs 578, 388) with seasons open from Sept. 1 to Dec. 31. These areas are managed on a statewide quota system and the season closes as of Dec. 31 if the quota is met. If the quota has not been filled by Dec. 31, then a late hunting season is in effect until April 30 unless the harvest quota is reached anytime during this period.

Pheasant

The primary management focus for pheasant on the wildlife area is to provide hunting opportunities by enhancing habitat and conducting bird releases. Pheasant releases are conducted annually to maintain upland bird hunting. The 240 acre Goldendale Hatchery Unit has 105 acres of fields in wheat production under an agriculture lease designed to benefit pheasants. Since farming practices involve holding fields fallow in alternate years, about half of the acreage produces a wheat crop each year. Under the terms of the lease, 15 percent of the wheat is left standing in the fields for food and cover for pheasants.

Elk cow with calves
Photo by Doug Kuehn

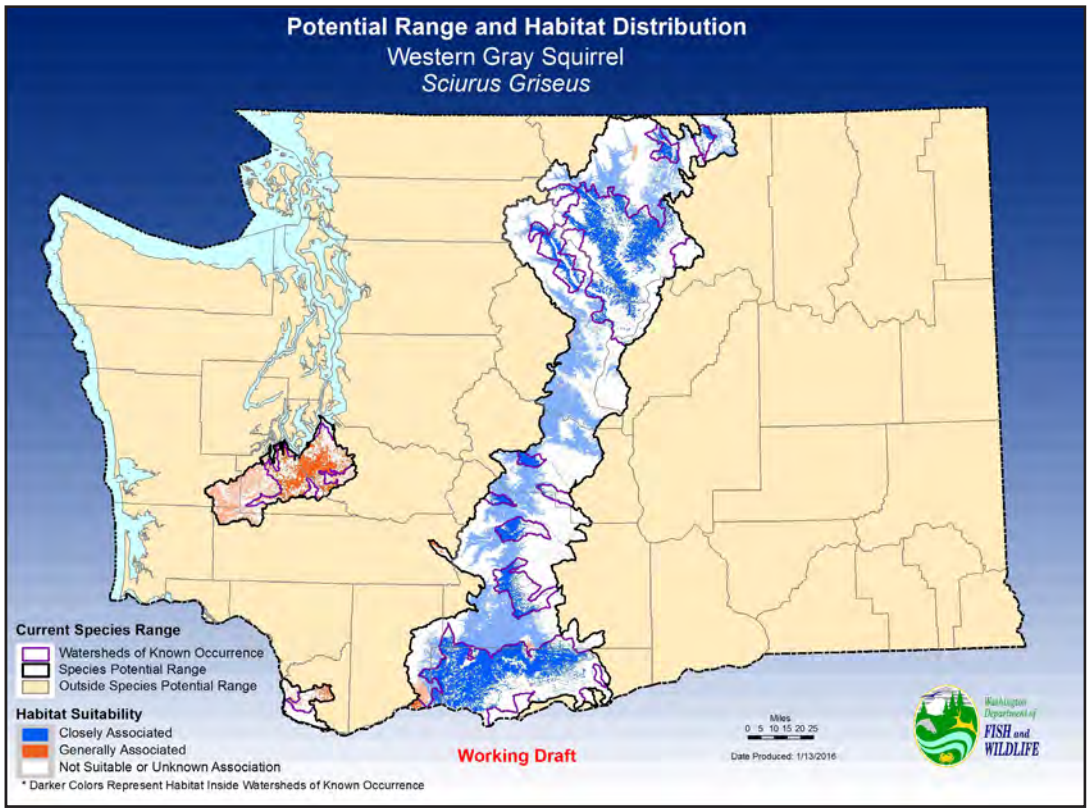
Diversity Species

The Klickitat Wildlife Area supports a unique variety of "diversity" species – species that are not hunted – associated with the habitats found there. Diversity species include SGCN, PHS and federally and state listed species. Included in this group are two priority state listed threatened and endangered species (western pond turtle and western gray squirrel), which are actively managed on the Klickitat Wildlife Area. The following section summarizes recovery actions for these focal species on the wildlife area.

Western Gray Squirrel (State threatened)

Western gray squirrel populations have declined substantially in Washington since the late 1800s and are now limited in distribution to three separate areas: the Klickitat region, North Cascades and southern Puget Trough. The population for the Klickitat region is estimated to be 705 animals. Periodic trapping in good quality habitat on the wildlife area suggests that squirrel abundance has remained relatively stable since 2000 (Vander Haegen, pers. comm). The greatest threats to western gray squirrel are habitat loss, disease and highway mortality. Western gray squirrel in the Klickitat region favor conifer-dominated forests over mixed Oregon white oak-conifer and pure oak, and usually occur in areas with a conifer overstory and an open understory (Linders 2000, Linders et al. 2010). In general, habitat connectivity (travel corridors) is essential for western gray squirrel and allows movement between patches, predator avoidance, access to mates, and juvenile dispersal (Linders et al 2010). Riparian areas may serve as important travel corridors for squirrels; especially in areas where dry uplands support limited tree cover (Wiles 2015). Ongoing habitat enhancement of oak communities has also likely benefitted this population. Regular burns of lower intensity can help restore forests to more natural conditions, thus providing many benefits for western gray squirrel (Wiles 2015).

Map 9. Potential Range and Habitat Distribution of the Western Gray Squirrel*



***Source. State Wildlife Action Plan** (These maps are referred to as "potential" habitat distribution maps because they depict range as areas with documented occurrences, as well as areas with suspected or possible occupancy based on the availability of suitable habitat and the proximity of that suitable habitat to occupied areas.)

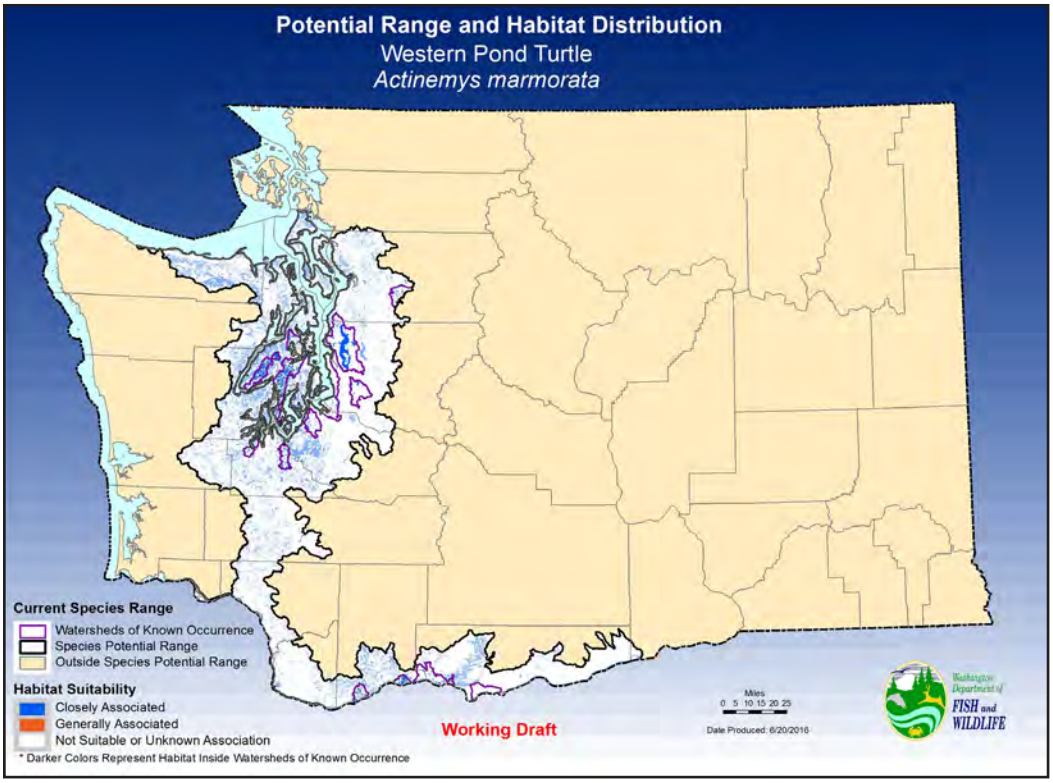
Western Pond Turtle (State endangered)

In the 1990s, only two populations of western pond turtle remained in the Columbia River Gorge, with estimates of less than 200 individuals in Washington. In 1992, WDFW began acquiring land in Klickitat County that hosted the largest turtle population remaining in the state; now managed as part of the Sondino Ponds Unit of the Klickitat Wildlife Area. WDFW, with conservation partners from Woodland Park Zoo and Oregon Zoo, established a "head-start" program for turtles in 1991. Hatchlings are collected in the fall and reared at the zoos until they are 10 months old. At that time, they are the size of 3-year old wild turtles. They are then released to augment population or establish new populations (WDFW 2012). From 1991-2012, WDFW released a total of 540 turtles, which had gone through the head start program. WDFW estimated there were 251 turtles on the Klickitat Wildlife Area in 2014.

This population has met the recovery goals of having a population of more than 200 turtles, composed of no more than 70 percent adults, which occupy habitat that is secure from development or major disturbance. Natural recruitment (how a population naturally reproduces itself) by juveniles occurs at the site but cannot yet sustain the population without population augmentation. Efforts are underway to eliminate North American bullfrogs from the site in hopes that removal of this non-native species will result in higher survival of the wild hatchlings. This site is also the main source of hatchling turtles taken for the head-start program to supplement the Skamania County population and establish two new Columbia Gorge populations.

Many issues remain for the recovery of this species. For instance, habitat must be managed to control invasive weeds in the nesting areas and predators, such as non-native American bullfrogs, must be controlled to increase natural recruitment of western pond turtle hatchlings. Disease has emerged as a major concern in recent years due to the discovery that a substantial number of turtles have diseased shells (ulcerative shell disease). The cause of the disease is under investigation but is not yet known (WDFW 2015).

Map 10. Potential Range and Habitat Distribution Western Pond Turtle*



***Source. State Wildlife Action Plan** (These maps are referred to as "potential" habitat distribution maps because they depict range as areas with documented occurrences, as well as areas with suspected or possible occupancy based on the availability of suitable habitat and the proximity of that suitable habitat to occupied areas.)

Fish

The Klickitat River subbasin supports steelhead *(Oncorhynchus mykiss)* as well as two species of Pacific salmon – Chinook *(O. tshawytscha)* and coho *(O. kisutch)*. The following stocks are found in the Klickitat subbasin: spring Chinook; summer Chinook; early-run fall Chinook (tule); late-run fall Chinook (upriver bright); steelhead (summer and winter); and coho (primarily late-run). Summer and winter steelhead and spring Chinook are known to have existed historically in the watershed. Steelhead are part of the mid-Columbia River steelhead Distinct Population Segment (DPS), which has been listed as threatened under the Endangered Species Act (ESA) (See table 2, Map 11).

Pacific lamprey *(Lampetra tridentata)* is another anadromous, or sea-going, species of interest in the Klickitat sub-basin. Although historic abundance and distribution are relatively unknown, efforts are underway to collect information on the present distribution and status.

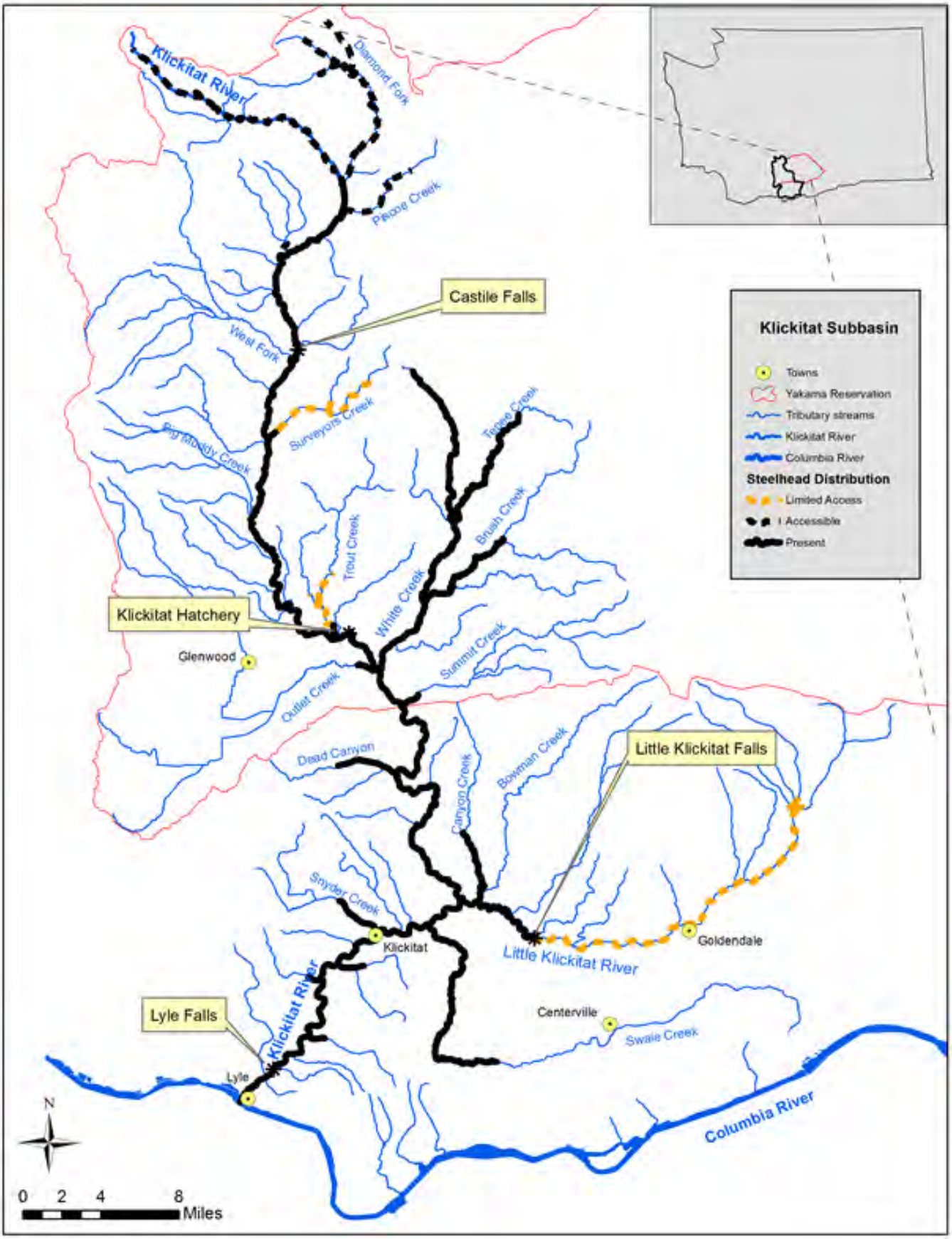
One of the major limitations on anadromous fish production is the presence of natural migration barriers in the watershed. The Klickitat River flows through a deep, steep-walled canyon with nearly impassible falls and cascades. The most significant natural fish passage barriers include West Fork Klickitat River Falls and tributary falls (Outlet Creek, Bowman Creek, Canyon Creek and Blockhouse Creek) (WDOE 2005). The Castile Falls Fishway was renovated to bring it into compliance with NOAA Fisheries' fish passage standards and facilitate anadromous fish passage to habitats in the upper sub-basin. Construction activities were completed in summer 2005, opening access to over 50 miles of habitat in the upper Klickitat to salmon, steelhead, and bull trout. This access was blocked for over 40 years. Additionally, the West Fork is likely the stronghold for bull trout in the Klickitat (Cline 1976).

Resident fish in the Klickitat include rainbow *(O. mykiss)*, westslope cutthroat *(O. clarki lewisi)*, brook trout *(Salvelinus fontinalis)*, whitefish *(Prosopium williamsoni)* and bull trout *(S. confluentus)*. Naturally reproducing populations of rainbow trout are widespread within the sub-basin. Westslope cutthroat trout were historically present, however, current distribution and abundance is severely limited. Brook trout were introduced into the Klickitat sub-basin in the late 1970s and early 1980s, and may have been detrimental to both cutthroat and bull trout populations.

Table 2. Klickitat River Watershed Salmon, Steelhead, and Bull Trout Stock Profiles (WDF and WDW 1992; WDFW 1998, J. Byrne 2015, Salmon Conservation Reporting Engine)

Stock	Major Subbasin(s)	Endangered Species Act (ESA) Status [2]	Population Origin & Current Managment[4]
Spring Chinook	Lower and Middle Klickitat, portions of Upper Klickitat, Little Klickitat, Swale Creek [2]	Not Warranted	Native. Hatchery & wild production.
Fall Chinook (tule)	Lower and Middle Klickitat	Not Warranted	Not native. Wild production.
Fall Upriver Bright (URB) Chinook	Lower and Middle Klickitat	Not Warranted	Not native. Wild production.
Summer Chinook	Lower and Middle Klickitat	Not Warranted	Native. Wild roduction
Coho [1]	Lower and Middle Klickitat Portions of Upper Klickitat, Little Klickitat [2]	Not Warranted	Not native. Hatchery & wild production.
Winter steelhead	Lower and Middle Klickitat, Upper Klickitat, Little Klickitat, Swale Creek [2]	Threatened	Native. Wild production only.
Summer steelhead	Lower and Middle Klickitat, Upper Klickitat, Little Klickitat, Swale Creek [2]	Threatened	Native. Hatchery & wild production.
Bull trout	West Fork Klickitat [3]	Threatened	Native. Wild production only.

[1] Note coho were introduced to the watershed starting in the 1940s and early 1950s and are not a native.
[2] ESA status as of April, 2004
[3] J. Byrne 2002
[4] The Salmon Conservation reporting Engine (SCoRE), http://wdfw.wa.gov/score.



Map 11. Steelhead distribution Klickitat River (Yakama Nation Fisheries 2016).

Fish Management

Fish management surrounding the Klickitat Wildlife Area consists of protecting wild production, ESA recovery, and hatchery production for harvest by sport and tribal fishers in the Klickitat River.

The Klickitat River and its tributaries are home to many different types of fish, salmon, steelhead, whitefish, and bull trout to name a few. Fish production can come from natural (wild) and/or hatchery production. The different stocks of fish can be native (in the river originally) or introduced.

Many native stocks in the Columbia River, such as the Klickitat River steelhead are listed under the Endangered Species Act (ESA) because their numbers had become so low at the time of listing that they needed further federal protection. State, federal, tribal, county entities are working hard to restore these fish species in the Klickitat River through habitat restoration and protection. Please see http://www.rco.wa.gov/salmon_recovery/lead_entities.shtml.

Hatchery production of salmon and steelhead is done in the Klickitat to provide augmentation for harvest and augmentation to wild production.

As noted on the table above Chinook salmon, spring, summer, and fall; coho, steelhead, and bull trout are found in the Klickitat River. Only spring and summer Chinook, steelhead, and bull trout are believed to be native. Fall Chinook and coho were introduced through in-river hatchery programs and strays from other rivers. The fish ladder constructed at Lyle Falls allowed these and other fish to ascend into the upper river.

Chinook and coho are not listed under the Endangered Species Act (ESA) in the Klickitat watershed. Natural spring Chinook production is augmented by the annual planting of hatchery spring Chinook smolts to return as adults for tribal and sport fisheries. These fish are from the Klickitat Salmon Hatchery. Only adipose clipped hatchery spring Chinook are allowed to be harvested in the sport fishery. Fall brights are also planted into the river from the hatchery as smolts, and the returning adults provide very popular sport and tribal fisheries.

Coho smolts are planted annually into the Klickitat River. These are raised at the Washougal and Klickitat Hatcheries to provide adult fish for harvest.

Steelhead are native to the river. In addition, hatchery summer steelhead smolts are planted annually into the Klickitat from Skamania Hatchery on the Washougal. Only adipose clipped hatchery steelhead are allowed for harvest in the sport fishery.

Bull trout, found in some West Fork Klickitat headwater tributaries, are listed as threatened under the ESA. The potential for hybridization and competitive interactions between brook and bull trout are of concern to fisheries managers in this area (Yakama Nation Fisheries 2016). The river is closed to the sport fishing or retention of bull trout. Bull trout appear to be very rare except some locations in the upper basin on Yakama Nation Reservation. Occasionally bull trout are observed in the mainstem Klickitat. They may be native or Bonneville Pool origin.

Whitefish also provide a popular sport fishery. They are non-seagoing, and no hatchery production is used, these are wild.

Thousands of catchable rainbow trout (8-12 inches long), are planted annually into Spring Creek on WDFW lands out of Goldendale Hatchery. These fish provide an accessible and popular sport fishery beginning Memorial Day Weekend.

WDFW provides recreational fishing and camping areas and boat ramp access along the river, through different units of the Klickitat Wildlife Area.

Klickitat River overlook
Photo by Justin Haug

Habitat Management

WDFW directs its own research, develops its own approaches, and adopts other agencies' products, to reflect the most current conservation science. This includes the Ecological Integrity Assessment (EIA) and Ecological Integrity Monitoring (EIM) programs, which – combined with the Citizen Science program – will help meet the statewide goal of maintaining and enhancing ecological integrity on all WDFW lands. Similar to species classifications that group according to level of threat and potential inability to support sustained population, habitat types are grouped by type, including those that are priorities for preservation and conservation. The agency prioritizes habitat based on the classification system developed by NatureServe and the Department of Natural Resources (DNR) Natural Heritage Program's Ecological Integrity monitoring, the Priority Habitats and Species Program; and output from the Washington Wildlife Habitat Connectivity Working Group (WHCWG).

The section also provides a description of habitat management activities that occur on the Klickitat Wildlife Area; topics include forest management, weed management and restoration. This section also provides an overview of fire management and fire history on the wildlife area.

Ecological Systems and Ecological Integrity

As stated in the framework, each wildlife area plan will highlight the priority ecological systems, and where applicable, priority sites, that will be managed for ecological integrity. Once a baseline is established, this will be the primary means by which the agency will confirm how well it is able to maintain and/or enhance ecological integrity.

As stated in the framework, ecological systems that should be priorities include those that are classified as "priority" as well as those classified as "of concern." All priority and systems of concern found on the KWLA are listed below, with a brief description of the system. Unfortunately, the ecological systems maps for the KWLA are quite large and contain a level of detail that is hard to capture in this document. The complete classification system including descriptions of all ecological systems can be found online at http://www1.dnr.wa.gov/nhp/refdesk/communities/ecol_systems.html.

WDFW's strategic objectives include protecting and restoring ecological integrity of critical habitats. Ecological integrity is defined as the ability of a system to support and maintain a community of organisms that has species composition, diversity and functional organization comparable to those of natural habitats. Klickitat Wildlife Area has a total of 11 National Ecological Systems of Concern on the landscape. The following text on each of these systems is taken from the Washington Natural Heritage Program website http://www1.dnr.wa.gov/nhp/refdesk/communities/ecol_systems.html.

1. **Columbia Basin Foothill and Canyon Dry Grassland**
   Foothill herbaceous vegetation found on steep open slopes, in the canyons and valleys of the Columbia Basin along the mainstem of the Columbia River.

2. **Columbia Basin Foothill Riparian Woodland and Shrubland**
   Low-elevation riparian system found along the mainstem of the Columbia River and associated major tributaries on the periphery of the mountains surrounding the Columbia River Basin at and below lower tree line. Found in low-elevation canyons and draws, on floodplains, or in steep-sided canyons, or narrow V-shaped valleys with rocky substrates.

3. **Columbia Plateau Steppe and Grassland**
   Extensive grasslands, not grass-dominated patches within sagebrush shrub-steppe ecological system, dominated by perennial bunch grasses and forbs sometimes with a sparse shrub layer.

   Often forms a landscape mosaic with the Columbia Plateau Shrubland ecological system. Very little exposed bare ground due to mosses and lichens carpeting the area between plants, comprising a biological soil crust that is very important characteristic in this ecological system.

4. **East Cascades Oak-Ponderosa Pine Forest and Woodland**
   This narrowly restricted ecological system appears at or near lower treeline in foothills of the Eastern Cascades. These woodlands occur at the lower treeline/ecotone between *Artemisia* spp. (sagebrush) or *Purshia tridentata* steppe or shrubland and *Pinus ponderosa* (ponderosa

pine) and/or *Pseudotsuga menziesiin* (Douglas fir) forests or woodlands.

5. Inter-Mountain Basins Alkaline Closed Depression & Inter-Mountain Basins Playa
Sparsely to densely vegetated herbaceous, seasonally to semi-permanently flooded sites found on saline soils in basins with internal basins. Playas are typically more barren and sparsely vegetated than some other closed depressions, usually retaining water into the growing season and drying completely only in drought years. Seasonal drying exposes mudflats which are colonized by annual wetland vegetation.

6. Inter-Mountain Basins Big Sagebrush Steppe
This system is grassland with shrubs. Shrubs are dominated by *Artemisia* spp., and/or *Purshia tridentata* in an open to moderately dense shrub layer and with at least 25% total perennial herbaceous cover. The natural fire regime of this ecological system maintains a patchy distribution of shrubs, so the general aspect is that of grassland. *P. tridentata* is present almost always in association with tree cover, not out in the open. There is no *A. tridentata* on the KWLA.

7. North Pacific Lowland Riparian Forest and Shrubland
Forests and tall shrublands that are linear in character, occurring on low-elevation, alluvial floodplains. Confined by valleys and inlets or lower terraces of rivers and streams. Present near the mouth of the Klickitat River.

8. Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland
Riparian woodland and shrubland consists of deciduous, coniferous, and mixed conifer-deciduous forests that occur on streambanks and river floodplains of the lower montane and foothill zones.

9. Northern Rocky Mountain Ponderosa Pine Woodland and Savanna
These woodlands and savannas are, or at least historically were, fire-maintained and occurring at the lower treeline/ecotone between grasslands or shrublands at lower elevations and more mesic coniferous forests at higher elevations. This is the predominant ponderosa pine system of eastern Washington.

10. Rocky Mountain Aspen Forest and Woodland
Aspen forests and woodlands are a minor type found on the east side of the North Cascades. Although aspen can be associated with streams, ponds, or wetlands, this system consists of upland aspen stands found from low to moderate elevation.

11. Temperate Pacific Freshwater Emergent Marsh
Wetlands or the portion of wetlands dominated by emergent species where standing water is seasonally or more typically semi-permanently present.

Sheep Canyon Road oaks
Photo by Lauri Vigue

Stressors

This section describes aquatic and terrestrial habitat stressors that may affect the functions provided by habitats in and surrounding the wildlife area in Klickitat County. WDFW uses livestock grazing as a tool for managing habitat, some level of grazing can occur without stressing the ecosystem. Active forest management can help improve the ecosystem if done sustainably. As described under the previous section, the focused habitats on the Klickitat Wildlife Area are Oregon white oak, ponderosa pine woodlands/savannah, grasslands (steppe), riparian, aspen woodlands, and emergent marsh. These habitats support wildlife foraging, breeding/nesting, and migration. Factors that stress the ecological systems listed within the wildlife area include:

- Fragmentation of habitat, including the reduction in total acres of habitat or the isolation of one section of habitat from other patches of the same habitat.
- Land use (grazing, development) in adjacent uplands.
- Hydrology changes (beaver removal, irrigation, roads, climate change)
- Vegetation changes (invasive species, forestry, recreation, grazing)
- Grazing (invasive species, nutrient loading, reduces woody cover increases sod-forming grass cover)
- Altered fire regime (climate change, invasive species)
- Soil surface disturbance (recreation, management activities)
- Non-selective herbicide use on plant and stand diversity
- Climate change

Habitat Connectivity

Fish and wildlife survival depends in part on the ability to move through the environment to find food and reproduce. The degree to which land protection and condition supports these necessary movements is called habitat connectivity. WDFW is a member of the Washington Wildlife Habitat Connectivity Working Group (WHCWG), a science-based collaboration of land and resource management agencies, non-governmental organizations, universities and Washington Treaty Tribes.

Key wildlife habitat connectivity linkage networks at the statewide level were identified by the WHCWG (2010). The linkage networks, comprised of suitable habitats and the linkages connecting them were derived from two modeling approaches: focal species and landscape integrity. Linkage is defined as an area important for maintaining movement opportunities for organisms or ecological processes (e.g. for animals to move to find food, shelter or access to mates). The focal species approach identified important habitat areas and the best linkages between the habitat areas for wildlife focal species to move through (WHCWG 2010). Focal species were selected to represent diverse vegetation types, varied life histories, and need large areas to meet their needs (e.g. black bear, elk). They also include smaller species whose habitats have become fragmented, and less mobile species such as western toads. The best linkages provided the least resistance to movement between habitat areas for that animal in that area. This means that some of the linkages may not be comprised of ideal habitat, but provide opportunities for movement through a human-modified landscape.

The landscape integrity approach identified core habitat areas that were relatively free from human modification and the least human-modified linkages between them

(WHCWG 2010). Landscape integrity identifies areas of relatively low human disturbance and connections between these areas. Three of the focal species from the statewide analysis are found on the Klickitat Wildlife Area. The Klickitat Wildlife Area contains core habitat and provides connectivity for mule deer, western gray squirrel and western toad. More information can be found at the following link: http://wdfw.wa.gov/lands/wildlife_areas/management_plans/klickitat/.

Habitat management priorities (Appendix A) for the Klickitat Wildlife Area outlined in this plan include actions that will improve the core habitat and linkages for black-tailed deer, western gray squirrel and western toad. Black-tailed deer are a more wide ranging species capable of significant movement events covering many miles. Western gray squirrel movements are more modest with movements of several miles possible. The western toad exhibits the least extensive movements. Development of structures, road construction and development along moist habitats, wildlife unfriendly fencing and increased traffic in sensitive locations would be actions that would reduce landscape permeability and overall connectivity.

For more background information on the WHCWG analyses and data, follow this link: http://waconnected.org/.

Fire Management

Any fires that start near or within the Klickitat Wildlife Area are initially fought by the Washington Department of Natural Resources (WDNR). Larger fires prompt state mobilization, with federal fire-fighting entities, and additional fire districts. See Appendix H for Klickitat Wildlife Area fire district boundaries map and fire response information. Some wildlife area staff, who are qualified, may assist with suppression when fires impact wildlife areas.

Fire History

Lightning is a common cause of wildfires in Klickitat County, with most fires occurring between May and September. The historic fire return interval for the Klickitat Wildlife Area was 15-25 years (on average). These fires were of relatively low intensity and were a benefit to maintenance of shrub-steppe and forested habitats. For the last several decades, fire suppression efforts have been fairly effective in keeping fires relatively small. There is little evidence of the wildlife area being burned extensively. The two most notable fires in the area in recent times include the Skookum Fire and the Old Highway 8 Complex Fire.

The Skookum Fire started on Aug. 4, 1992, and spread rapidly along the north bank of the Klickitat River between the community of Klickitat and the confluence of the Little Klickitat and Klickitat Rivers, with part of the burn extending up Swale Canyon. Strong winds fanned the blaze to 51,000 acres. Due to the threat of the fire jumping the river and spreading east, 75 homes in the vicinity of the Glenwood Highway were evacuated, including those along the Soda Springs Road. The fire burned 270 acres of the Mineral Springs Unit.

The Old Highway 8 Complex Fire started on Aug. 26, 2010, northwest of Lyle when a tree fell on a power line. Winds in the Columbia River Gorge caused the fire to spread very rapidly. The response of fire suppression forces to this fire was fast and intense. However, the burn eventually covered 2,019 acres. The fire burned over steppe, oak woodlands, mixed oak-pine forest, and timbered canyons including Silva Creek. Approximately 105 acres of the Fisher Hill Unit were impacted.

Forest Management

Historically, wildfire was a prominent disturbance factor in maintaining forests on the wildlife area. Frequent, low intensity fires helped to maintain a high proportion of open, late seral forest stands with large diameter trees. In the last century, aggressive wildlife suppression tactics and "high grade" timber harvests have resulted in densely overstocked stands with an abundance of fuels. As a result, the Klickitat Wildlife Area is more susceptible to large scale insect outbreaks, pathogens and intense wildfire (stand replacement fires).

Active forest management is a critical component for the next 10-year planning cycle. There are nearly 11,000 wooded acres on the wildlife area, most of which are located on the Soda Springs Unit. Due to concerns over providing quality habitat for western gray squirrel, the agency has an interest in preserving snags and other features associated with less intensively managed forests, which serve as habitat for the western gray squirrel. Wildfire suppression and past logging practices over the last 100 years has resulted in large proportions of the conifer forest and mixed conifer/oak woodlands to be overstocked (too many trees) and suppressed. These stands are generally in poor condition due to competition for scarce light and water. These densely stocked stands with limbs from top to bottom of the tree, sometimes referred to as ladder fuels, can contribute to conditions that facilitate a ground fire to developing into a crown fire. This in turn makes the stand more prone to intense wildfires that quickly burn out of control. Consequently, the threat to the wildlife area from wildfire, insect outbreaks and other pathogens has dramatically increased.

Over the next 10 years, forested portions of the wildlife area will be inventoried, categorized, and prioritized for treatments (thinning and/or prescribed burns) that are designed to improve forest health and resiliency to wildfire. Forest management units and inventory plots will be established on those areas where active forest management is feasible and appropriate. A management strategy, using a variety of forest management techniques, will be used to begin the process of restoring stands to their historic range of variability. Maintenance and enhancement of priority habitat species on the wildlife area (western gray squirrel and Oregon white oak) will be an integral part of the management strategy. All forest management activities will be guided by strategies found in the WDFW Forest Management Plan (http://wdfw.wa.gov/publications/01616/) with details specific to this wildlife area outlined in the Klickitat Wildlife Area Forest Management Plan (see Appendix B).

Approximately 100 acres of shaded fuel breaks have been developed along roads and high fire risk urban interface property lines in the Soda Springs Unit. The objective of this project is to protect wildlife habitat and reduce the threat of wildfire spreading to adjacent private ownerships.

Oregon White Oak

The Klickitat Wildlife Area supports some of Washington State's best examples of Oregon white oak habitat. Oak habitats of the east-slope Cascades ecoregion occur primarily in central and south-central Washington. Oregon white oak *(Quercus garryanna)* is the only native oak in the state. Woodlands that have an oak component (including scattered oaks in an otherwise open setting) are a priority habitat for conservation. Oregon white oak habitat supports a variety of wildlife species on the wildlife area including western gray squirrel, black-tailed deer, Merriam's turkey, Nashville warbler, Lazuli bunting and the Lewis' woodpecker. Management of Klickitat Wildlife Area's forest lands take into consideration the unique characteristics and importance of the Oregon white oak habitat. The management focus includes the protection and restoration of oak savannah habitat including pure oak, oak/conifer mix and oak snags. Priorities will include protecting and enhancing oak stands to provide food and shelter for a variety of resident and migratory bird species, invertebrates, reptiles and mammals dependent on this unique habitat type.

Rare Plants

Several rare plant species are known to occur on the Klickitat Wildlife Area, see Appendix D for Klickitat Wildlife Area rare plant inventory. To maintain populations of rare plants, any new project or program proposals will be reviewed to determine whether the footprint might affect known rare plant populations, and conditions will be placed on the proposal to ensure that these populations are protected from negative impacts.

Weed Management

Managing weeds is a significant part of the Klickitat Wildlife Area manager's workload to establish and maintain diverse native plant communities that will support fish and wildlife populations. Invasive plants and noxious weeds can infest high quality native plant communities and convert them to low quality monocultures with little wildlife value. The weed management plan (Appendix E) identifies species, timing and management practices to control weeds. The goal of weed control in this plan is to maintain or improve the habitat for fish and wildlife, meet legal obligations, and protect adjacent private lands.

Restoration

The majority of restoration work on the Klickitat Wildlife Area will be forest restoration (see Forest Plan section and Appendix B). In addition to forest restoration, activities are planned in the Sondino Ponds Unit to improve habitat for the western pond turtle (see appendix A., Goal #2). Riparian restoration activities will be assessed along the Klickitat River in order to improve habitat for steelhead and other salmon species (see Appendix A., Goal #7).

Klickitat River Floodplain Restoration (Haul Road) project

The Columbia Land Trust, in collaboration with the Yakama Nation, is the lead in the Klickitat River Floodplain Restoration (Haul Road) project. Work is being conducted between the confluence of the Little Klickitat River and Dead Canyon Creek on the mainstem Klickitat River, adjacent to the Soda Springs Unit. The primary goal for this project is to restore connectivity of riverine, floodplain, and hillslope processes on 12 miles of the Klickitat River. In 2007, the Columbia Land Trust purchased the road and began the restoration work, which is funded by the Salmon Recovery Funding Board. Specific activities include removal of the railroad bridge and associated road, construction of floodplain channel, re-vegetation and placement of large woody debris. This large scale project restores migratory and rearing corridors for mid-Columbia River steelhead and Chinook. This multi-phased project is estimated to be complete in 2017. Bonneville Power Administration provided funds for assessment, design, and construction. For more information, see the following link: https://www.columbialandtrust.org/news/project/klickitat-white-salmon-rivers/.

Lower Klickitat River Riparian Re-Vegetation Project

In 2008, the Mid-Columbia Fisheries Enhancement Group, in collaboration with the Yakama Nation, completed restoration of 12.1 acres of native riparian and floodplain vegetation (cottonwood, alder, and willow) on the Klickitat River, which included the Klickitat Wildlife Area. This project increases bank cover, woody debris recruitment, and trapping of fine sediment. This reach is an important migration and rearing corridor for salmon and steelhead.

Cultural Resources

State and federal law requires the protection of cultural, geological, and other non-renewable resources. Such resources may not be removed unless determined to be beneficial to wildlife, habitat, or for scientific or educational purposes. WDFW coordinates with appropriate agencies and tribes for the protection of such resources whether it is the public or WDFW staff who are initiating an activity that will affect cultural, archaeological or historic resources. This includes the removal of various rock formations, Native American artifacts, plants, seeds, and other items. The Yakama Nation collects traditional tribal foods on the wildlife area.

Current Climate

The Cascade Mountains form a barrier to the storms moving east from the Pacific Ocean, causing the storms to deposit most of their moisture before reaching the wildlife area. Much of this range slopes towards the south, resulting in maximum radiant heat from the sun during the winters. Light moisture and radiant heat often keep these areas free of snow, attracting large numbers of black-tail deer during the winter months. The Columbia River Gorge allows some of the warmer marine air to enter the region from the Pacific Ocean, helping to keep winter temperatures milder than areas farther eastward. This results in much of the winter precipitation falling as rain instead of snow. The area receives a mean annual precipitation of 17.41 inches. The majority of the precipitation falls between October and May. Temperatures range from an average low of 35.9 degrees F in winter to an average high of 61.0 degrees F during summer. The growing season is between 115 and 155 days long.

Climate change

Anticipated Changes due to Climate Change

This section describes the likely climate change impacts for the Klickitat Wildlife Area. The following table describes key impacts to forest habitats, potential management actions and information gaps.

The most direct impacts of climate change to this area will be in the form of warmer winter temperatures (3 to 6 degrees within 15 years) and drier summers (Climate Impacts Group 2013). Altered fire regimes caused by climate change are expected to increase the incidence of forest fires in the state in the future (Little et al. 2010).

Major fires have the capability of damaging large areas of western gray squirrel habitat and killing squirrels in the Klickitat region. Additionally, warmer temperatures associated with climate change could increase the exposure of squirrels to disease (Steel et al. 2011). Despite these concerns, one recent modeling exercise suggests that western gray squirrels could significantly expand their range in eastern Washington as climate change alters forests over the next century (Johnson et al. 2012). Sensitivity of the western gray squirrel in Washington is partially driven by their association with Oregon white oak habitats. Climate suitability for Oregon white oak is likely to improve in Washington, Oregon and British Columbia, Canada, since Oregon white oak is suited to a warmer climate. Climate suitability in specific areas that currently support Oregon white oak, however, is projected to decline (Bodtker et al. 2009).

Overall, there is a lack of information regarding the sensitivity of western pond turtle to climate change. Sensitivity of this species may be affected by warming temperatures that influence offspring gender ratios, increasing the number of females even with small increases in temperature (<3°F). However, it is possible that warming could benefit this species by providing more warm days for developing embryos. Their dependence on aquatic habitats increases sensitivity of this species, as these habitats are likely to be affected by increasing temperatures and altered hydrology. Invasive weeds that overgrow nesting areas further increase sensitivity of this species (WDFW 2015). Table 4 describes the vulnerability of key species associated with the wildlife area (western gray squirrel, western pond turtle and steelhead) to climate change.

Table 3. Key impacts of climate change, potential management actions and information gaps for forest habitats (Source: Glick and Moore NWF 2009).

Forest Habitats		
Key Impacts	**Potential Management Actions**	**Information Gaps**
• More frequent storm events • Increased forest fires • Expansion of invasive species • Loss of hligh elevation habitats • Carrying capacity, disease, and pine beetles	• Engage the private sector • Increase interagency collaboration • conduct vulnerability assessments and monitor species • Acquire land for habitat conservation • Change land management	• Vegetation community responses • Phenology and species inter-relationships

Climate change will exacerbate existing stressors listed on page 35. Current management activities on the wildlife area will help address future climate risks, for example land acquisition and weed management. Table 5 provides an overview of potential climate impacts, effects on habitat and management actions for the plan.

Table 4. Vulnerability* Assessment Information for Key Species on the KWLA (WDFW 2015)

Species	Overall Vulnerability	Overall Confidence	Sensitivity Rank	Exposure Rank	Summary of Exposure
Western gray squirrel	Low to moderate	Moderate	Low to moderate	Moderate	- Increased temperatures. - Changes in precipitation. - Altered fire regimes. - Increased disease outbreaks.
Western pond turtle	Low to moderate	Low	Low to moderate	Moderate	- Increased temperatures. - Changes in precipitation. - Altered hydrology. - Increased invasive weeds.
Mid-Columbia River steelhead	Moderate to high	High	Moderate to high	Moderate	- Altered timing/magnitude of spring runoff. - Increased water temperatures. - Lower summer flows.

* Vulnerability to climate change is determined by an evaluation of sensitivity and exposure for each species or habitat, assessed confidence for each sensitivity and exposure evaluation, and scored overall vulnerability and confidence for a species or habitat.

Wyeth's lupine and arrowleaf balsamroot, Goldendale Hatchery Unit
Photo by Sue Van Leuven

Mt. Adams and Oregon oak, Soda Springs Unit
Photo by Sue Van Leuven

Table 5. Potential Climate Impacts, Effect on Habitat and Management Actions for the Plan

Potential Climate Impacts	Effect on habitat	Management Action	Status
Lower stream flows	Drought conditions; changes to the timing and temperature of streams; streams drying up.	Reintroduce beavers. Develop restoration projects along Klickitat River to provide shade for salmonids. Adaptation in grazing management; creative water placements.	Consider reintroductions at Dead Canyon and mainstem Apply for grants to restore habitat along the Klickitat River. Grazing permits are renewed on shorter intervals.
Decreased precipitation	Increased grassland and noxious weeds	Incorporate changes into current restoration objectives.	Implement weed management plan.
Increased risk of fire	Reduction in native wildlife, including western gray squirrel populations.	Forest thinning/fuel break maintenance. Increase interagency collaboration for landscape-level forest management planning.	Implement forest management plan. Develop partnerships for managing western gray squirrel habitat; engage the private sector in coordinated forest management.
Changes in native plant distribution	Distribution of some plants will change, including an increase in invasive species.	Native plant management and monitoring. Weed management. Acquire lands for habitat conservation.	Implement rare plant management plan and weed management plan.
Loss of wetlands at Sondino Ponds Unit	Reduced population of western pond turtle	Secure water right for improved water supply	Explore possibilities for securing reliable water supplies to selected pond by 2018.
Expansion of grassland	Reduced oak woodlands and conifers	Manage for grasslands in the future	Ecological integrity monitoring will inform adaptive management process.

Research and other studies

Consistent with WDFW's mission to preserve, protect and perpetuate fish, wildlife, and habitat, WDFW supports independent studies to achieve wildlife area objectives. Research topics include ecology and biology of the western gray squirrel and western pond turtle; ecology and management of black-tailed deer, habitat use by Merriam's turkey, ash-throated flycatcher and neotropical migrants (Appendix C). Research will provide a source of best available science that will inform ecological integrity objectives and species management, including adaptive management for the wildlife areas.

Western gray squirrel
Photo by WDFW staff

Recreation and Public Use

Note: Readers should review the Recreation and Public Use Section in the Framework, pages 34-35 for more information about how the agency manages recreation and public use across the state. A brief introduction is provided here.

Consistent with the agency's mission and mandate, and with the statewide WLA planning goals on page 9, WDFW provides opportunities to fish, hunt and enjoy other wildlife-related recreation on almost all of the state's 33 wildlife areas. Other recreation uses are also supported, if compatible with hunting, fishing and wildlife-related recreation, and with the priority species and habitats found on the property. Many of the state's wildlife areas are located in remote areas, and offer a "primitive" recreation experience, with limited development of trails, camping areas, and other infrastructure for more intensive or organized uses.

On the Klickitat Wildlife Area, recreation use and issues related to its management are influenced in part by the area's proximity to major recreation resources such as the Columbia River Gorge, Klickitat River and Klickitat Trail. These resources attract significant numbers of visitors, and offer a range of active and passive recreation opportunities including camping, hiking, swimming, mountain biking, horseback riding, stargazing/astronomy, etc. Staff are responsible for managing recreation and public use in a way that protects the natural resources, including the sustainability of game animals for hunting. For a complete list of activities for each unit on the wildlife area see Table 6.

On the Klickitat, and other WDFW wildlife areas, increasing population and diversity of recreation interests are creating more demand, which leads to conflicts between users (e.g. hunters and hikers). Increasing demand and conflicts between users impacts natural resources. WDFW is developing a Recreation Management Strategy to address these issues, which will likely lead to new laws, rules and/or policies to balance recreation use and wildlife/habitat protection. The strategy is expected to be completed in 2017.

Public use of the various units of the wildlife area is influenced by the character of the landscape, public access, wildlife and fish species present and seasonal considerations. WDFW may place limitations on some activities in order to protect resources, infrastructure, or safety of personnel and the public. Maintenance of healthy populations of fish and wildlife, along with critical habitat to support populations, is a high priority for WDFW, and the agency seeks to promote public enjoyment of these resources while managing and perpetuating the resources for future generations.

The Soda Springs Unit is the largest and most diverse unit of the Klickitat Wildlife Area. It offers the greatest range of recreational opportunities, as indicated on table 6. The Soda Springs Unit is part of the larger Great Washington State Birding Trail system (Sun and Sage Loop) (http://wa.audubon.org/sites/g/files/amh546/f/sun_sage_booklet_8_7_2012.pdf). The Mineral Springs, Dillacort Canyon, and Fisher Hill units are within the confines of the Klickitat River Canyon and provide many fishing opportunities. The Goldendale Hatchery Unit is managed mainly to provide pheasant hunting and fishing, but waterfowl hunting also occurs on the unit during the winter. Spring Creek on the Goldendale Hatchery Unit is stocked annually with rainbow trout, providing a sport fishery. The fishery is open from the Saturday before Memorial Day through Oct. 31. The Swale Creek Unit primarily offers upland bird hunting. The Sondino Unit is not open to the public except by special arrangement for educational or research purposes, or for habitat monitoring or enhancement projects.

Maintenance of quality rangeland is a high priority on the wildlife area. WDFW has taken steps to limit damage to this resource, including limiting off-road driving to purposes such as implementing project work or land management. Additionally, dispersed camping outside of the established campgrounds is limited to within 50 feet of the road. This helps to ensure that impacts of recreation are balanced with the objective of maintaining healthy plant communities that support wildlife species.

Seasonally high temperatures and drought are normal in eastern Washington, creating conditions ripe for wildfires both on the wildlife area and on neighboring lands. Therefore, open campfires are only allowed at Leidl Park, Stinson Flat, Mineral Springs, and the Turkey Hole campgrounds while burn bans are not in place. Seasonal burn bans are implemented every year, usually from sometime in June through mid-October. Where open fires

are not permitted, visitors may use enclosed stoves with screened stovepipes as a heat source. Propane grills and stoves may be used during seasonal burn bans. Charcoal barbeques are regulated as open fires, and are therefore subject to the same rules.

Other rules concerning recreation are covered in Washington Administrative Code 232-13 (http://apps.leg.wa.gov/WAC/default.aspx?cite=232-13). These address length of stay while camping, fireworks, loose pets, shooting near campgrounds, commercial use of state lands, use of lands by private groups or noncommercial organizations, sanitation, erecting permanent structures on state lands, interfering with lawful uses of the property by others, dumping of refuse, and other activities that affect visitors as well as potentially compromising WDFW's management of the property consistent with protection of agency lands.

The popular Klickitat Trail (a Rails-to-Trails project) is a 31-mile non-motorized use trail that extends from the mouth of the Klickitat River at Lyle to Warwick, near Centerville. While the trail is not owned or managed by WDFW, it passes through the Fisher Hill, Dillacort Canyon, Mineral Springs, and Swale Creek units of the Klickitat Wildlife Area. The best public access to the Swale Creek Unit is via the Klickitat Trail, by parking along Harms Road and hiking west along the trail. Management of the trail is coordinated through a partnership between Washington State Parks, the U.S. Forest Service, and the Klickitat Trail Conservancy. Those interested in using the trail should heed signs placed at the trailheads in order to ensure a good experience while respecting adjacent private property.

Rafting on the Klickitat River
Photo by WDFW staff

Table 6. Summary of Recreation Use on Each Unit of the Klickitat Wildlife Area.

Wildlife Area Unit	Primary Hunting Focus	Secondary Hunting Focus	Primary Fishing Focus	Other Recreation	Restrictions	Education/ Interpretation	Parking and other facilities
Soda Springs	Black-tailed deer, turkey	Ruffed and sooty grouse, black bear, bobcat, cougar, gray partridge, quail, chukar, elk, coyote	Steelhead, salmon	Camping, hiking, wildlife watching, birdwatching, wildflower viewing, stargazing, Live Action-Role Playing (LARPing), target shooting, horseback riding, geocaching	No hunting within the safety zone surrounding the wildlife area headquarters. No open campfires permitted in primitive campsites. Observe seasonal ban on campfires at Stinson Flat and Leidl Park campgrounds.	Reader boards are placed at the WLA Headquarters, at Stinson Flat and Leidl Park campgrounds, and small boards are located on Grayback Road and Anderson Road. Great Washington State Birding Trail – Sun and Sage Loop.	Boat access, camping at Stinson Flat and Leidl Park
Mineral Springs	Black-tailed deer, turkey		Steelhead, salmon	Hiking, camping, birdwatching, wildflower viewing, swimming	No open campfires permitted in primitive campsites. Observe seasonal ban on campfires at Mineral Springs campground.	A reader board is located at the Mineral Springs Campground.	Boat access, camping at Mineral Springs
Dillacort Canyon	Black-tailed deer, turkey		Steelhead, salmon	Hiking, camping	No open campfires permitted in primitive campsites. Observe seasonal ban on campfires at Turkey Hole Campground.	A reader board is located at the Turkey Hole Campground.	Water access site, camping at Turkey Hole Campground
Fisher Hill	Black-tailed deer, turkey		Steelhead, salmon	Hiking	No open campfires permitted in primitive campsites.		
Goldendale Hatchery	Pheasant	Waterfowl, black-tailed deer	Rainbow trout		Day use only		
Swale Creek	Gray partridge	Black-tailed deer		Hiking, wildlife viewing	Day use only		
Sondino Ponds					Access restricted due to ongoing pond turtle conservation work		

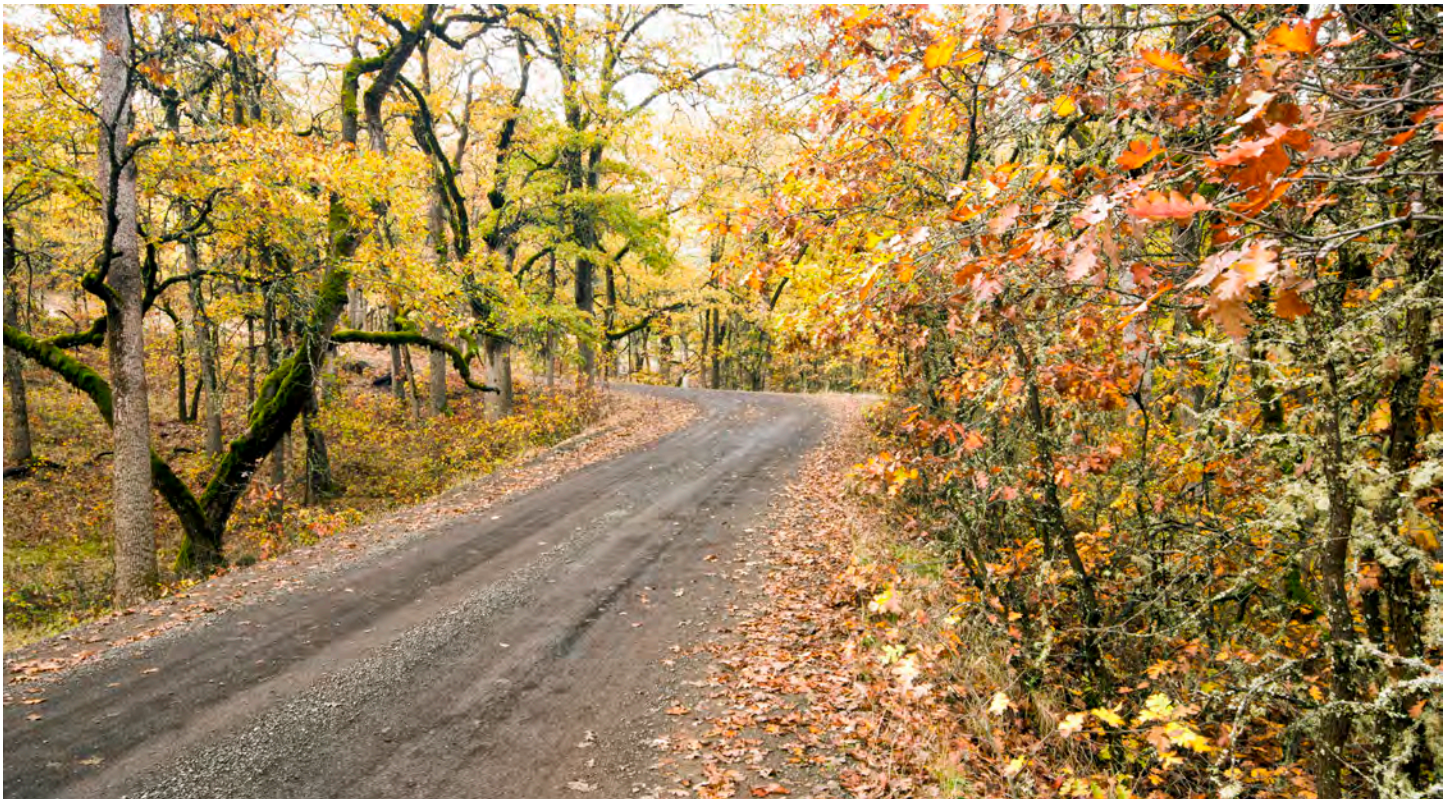
Road Management

A network of state, county, and WDFW roads provides access to the Klickitat Wildlife Area. State Route 142 passes through the Fisher Hill Unit, the Dillacort Canyon Unit, and the Mineral Springs Unit. Several county roads including the Lyle-Centerville Highway, the Goldendale-Glenwood Highway, Old Highway 8, Balch Road, Fisher Hill Road, Fish Hatchery Road, Hill Road, Soda Springs Road, and Zelinski Road provide year round access. Soda Springs Road becomes a primitive road at a point approximately 3.5 miles west of its intersection with the Glenwood Highway.

Roads that serve as important access routes for the public as well as for management activities are top priority for maintenance and improvement, performed on an "as- needed" basis. Several roads are posted with "No Unauthorized Vehicles Beyond This Point" signs and are only open to WDFW or other government official vehicle use. WDFW roads are open to nonmotorized public use year-round except the Sondino Ponds Unit. Only a few agency-managed roads on the Soda Springs Unit have been sufficiently improved to support use during all seasons. These are segments of Anderson Road, Old Headquarters Road, North Breaks Road, Grayback Road, Sheep Canyon Road, and the roads to Stinson Flat and Leidl Park campgrounds.

Seasonal road closures are implemented annually on the Soda Springs Unit to limit disturbance to the wintering deer population, to protect road surfaces from damage while soils are soft, and to protect meadows near the roads from damage due to off-road driving. Road gates are closed from Nov. 1 to Apr. 15 on the southern segments of Anderson and Old Headquarters roads, and most of the South Breaks Road. A road gate on the Sheep Canyon Road is closed from Nov. 1 until soils dry out in spring, usually in early May.

WDFW utilizes its road maintenance funds to maintain the infrastructure at optimal costs. Strategic vehicle access restrictions also create areas where people can recreate without disturbance from motor vehicles. WDFW seeks to offer opportunities for outdoor recreation to people of all abilities.



Klickitat Road
Photo by Justin Haug

Land Ownership and Management

Acquisition History, Funding and Purpose

Conserving key habitats is crucial to protecting Washington's natural heritage and hunting and fishing traditions. With this in mind, WDFW identified the area as a priority area for land acquisition during the 1940s and made the first purchase of deer habitat in 1948. Purchases of land along the Klickitat River followed in 1950 to preserve fish habitat and public access to the river for sport fishing. The wildlife area has grown in size with subsequent land purchases as well as lease agreements and management agreements with other government landowners. The purpose for acquiring the land has also broadened, with certain parcels purchased specifically for recreation and others for conservation of habitat for listed species.

Virtually all the funding that WDFW receives is provided with the expectation that the lands will be managed to conserve and enhance fish and wildlife habitat, and support fish and wildlife-oriented recreation. Other uses of the property must be consistent with these values.

Acquisitions

Many additions to the wildlife area have been made since the original purchase of the property in the 1940s. Land acquisition proposals are evaluated as opportunities arise based on their importance for securing critical fish and wildlife habitat, recreational values and their proximity to existing public ownership. WDFW considers a variety of factors in prioritizing specific parcels for acquisition in order to use funds wisely and ensure that lands are appropriate to meeting agency objectives. Real estate transactions are always done with willing landowners. Acquisition funding for the Klickitat Wildlife Area includes the following state and federal sources: State Bonds, Recreation Conservation Office, Wildlife Fund, Pittman Robertson and Land and Water Conservation Fund. For the history of land acquisitions on the wildlife area, see Appendix J, which illustrates the long-term committment by WDFW in acquiring lands that help protect fish and wildlife and support recreation.

Easements

WDFW holds easements for public recreational access and for management of its properties. Recreational easements provide daytime pedestrian access to fishing spots along the Klickitat River and Spring Creek. These easements are 25-feet wide along the streambank and visitors are expected to be mindful of the landowners' needs regarding gates and fences and otherwise respectful of private property. Fishing easements exist along Spring Creek downstream of the Goldendale Trout Hatchery, and in several locations along the Klickitat River. Easements for WDFW management access exist on private lands adjacent to the Soda Springs, Mineral Springs, and Sondino Units. These are not available for public use.

Leases

WDFW leases nine parcels (1,167 acres) from Washington Department of Natural Resources (WDNR) for wildlife habitat. This lease agreement has been in place since 1964 and states that the objective is to "provide for the management of big game, upland game birds and hunting and fishing recreation." This permits the property to be managed consistently with wildlife area goals and objectives and also provides revenue to WDNR.

Water Rights

The Klickitat Wildlife Area holds four known water rights. One is for domestic and other facilities' use at the Klickitat Wildlife Area headquarters. The other claims on file with Washington Department of Ecology mention use by livestock. These water rights date back to a time when the property was owned or managed for other purposes. The second water right (S4-099321CL) is a developed spring that formerly served a homestead on the Soda Springs Unit. The residence is gone, and the house that originally covered the spring has been removed. This perennial water source is available for wildlife use all year. Livestock no longer use pastures on that part of the wildlife area. The third water right (S4-046472CL) is for capture of surface water to be directed by pipe to domestic and livestock use. Presently, the domestic share of the water goes to a private landowner, while the livestock share is used to fill a pond that is occupied by western pond turtles. No livestock use pastures on the WDFW property. The fourth (S4-120103CL) is a claim that was filed by a previous landowner for livestock watering. WDFW has acquired the property, and now reserves the water source for support of fish and wildlife.

Managing Lands on Behalf of Other Entities

The Klickitat Wildlife Area includes land owned by other government entities such as Bureau of Land Management (BLM) and Washington Department of Natural Resources (WDNR). WDFW leases land from WDNR for conservation of wildlife habitat and public hunting. WDFW manages 2,033 acres owned by BLM under a memorandum of understanding (MOU) – approved in 1964 primarily to conserve habitat but also to ensure public access along the river for fishing. These parcels are situated along the Klickitat River on the Soda Springs and Dillacort Canyon units. BLM lands are managed under an existing BLM Resource Management Plan and subject to federal laws. The MOU, expected to be renegotiated in 2016, will be updated to be consistent with the National Environmental Policy Act, Federal Lands Policy and Management Act, and the National Historic Preservation Act. The Klickitat Wildlife Area has also increased in size due to administrative actions such as a transfer of land on the Goldendale Hatchery Unit from WDFW's fish program to the wildlife program, and a land exchange between WDFW and WDNR that resulted in two parcels being added to the Soda Springs Unit. WDFW also holds recreational easements, which are discussed on page 47.

Other Entities operating on WDFW Lands

Grazing

WDFW uses livestock grazing as a tool for managing habitat, and to participate in landscape-level land uses that favor maintenance of open space. Big game species such as deer and elk are often present on grazed lands, both public and private, demonstrating that carefully managed grazing can be compatible with maintenance of game populations. The agency's range ecologist provides technical expertise in evaluating the condition of the range, and monitors range trends on grazing permit areas. There are three grazing permits currently active on the Klickitat Wildlife Area and they are located on the Soda Springs, Dillacort Canyon and Fisher Hill units.

Soda Springs Unit - This permit encompasses approximately 1,574 acres of grasslands, oak woodlands, and pine-oak forest at middle elevations above the Klickitat River. Cattle are permitted to graze during spring from early May until mid-June during two out of every three years, with one year of rest (no grazing) during each three-year cycle. This permit has been in place since 1982.

Dillacort Canyon and Fisher Hill Units - Cattle are grazed on approximately 328 acres of grassland, oak woodlands, and pine-oak forest distributed over three separate parcels east of the Klickitat River from mid-April to late June. The permit has been in place since 1968.

Fisher Hill Unit - This permit is for cattle grazing on 90 acres on the slopes west of the Klickitat River, near its confluence with the Columbia. Habitats are similar to those on the permits described previously.

Agriculture

Farming can be an effective way to enhance forage and cover for wildlife. It can provide other benefits as well, such as weed control, soil erosion control, and the enticement of animals away from crops on private lands. There are two agricultural leases on the Klickitat Wildlife Area and they are located on Soda Springs Unit and Goldendale Hatchery Unit.

Soda Springs Unit - This agricultural lease includes 10 fields that are either in wheat production or hay production. The crops grown for hay are alfalfa and haybet barley. The aggregated field area is approximately 181 acres. The primary purpose of the lease is to grow forage that is attractive to deer during the winter and early spring months when native forage is dormant, growing slowly, or difficult to access.

Goldendale Hatchery Unit - Approximately 105 acres of fields are in wheat production under this agricultural lease. According to the terms of the lease, 15 percent of the wheat is left standing in the fields for food and cover for pheasants. Since farming practices involve holding fields fallow in alternate years, each year about half of the acreage produces a wheat crop.

Local Land Use

Klickitat Wildlife Area falls under the jurisdiction of Klickitat County, and land use must be consistent with the county's Natural Resource Ordinance, Critical Areas Ordinance and Shoreline Management Plan. Klickitat County updated the Natural Resource Ordinance in September of 2013, Critical Areas Ordinance in August of 2013, and Shorelines Master Plan in August of 2007 (see table 7. The lower 10 miles of the Klickitat River is designated as a recreational river under the Wild and Scenic Rivers Act. Much of the Columbia River Tributaries are within the Columbia Gorge National Scenic Area. Klickitat Wildlife Area units are consistent with the current and expected land use designations of these plans.

Table 7: Klickitat Wildlife Area Units and Regulatory Designations

Wildlife Area Units	Comprehensive Plan Land Use Designation and Zoning*	Shoreline Management Plan Designation	Comments
Soda Springs	Open space, general rural	Klickitat River designated as natural and conservancy	
Mineral Springs	Open space, rural residential 2	Klickitat River designated as conservancy	
Dillacort Canyon	Open space	Klickitat River designated as conservancy	
Fisher Hill	Open space	Klickitat River designated as conservancy	Lower portions of this unit are within the Columbia Gorge National Scenic Area - open space
Sondino Ponds	General rural		Property located within the Columbia Gorge National Scenic Area - open space
Goldendale Hatchery Unit	Extensive agriculture		
Swale Creek	Open space	Swale Creek designated as conservancy	

***** Land use definitions maybe found at the Klickitat County at this site: http://www.klickitatcounty.org/planning/

Administration and Staffing

The Klickitat Wildlife Area is within WDFW's Region 5, which has headquarters in Vancouver. All Washington wildlife areas and access sites are operated under WDFW's Lands Division. However, supervision at the region level is provided by the region wildlife program manager. The Klickitat Wildlife Area has two full-time staff members, including the wildlife area manager and a natural resource technician.

Facilities and Maintenance

The headquarters of the Klickitat Wildlife Area is located on the Soda Springs Unit. Most of the facilities are located at headquarters. Buildings within the wildlife area include the office, garage, shop shed, grain storage building, and barn. Additionally, there is a storage shed on the Sondino Ponds Unit.

Fences are important assets on the wildlife area, serving to define the property boundaries and control livestock movement. The Klickitat Wildlife Area has an estimated 15.3 miles of fences requiring inspection and maintenance. Fences are built to meet the needs of wildlife.

Roads and associated culverts, cattle guards and gates are also important features that need regular inspection and maintenance. There are approximately 12 miles of WDFW roads on the Klickitat Wildlife Area. Routine maintenance activities include clearing blockages in culverts; checking for road surface erosion; performing weed control on the roadways; reducing fire fuels along the roads; collecting litter; arranging for road grading; painting gates; and clearing fallen trees.

There are 12 upland bird water structures, also known as guzzlers, on the Klickitat Wildlife Area. Some are surrounded by fencing to protect them from damage by stray livestock. The water structures and fences are cleaned and inspected annually, with minor repairs attended to as promptly as possible. Major repairs or rebuilding are sometimes required due to weather damage or decay.

At the Sondino Ponds Unit, three gauges are placed in the deepest parts of key ponds and are used for monitoring water levels in the ponds over time. These require routine maintenance so the water levels may be read by an observer from shore.

The Klickitat Wildlife Area has approximately 90 signs that provide information and direct public use of the property. Signs require inspection and maintenance to ensure that they are readable.

Mountain bluebird
Photo by Doug Kuehn

Management Direction and Approach

WLA goals and objectives, performance measures

This plan sets management priorities for the Klickitat Wildlife Area for the next 10 years. Goals and objectives were developed by regional and headquarters staff, with input from the wildlife area advisory committee and are consistent with the WDFW mission and strategic plan.

Objectives express actions that will be taken to achieve a goal. The measurements that will be used to report progress toward objectives are identified as performance measures. The goals of the Klickitat Wildlife Area are located in Appendix A.

Monitoring and Adaptive Management

Wildlife area objectives are to be measured annually based on the associated performance measures and through staff annual evaluations. On a biennial basis, the Klickitat Wildlife Area manager will review, report and revise, as appropriate, objectives and performance measures for the next two year cycle. Staff will engage and develop recommendations for the two-year update with the wildlife area advisory committee and regional district team. Such reporting will allow the manager, their staff, and the regional office, to modify tasks and timelines as necessary to meet the associated objective. Further, over the term of the Plan (10 years), performance illustrates the adequacy or inadequacy of funding and capacity to successfully manage the wildlife area, potentially influencing goals and objectives in the next planning term.

Oak groves and upland meadows, Soda Springs Unit
Photo by Paul Slichter

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Personal Communications

David Anderson, District Wildlife Biologist
Washington Department of Fish and Wildlife
White Salmon, Washington

Lisa Hallock, Wildlife Biologist
Washington Department of Fish and Wildlife
Olympia, Washington

Matt Vander Haegen, PhD, Senior Research Scientist
Washington Department of Fish and Wildlife
Olympia, Washington

Common garter snake, Soda Springs Unit
Photo by Lauri Vigue

Appendix

A. Klickitat Wildlife Area Goals, Objectives and Performance Measures

B. Forest Management Plan

C. Research and Other Studies

D. Rare Plant Summary

E. Weed Management

F. Documented Species on the WLA and PHS list/Species County List

G. Cultural Resources Summary

H. Fire Response Summary

I. Public Process Summary (WAAC/DT Review/SEPA)

J. Individual Klickitat Wildlife Area Land Acquisitions by Date and Property Size

Appendix A. Klickitat Wildlife Area Goals, Objectives and Performance Measures

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal	Objective	Unit	Performance Measure	Lead	Tasks
1. Maintain or improve the ecological integrity of priority sites.	A. Establish an ecological integrity (EI) baseline for 1) native oak woodlands, 2) wetland/riparian habitat and 3) grasslands, and establish EI goals by 2020	All	1. Baseline established (y/n); 2. EI goals established (y/n)	Ecological Integrity Monitoring Team	- Work with WLA manager to design monitoring plan to achieve objective A over 10-year planning term. - Conduct data collection to determine baseline within 10-year planning term. - Provide EI baseline report to WLA manager prior to start of subsequent 10-year planning term. - Work with WLA manager to establish EI goals.
	B. Develop and maintain partnerships with conservation organizations to strategize priority land acquisitions for consideration.	All	1. # of meetings; 2. # partner acquisitions established and maintained	WL District Bio	- Conduct annual meeting with local NGO's (ie. Columbia Land Trust and Mt Adams Resource Stewards) to discuss their priorities for work in the Klickitat River drainage.
	C. Develop a plan for protecting critical habitats for rare plants including protection measures for the KWLA by 2018.	All	Completed (y/n)	WLA Manager	- For each plant species, create a population distribution map using survey data. -For each species, note habitat type. - For each species, compile a list of known or potential threats. - Create a matrix or another method of cross referencing location and habitat type with threats for each species, with a section for remarks on how to avoid negative impacts.
	D. Implement Weed Management Plan	All	1. # acres inspected; 2. # acres treated. Produce annual weed control report, documenting work completed	WLA Manager	- Inspect wildlife area lands for weed infestations as time permits focusing efforts on high priority areas: Sondino Ponds and access sites (Mineral Springs, Soda Springs and Dillacort Canyon). - Note new infestations for active control efforts and track population trends and ongoing needs at known infestation sites. - Maintain records of weed control efforts. - Submit annual weed control report, documenting work completed.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
1.	Maintain or improve the ecological integrity of priority sites.	E. Annually inspect 80% of boundary fencing and gates; repair and replace as needed and as funding allows.	All	1. # miles of fencing inspected and repaired; 2. # of gates inspected and repaired.	WLA Manager	- Inspect at least 80% of fence lines annually. - Repair, or make arrangements with permittees to repair damaged fence. - Rebuild badly deteriorated fences.
		F. Build and maintain a citizen science network to collect ecological integrity data.	All	1. % of photo points collected by citizen scientists annually; 2. % of vegetation plots collected by citizen science every 5 years.	Ecological Integrity Monitoring Team	- Recruit citizen scientists to meet monitoring need established in 1A.
2.	Recover western pond turtle populations in the wildlife area to healthy, self-sustaining levels.	A. Continue disease evaluation determined by Statewide Health Team.	Sondino Ponds	WPT annual report completed (y/n)	WL District Biologist	- Trap live turtles for health assessments. - Collect biological samples for disease evaluation. - Select individual turtles for disease treatment at Oregon Zoo followed by care at Larch Correction Facility.
		B. Conduct population monitoring every 3-5 years.	Sondino Ponds	1. # surveys conducted every 3-5 years; 2. document in annual report (y/n)	WL District Biologist	- Work with Olympia Science Division to implement Mark-Recapture Survey for population assessment.
		C. Conduct and evaluate Head Start program, including reviewing and evaluating population data, annually or as needed.	Sondino Ponds	Document in annual report (y/n)	WL District Biologist	- Determine need to continue Head Start program annually based on disease and population assessments. - Coordinate with Oregon Zoo for participation in Head-Start program.
		D. Explore possibilities for securing reliable water supplies to selected ponds by 2018.	Sondino Ponds	1. Contacts made (y/n); 2. Formal agreement completed (y/n)	WLA Manager	- Identify water rights for potential acquisition. - Approach landowners to discuss water availability. - Pursue formal agreement if possible.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
2.	Recover western pond turtle populations in the wildlife area to healthy, self-sustaining levels.	E. Maintain or increase native wetland and upland plant communities on the Sondino Unit.	Sondino Ponds	1. Wetland and riparian # acres inspected/# acres treated; 2. Grassland # acres inspected/# acres treated.	WLA Manager	- Monitor known weed infestations, especially reed canarygrass and Himalayn blackberry. - Inspect property for new weed infestations. - Conduct weed control efforts and keep records on work completed.
		F. Protect western pond turtle hatchlings by removing nonnative predators.	Sondino Ponds	Conducted annually (y/n).	WL District Biologist	- Evaluate annually need for bullfrog egg mass, adult and juvenile removal. - Determine funding opportunities via WPT Working Group, to conduct bullfrog removal (contract). - Set up project work and arrange for staffing and equipment. - Monitor progress of work. - Collect information on results and include this in annual report.
		G. Restore farmland to native meadow on Sondino Unit by 2017.	Sondino Ponds	1. Plan developed (y/n); 2. Apply for grant from the Columbia River Gorge National Scenic Area. Grant applied (y/n.)	Primary: WL District Biologist Secondary: Habitat Biologist	- District Biologist : work with WLA Mgr to determine feasibility for restoration project at Bigger Road meadow. - Habitat Division assist with grant proposal. - Consult with plant ecologist to develop restoration plan. - Explore funding possibilities and apply for grant. - Implement plan. - Evaluate and report on progress. - Report on restoration effort progress annually until project is complete.
		H. Limit public access at Sondino Ponds Unit to research activities only.	Sondino Ponds	1. Signs installed (y/n); 2. # of access permits authorized per year.	WLA Manager	- Maintain signs advising of restricted access. - Coordinate with enforcement regarding who is authorized to enter the property. - Issue letters authorizing individuals to enter the property.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
2.	Recover western pond turtle populations.	I. Explore opportunities to expand WPT habitat by 2018.	Sondino Ponds	A prioritized acquisition plan developed (y/n.)	WL District Biologist	- Meet with adjacent private landowners to determine acquisition potential adjacent to Sondino Ponds. - Develop set of maps and potential acreage for acquisition. - Tie to the WPT annual report.
3.	Improve forest health while maintaining and/or improving western gray squirrel and Oregon white oak habitat.	A. Determine the forest treatment strategy for the Soda Springs Unit as defined in the forest management plan.	Soda Springs	1. # acres for Phase 1; 2. # acres for potential forest improvement projects	Primary: Forester Secondary: WLA Manager and WL District Biologist	- Forester and WLA manager will continue the inventory process to determine how many acres are suitable for active management. - Forester and staff will identify high priority management areas to develop preliminary silvicultural prescriptions. - Forester and WLA manager will develop a 10 year action plan for treatment of high priority areas suitable for active management.
		B. Implement PHS western gray squirrel management recommendations in forest treatments. Follow recommended stand characteristics (primary/secondary habitat). Complete at least two WGS surveys prior to treatment.	All	# of surveys per project	Primary: Forester Secondary: WLA Manager and WL District Biologist	- Forester, WLA manager and WL District Biologist will develop appropriate thinning prescriptions for those active management units in suitable western gray squirrel habitat. - Forester, WLA manager and WL district biologist will conduct squirrel surveys in the spring prior to all thinning projects. - Forester, WLA manager and WL district biologist will conduct pre-thinning squirrel surveys in early fall prior to commencement of thinning operations. - WLA manager and WL district biologist will conduct additional follow up as necessary to determine squirrel response/usage patterns post-harvest.
4.	Maintain and enhance the Oregon white oak woodlands.	A. Address oak habitat protection when implementing KWLA Forest Management and grazing plans. (Manage for oak savannah, pure oak, oak/conifer and oak snags.)	All	White oak stem density by height class	Primary: Range Ecologist Secondary: Forester	- Monitor oak height classes to ensure that oak recruitment is occurring over appropriate time scales. - Monitor associated understory and coniferous vegetation to detect potential correlations. - Standardize these procedures across grazing permits.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
5.	Recover western gray squirrel populations in and around the wildlife area to healthy, self-sustaining levels.	A. Develop WGS habitat maintenance partnerships with local landowners. Engage in potential landscape management strategy process (SDS Timber Co).	Soda Springs, Fisher Hill, Dillacort Canyon, Sondino Ponds, Mineral Springs	# of partnerships developed per year.	Habitat Bios	- Continue to work with SDS Timber Co and identify other properties with likely WGS populations and conduct surveys. - Work with willing landowners to implement habitat management plans to maintain and improve habitat for viable WGS populations. - In partnership with large industrial timber companies, develop landscape scale management plans for the protection of WGS populations.
		B. Participate in 3 year population status review monitoring program.	Soda Springs, Fisher Hill, Dillacort Canyon, Sondino Ponds, Mineral Springs	# surveys conducted over the next three years.	Primary: WL District Biologist Secondary: Science Division	- Coordinate district annual district hair tube project. - Conduct hair tube surveys as per Olympia protocol. - Report on activity annually for the duration of the project.
6.	Achieve species diversity at levels consistent with healthy ecosystems	A. Conduct survey for SGCN listed species (e.g. California mountain kingsnake, Lewis' woodpecker, western toad, white-headed woodpecker).	All	Species surveys completed every 2 years (y/n).	WL District Biologist	- Coordinate district priorities with Olympia Diversity Staff annually.
		B. Conduct an assessment of adding the Rowland Lake Access site to the wildlife area by 2018.	Sondino Ponds	1. Assessment conducted (y/n); 2. Recom-mendations made to Real Estate Division (y/n); 3. If Rowland Lake Access site it acquired, Real Estate will update the Land Information System database.	WLA Manager	- List of benefits and drawbacks to be developed by region staff, in consultation with Real Estate Division. - Region staff weigh benefits and drawbacks, and if change is beneficial, make recommendation to Real Estate Division to formally add Rowland Lake property to Sondino Ponds Unit. - Real Estate Division update Land Information System, if warranted.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
7.	Maintain and restore riparian and instream habitat for steelhead and salmon along Klickitat River.	A. Identify segments of the Klickitat River in need of restoration by 2021.	Soda Springs, Mineral Springs, Dillacort Canyon, Fisher Hill	1. Evaluate fish habitat quality along the river by 2019. Conducted (y/n); 2. Develop a strategy for restoration by 2021. Strategy developed (y/n) 3. Report on progress annually.	Primary: Habitat Secondary: Fish Bios	- Evaluate fish habitat quality along the river. - Identify segments of the river where restoration is desirable (using map and on-site analysis). - Identify and prioritize sites. - Explore alternatives for implementing corrective action at priority sites. - Develop timely response to impacts of stream-adjacent projects. - Develop plans for habitat restoration or enhancement based on funding opportunities and other resources. - Implement plans.
8.	Maintain and enhance big game and upland bird habitat.	A. Maintain water developments (e.g. guzzlers and ponds) to benefit all wildlife and enhance existing habitat.	Soda Springs Goldendale Hatchery Sondino Ponds	1. Inspect and maintain guzzlers annually; 2. Inspect ponds for water retention at least once every 3 years; 3. Repair structures as soon as possible after damage or significant decay is discovered	WLA manager	- Inspect and clean debris from guzzlers annually. - Repair damage to water retention structures as soon as possible.
		B. Maintain pheasant habitat for hunting on the Goldendale Hatchery Unit.	Goldendale Hatchery	# acres maintained per year.	WLA manager	- Meet with lease holder at least once annually to discuss any new issues relative to farming plan. - Inspect cultivated fields to ensure expected results are met. - Keep lease in active status by re-issuing a new lease when the old one expires.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
8.	Maintain and enhance big game and upland bird habitat.	C. Enhance pheasant hunting opportunities on selected sites, including the Klickitat Wildlife Area, by augmenting the pheasant population consistent with statewide plan.	Goldendale Hatchery	Coordinate 4 pheasant releases per year (y/n).	WL District Biologist	- Coordinate pheasant release schedule with KWLA Mgr, District and Olympia staff. - Coordinate with pheasant vendor, WDFW staff, and volunteers to implement releases on pheasant hunting sites. - Monitor quality of birds.
		D. Maintain deer forage plots annually.	Soda Springs	# of forage plots annually	WLA manager	- Plow and disk plots as appropriate for planned forage crops. - Sow seed for forage crops. - Control excessive weeds, add fertilizer, or add more seed to enhance perennial plantings as needed.
		E. Implement carnivore management as per state guidelines (e.g. cougar population objectives and harvest strategy).	All	Develop cougar harvest recommendations based on state guidelines (y/n).	WL District Bio	- Provide cougar harvest recommendations to Olympia Game Division Staff via hunting season recommendations. - Review harvest reports to evaluate whether management objectives are being met.
		F. Develop a monitoring process for documenting wild horse presence on the WLA and adjacent ownerships by 1/1/2017.	---	Monitoring plan developed (y/n).	WL District Bio	- Work with KWLA Mgr to develop spreadsheet of reported sightings and locations.
		G. Monitor health of deer population by following population trends, disease issues, and population demographics.	Soda Springs	3 seasonal surveys per year (y/n).	WL District Bio	- Coordinate and implement spring deer survey to assess winter survival of young deer. - Conduct post season buck surveys in December. (aerial). - Coordinate winter survey to estimate proportion of surviving bucks in population following fall hunts.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
8.	Maintain and enhance big game and upland bird habitat.	H. Develop and maintain at least 50 acres of fuel breaks to assist in control of wildfires every 2 years.	Soda Springs	1. 50 acres maintained (y/n); 2. # of acres of new fuel breaks developed every 2 years.	WLA Manager	- Monitor existing fuel breaks for maintenance needs. - Prioritize areas needing maintenance. - Implement maintenance work. - Evaluate strategic routes for new fuel break development. - Implement development of new fuel breaks as resources permit.
		I. Implement seasonal road closures annually to limit disturbance of wintering wildlife by vehicle traffic.	Soda Springs	Road closures implemented annually (y/n).	WLA manager	- Every year, close 4 road gates on November 1 each year. Open 3 of the gates April 15 the following spring. Open 1 gate in late spring, with timing to be determined by soil conditions. - Inspect closure areas as needed to ensure that objective is being met.
		J. Consider establishment of mountain quail in Klickitat County through re-introduction efforts by December 31, 2016.	All	# reintroduction sites identified	WLA District Biologist	- Coordinate feasibility of release on the wildlife area with headquarters staff. - Monitor Asotin County success and determine potential for release at Klickitat Wildlife Area.
		K. Minimize elk population increases per GMU 388 hunting objectives.	Soda Springs	Complete hunter harvest reports annually (y/n).	WL District Bio	- Monitor annual hunter elk harvest numbers. - Make recommendations annually to hunting season regulations as needed.
		L. Maintain or increase elk population as per GMU 578 hunting objectives. Manage to keep elk numbers at a stable level and monitor the population to address local issues in White Salmon drainage and Glenwood Valley.	Soda Springs Mineral Springs Dillacort Canyon Fisher Hill	Complete hunter harvest reports annually (y/n).	WL District Bio	- Monitor annual hunter elk harvest numbers. - Make recommendations annually to hunting season regulations as needed.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
9.	Manage wolf-livestock conflicts to minimize livestock losses, while not impacting the recovery of a sustainable wolf population.	A. Follow statewide guidelines for wolf management. If a pack is established around the WLA, evaluate adaptive management as per statewide planning.	All	1. Document sightings (y/n); 2. Conduct follow-ups as needed.	WL District Bio	- Work with Conflict Staff to document viable wolf sightings as per public and WDFW reports. - Set cameras as needed to verify individual and wolf pack presence based on signtings/reports.
10.	Maintain productive and positive working relationships with neighbors, partners, and permittees.	A. Maintain current grazing permits.	Soda Springs Fisher Hill	# of permits	WLA Manager	- Monitor rangeland for trends in overall plant community health as well as short-term impacts. - Monitor water sources for adequacy. - Maintain infrastructure such as roads, gates, fences, signs, etc. as appropriate. - Maintain records of observations and livestock use. - Talk with permittees at least once annually to discuss needs and coordinate work. - Renew permits upon expiration, where appropriate.
		B. Minimize trespass by unpermitted livestock.	All	# trespass cattle occurrences per year.	WLA Manager	- Monitor wildlife area lands for unpermitted livestock. - Respond to reports from the public regarding livestock on property. - Contact owners and arrange for prompt removal of animals. - Work with law enforcement to remedy persistent or recurring problems.
		C. Conduct monitoring with range ecologist annually.	Soda Springs Fisher Hill	Monitoring conducted (y/n).	WLA Manager	

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
10.	Maintain productive and positive working relationships with neighbors, partners, and permittees.	D. Maintain agriculture leases to benefit wildlife.	Soda Springs	Maintain existing permits per year (y/n).	WLA manager	- Meet with lease holder at least once annually to discuss any new issues relative to farming plan. - Inspect cultivated fields to ensure expected results are met. - Keep lease in active status by re-issuing a new lease when the old one expires.
		E. Clarify role of WDFW in joint management agreement with Bureau of Land Management pertaining to BLM lands by 2017.	Soda Springs Dillacort Canyon Mineral Springs	1. Invite BLM Staff to WAAC meetings (y/n); 2. Revise MOU by 2017.	WLA manager	-Discuss management roles with regional BLM staff. - Document progress in Management Plan Update. - Wildlife Area Manager and Wildlife Regional Program Manager meet with BLM staff to negotiate MOU.
11.	Support and maintain appropriate recreational opportunities.	A. Limit camping along the Klickitat River to established campgrounds by 2016.	Soda Springs Mineral Springs	1. Develop education outreach program (y/n); 2. Place signs advising visitors of where camping is restricted by December 31, 2016 (y/n); 3. Increase enforcement patrols in areas of concern (y/n).	WLA manager	- Develop handouts for public distribution explaining the purpose of the restrictions. - Talk with fishing guides and other visitors about the restrictions and their purpose. - Post signs prominently at points of public entry. - Post signs on the riverbank where camping has been known to occur. - Wildlife Area staff work with enforcement to increase patrols on river.
		B. Maintain fishing opportunities at the Klickitat Wildlife Area.	Goldendale Hatchery	3,000 rainbow stocked per year at Spring Creek (y/n).	Fish Program	- Stock 3,000 rainbow trout into Spring Creek annually.
		C. Replace the Stinson Flats boat ramp by 2018.	Soda Springs	1. Engineer design completed (y/n); 2. Apply for funding (y/n); 3. # permits completed	Primary: Access Program Secondary: Fish and Habitat programs.	- Coordinate engineer design with Capital Asset Management Program. - Research grant options. - Coordinate permits with Habitat Program. - Schedule work with contractors.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
11.	Support and maintain appropriate recreational opportunities.	D. Assess exposure for golden eagles to lead contamination due to recreational shooting by 2017.	Soda Springs	1. Identify and document locations through casual observations, completed (y/n).	Primary: WLA manager Secondary: WL District Biologist	- Document where high use target shooting sites are occurring in close proximity to golden eagle sites. - Monitor use of sites. - Provide information to District Biologist for consideration of non-lead ammunition requirement on the wildlife area.
		E. Support Washington State Parks' effort to improve access to the Klickitat Trail near the Swale Creek Unit.	Swale Creek	Provide support to State Parks for application for land acquisition funding, as needed. Completed (y/n)	Primary: WLA manager Secondary: WL District Bio	- Communicate with State Parks' project manager to discuss what assistance WDFW can provide.
		F. Support WDFW access site managers in control of weeds at campgrounds (noted in 1D). Implement Weed Management Plan for the following access sites: Leidl Park, Stinson Flat, Mineral Springs, and Turkey Hole.	Mineral Springs, Soda Springs Dillacort Canyon	# acres treated.	WLA Manager	- Monitor weed infestations and treat in a timely fashion to reduce weed population. - Inspect sites for new infestations. - Respond to reports from knowledgeable observers, as appropriate.
		G. Evaluate options for acquiring suitable lands to serve hunters with disabilities. Develop strategy for prioritizing potentially suitable properties by 2019.	--	List developed (y/n).	WLA manager	-Develop list of desirable property characteristics. - If funding seems feasible, identify properties that might be suitable. - Approach landowners to learn their interest in land sale.
		H. Develop a feasibility study for development of low impact shooting range facility on the wildlife area by 2020.	--	Apply for land acquisition grants for this specific purpose (y/n).	WLA manager	- Develop a list of desirable property characteristics. - Identify properties that might be suitable. - Approach landowners to learn their interest in land sale. - If suitable property is identified and landowner is interested, pursue funding for acquisition.

Table 8: Klickitat Wildlife Area Goals, Objectives, and Performance Measures

Goal		Objective	Unit	Performance Measure	Lead	Tasks
12.	Offer multiple and varied opportunities for stakeholder participation and engagement.	A. Coordinate and maintain a Wildlife Area Advisory Committee.	--	# of meeting(s) per year.	WLA Manager	- Set up meeting time and place based on group members' availability. - Draft agenda with attention to group interests and time constraints. - Hold meeting and collect group comments and recommendations for consideration relative to future management actions (proposed or ongoing). - Include meeting notes in wildlife area management plan updates and website.
		B. Coordinate communication with community groups about current wildlife area management activities.	--	# of groups/ constituents contacted	WLA Manager	- Provide KWLA information to local organizations, through email, telephone calls, community group meeting attendance and presentations, and written notices and newsletters.
		C. Provide opportunities annually for the public and other stakeholders to volunteer on the Klickitat Wildlife Area.	--	1. # of volunteers; 2. # of volunteer hours; 3. # of volunteer projects on site.	WLA Manager	- Identify need that may be suitable for volunteer assistance - Match volunteer skills to project need and coordinate with volunteers to set up project - Implement project - Record accomplishments, and document volunteer hours if possible
13.	Maintain safe, highly functional, and cost-effective administration and operational facilities and equipment.	A. Document sensitive areas on the wildlife area (cultural resources, sensitive habitat, buildings and fire breaks) for fire protection.	All	Locations documented (y/n).	WLA Manager	

Appendix B. Klickitat Wildlife Area Forest Plan

Klickitat Wildlife Area

Forest Management Plan

Prepared by:

Rod Pfeifle
WDFW Statewide Forester

August 11, 2016

PURPOSE

The purpose of this Forest Management Plan is to discuss forest management strategy specific to the Klickitat Wildlife Area. This will be accomplished by using information, policies and procedures consistent with the statewide WDFW Forest Management Plan. The statewide plan describes agency forest types, management issues associated with them and criteria for identifying suitable active management areas. This document focuses on site specific-information related to identifying forest management needs and priority habitats found on the Klickitat Wildlife Area.

GOALS

The goals of this forest management plan are to:

- Describe the procedure for developing an assessment of the timbered portion of the wildlife area
- Describe forest types found in the timbered portion of the wildlife area
- Describe current successional classes found on the timbered portion of the wildlife area
- Describe current disturbance regime (wildfire suppression and timber management practices) and historic fire return intervals found on the timbered portion of the wildlife area
- Describe current ecological integrity ratings and the departure from historic stand conditions found on the timbered portion of the wildlife area
- Describe threats and the potential for further decline in ecological integrity ratings on the timbered portion of the wildlife area
- Describe the urban interface dynamic and how that will influence the management strategy on the timbered portion of the wildlife area
- Describe the desired future condition of the timbered portion of the wildlife area and how active management can be used to achieve that goal
- Describe the procedure for identifying stands (assessment process) suitable for active management given operational and economic constraints
- Describe the procedure for proceeding with suitable projects

FOREST ASSESSMENT

Current forest assessment data for the wildlife area is limited to initial assessments completed by forester Jim White a few years ago. GIS analysis indicates that there are approximately 10,965 timbered acres found on 5 units of the Klickitat Wildlife Area. The majority of those timbered acres are found in the Soda Springs Unit. Figures 1-A and 1-B show the location of the units and the general distribution of forested acreage on the wildlife area. The Goldendale Hatchery and Swale Creek units, comprising approximately 8 acres of deciduous riparian forest, have been excluded from the assessment. This initial assessment is only intended to identify timbered acreage and potential timber management needs on the wildlife area.

The next step in the assessment process will be to create stands or management units using various criteria including ecological integrity ratings, species composition, age distribution, stocking levels, presence of streams and/or wetlands, operability and accessibility. In most cases, the stand polygons will be based upon several of those criteria. Once stands have been created, they will be further subdivided into one of three categories including:

a. Forest Areas That Don't Currently Need Treatment
    i. In good shape and assumed to stay good
    ii. Degraded but naturally recovering
    iii. Re-assess periodically for changes in stand condition
b. Forest Areas That Need Treatment and Can Be Treated
    i. Periodic actions in perpetuity
    ii. One time intervention
    iii. Re-assess periodically for changes in stand condition
c. Forest Areas That May Need Treatment But Can't Currently Be Treated
    i. Timber rights not owned (DNR Leases an existing GIS layer)
    ii. Deed restrictions (WLA managers will need to tell us)
    iii. Priority species restrictions (Owl circles, goshawk nests, etc.)
    iv. Roadless area
    v. Steep Slope
    vi. Unstable slopes (DNR maps + known)
    vii. Stream or wetland buffers (where preclude manageable units)
    viii. Poor growing site
    ix. Re-assess periodically for changes in stand condition

More intensive "walk through" assessments will be completed on those stands expected to have a low to moderate ecological integrity rating that can and need treatment. However, those stands that need treatment and currently can't be treated will also be

looked at to verify the initial assessment. It is important to realize that the three categories described above may change over time.

After walk through assessments have been completed, those stands that need treatment and can be treated will be considered as possible candidates for active timber management. These stands will be compiled into timber stand improvement projects. The purpose of these projects will be to improve stand conditions and ecological integrity ratings. As projects are developed and put into an action plan, assessment plots will be used to get a better idea of stand characteristics and develop a draft silvicultural prescription. Those areas that need treatment and can be treated will be the primary focus of this forest management plan.

An integral part of the entire inventory process will be to work closely with wildlife area staff from the initial stand delineation phase through the field verification stage.

Figure 1-A Soda Springs Unit

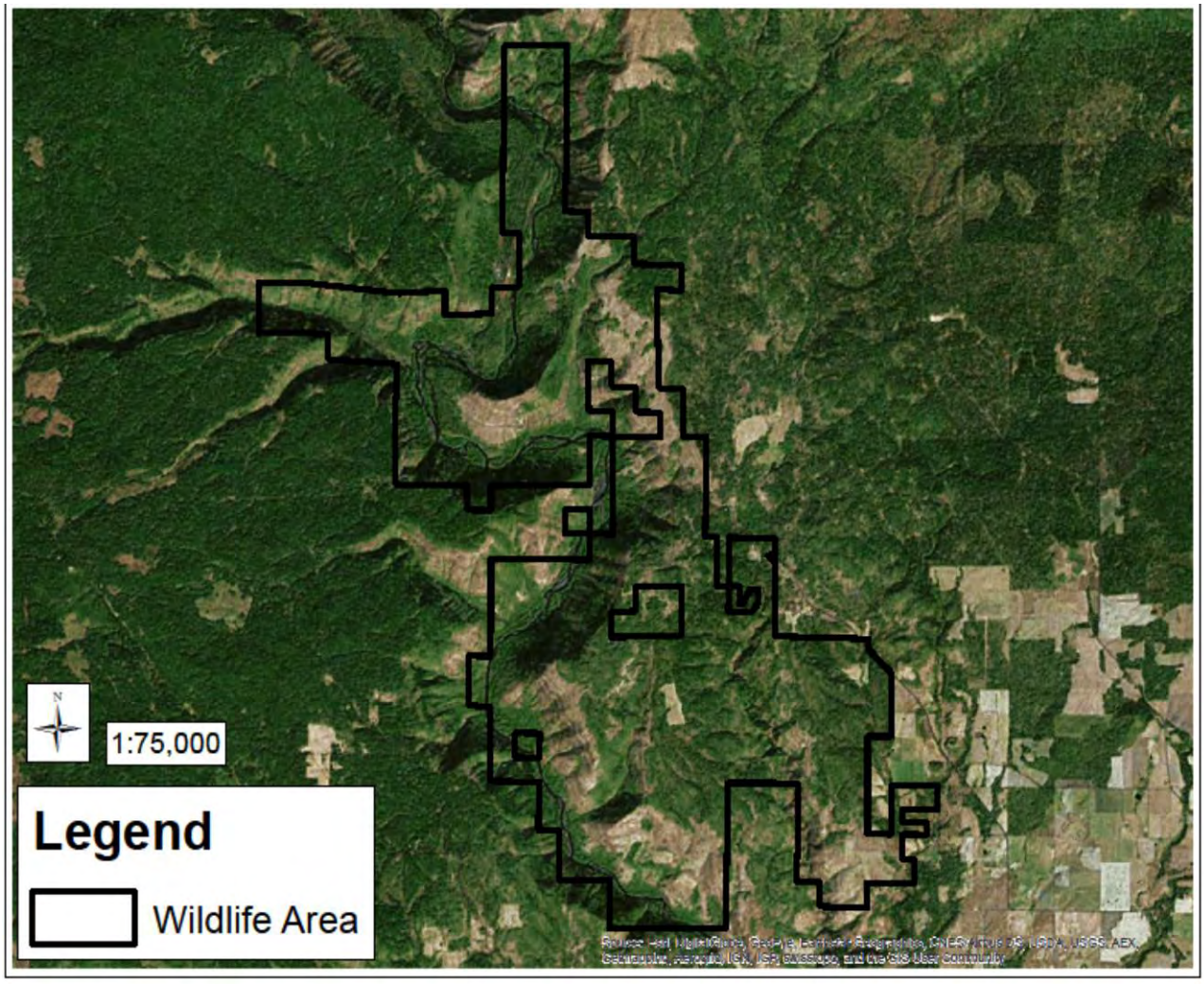
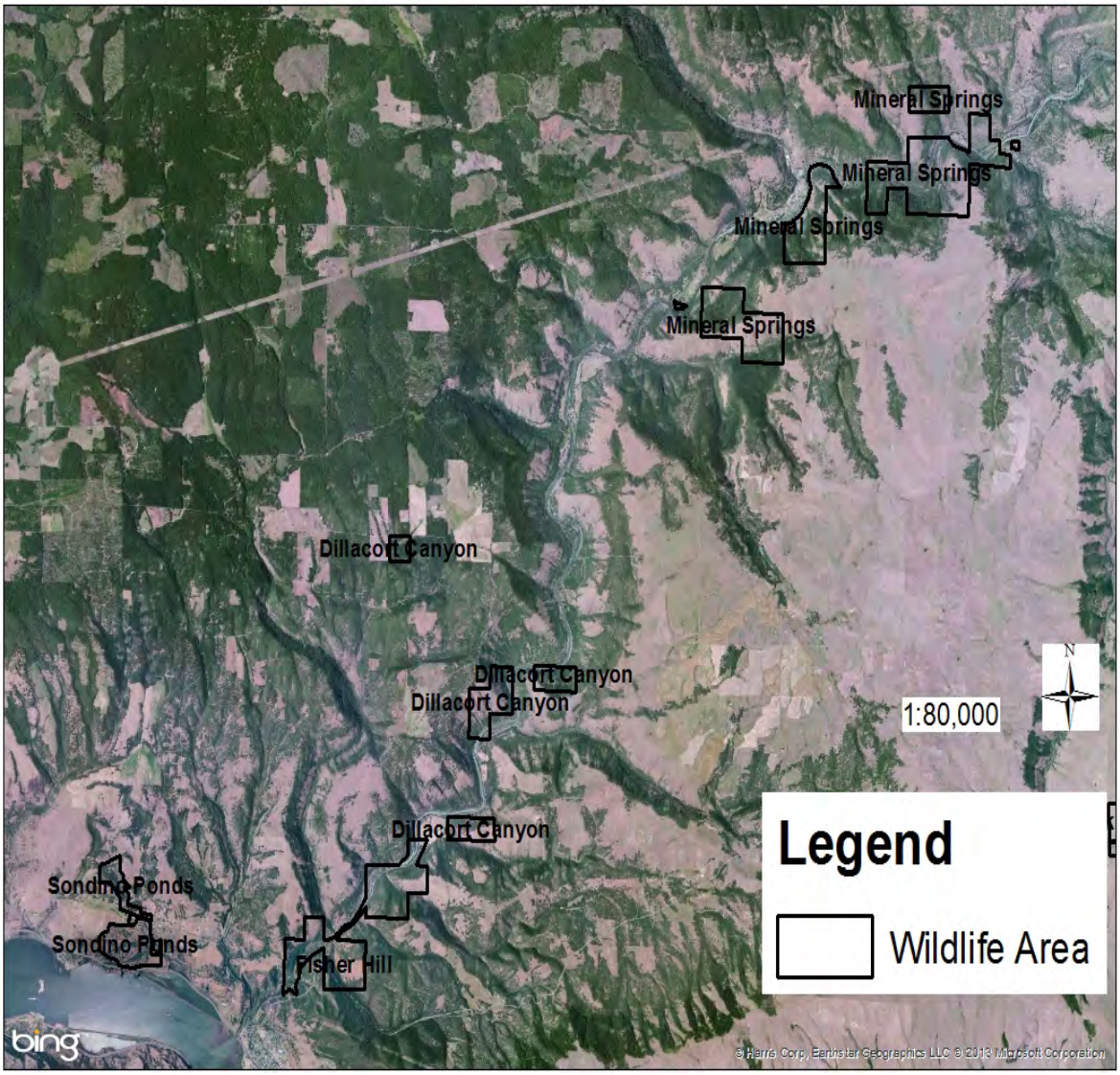


Figure 1-B Mineral Springs, Dillacort Canyon, Sondino Ponds and Fisher Hill Units.



FOREST TYPES

Figures 2-A and 2-B show the distribution of forest types based on data downloaded from the Landscape Fire and Resource Management Planning Tools (LANDFIRE) web site. LANDFIRE is a shared program between the wildland fire management programs of the U.S. Department of Agriculture Forest Service and U.S. Department of the Interior. LANDFIRE provides landscape scale geo-spatial products to support cross-boundary planning, management, and operations.

A total of 5 distinct forest types can be found on the KWA. It is unique in the fact that it is the only wildlife area with extensive oak woodlands. These oak woodlands are interspersed with dry type conifer forests predominately stocked with Douglas-fir and Ponderosa pine.

Figure 2-A Forest Type Distributions on the Soda Springs Unit.

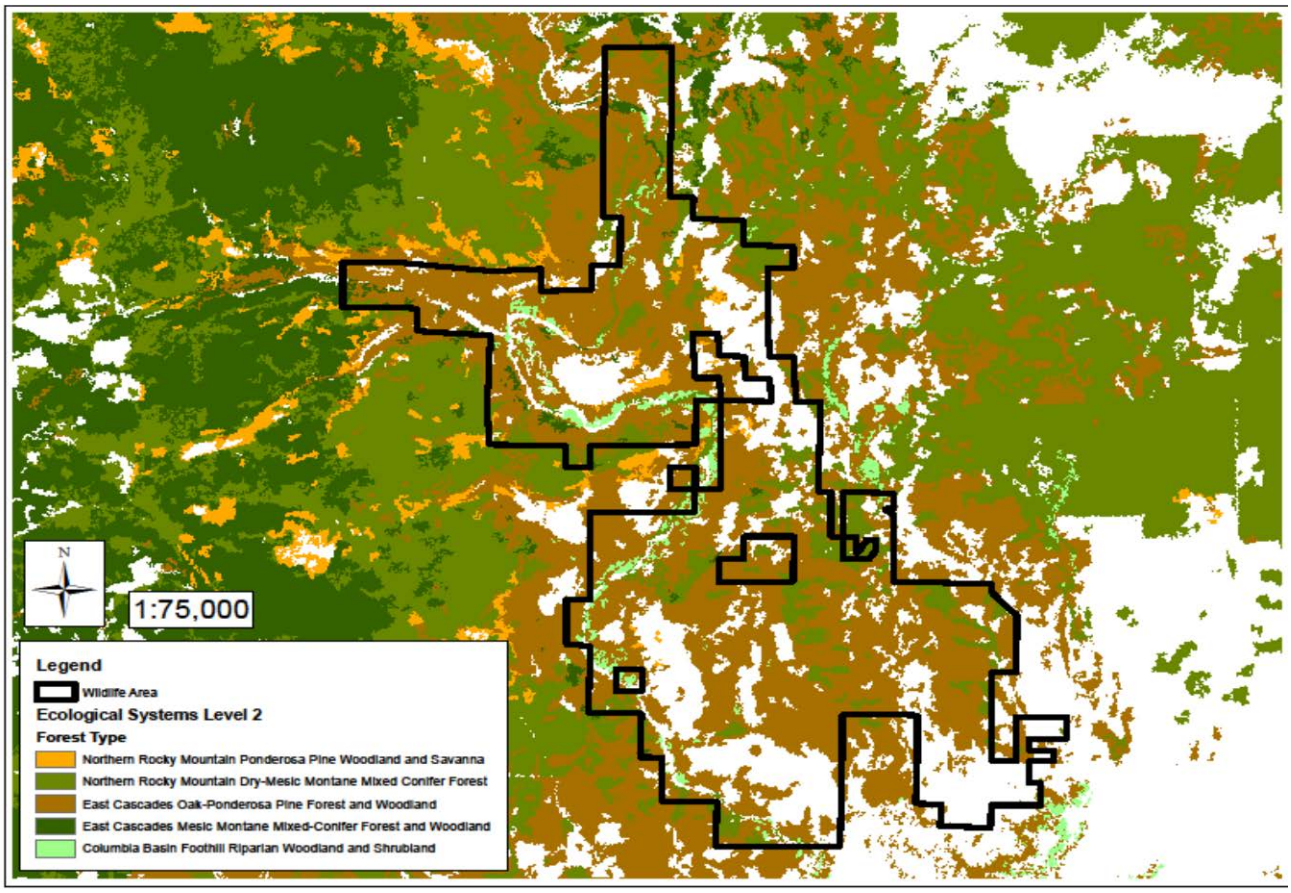
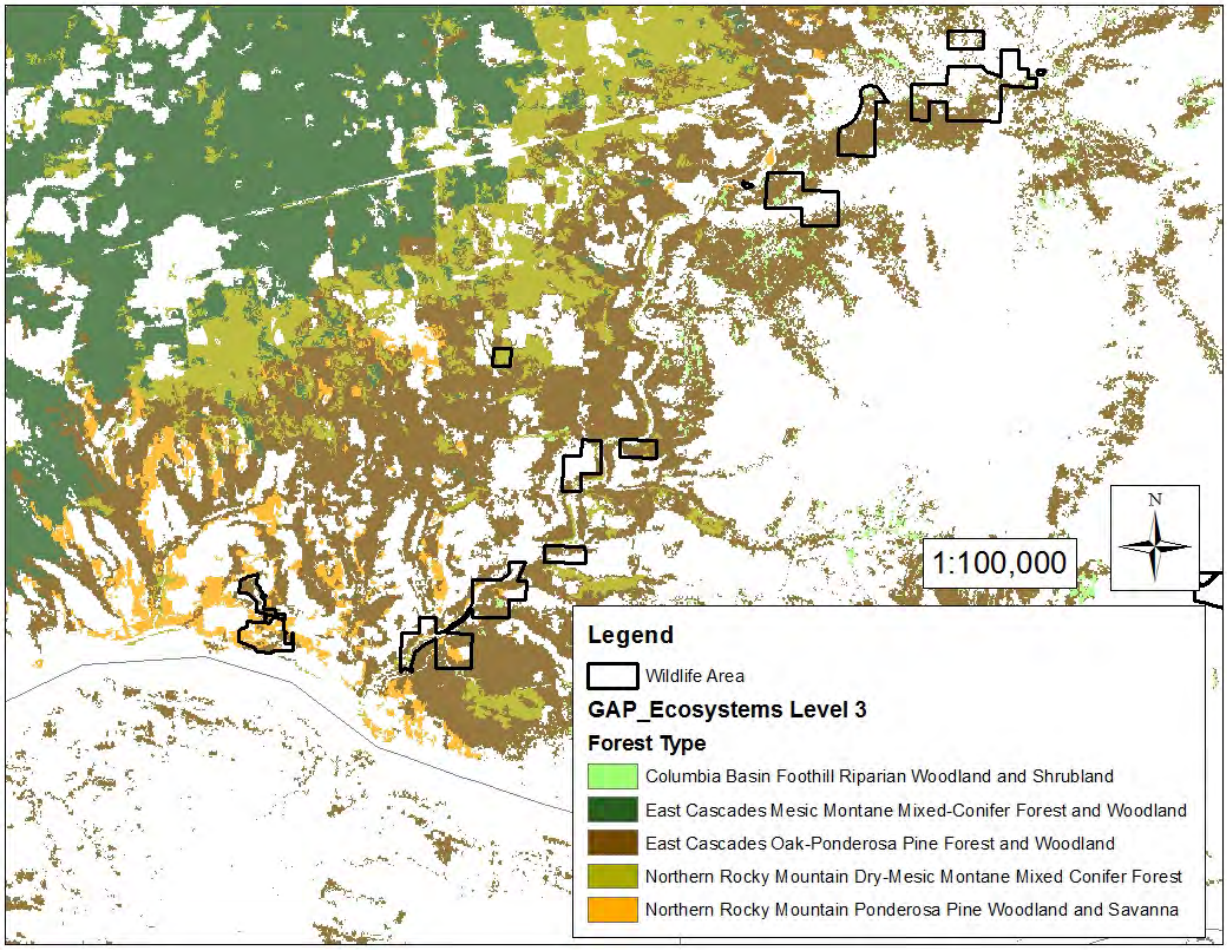


Figure 2-B Forest Distributions on the Mineral Springs, Dillacort Canyon, Sondino Pond and Fisher Hill Units.



Successional Classes

Successional classes on the wildlife area have been dramatically altered. While all forest seral classes are represented in the wildlife area, the proportions of each are not consistent with historic conditions. Aggressive fire suppression (and to some degree past logging practices) have greatly reduced the timber acres in a late seral open forest stand condition. Historically, approximately 1/3 to 1/2 of coniferous forests in the KWA were considered to be in this stand condition.

Active timber management activities can be used to increase the proportion of forested acreage into a late seral stand condition. Without active timber management (thinning and prescribed fire), it is unlikely that we will ever achieve historic stand conditions. Most likely, there will be a continued decline in forest health and ecological integrity ratings.

Disturbance Processes

Historically, wildfire was a prominent disturbance factor in maintaining forests on the wildlife area. These fires were very common in most of the forest types found throughout Eastern Washington with a fire return interval between 10 and 30 years. Frequent, low intensity fires helped to maintain a high proportion of open, late seral forest stands with large diameter trees. In the last century, aggressive wildfire suppression tactics and “high grade” timber harvests have resulted in densely overstocked stands with an overabundance of fuels.

The departure from a fire-dependent, no active management landscape to a strategy of aggressive wildfire suppression has resulted in declining forest ecological integrity ratings. This in turn has made the wildlife area much more susceptible to large scale insect outbreaks, pathogens and stand replacement wildfires. Bark beetle attacks, approaching epidemic proportions in areas, have resulted in significant mortality of ponderosa pine over the last 15 years. Pockets of standing snags, prevalent on the landscape after a significant bark beetle attack, have dramatically increased the fuel load on the wildlife area that could increase the risk of a stand replacement fire.

Ecological Class Ratings

One of the consequences of changing disturbance processes has been a moderate to high departure from historic condition classes. As such, most stands (particularly in the Soda Springs Unit) have low to moderate ecological integrity ratings. These lower ecological integrity ratings are due in large part to aggressive wildfire suppression tactics and past “high grade” logging activity. Those stands with a low to moderate ecological integrity rating will be good candidates for stand manipulation. In other words, those stands will be categorized as stands that would benefit from active management including thinning and prescribed fire.

Threats to Ecological Integrity

Historically, low intensity fires and active timber management kept stocking levels in check and created complex forest mosaics with a high proportion of fire-dependent, open stands. This mosaic included oak woodlands that are recognized as a priority habitat considered essential to the threatened western gray squirrel. Oak woodlands are dependent on frequent, low intensity fires that prevent oaks from being over topped and killed by conifers.

Without frequent fire or some other disturbance (including active timber management), forest stands gradually become overstocked and suppressed. Growth rates of suppressed trees decline dramatically. This in turn makes the stand more susceptible to large scale insect and/or disease outbreaks on an epidemic scale (See Figure 3).

Overstocked conditions can result in multiple canopy layers of trees. Ponderosa pine and Douglas-fir can seed into the understory of mature stands that will create an understory canopy layer over time. Frequent low-intensity fires would kill most of those trees, but fire exclusion has allowed them to become established and grow. The resulting understory canopy creates “ladder fuels” that can facilitate the ability of a ground fire developing into a crown fire. This in turn makes the stand more prone to intense wildfires that can quickly burn out of control.

Figure 3 Pockets of dead trees from bark beetle outbreaks.

Left unchecked by active management or fire, mortality from bark beetles will dramatically increase. A forest health model indicates that a large proportion of the timbered acreage within and directly adjacent to the Soda Springs Unit will see a substantial increase in bark beetle activity. Bark beetles feed on the cambium layer under the bark of ponderosa pine. If enough beetle hits are incurred, eventual mortality of the host tree is possible when the tree is girdled, causing stand conditions shown in Figure 3. Many of those dead trees end up on the ground within 3 years after mortality occurs.

Increased mortality from bark beetles could increase the risk of a stand replacement fire on the Soda Springs Unit. This type of fire could alter the structural diversity on the unit, resulting in even lower ecological integrity ratings. These intense fires could also result in widespread top-killing of large oak trees, known to be an important food source for western gray squirrels and other oak woodland species. Insect mortality in the southern units of the wildlife area is not anticipated to be as much of a threat.

Bark beetles are native to the area and an important part of the ecosystem. Endemic populations, which result in scattered snags on the landscape, provide an overall benefit to wildlife habitat. Increased beetle activity and mortality can occur from weather events such as drought or mild winters. However, over-stocked stands are probably most likely to create conditions that could result in an epidemic bark beetle outbreak. Active timber management and prescribed fire can reduce stocking levels and the threat of an epidemic bark beetle outbreak.

URBAN INTERFACE CONSIDERATIONS

Proximity of structures to the wildlife area, particularly along the eastern flank of the Soda Springs Unit, will be an important factor in determining stand management strategies. This will include the continued use of shaded fuel breaks and lower stocking levels within 500' of existing structures. Figures 4-A and 4-B show the location existing structures adjacent to the wildlife area.

Figure 4-A Structure locations adjacent to the Soda Springs Unit

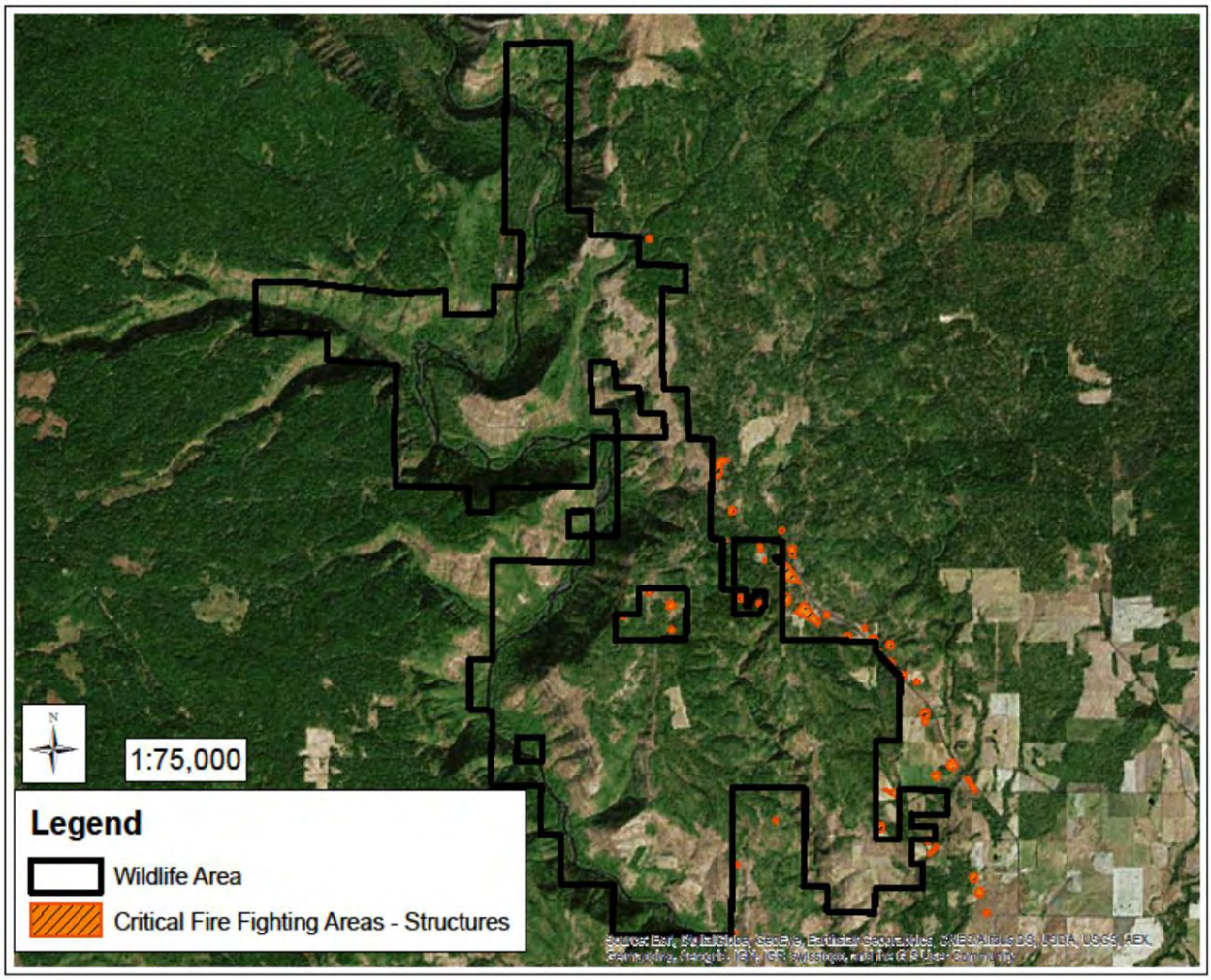
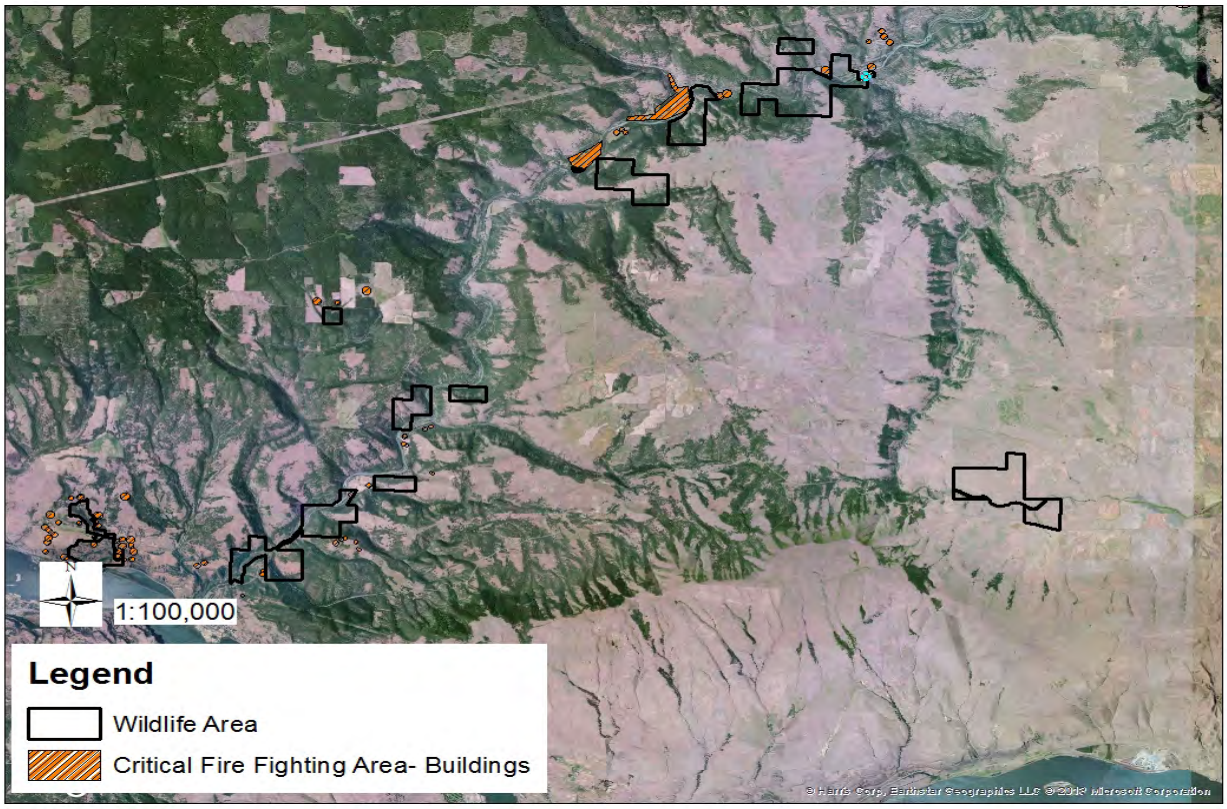


Figure 4-B Structure locations adjacent to Mineral Springs, Dillacort Canyon, Sondino Pond and Fisher Hill Units.



FOREST MANAGEMENT OBJECTIVES

The primary objectives on forested portions of the wildlife area will be to restore stands to historic stand conditions and improve overall ecological integrity ratings. Active management, using a variety of techniques, will be used to meet those objectives. Management activities will be consistent with WDFW's mission and forest management strategy. Strategies that will be used include shaded fuel breaks, commercial thinning, pre-commercial thinning, slashing, and prescribed fire. A combination of management strategies, completed over several years, will be required to restore stands to their historic range of variability.

Ecological Integrity

To the extent feasible, forests will be actively managed to restore them to historic ranges of variability in accordance with WDFW's Statewide Forest Management Plan. The presumption being that returning stands to their historic range of variability (in regard to species composition, stocking levels, stand structure, fuel loads and disturbance regimes) provides the greatest overall benefit for wildlife habitat and society. Returning theses stands to a condition that is much closer to the historic range of variability will require a combination of pre-commercial thinning, commercial thinning, slashing, planting and prescribed fire. Social and economic constraints will play a key role in deciding which treatment methods are appropriate for a particular stand.

Urban Interface Management Strategy

Areas that are directly adjacent to homes and other structures (urban interface) will require a somewhat different management strategy. Shaded fuel breaks and more aggressive commercial thinning strategies will be necessary to reduce the threat of wildfire in these areas. In many cases, this more aggressive approach will be consistent with ultimate goal of achieving a desired future condition similar to the historic range of variability. The difference being that instead of achieving that goal in 2 entries over a 20 year period, the desired future condition of 20 to 25 trees per acre may be achieved in the first entry. Thinning in stands dominated by ponderosa pine should occur in the fall or winter months when bark beetles are dormant, thus reducing the threat of increased bark beetle activity in the residual stand.

Suitable Management Areas and Potential Projects

Preliminary assessments of the wildlife area indicate that nearly all of the timbered portion of the Soda Springs Unit meets WDFW criteria for active timber management. However, there are many factors that may currently preclude active management including lack of access, operational constraints, habitat constraints, social constraints and economic constraints. Most of these forests were historically dependent upon frequent fires to maintain desirable stand conditions. However, it is unlikely that fire will be allowed to fully function as it did historically. Active forest management practices and prescribed fire (where feasible) are necessary tools to restore and maintain higher ecological integrity ratings. In most cases, active forest management is a necessary step to reduce fuel loads prior to developing a prescribed fire prescription.

Table 1 Forest Acres and Management Needs by Unit.

UNIT	FORESTED ACRES*	FOREST MANAGEMENT ACTIVITIES	MANAGEMENT ACRES*
Soda Springs	9,715	Approximately half of the timbered acreage may currently be suitable for active management. Actual acreage will be determined through the assessment process.	4,500
Mineral Springs	573	No active management necessary. Mature forest, insects not a significant problem, low moisture keeps conifers from displacing oak.	0
Fisher Hill	327	No active management necessary. Oak woodlands with little, if any, conifer encroachment.	0
Dillacort Canyon	180	No active management necessary. Oak woodlands with little, if any, conifer encroachment.	0
Sondino Ponds	163	No active management necessary, other that occasional conifer removal.	0
Goldendale Hatchery	4	No need for active forest management. Riparian forest.	0
Swale Creek	4	No need for active forest management. Riparian forest.	0
TOTAL	**10,966**		**4,500**

***Acreage estimates based upon GIS analysis. These numbers will change after completing the assessment and field verification process.**

Forests on the Mineral Springs, Fisher Hill, Dillacort Canyon and Sondino Ponds units would all benefit from prescribed fire. These units historically experienced frequent, low-intensity fires. However, actual treatment of these units is unlikely given social and economic constraints. There may be opportunity to do some mechanical treatments, including shaded fuel breaks, in these units.

Shaded Fuel Breaks

Approximately 100 acres of shaded fuel breaks have already been completed along well traveled roads and high fire risk urban interface property lines in the Soda Springs Unit. These projects have reduced the threat of a fast moving wildfire spreading from the wildlife area to adjacent private ownerships or vice-versa. These projects are a good first step in breaking up the fuel load and reducing the size and severity of wildfires. Follow up treatments in adjacent uplands will further reduce the wildfire threat.

Shaded fuel breaks will continue to be an important management tool in those areas that are adjacent to private property and within close proximity to structures. This will happen as funding and support staff is available. Active management of surrounding uplands will reduce the need for additional shaded fuel breaks.

Western Gray Squirrel Management Guidelines

Western gray squirrel habitat has been identified as a priority habitat by the agency. Management guidelines for western gray squirrel habitat will be an integral part of any project with western gray squirrel presence. The following guidelines, as found in the *Management Recommendations for Washington's Priority Habitat and Species: Western Gray Squirrel* will be used to develop prescriptions for stands in squirrel habitat areas.

Primary Gray Squirrel Habitat

In areas deemed as primary habitat, the following stand characteristics will be maintained:

- 75% or more conifer, 25% or less deciduous
- multi-layered and well-connected canopy (45-75 % canopy cover)
- At least 12 large conifers >16" dbh per 8 acres, preferably Ponderosa Pine, alternatively Douglas-fir;
- < 10% cover of native shrubs; and
- 50-80% ground cover of forest litter and/or moss.

Intensive use of primary habitat by Western Gray Squirrels makes its protection a high priority. Retaining uncut patches of primary habitat provides suitable nest sites and helps maintain important resources that are sensitive to disturbance (e.g., truffles). Primary habitat may be identifiable by a concentration of stick nests. Where knowledge of nest locations is lacking or inadequate, a survey of the site should be carried out to identify potential nest locations.

Disturbance of primary habitat should be limited to carefully-planned, small-scale habitat enhancement activities. Although intensive work within primary habitat is not recommended, a long-term hands-off approach may also be inappropriate, especially in dry forests or where fire suppression has increased wildfire risk. In these areas, enhancement and periodic maintenance is probably needed as long as it is carefully planned and carried out. Such activities should be limited to the removal of fine fuels (e.g., saplings, dense shrub cover, debris, invasive plants) through mechanical means or prescribed fire outside the breeding and nesting season.

Because primary habitat appears to be limiting at the landscape scale, the guideline of retaining at least 2 patches greater than 6 acres per 50 acres of potential (primary and secondary) squirrel habitat will be followed in areas identified as squirrel habitat.

Secondary Gray Squirrel Habitat

In areas deemed as secondary habitat, the following stand characteristics will be maintained:

- moderate canopy cover (26-75%) dominated by conifer where feasible;
- At least 12 large diameter (>16 in dbh) trees per 8 acres for food. These large trees should be dominated by conifer but also can consist of a mix of mast-producing species (in order of preference: Ponderosa pine, Douglas-fir, Oregon White Oak, Big Leaf Maple, and Oregon Ash);
- a diversity of large-seeded mast-producing tree species for food;
- a mix of age classes to ensure large trees are available for nesting and foraging; young trees contribute to canopy complexity and forest stand recruitment;
- <30% shrub cover

Gray Squirrel Breeding, Nesting, and Denning Requirements

The largest trees (>16” dbh) in the stand are potential nest/den trees and should be retained wherever possible within primary and secondary habitat. Large trees that connect with at least three surrounding tree crowns (<39” span), or that contain potential cavities, broken tops, and broken major limbs are prime candidates for retention. Nest trees located in primary habitat should be protected by a clearly-marked, permanent year-round 50’ radius buffer, if possible, to guard the nest tree from harm and to retain escape routes.

Retaining more than one potential cavity tree >16” dbh for each 12 acres of primary habitat and for each 37 acres of secondary habitat increases the likelihood that female Western Gray Squirrels can locate a suitable cavity for denning. Clusters of nests should be buffered and protected as a larger patch of protected forest.

In addition to the year-round buffers, seasonal buffers should be reserved around known nest trees to reduce the exposure of pregnant females and newly weaned young to potentially harmful activities. From March 1 to August 31, logging activities that may disrupt access to mates or young should not occur within 400’ of a nest. This distance is the approximate radius of occupied primary habitat in Klickitat County. Since activities producing sudden and irregular noise may impact squirrels when adults are rearing their young, such activities should be carefully timed to avoid disturbances during this sensitive period. For that reason, all active management activities within designated squirrel habitat will be restricted to the fall and winter from September 1 through February 28.

Western Gray Squirrel Forest Management Guidelines

Forestry in Western Gray Squirrel habitat that neglects to consider the needs of this species can greatly impact local populations. However, carefully planned forestry can have minimal impacts when the habitat needs of Western Gray Squirrels are accommodated. Forestry projects in squirrel habitat should promote healthy stands by protecting and enhancing key primary and secondary habitat features. Retaining habitat diversity (e.g., variable tree density, small canopy gaps, densely forested patches), rather than creating stand uniformity, is important to maintaining squirrel habitat. Although protecting nest sites is important, it is equally important not to focus habitat conservation solely on stands where nests are known to occur. Instead, forest management plans should also account for the needs of squirrels when planning the harvest of unoccupied stands that have the characteristics of primary and secondary habitat.

Variable-density thinning is the most appropriate method of timber harvest in Western Gray Squirrel habitat. This strategy should include the retention of more densely forested "skip" patches; enhancement of tree growth through thinning and by establishing small gaps; and the retention or creation of variable herbaceous, shrub, and tree canopy cover within a stand. Areas best suited for skip patches will have clusters of nests and/or characteristics of primary habitat. Maintaining adequate primary habitat is critical to the continued use of sites by Western Gray Squirrels. Prior to conducting a forest practice, areas of characteristic primary habitat should be identified. These areas should then be designated as limited-entry patches (primarily for fine fuel removal) within harvest units and should be managed to meet the needs of Western Gray Squirrels.

A western gray squirrel management strategy is being developed for the Soda Springs Phase 1 Thinning Project. Following is a summary of that marking strategy and the buffer area surrounding those trees:

- The nest tree shall be marked with orange paint with one complete band at eye level and one butt mark at the base of the tree on the downhill side. The unique nest tree identification number shall be marked in orange paint below the eye level mark on the uphill side of the tree.
- All trees within a 25' radius of the nest tree shall be retained as leave trees.
- A thinning from below, removing excess suppressed trees in the 6" to 10" DBH class, will be conducted in the zone between a 25' radius and 50' radius of the nest tree.
- Moving away from the 50' radius squirrel management buffer, those trees providing connectivity to other nest trees (primarily large open grown trees) will be selected to leave in addition to the trees already being left as part of the upland thinning strategy.

Snag Management Guidelines

Snags, sometimes referred to as Wildlife Reserve Trees (WRT's), provide critical habitat to a wide variety of cavity nesting birds and small mammals. Forest management strategy for the agency requires the retention of all snags unless they pose a threat to public safety (recreational users, contractors, etc.) or infrastructure (buildings, utility lines, etc.). State forest practices rules require the retention of at least 2 WRT's per acre for all activities requiring a forest practice application. However, it is the policy of this agency to leave all snags wherever feasible.

Most of the forested portion of the Klickitat Wildlife Area has an abundance of snags. Additional live trees with characteristics for snag recruitment (cavities, multiple tops, etc.) are designated to leave during the layout process on all forest improvement projects. Another strategy for immediate snag creation (in snag deficient areas) is to designate trees (at least 10 inches dbh) for topping by the contractor. Those trees, marked with 2 orange bands at eye level, will be at least 10 feet tall (or as high as the operator can safely reach with the harvester).

Oregon White Oak Management Guidelines

Unlike many other threatened habitat types, Washington oak habitat is transitional and requires active management. To mitigate for land practices that have left oak habitats degraded, treatment measures should be considered to enhance and improve oak woodland habitat. To mitigate for land practices that have left oak habitats degraded, treatment measures should be considered to enhance and improve oak woodland habitat. The following recommendations, found in *Management Recommendations for Washington's Priority Habitats: Oregon White Oak Woodlands* are made with the goal of restoring and enhancing oak habitat.

Thinning of oak stands will be considered, where appropriate, to enhance growth rates and vigor of the stand. Thinning should target the removal of trees in dense, even-aged oak stands. Carefully selected individual trees should be pruned or removed where over-shading threatens younger oaks and oak regeneration. Thinning should be employed with the goal of improving age-class and successional diversity. This practice should not result in the spatial decline of oaks. In oak woodland stands, 25% to 50% canopy cover will be maintained. In oak savannas (stands with <25% total canopy cover), the oak component will be maintained at 50% of the canopy cover (where possible). Very old or large oaks should not be removed. Thinning small diameter trees and release of large diameter trees will enhance acorn production.

Low-intensity, prescribed burns conducted on a regular basis (approximately 15- 20 year intervals) are encouraged to exclude Douglas-fir encroachment, stimulate vigorous sprouting, and contribute to multi-aged stands. Maintenance fires should be conducted at more frequent intervals (every 3 to 5 years) in those areas with serious Douglas-fir encroachment and high fuel loads. Less frequent maintenance fires (every 5 to 10 years) are recommended in those areas where oak sapling growth success is critical or in areas where fuel loading is not a problem.

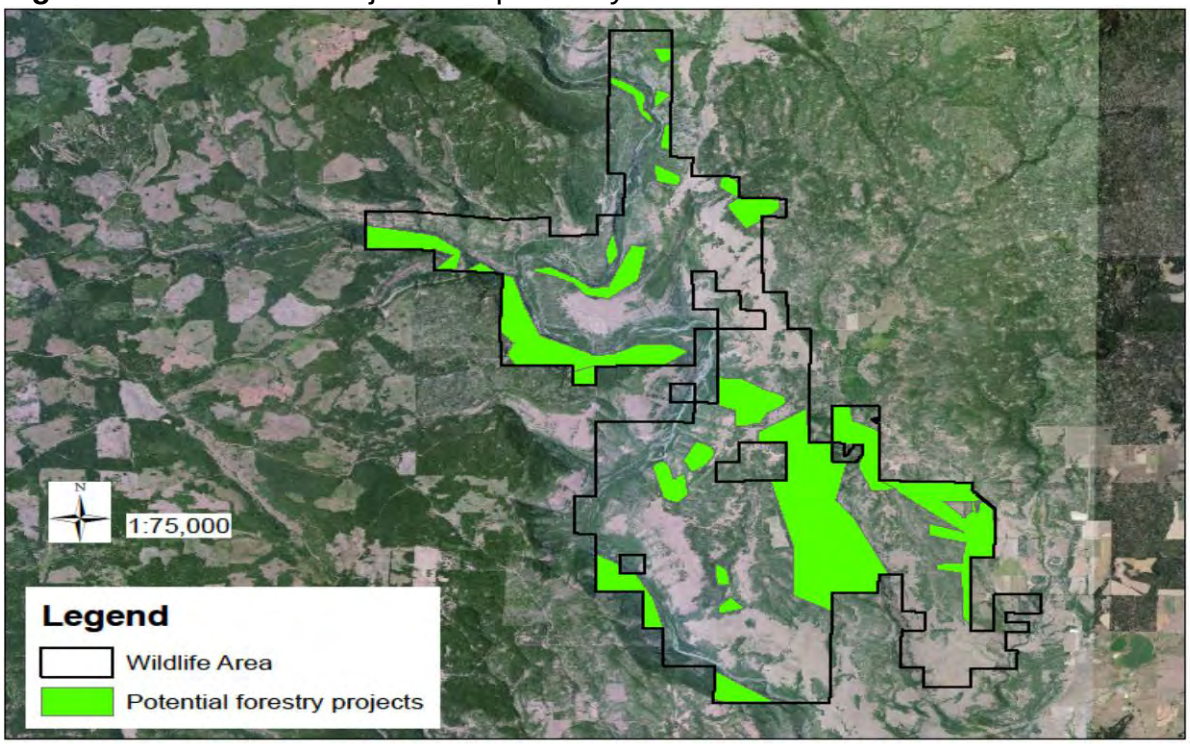
Fire has been an integral component of oak ecology. Oaks, beyond the sapling stage, are highly resistant to fire. Fire targets herbaceous ground cover and Douglas-fir, the latter of which typically encroaches on and impedes oak regeneration. Ponderosa pine is a fire-resistant conifer species found throughout the wildlife area. Generally speaking, ponderosa pine stands are not negatively affected by low-intensity fires. Vigorous restoration, including the use of prescribed fire, may be appropriate in areas with severe Douglas-fir encroachment. (2)

Potential Forest Management Projects

The Klickitat Wildlife Area has an over-abundance of mid-seral closed forests and some late-seral closed forests. These forest types are highly vulnerable to insects and/or wildfire. Forested areas, where operationally and economically feasible, should be commercially thinned to begin the process of restoring open forest structure throughout the unit. Pre-commercial thinning projects, shaded fuel breaks and prescribed fire will also an integral part of the long term forest management strategy where active management is appropriate and feasible. Projects will be designed to maintain or enhance habitat for western gray squirrels and oak woodlands, taking into account other factors including urban interface considerations.

As stated above, the first part of the process is to complete an assessment of potential stands. This assessment has been started on the Soda Springs Unit by Jim White. Jim was a temporary employee for WDFW hired to complete an initial assessment of the Soda Springs Unit for potential forest restoration projects. Figure 5 shows the location of those assessment areas.

Figure 5 Assessment Project Completed by Jim White



Stand Assessment & Project Identification Process

- Identify potential Forest Management Units (FMU's), expected to have a low to moderate ecological integrity rating, using GIS and local knowledge
    - Create polygons in GIS
    - Have polygons reviewed by Wildlife Area Manager (or their designee)
    - Modify or edit polygons after getting feedback from wildlife area staff
- Categorize those FMU's into one of 3 management categories
    - Forest Areas That Don't Currently Need Treatment
    - Forest Areas That Need Treatment and Can Be Treated
    - Forest Areas That May Need Treatment But Can't Currently Be Treated
- Field verify potential FMU's (walk through) to make sure that the initial assessment is correct
    - Complete a walk through assessment of polygons , including an ecological integrity rating score sheet
    - Look for operational constraints such as access, topography, RMZ buffers and wetland buffers that could limit or preclude active management
    - Can enough units be assembled into a viable restoration project?
- After the walk through assessment, complete a more thorough pre-project inventory of FMU's (if necessary), including plots, to use in project development
    - Cruise of merchantable trees (6" + dbh)
    - Cruise of non-merchantable trees (<6" dbh)
    - Notes on forest health issues (bark beetles, root rot, etc.)
- After doing a walk through assessment and inventory (if necessary) of viable project FMU's, develop a project map and draft prescription for the District Team for review and comments
- If the District Team approves of the project, proceed with
    - Request for western gray squirrel nest survey (spring of proposed project year)
    - Cultural resources survey request
    - ESA consultation process (section 7)
    - Meeting with prescribed fire team lead (if necessary) to decide how to incorporate prescribed fire and/or slash treatments into the final prescription
    - Development of a final prescription after getting feedback from District Team
    - Submitting the proposed project to Wildlife Program staff for presentation to Wildlife Commission
- Begin layout process
    - Type streams and wetlands using Forest Practices protocols
    - Layout project unit boundaries
    - Layout RMZ and WMZ buffers
    - Mark trees according to guidelines set forth in the final prescription
    - Cruise cut and leave trees

- Concurrently, begin paperwork process including preparation of
    - FPA
    - SEPA
    - Logging RFP and Contract
    - Log sort advertisements and contracts
- Schedule a pre-operational gray squirrel survey
- Schedule/advertise sale in the fall after gray squirrel nesting season and hunting season(s)
- Throughout the process and for the first few years after the initial treatment, assess the potential and need for follow up treatments including
    - Weed assessments and treatment as necessary
    - Prescribed fire
    - Slashing
    - Pre-commercial thinning
    - Tree or shrub planting
    - Next commercial entry
- Develop a monitoring plan to determine the impact of the treatment on squirrel populations.
- Continue to conduct surveys and use management strategies to maintain the historic range of variability as much as possible.

Project Timeline

TASK	COMPLETED BY	DAYS REQUIRED*	DATE
Identify FMU's	Lead Forester	2	
Field Verification of Proposed FMU's	Lead Forester	2	Summer before sale date
Prescription Inventory of FMU's	Lead Forester	2	Summer or fall before sale date
Develop Project Map & Preliminary Prescription	Lead Forester	2	Summer or fall before sale date
Present project to District Team	Lead Forester & District Team	1	Winter before sale date
Western Gray Squirrel Survey	Lead Forester & Habitat Staff	10 acres/day	Spring before sale date
Cultural Resources Survey	Lead Forester & Archaeological Staff	20 acres/day	Spring before Sale date
Section 7 Consultation	Forester	1	Spring/summer before sale date
Prescribed Fire Consultation	Forester & PF Lead	2	Spring/summer before sale date
Develop Final Prescription	Forester	1	Spring/summer Before sale date
Submit Proposal to Wildlife Commission	Forester & Wildlife Staff	2	Spring/summer before sale date
Type Streams & Wetlands	Foresters & Klickitat Staff	Variable	Spring/summer before sale date
Unit Boundary Layout	Foresters & Klickitat Staff	Variable	Spring/summer before sale date
RMZ/WMZ Layout	Foresters & Klickitat Staff	Variable	Spring/summer before sale date
Mark Trees	Foresters & Klickitat Staff	Variable	Spring/summer before sale date
Timber Cruise	Foresters & Klickitat Staff	Variable	Spring/summer Before sale date
Complete Paperwork	Lead Forester	5	Spring/summer Before sale date
Schedule/Advertise Sale	Lead Forester & Klickitat Manager	1	Spring/summer Before sale date
Western Gray Squirrel Survey	Lead Forester & Habitat Staff	Variable	Fall of sale date
Begin Mechanical Operations	Lead Forester & Contractor	Variable	Fall after hunting seasons
Assess Follow Up Treatment Needs	Lead Forester & Klickitat Manager	1	Every Spring
Western Gray Squirrel Survey	Habitat Staff	Variable	Every Spring**

***Estimate based upon typical restoration project**
****Every year until project is deemed successful and then as needed**

Moving forward, the goal will be to complete 1 forest restoration/thinning project every year during the next 10 year planning cycle. Each project will have its own unique prescription based upon wildlife habitat needs and stand conditions. However, all projects will share the following common goals:

- Reduce stocking levels and manipulate species composition consistent with mid to late seral stand conditions
- Maintain and eventually improve habitat for the western gray squirrel
- Maintain and improve eventually improve habitat for other wildlife species
- Improve forest health
- Treat urban interface areas
- Restore Oregon white oak stands

To accomplish these goals, most projects will closely follow the Individual, Clumps and Openings (ICO) thinning strategy found in "*The ICO Approach to Quantifying and Restoring Forest Spatial Pattern: Implementation Guide."* In essence, this strategy will create a mosaic generally considered to be prevalent in dry conifer forest types with a history of frequent fire. The preferred leave tree species for most projects would be ponderosa pine. Oak thickets will remain intact with encroaching conifer removed. Leave tree densities will generally range between 20 (**average** spacing of 45') and 40 (**average** spacing of 30') trees per acre post treatment.

SUMMARY

The objective, over time, is to restore timbered portions of the Klickitat Wildlife Area to historic stand conditions using a combination of strategies including commercial thinning, slashing, pre-commercial thinning, prescribed fire and tree planting. Over the next 10 year planning cycle, the goal will be to conduct one restoration/thinning project each year. Most stands will require at least 2 commercial entries before stocking levels are back within the historic range of variability. After achieving that objective, regular maintenance activities, using all of the tools described above, will be required to maintain those desired stand conditions and high ecological integrity scores. The over-arching umbrella for all active forest management activities will be to maintain or improve agency defined priority habitats for Oregon white oak and western gray squirrel habitat. This will all be accomplished using policies and procedures found in the WDFW Statewide Forest Management Plan and the Klickitat Forest Management Plan.

References

1. Linders, M. J., W. M. Vander Haegen, J. M. Azerrad, R. Dobson, and T. Labbe. 2010. Management Recommendations for Washington's Priority Species: Western Gray Squirrel. Washington Department of Fish and Wildlife, Olympia, Washington.

2. Larsen, E. M., and J. T. Morgan. 1998. Management recommendations for Washington’s priority habitats: Oregon white oak woodlands. Wash. Dept. Fish and Wildl., Olympia. 37pp.

Appendix C. Research and Other Studies

Table 9. Research and Other Studies

Name	Date	Description
Dennis Mackie, M.S. thesis, WSU	1981	Ecology of Merriam's turkeys in south-central Washington with special reference to habitat utilization
David A. Manuwal, UW, Wildlife Science Group	1989	Birds of the Klickitat National Scenic River Area
Jennifer Seavey, M.S., thesis, UW	1997	Nest site selection and nesting success of the ash-throated flycatcher in south-central Washington
David A. Manuwal, UW, Wildlife Science Group	1997	Neotropical bird communities in oak woodlands of south–central Washington
Scott McCorquodale, Yakama Indian Nation	1997	Ecology and management of migratory black-tailed deer in the Klickitat Basin of Washington
Mary Linders, UW Graduate student	1998-1999	Use of space and resource use by western gray squirrels.
Dr. Matthew Vander Haegen, WDFW	2000-2006	Population dynamics of western gray squirrels
Dr. Matthew Vander Haegen, WDFW	2000-2006	Patterns of nest use by western gray squirrels
Hannah M. Lucas, M.S., thesis, WWU	2007	Nest site selection for the western pond turtle in Washington.

Appendix D. Klickitat Wildlife Area Rare Plants

Table 10. Klickitat Wildlife Area Rare Plants Inventory

Taxon Name	Common Name	Washington State Listing Status	Units
Lomatium suksdorfii	Suksdorf's Desert Parsley	Sensitive	Soda Springs
Calochortus longebarbatus var. longebarbatus	Long-bearded Sego Lily	Sensitive	Soda Springs
Spiranthes porrifolia	Western Ladies' Tresses	Sensitive	Soda Springs, Sondino Ponds
Trichostema oblongum	Oblong Blue-curls		Soda Springs
Leptosiphon bolanderi	Bolander's Babystars	Sensitive	Soda Springs
Penstamon barrettiae	Barrett's Penstamon	Threatened	Soda Springs, Sondino Ponds
Heuchera grossulariifolia var. tenuifolia	Gooseberry-leaved Alumroot	Sensitive	Soda Springs
Ranunculus triternatus	Obsure Buttercup	Endangered	Mineral Springs, Swale Creek, Soda Springs
Eryngium petiolatum	Oregon Coyote Thistle	Threatened	Sondino Ponds
Hackelia diffusa var. diffusa	Diffuse Stickweed	Threatened	Soda Springs
Githopsis specularioidies	Blue Cups	Sensitive	Soda Springs
Myosurus clavicaulis	Mousetail	Sensitive	Swale Creek
Isoetes nuttallii	Nuttall's Quillwort	Sensitive	Sondino Ponds
Collinsia sparsiflora	Few-flowered Blue-eyed Mary	Sensitive	Sondino Ponds

Appendix E. Klickitat Wildlife Area Weed Control Plan

Weed Control Goals at Klickitat Wildlife Area

The goal of weed control on WDFW lands at Klickitat Wildlife Area (KWLA), which includes the Soda Springs Unit, Mineral Springs Unit, Dillacort Canyon Unit, Fisher Hill Unit, Goldendale Hatchery Unit, Swale Creek Unit, and the Sondino Unit, is to maintain or improve the habitat for fish and wildlife, meet legal obligations, and protect adjacent private lands.

To these ends, WDFW uses integrated pest (i.e. weed) management (IPM), which is defined in RCW 17.15.010 as "a coordinated decision-making and action process that uses the most appropriate pest control methods and strategy in an environmentally and economically sound manner to meet agency programmatic pest management objectives."

At the KWLA, WDFW's weed management objectives are:

1) **Wetlands and riparian areas** - Check sensitive wetlands and other wetlands prone to weed infestation annually for maintenance needs. Sensitive wetlands hosting state-listed western pond turtles and rare native plants are present on the Sondino Unit, and are subject to infestation by reed canarygrass and Himalayan blackberries. A creek heavily infested with reed canarygrass bisects the Goldendale Hatchery Unit. Scattered ponds on the Soda Springs Unit also sometimes develop patches of reed canarygrass. The Mineral Springs Unit and Soda Springs Unit have Himalayan blackberries, reed canarygrass, and everlasting peas within the riparian area along the Klickitat River. In an average year, about four acres of wetlands are treated, with reed canarygrass as the primary target. Reed canarygrss threatens to outcompete native plants in these eastern Washington perennial and vernal ponds, as well make access to fishing sites difficult. Other wetland weeds are treated approximately every other year, or when the infestation reaches an extent deemed to pose a significant threat to nearby areas.
2) **Access sites** - Check Leidl Park, Stinson Flat, Mineral Springs, and Turkey Hole sites annually for maintenance needs. Weeds such as diffuse knapweed, spotted knapweed, and sulfur cinquefoil at access sites pose a risk of spreading to new areas if not treated. It is estimated that up to five acres require annual maintenance.
3) **Oak woodlands and open grassland** - Check high risk areas and known trouble spots annually for maintenance needs. Areas that are adjacent to roads or are subject to heavy recreational use are considered high risk for infestation. Areas utilized heavily during grazing periods area also at an elevated risk for weed colonization. Upland areas on almost all of the units have known weed species that must be monitored. These species include yellow starthistle, everlasting peas, Dalmatian toadflax, oxeye daisy, Himalayan blackberry, Canada thistle, sulphur cinquefoil, cheat grass, medusahead, spotted knapweed, and diffuse knapweed. It is estimated that 10 to 15 acres requires some active management. Work volume varies annually due to factors including timing and volume of precipitation, impacts of trespass grazing or other disturbance, fires, unusual winter or summer temperatures for a long period, etc.

Weed Species of Concern on the KWLA:

Weed species of concern on the KWLA include but are not limited to: Dalmatian toadflax (*Linaria dalmatica* ssp. Dalmatica), diffuse knapweed (*Centaurea diffusa*), spotted knapweed (*C. biebersteinii*), yellow starthistle (*C. solstitialis*) everlasting pea (*Lathyrus latifolius*), reed canarygrass (*Phalaris arundinacea*), oxeye daisy (*Leucanthemum vulgare*), Medusahead (*Taeniatherum caput-medusae*), cheatgrass (*Bromus tectorum*), Himalayan blackberry (*Rubus armeniacus)*, Canada thistle (*Cirsium vulgare*), sulfur cinquefoil (*Pontentilla recta)*, woolly mullein (*Verbascum thapsus*), St. Johnswort (*Hypericum perforatum*), chickory (*Cichorium intybus*), fragrant water lily (*Nymphaea odorata*) and other, general weeds.

Weeds occurring on the KWLA and associated units are listed in Table 11. The table also describes the weed's classification, an estimate of the acreage affected by the weed, how many acres were treated, the relative density of infestation, the general trend the weed infestation has been exhibiting, the control objective and/or strategy for the weed and finally, which wildlife area units have the weed present.

Table 11. KWLA Weed Table Including the Weed Class and Unit Location on the Wildlife Area.

Weed Species	2014 County Weed Class	2013 Estimated Affected Acres	2013 Treated Acres	Qualitative Density	Annual Trend	Control Objective/Strategy	Wildlife Area Unit Weed Distribution (2005-2014)
Everlasting pea	n/a	3	0	Medium	Decreasing	Suppress population to greatest degree possible	Sondino Pond, Mineral Springs, Soda Springs
Blackberry	C	5	0	Low	Variable	Suppress population to greatest degree possible	Sondino Pond, Mineral Springs, Dillacort Canyon, Soda Springs
Reed canarygrass	C	10	2.7	High	Unknown	Suppress population to greatest degree possible	Sondino Pond, Mineral Springs, Soda Springs, Hatchery
Canada thistle	C-County Designate	2	0	Low	Variable	Suppress population to greatest degree possible	Soda Springs, Hatchery
Oxeye daisy	C	0.1	0.1	Low	Increasing	Eradicate	Soda Springs
Dalmatian toadflax	B	.5	0	Low	Unknown	Suppress population to greatest degree possible	Mineral Springs, Soda Springs
Medusahead	n/a	10	0.25	High	Unknown	Eradicate when found invading new sites	Soda Springs, Hatchery
Spotted knapweed	B	4	0	Medium	Unknown	Suppress population to greatest degree possible	Sondino Pond, Soda Springs
Diffuse knapweed	B	4	0	Medium	Unknown	Suppress population to greatest degree possible	Sondino Pond, Soda Springs
Yellow starthistle	B	0.2	0	Low	Stable	Eradicate	Sondino Pond
Cheatgrass	n/a	200	0.5	High	Unknown		Soda Springs, Mineral Springs, Dillacort Canyon, Fisher Hill, Hatchery, Sondino Pond
Sulfur cinquefoil	B	5	0	High	Unknown	Eradicate	Soda Springs
General weeds	n/a	1	1	Low	Decreasing	Control opportunistically	Hatchery, Dillacort Canyon, Swale Creek, Fisher Hill, Sondino Pond, Soda Springs, Mineral Springs
Fragrant water lily	C	0.2	0	High	Stable	Prevent invasion to new sites	Sondino Ponds
Chickory	n/a	10	0	Low	Unknown	Control opportunistically	Soda Springs, Hatchery, Sondino

B- Designate – legally mandated for control. In regions where a Class B & C species are abundant, control is decided at the local level, with containment as the primary goal.

Detailed descriptions and natural history information for each of the above state-listed weed species listed above can be found at the Washington State Noxious Weed Control Board web site http://www.nwcb.wa.gov/search.asp. Information on other species contained in the list can be found at the University of California's IPM Online web site: http://www.ipm.ucdavis.edu/PMG/weeds_intro.html.

Weed management information for individual weed species can be found at the PNW Weed Management Handbook link at: http://pnwhandbooks.org/weed/control-problem-weeds.

Appendix F. Documented Species on WLA/PHS Species of Concern List

Birds of the Klickitat Wildlife Area*

Pied-billed Grebe
Great Blue Heron
Canada Goose
Mallard
Gadwall
Green-winged Teal
American Wigeon
Northern Pintail
Northern Shoveler
Cinnamon Teal
Wood Duck
Ring-necked Duck
Common Goldeneye
Bufflehead
Common Merganser
Hooded Merganser
Sora
American Coot
Killdeer
Spotted Sandpiper
Common Snipe
California Gull
Turkey Vulture
Golden Eagle
Bald Eagle
Northern Harrier
Red-shouldered Hawk
Sharp-shinned Hawk
Cooper's Hawk
Northern Goshawk
Red-tailed Hawk
Rough-legged Hawk
Osprey
American Kestrel
Merlin
Peregrine Falcon
Prairie Falcon
Virginia Rail
Ruffed Grouse
Sooty Grouse
California Quail
Mountain Quail (Historic)
Chukar
Gray Partridge
Merriam's Turkey (Wild Turkey)
Band-tailed Pigeon
Eurasian collared dove
Rock Pigeon
Mourning Dove
Barred Owl
Great Horned Owl
Western Screech-Owl
Flammulated Owl
Northern Pygmy-Owl
Northern Saw-whet Owl
Common Poorwill
Common Nighthawk
Vaux's Swift
Anna's Hummingbird
Black-chinned Hummingbird
Calliope Hummingbird
Rufous Hummingbird
Belted Kingfisher
Northern Flicker
Lewis' Woodpecker
Red-breasted Sapsucker
Red-naped Sapsucker
Williamson's Sapsucker
Acorn Woodpecker
Black-backed Woodpecker
Downy Woodpecker
Hairy Woodpecker
Pileated Woodpecker
White-headed Woodpecker
Eastern Kingbird·
Western Kingbird
Ash-throated Flycatcher
Hammond's Flycatcher
Least Flycatcher
Olive-sided Flycatcher
Pacific Slope Flycatcher
Willow Flycatcher
Western Wood-Pewee
Gray Flycatcher
Dusky Flycatcher
Say's Phoebe
Horned Lark
Cliff Swallow
Northern Rough-winged Swallow
Tree Swallow
Violet-green Swallow
Barn Swallow
Gray Jay
Steller's Jay
Western Scrub Jay
Clark's Nutcracker
Black-billed Magpie
American Crow
Common Raven
Black-capped Chickadee
Mountain Chickadee
Chestnut-backed Chickadee
Bushtit
Brown Creeper
Pygmy Nuthatch
White-breasted Nuthatch
Red-breasted Nuthatch
House Wren
Bewick's Wren
Canyon Wren
Marsh Wren
Pacific Wren
Rock Wren
Golden-crowned Kinglet
Ruby-crowned Kinglet
Western Bluebird
Mountain Bluebird
Townsend's Solitaire
Swainson's Thrush
Hermit Thrush
Varied Thrush
American Robin
Northern Shrike
American Dipper
Cedar Waxwing
European Starling
American Pipit
Solitary Vireo
Red-eyed Vireo
Warbling Vireo
Nashville Warbler
Yellow-rumped Warbler
Black-throated Gray Warbler
Hermit Warbler
Orange-crowned Warbler
Townsend's Warbler
Yellow Warbler
MacGillivray's Warbler
Wilson's Warbler
Common Yellowthroat
Yellow-breasted Chat
Black-headed Grosbeak
Lazuli Bunting
Spotted Towhee
House Sparrow
Song Sparrow
Lark Sparrow
Chipping Sparrow
Dark-eyed Junco
Fox Sparrow
Golden-crowned Sparrow
Lincoln Sparrow
Savannah Sparrow
Swamp Sparrow
Vesper Sparrow
White-crowned Sparrow
Western Meadowlark
Pine Grosbeak
Red-winged Blackbird
Brewer's Blackbird
Brown-headed Cowbird
Bullock's Oriole
Western Tanager
Pine Siskin
American Goldfinch
Lesser Goldfinch
Red Crossbill
Rosy Finch
Purple Finch
Cassin's Finch
House Finch
Evening Grosbeak

* Bird list revisions were completed by Stuart Johnson (February 2016)

Mammals of the Klickitat Wildlife Area

Opossum
Masked Shrew
Vagrant Shrew
Dusky Shrew
Northern Water Shrew
Pacific Mole
Bats:
- California Myotis
- Little Brown Myotis
- Long-eared Myotis
- Long-legged Myotis
- Small-footed Myotis
- Yuma Myotis
- Big Brown Bat
- Hoary Bat
- Silver-haired Bat
- Western Big-eared Bat

Eastern Cottontail
Rocky Mountain Elk
Mule Deer
Black-tailed Deer
Black Bear
Raccoon
Short-tail Weasel
Long-tail Weasel
Mink
River Otter
Badger
Spotted Skunk
Striped Skunk
Coyote
Mountain Lion (Cougar)
Bobcat
Yellowbelly Marmot

California Ground Squirrel *(Graydigger)*
Yellow Pine Chipmunk
Western Gray Squirrel
Chickaree (Douglas Squirrel)
Northern Flying Squirrel
Northern Pocket Gopher
Beaver
Deer Mouse
Bushy-tail Wood Rat
Boreal Redback Vole
Long-tail Vole
Richardson Vole
Oregon Vole
Muskrat
House Mouse
Porcupine

Reptiles and Amphibians of the Klickitat Wildlife Area

Western Pond Turtle
Southern Alligator Lizard
Western Fence Lizard
Western Skink
Rubber Boa
Racer
Common Sharp-tailed Snake

Ring-necked Snake
Desert Nightsnake
California Mountain Kingsnake
Gopher Snake
Western Terrestrial Garter Snake
Common Garter Snake
Western Rattlesnake

Pacific Treefrog
Western Toad
Rough-Skinned Newt
Long-toed salamander
American Bullfrog

Priority Habitats And Species In Klickitat County

This list represents the Priority Habitat and Species (PHS) identified for Klickitat County. This list of species and habitats was developed using the distribution maps found in the PHS list. Species distribution maps depict counties where each priority species is known to occur as well as other counties where habitat primarily associated with the species exists. Two assumptions were made when developing distribution maps for each species: 1) There is a high likelihood a species is present in a county, even if it has not been directly observed, if the habitat with which it is primarily associated exists. 2) Over time, species can naturally change their distribution and move to new counties where usable habitat exists.

Table 12. Priority Habitats and Species in Klickitat County

Habitats	Aspen Stands
	Biodiversity Areas & Corridors
	Inland Dunes
	Old-Growth/Mature Forest
	Oregon White Oak Woodlands
	Eastside Steppe
	Shrub-Steppe
	Riparian
	Freshwater Wetlands & Fresh Deepwater
	Instream
	Caves
	Cliffs
	Snags and Logs
	Talus
Fishes	Pacific Lamprey
	River Lamprey
	White Sturgeon
	Leopard Dace
	Mountain Sucker
	Bull Trout/ Dolly Varden
	Chinook Salmon
	Chum Salmon
	Coastal Res./ Searun Cutthroat
	Coho
	Pink Salmon
	Rainbow Trout/ Steelhead/ Inland Redband Trout
	Sockeye Salmon

Table 12. Priority Habitats and Species in Klickitat County

Amphibians	Larch Mountain Salamander
	Oregon Spotted Frog
	Western Toad
Reptiles	Western Pond Turtle (also known as Pacific Pond Turtle)
	California Mountain Kingsnake
	Common Sharp-tailed Snake
	Striped Whipsnake
	Sagebrush Lizard
Birds	Western grebe
	E WA breeding concentrations of: Grebes, Cormorants
	E WA breeding: Terns
	Black-crowned Night-heron
	Great Blue Heron
	Cavity-nesting ducks: Wood Duck, Barrow's Goldeneye, Common Goldeneye, Bufflehead, Hooded Merganser
	Harlequin Duck
	Waterfowl Concentrations
	Bald Eagle
	Ferruginous Hawk
	Golden Eagle
	Northern Goshawk
	Peregrine Falcon
	Prairie Falcon
	Chukar
	Mountain Quail
	Ring-necked Pheasant
	Greater Sage-grouse
	Sooty Grouse
	Wild Turkey
	Sandhill Crane
	E WA breeding occurrences of: Phalaropes, Stilts and Avocets

Table 12. Priority Habitats and Species in Klickitat County

Birds *(cont.)*	Band-tailed Pigeon
	Burrowing Owl
	Flammulated Owl
	Spotted Owl
	Vaux's Swift
	Black-backed Woodpecker
	Lewis' Woodpecker
	Pileated Woodpecker
	White-headed Woodpecker
	Loggerhead Shrike
	Sage Sparrow
	Sage Thrasher
Mammals	Preble's Shrew
	Roosting Concentrations of: Big-brown Bat, Myotis bats, Pallid Bat
	Townsend's Big-eared Bat
	Black-tailed Jackrabbit
	White-tailed Jackrabbit
	Western Gray Squirrel
	Townsend's Ground Squirrel
	Cascade Red Fox
	Fisher
	Marten
	Wolverine
	Columbian Black-tailed Deer
	Elk
	Rocky Mountain Mule Deer
Invertebrates	Columbia Oregonian (Mollusk)
	Dalles Sideband (Mollusk)
	Juniper Hairstreak (Butterfly)
	Mardon Skipper (Butterfly)

Appendix G. Cultural Resource Summary

The Wildlife Area is with the traditional territory of Upper Chinookan-speaking peoples and Sahaptin-speaking Klickitat Indians. In broad terms, the location is part of a vast Upper-Chinookan use-area. The Upper Chinook-speaking peoples (the Wasco, Wishram, Hood River, White Salmon, and Cascade, among others) practiced a riverine-oriented economy (French and French 1998:360-363). These groups have been characterized as river-oriented (French and French 1998:361) but their traditional territories extended up all of the main streams emptying into the Columbia River between The Dalles downstream to roughly the Sandy and Washougal rivers, including the Klickitat River. The easternmost Upper-Chinookan groups were the Wasco-Wishram, who occupied the area east of the present day The Dalles to Ten-mile Rapids (French and French 1998:361-363). The Cascade people were closely related linguistically to the Wasco-Wishram speakers (Spier and Sapir 1930:159-160). The White Salmon and Hood River people were intermediate in location to the Cascades to the west and the Wasco-Wishram to the east. The White Salmon-Hood River dialect also was intermediate between the two groups although more closely related to the Wasco-Wishram.

The Washington side of the Columbia was traditionally occupied by the Wishram, Klickitat, Yakama, and other Native American groups that are now associated with the Confederated Tribes and Bands of the Yakama Nation. The Oregon side of the Columbia River was occupied by groups that are now associated with the Confederated Tribes of the Warms Springs Reservation of Oregon, including the Tygh, Tenino, Wyam, Wasco, Warm Springs, John Day, and portions of the Paiute. The contemporary sociopolitical boundaries created by federal and state governments were formally established by treaties in the late 19th century (e.g., The Treaty with the Tribes of Middle Oregon, 1855 (12 Stat. § 963) and The Yakama Treaty (12 Stat. § 951)).

The Chinookan lived in autonomous villages without overarching political organization or centralized government (Beckham 1988:84; French and French 1998:369). Villages were presided over by chiefs who held office based primarily on a system of hereditary leadership rights (Silverstein 1990:541). Chiefs were usually persons of the highest rank within the hierarchically organized Chinookan society and chiefly status was conferred on members of wealthy and politically influential families (Beckham 1988:86). Status, class, and rank were used as organizational principles in Chinookan society. Head flattening served to physically distinguish free persons from slaves. Further distinctions were made among the free persons so that members of the upper class were distinguished from the lower classes, or commoners, and persons of high rank were distinguished from persons of lower rank. Chiefs, along with shamans, warriors, and traders, formed a small upper class with slaves forming the bottom of the social hierarchy. Commoners ranged between these hierarchical poles and were probably ranked along numerous socially recognized gradations. High rank and high class was strongly linked to wealth. The economic relationship to rank, status, and class provided a means for persons to raise their standings in a Chinookan community through the acquisition of wealth as well as by personal achievement. Winters were spent in permanent settlements consisting of one or more rectangular, gabled-roofed, upright-cedar-plank houses (Hajda 1994; Silverstein 1990) that featured raised sleeping and storage platforms that lined the house walls. In 1805, Lewis and Clark encountered the Chinookan village of Wishram on the north side of the Columbia River

(near what is now Columbia Hills State Park) and described some 20 homes constructed of wood, the first wooden houses the expedition had seen since leaving Illinois (Wilke et al. 1983:75-76). Chinook subsistence was oriented toward fishing and root-and berry gathering. Most subsistence activities were organized around small groups that dispersed to smaller camps focused on task-specific subsistence activities.

On the north side of the Columbia River Klickitat people occupied the basins of the Wind, Little White Salmon, White Salmon and the lower reaches of the Klickitat River (Norton et al. 1999:66). The Klickitat were closely associated with Chinookan groups and shared winter villages and salmon fishing sites with them (Norton et al. 1999:66). According to Ray (1974:249), groups of Klickitat occupied Chinookan territory beginning in the 1830s after the latter suffered severe population loss due to a variety of introduced diseases.

The Klickitat have been characterized as living a life more oriented to the prairie resources than the Chinookan people (Norton et al. 1999:67). Klickitat people spent winters in villages and dispersed in summer to prairie areas to collect roots, berries, and other plant resources and to hunt (Norton et al. 1999). Prairie areas were maintained through periodic burning to preserve their openness and to promote the growth of berry and root crops. In mid-summer large groups of people joined in the upper elevations of the Cascades to collect and process huckleberries. During this season, important inter-group socializing occurred, including gambling, horse racing, and trading. Groups returned to lower elevation prairie areas in the fall to gather nuts, roots, berries, and other plant and animal resources. In the late fall, Klickitat people returned to their winter village sites to live off of stored foods that had been previously gathered. The seasonal round began anew when the first plants sprouted and the spring runs of suckers and Chinook salmon started.

Contact between Plateau cultures and non-native peoples appears to have first occurred in the 16th century when trading vessels from Russia and Spain visited the area. Lewis and Clark encountered Chinook groups at The Dalles who knew many English words and traded copper goods, iron knives, hatchets, files, blankets, clothes, wool and cotton cloth, and other items for Plateau goods such as dried salmon, beargrass, camas, and buffalo robes (Walker and Sprague 1998:140-142). The Lewis and Clark expedition passed by the project area in the early 19th century (1805-1806) but did not however utilize any areas that could be heavily affected. Schroeder et al (2010) provides a discussion of the nature and size of the settlements the Lewis and Clark expedition described. Specific areas utilized by the Corps of Discovery occurred on the banks of the Columbia River in places such as Blalock Island, Rock Creek Rapids, the John Day River, Bob's Point, Miller Island, the Deschutes River, Celilo Falls, and Mill Creek (Lewis et al 1983; Schroder et al 2010).

Native groups along the Columbia River came into contact with European and American seaborne fur traders in the late-eighteenth century. Diseases introduced by the traders, especially small pox, influenza, and malaria, spread rapidly upriver and throughout the region with catastrophic results. The first historical reports of a malarial epidemic are from 1830. Within four years 75-90 percent of the regional native population was dead (Boyd 1985). The population losses essentially destroyed traditional societies in the region. Displaced groups and individuals formed ad hoc communities or joined those still existing, and either attempted to follow

established traditional patterns or adopted the lifeways of the Euroamericans (Hajda and Boyd 1987).

By the 1850s, most native peoples had been removed to reservations. Groups on the north side of the Columbia River were incorporated into the Yakama Indian Reservation while Wasco and other groups residing on the south side of the river were moved to the Warm Springs Reservation. Treaty negotiations in the 1850s included language that guaranteed these groups would maintain "...exclusive right of taking fish in all the streams, where running through or bordering said reservation, is further secured to said confederated tribes and bands of Indians, as also the right of taking fish at all usual and accustomed places, in common with the citizens of the Territory, and of erecting temporary buildings for curing them; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land".

Because the Yakama and Warm Springs reservations were located inland at some distance from the "usual and accustomed" fishing stations, people living on these reservations journeyed to the Columbia River to access their fishing stations. Friction with Euroamericans living on the river and the desire on the part of the government to have Indians become farmers and ranchers led to the Supplemental Treaty of 1865. This treaty required the Indians to forego their off-reservation hunting and fishing rights on the Columbia River. Despite the signing of this treaty, which was misrepresented to the Native signatories, Indians continued to attempt to access their fishing stations and were often denied right of entry by individual landowners and by commercial fishing companies. In 1947, Congress allocated funds in recognition of Indian treaty rights for the purchase of land at Celilo Falls, Oregon, to be used by the Yakima, Warm Springs, and other Columbia River Indian groups. Shortly thereafter, construction began on The Dalles Dam, forcing the relocation of Celilo Village and of individual Indian families living in the project area. The off-reservation fishing rights of these Columbia River Indians have been disputed for the last 50 years despite legal attempts to secure these rights (Beckham 1988; 1998; French and French 1998).

In 1862, the Homestead Act allowed men aged twenty–one or over 160 acres of free land if they lived on it for five years and made improvements. This act was shortly followed by the Desert Land Act of 1877 which allowed farmers to purchase 640 acres of land at $1.25 an acre if they could provide evidence that they had established irrigation on that property. By the 1870s about 50,000 bushels of grain were being produced in Klickitat county alone. Farmers would haul their crop to the northern shore of the Columbia and ferry it across to rail stations on the Oregon side for shipping (Wernz et al. 2003).

Ranching started during the 1860s when beef was in high demand and over 11,000 cattle were shipped via railroad from Portland to The Dalles area (Wernz 2003). Many homesteaders depended on ranching and historic-era ranches grew as homestead lands were consolidated and ranching families continued operations over several generations.

Ranching heavily impacted the vegetation of the project area and ranchers developed their own new cultural landscapes with rock walls, wire fences, and developed springs. Vegetation in the steppe area such as the large perennial grasses, like bluebunch wheatgrass (*Agropyron spicatum*)

and Idaho fescue (*Festuca idahoensis*), was not adapted for heavy grazing by large ungulates. These plants rarely recover from heavy grazing, which permits invasive species such as cheatgrass (*Bromus tectorum*) and Kentucky bluegrass (*Poa pratensis*), to increase in number, and ultimately, to take over the habitat of the original species (Franklin and Dyrness 1988). Due to its use as pasture and grazing lands for domesticated livestock, the natural vegetation of the steppe lands has been significantly altered.

In 1894, many of the towns created due to small railroad lines along the northern shore of the Columbia were flooded and moved to the Oregon side of the river where some remain today. The Great Northern and Northern Pacific Railroad supported the Spokane, Portland, and Seattle Railroad in their construction of a new line in 1908 on the northern side of the Columbia River. As the crews set up camps above the shoreline, many new settlements were created.

The 1902 – 1922 Columbia River and Northern Railroad, a 42-mile long, 16-foot wide historic rail line runs through the Klickitat Wildlife area. The rail road feature, also known as Goldendale line of the Spokane, Portland and Seattle Railroad, has been determined eligible for the National Register of Historic Places for its association with events that have made a significant contribution to the broad patterns of local history (Faulkner 2013; Mack 2013). The period of economic growth in Klickitat County which was triggered by the construction of railroads is epitomized by the construction of the Columbia River and Northern. The desire for a railroad was so great that local citizens in Goldendale agreed to privately raise the money for purchasing right-of-way, in exchange for an agreement from private investors to build the railroad. Providing a large-scale outlet for grain and timber, construction of the railroad resulted in the transformation of the ranching economy of Klickitat County into a wheat and timber-producing economy (Faulkner 2013:6)

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Appendix H. Fire Response Information

Fire District - DIAL 911

NAME	TELEPHONE
Klickitat County Fire District #4 (Lyle)	(509) 365-2500
Klickitat County Fire District #7 (Goldendale)	(509) 773-4246
Klickitat County Fire District #12 (Klickitat)	(509) 369-2720
Klickitat County Fire District #14 (High Prairie)	(509) 365-2912

DNR - contact in order listed and request Operations or Staff Coordinator

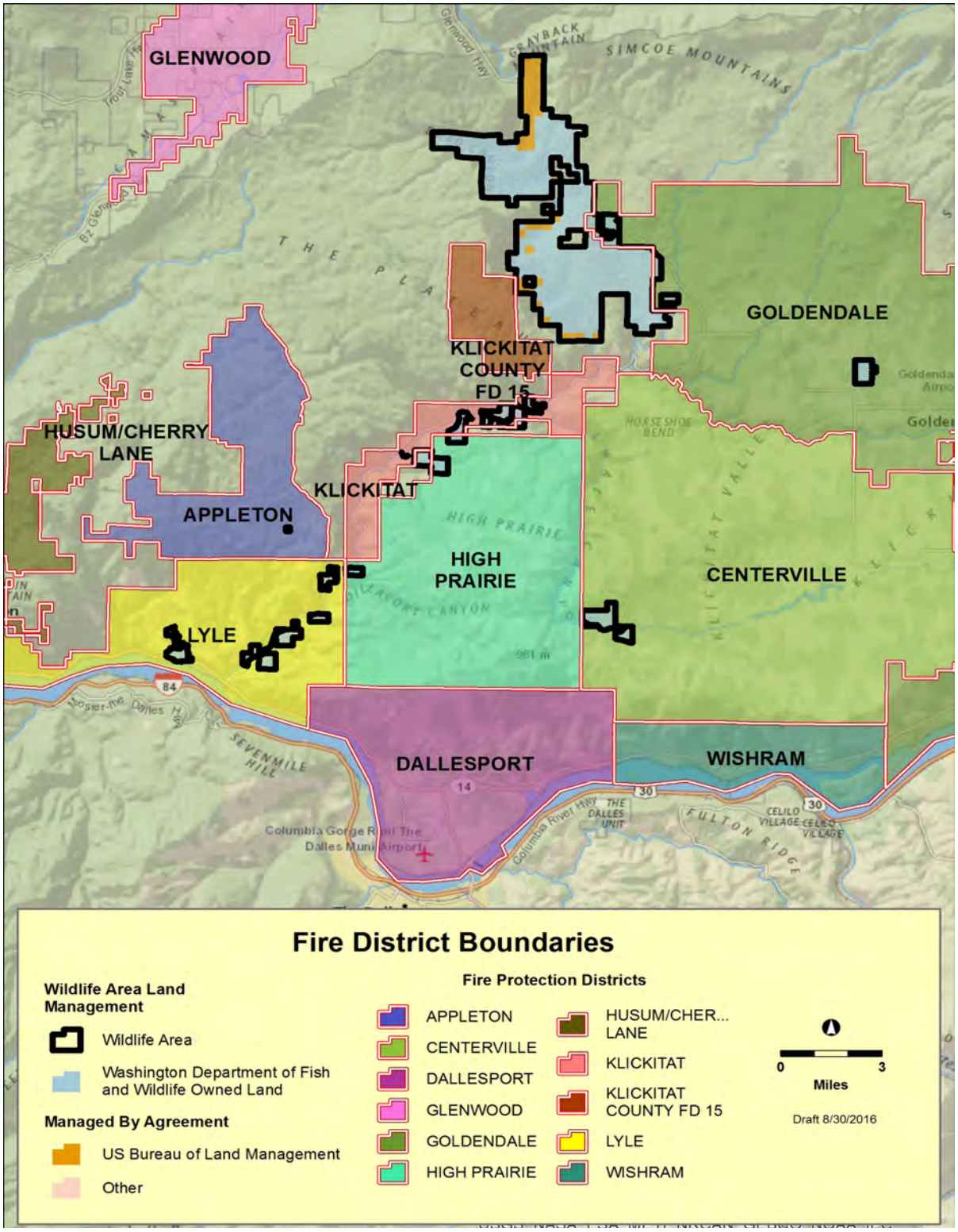
NAME	TELEPHONE
DNR Dispatch (Forest Fires)	800-562-6010
DNR Goldendale Workcenter	(509) 773-5588

WDFW - The following table provides telephone numbers in priority order of WDFW staff to be contacted in the event of a fire.

NAME	TELEPHONE	WORK CELL
Susan Van Leuven, Klickitat Wildlife Area Manager	(509) 773-4459	(509) 480-9817
Region Office, Vancouver	(360) 696-6211	
Sandra Jonker, Regional Wildlife Program Manager	(360) 906-6722	(360) 931-3248

Map 12. Fire District Boundaries for Klickitat Wildlife Area (2016)

FFPA – Forest Fire Protection Assessment



Appendix I. Public Process Summary (Waac/Dt Review/Sepa)

Includes the following:

- SEPA comment response
- Wildlife Area Advisory Committee Meeting Materials (April 28, 2015)
- Public Meeting materials (September 16, 2014 and June 13, 2016)

WDFW responses to public comments received during the public review of the Klickitat Wildlife Area Management Plan draft under the State Environmental Policy Act (SEPA) from May 17, 2016 until June 20, 2016.

#	Comment	WDFW Response
1.	Map 6 (Goldendale Hatchery Unit), page 16 mislabels the main stem of Spring Creek as Swale Creek. Lenny Anderson	The map has been corrected.
2.	Figure 1, page 21, Klickitat River Stream Flow data only goes back to 2008. I would love for it to go back another 12 years to 1996, the year of the big flood. Lenny Anderson	Comment noted. The USGS site only provided data back to 2008.
3.	Goal 9, manage wolf livestock conflicts to minimize livestock losses, while not impacting the recovery of a sustainable wolf population, do you expect this to occur in the next 10 years? Lenny Anderson	Washington state's wolf population continues to grow and expand. At the time this plan is written, there have not been any recent recordings of wolves on the Klickitat WLA. Objective 9A states "follow statewide guidelines for wolf management. If a pack is established around the wildlife area, evaluate adaptive management as per statewide planning". The wolf plan is available on the Washington Department of Fish and Wildlife (WDFW) website - http://wdfw.wa.gov/news/mar1416b/
4.	Under Recreation and Public use, the plan mentions the Klickitat Trail, but no mention is made of the Columbia Land Trust's Haul Road. Is that intended? I read on their website that the restoration work has been completed and the road is now open for public use, expect for fire closures. There is no mention of public access in the plan. Lenny Anderson	The Haul Road is a private road, owned by the Columbia Land Trust. Private land holdings are not covered under the Klickitat Wildlife Area Management Plan, which only applies to lands administered by WDFW. The Columbia Land Trust is a separate entity and they have management oversight of their lands.
5.	The wildlife area plan is very informative and based on sound WDFW policy, goals and objectives. A plan very well done but cannot be enforced and followed given the fact that there are just two FTEs to manage, maintain and protect this gem of a wildlife area. Rob Kavanaugh	The Klickitat Wildlife Area staff work with other WDFW personnel to address specific needs as they arise, including campground safety issues, forest management needs, law enforcement, fish population and habitat assessment, road maintenance, rangeland quality monitoring, identification of cultural resources needing protection, and safety assurance of facilities at headquarters. Additionally, Wildlife Area staff partner with other agencies for assistance with fire protection,

		law enforcement, coordination of recreation management, proper management of natural springs near the Klickitat River, and also receive much-valued help from volunteers on a variety of projects that include documentation of rare plant populations, removal of derelict fencing, monitoring water levels in key ponds, chipping wood debris from fire hazard reduction projects, and clearing obstructions from roads. Some tasks are accomplished by hiring independent contractors. By utilizing as many other available resources as possible, WDFW maximizes the benefit to the public's interest in the Wildlife Area. Agency wildlife area staff welcomes new volunteers, if interested contact the Klickitat Wildlife Area Manager.
6.	Grazing should continue on the wildlife area. Danny Frey	WDFW recognizes the value of working landscapes, and areas that currently have managed grazing are expected to continue so long as habitat management objectives area met and the permit holders remain engaged. The wildlife area currently has three grazing permits described on page 48 of the plan.
7.	Satisfied with the current management. Does not want WDFW to sell off any land. The boat ramp washed away last winter (Stinson Flats) should be replaced. In the meantime could boaters launch from a primitive put-in at Stinson Flats? Ken Dragoo	WDFW is not considering selling or exchanging land in Klickitat County. The boat ramp at Stinson Flats Campground will be replaced; however this project is added to list of projects already in queue. WDFW is open to consideration of a primitive put-in at Stinson Flats in order to maintain boater access to the river. Please contact the wildlife area manager for more information.
8.	Many of my friends and I use the KWA regularly. Of all of us, there are only two hunters, the rest are native plant enthusiasts and hikers. The ratio of non-consumptive users to hunters is at least 8 to 1, in my experience. I would therefore like to see the KWA used with this ratio in mind. I especially feel that turkeys and grazing are not compatible with the ratio of users that I am aware of. With this in mind I would like to see a reduction of the number of turkeys and grazing permits. Turkeys especially, as an introduced species are in direct conflict with the state threatened Gray Squirrels as well as the deer	Supporters of the Klickitat Wildlife Area have traditionally been hunters and fishermen; however we recognize that a broader range of interests are now being served by WDFW's lands. In general, the Klickitat Wildlife Area seeks to maintain a variety of habitat types in order to attract a rich array of wildlife and satisfy a diverse group of supporters. WDFW also desires to have a place in landscape-level habitat management, which involves many private and public ownerships. Our grazing policies and management practices

	which are also a native species. I believe turkeys should be considered a noxious species and eliminated on the KWA. I would also like to see grazing permits eliminated, as stock are not compatible with native plant species, some of which are rare. Stock eat native species and introduce non-native species through their feces. And the non-consumptive users of the KWA must very greatly outnumber the ranchers who graze their animals there. After all, it is a "Wildlife Area", not an introduced species area or grazing area. Carl T. Anderson	are designed to minimize or prevent negative impacts to sensitive species, whether fish, wildlife, or rare plants. Grazing permits are not offered on areas where rare plants or important limited habitats could be at risk. The largest scale grazing permit on the Klickitat Wildlife Area is part of a coordinated resource management plan involving three landowners, two of which are private. This coordinated resource management plan is intended to maintain habitat quality on private lands for deer by matching the timing of grazing with plant growth at different rangeland elevations on Grayback Mountain. While WDFW is not looking to expand grazing on the Wildlife Area, conservatively managed grazing on lands that have a history of such use is expected to continue provided that habitat management objectives are met and permit holders are interested. Grazing permits that fail to attract interest from prospective permittees may be phased out. Regarding turkeys, WDFW recognizes that turkeys are a non-native species that were introduced in Washington with support from our hunting constituents. WDFW has concerns about overpopulation of the turkey population and its potential impacts to other resources. The decision was made to not do any future transplants or movements of turkeys within or into Klickitat County. In addition, we are considering increasing the number of days during the fall turkey hunting season as a way of keeping the population in balance. Impacts to desirable wildlife species are taken seriously and considered in making habitat management decisions. Weeds are very much a concern. Grazing at the allowed level of use does affect plant communities, but some native species like Hooker's balsamroot are making a comeback within a grazing permit area. Also, acorn woodpeckers, which are rare in

		Washington, have established a permanent territory within a grazed area, and western bluebirds are commonly observed there as well. Western gray squirrels are routinely seen in the forest near a water trough.
9.	Page 48, clarify which actions will actually be occurring on Bureau of Land Management (BLM) lands in the two units. Attach BLM MOU in the appendix? BLM	The Memorandum of Understanding between WDFW and BLM relating to administration and management of BLM lands by WDFW is expected to undergo a major update in 2016. The MOU of 1964 does not address current legal conditions regarding BLM lands, or all of the potential contemporary uses and concerns. These matters will be addressed as the new MOU is developed. A copy of the current MOU can be obtained by contacting the wildlife area manager.
10.	Page 64, goal 11, clarify which actions will actually be occurring on BLM lands in the two units. Would additional "established campgrounds" be developed? How would dispersed camping areas (such as BLM areas near river on Soda Springs unit) be managed or reclaimed? Although this plan can close WDFW lands to dispersed camping it will not close BLM lands. BLM	Established campgrounds in this area are Leidl Park, Stinson Flats, and Mineral Springs. WDFW is not proposing any new campground developments. Visitors will be contacted and educated regarding the larger objective (see objective 11 A.) We are working toward by limiting recreation to day use along that segment of the river, and signs will only be posted on WDFW lands.
11.	Page 65, goal 11, work with BLM to identify possible locations for low impact shooting if the desired location will be on BLM managed lands. In addition working with the BLM on identifying where shooting is currently occurring. BLM	WDFW is unaware of target shooting activity on BLM lands within the Klickitat Wildlife Area. There is no compatible location for low impact shooting to take place on BLM lands associated with the KWA.
12.	It may be appropriate to mention that BLM has found the segment of the Klickitat River in the northern most parcel of BLM in the Soda Springs eligible for inclusion into the National Wild and Scenic River system. BLM is analyzing alternatives for management of this section under the draft Resource Management Plan (currently under development). BLM	This is recommended for inclusion in the updated Memorandum of Understanding between WDFW and BLM regarding management of BLM parcels within the Klickitat Wildlife Area. If the updated MOU leads to revised management actions on the WLA, the plan will be updated to reflect these. A review of plan progress and accomplishments occurs every two years.

	Page 70, weed control; document discusses weed control at developed access sites. Weed control also should occur at popular dispersed recreation sites along the river. Please coordinate weed treatment activities on BLM managed lands with BLM. BLM	Comment is noted. No popular dispersed recreation sites located on BLM lands are presently known.
13.	Page 37, clarify that BLM-managed lands in this analysis area are managed under an existing BLM Resource Management Plan, and subject to federal laws including NEPA, ESA, cult 106, etc. For additional information please reference previous letter regarding the need to update the MOU between the BLM and WDFW. BLM	Text added on page 48.
14.	Page 38, remove BLM-managed acres from this table or clarify in footnote that BLM-managed lands are managed under an existing BLM Resource Management Plan and subject to federal laws including NEPA, ESA, cult 106, etc. For additional information please reference previous letter regarding the need to update the MOU between the BLM and WDFW. BLM	Text added on page 48.
15.	Update management plan to include references to update MOU with BLM and the division of resource management on BLM managed lands. BLM	Text added page 48.
16.	Page 10 states that management on adjacent private lands has shown increases in WGS populations, based on implementation of WGS guidelines. This is a good example of adaptive management, and I know WDFW worked with the landowner in implementing WGS guidelines. Jim White	Thank you for your comment.
17.	Page 11 mentions the Audubon “Sun and Sage” Loop, part of the Washington State Birding Trail. A good addition, missing in earlier drafts. Jim White	Thank you for your comment.
18.	The section on Forest Management (page 37) outlines a process by which forests will be managed, and refers to the Forest Plan for more detail. This is encouraging, as the 2006 plan merely said things would be assessed. I also learned at the Goldendale meeting that an initial project is now being planned. I would note that. It shows that progress is already	See response #21

	being made (more about this below under the Forest Plan). Jim White	
19.	Forest Management Plan I was encouraged at the Goldendale meeting to find that projects are already being planned. I would note this in the Forest Plan. Before the meeting, my reading of the Forest plan frustrated me, in that very little detail was shown, and it was not clear when anything would get started. I would note that work has begun, and show an actual date for implementation of the first project. Jim White	Language was added to page 25 of the plan referring to this year's project and the timing thereof. See language inserted into the forest management plan #2.
20.	Forest Plan - Figure 3 incorrectly referred to as Figure 6 on page 11 - Page 9, heading should probably be "Successional Classes" instead of "Succession Classes" - Page 10, last paragraph, should say "facilitate" not "facility". Jim White	Text edited under the respective page numbers of the forest plan.
21.	Forest Management Plan It may be helpful to note that I (Jim White) was a temporary employee with WDFW when I did the mentioned inventory work. At the meeting, Forester Rod Pfeifle discussed his silviculture prescription for stand management, including a bit about tree spacing objectives, species preference, and variable density of the thinning treatments proposed ("skips" and "gaps" with some areas more heavily thinned, other small areas not thinned). This fits very closely with work I did on the Conboy National Wildlife Refuge, another prescription with a wildlife management focus. The Forest plan itself mentions none of this. In one place, on page 14 (under "Urban Interface Management") there is a mention of a goal of thinning to 20-25 trees per acre. Nowhere else in the document is this mentioned, making it very confusing. I would add a short discussion of the proposed treatments, as Rod discussed at the meeting. Otherwise, it leaves the reader with no clue about what exactly is proposed, other than general statements about restoring historical conditions.	Moving forward, the goal will be to complete one forest restoration/thinning project every year during the next 10 year planning cycle. The first of these projects is currently in the layout phase with an anticipated start date in mid-October. Each project will have its own unique prescription based upon wildlife habitat needs and stand conditions. However, all projects will share the following common goals: ➢ Reduce stocking levels and manipulate species composition consistent with mid to late seral stand conditions ➢ Maintain and eventually improve habitat for the western gray squirrel ➢ Maintain and improve eventually improve habitat for other wildlife species ➢ Improve forest health ➢ Treat urban interface areas ➢ Restore Oregon white oak stands

	Jim White	To accomplish these goals, most projects will closely follow the Individual, Clumps and Openings (ICO) thinning strategy found in "*The ICO Approach to Quantifying and Restoring Forest Spatial Pattern: Implementation Guide."* In essence, this strategy will create a mosaic generally considered to be prevalent in dry conifer forest types with a history of frequent fire. The preferred leave tree species for most projects would be ponderosa pine. Oak thickets will remain intact with encroaching conifer removed. Leave tree densities will generally range between 20 (**average** spacing of 45') and 40 (**average** spacing of 30') trees per acre post treatment. This information has been added to the Klickitat Wildlife Area Forest Plan (Appendix B.).
22.	Page 19 Fisher Hill Unit: "This segment of the river flow through a narrow channel that was fished by members of the Yakima Indian Nation and remains an important fishing site today." The phrasing seems odd, "was" implies past tense. We recommend rephrasing, for example, "This segment of the river flows through a narrow channel that has been fished by members of the Yakama Nation for centuries and remains an important fishing site today." Please be advised that the Yakama Nation has not used the word "Indian" in its name for years, and therefore we would request all references be to "Yakama Nation". Yakama Nation	Text revised page 19.
23.	Page 20, last sentence of the page – "The West Fork Klickitat provides most of the summer flow in the Klickitat River (J Byrne, pers comm)." This assertion should be rooted in data rather than citing personal communication. Data from the USGS gauge above the West Fork (http://waterdata.usgs.gov/usa/nwis/uv?14107000) could support such statement. On the next page, streamflow data from the gauge at Pitt is cited. Yakama Nation	Text revised page 20.

24.	Page 29 – A paragraph on fish passage states that "the most significant natural fish passage barriers include: Lyle Falls, Castile Falls, and Little Klickitat River Falls, West Fork Klickitat River Falls, and tributary falls (Outlet Creek, Bowman Creek, Canyon Creek and Blockhouse Creek)." We recommend re-working the phrasing in this paragraph, since the first three falls on the list are only partial barriers to fish passage and the first two have had significant financial investments to improve passage. The next sentence in that paragraph states that bull trout could occupy the upper Klickitat basin if fish passage were improved at Castle Falls. Again, we recommend clarifying this statement, considering the substantial investments to improve passage at Castile Falls were completed in 2005. Additionally, the West Fork is likely the stronghold for bull trout in the Klickitat. Yakama Nation	Text revised page 29.
25.	Page 38- Restoration – no mention is made of the Lower Klickitat Revegetation project, a collaborative between YN and Mid- Columbia Fisheries Enhancement Group, under which some planting occurred at sites on WDFW lands. Goals for this project were to increase bank cover, increase woody debris recruitment and increase floodplain roughness. Yakama Nation	Text will be added in the plan to include this restoration project. In the future, WDFW will continue to collaborate with the Yakama Nation and the Mid-Columbia Fisheries Enhancement Group on improving habitat for salmon associated with the Klickitat Wildlife Area along the Klickitat River.
26.	Page 38 – Restoration – Klickitat River Floodplain Restoration (Haul Road) Project – this section makes no mention of the fact that this is a collaborative effort between the YN and Columbia Land Trust or that Bonneville Power Administration has provided funding for the assessment, design and construction oversight. Yakama Nation	Text revised page 38.
27.	Page 44 – Klickitat Trail – all language makes this appear as a passive use trail; there is little to no mention of the railroad embankment and its presence on the landscape for over a century; including significant impacts to river habitats and processes. Yakama Nation	This section is intended to describe recreational opportunities on the Wildlife Area. The Klickitat Trail Rails-To-Trails project is owned and managed by entities other than WDFW, and therefore is not discussed in depth within the Klickitat Wildlife Area Management Plan.
28.	I support WLA Goal #1 to restore and protect the integrity of priority ecological systems and sites. One of the attractions of visiting the Klickitat Wildlife Area is the mosaic of Oregon white oak woodlands, mixed pine-	Thank you for your comment.

	oak forest, prairie meadows, riparian areas, seasonal wet meadows and stream canyons. Susan Saul	
29.	On the Soda Springs unit, I use the primitive roads as hiking trails. On the Fisher Hill and Swale Creek units, I use the Klickitat Trail as access. I appreciate the seasonal road closures which protect the road surface and adjacent meadows during the time when soils are soft. They also provide undisturbed hiking conditions for birding, wildlife watching, wildflower viewing and photography. Susan Saul	Thank you for your comment.
30.	Regarding Goal 1, I question whether the use of livestock grazing and farming as management tools conflict with goal of maintaining or improving the ecological integrity of priority sites, particularly given the presence of a number of rare plant species on the wildlife area. Certainly, livestock grazing should not be expanded beyond the current terms of the various permits. Similarly, farming should not be expanded beyond the current fields since land conversion to agriculture would conflict with Goal 1. The plan does not state the renewal cycles for the permits so it is unclear how frequently they can be reviewed and adjusted to changing climate conditions. I support Goal 1/objective (C) to develop a plan for protecting critical habitats for rare plants since the plan may clarify any conflicts with current land management. Susan Saul	On the Klickitat Wildlife Area, grazing of livestock and farming activities are confined to areas that have a recent history of these uses. Grazing is managed conservatively to maintain existing plant communities, and in the case of the permit on the Soda Springs Unit, is part of a larger landscape-level plan to distribute utilization of the range at sustainable level over time and space. Each time the permits are due for renewal, they are reviewed for potential impacts and adjustments are made as called for to protect rare plants or animals. Adaptive management is practiced on an as-needed basis, and does not have to wait until a new permit or lease is issued. Farming serves to manage weeds and control erosion as well as produce desirable forage and cover crops for wildlife. When fields that were formerly in agriculture are neglected, the experience on the Wildlife Area is that weeds take over and dominate the plant community for a long time. To convert the fields back to native vegetation would require more resources than the Wildlife Area has available. Goal 1 (C) is intended to protect rare plant populations from current and especially future conflicts with land management activities.
31.	I support Goal 4 to maintain and enhance the Oregon white oak woodlands, particularly to assess white oak protection when reviewing livestock grazing permits.	Thank you for your comment.

	Susan Saul	
32.	I support Goal 8/objective (I) to implement seasonal road closures annually to limit disturbance of wintering wildlife by vehicle traffic. These closures also protect rare plant habitat from off-road driving when soils are moist and “mudding” would be destructive to the land. Susan Saul	Thank you for your comment.
33.	I support Goal 8/objective (J) if mountain quail range historically included the Klickitat Wildlife Area. I do not support the introduction of any other non-native species and I do not support the expansion of populations of currently present non-native species beyond their current levels and locations, including turkey, pheasant and chukar. I oppose any proposals to feed non-native species to support or expand their populations since their presence is not consistent with Goal 1. Susan Saul	Mountain Quail are a native species of Washington considered uncommon or rare. They were considered to be more abundant in Klickitat County in the past but now are believed to be extirpated, or eradicated, from Klickitat County. WDFW would only consider reintroducing this species back into Klickitat County if other experimental releases prove to be successful in eastern Washington.
34.	I support Goal 11/objective (E) to support Washington State Parks’ effort to improve access to the Klickitat Trail near the Swale Creek Unit. While Harms Road is not heavily traveled, a developed parking area and restroom facility would offer safer public access to the Klickitat Trail than parking on the shoulder of the road. Susan Saul	Thank you for your comment.
35.	I support Goal 11/objective (H) to develop options for a low impact shooting range facility on the wildlife area. Currently, target shooters go onto the area and indiscriminately pick places to fire their weapons. It is disconcerting to be quietly hiking and suddenly hear gunfire nearby without knowing exactly where it is originating or in which direction the shots are being fired, and with the certainty that the shooters are unaware that hikers are nearby. A designated target shooting area, with the rest of the wildlife area then closed to that activity, would enhance the safety of visitors engaged in quiet recreation pursuits. Susan Saul	Thank you for your comment. The agency is currently working on a pilot project at the Wenas Wildlife Area to consider designating and developing two target shooting sites, which, if developed, would limit target shooting to just these two locations. Based on the outcome of the Wenas project, the agency may look to other wildlife areas for implementing similar projects.
36.	I do wish to emphasize that one of the unique features of many places in	WDFW appreciates the importance of undisturbed soils and

	the wildlife area is what I would characterize as a somewhat pre-settlement natural vegetation pattern of bunchgrasses and forbs beneath oaks, pines and doug firs. In many places this is best seen by bare cryptogrammic soil patches between the native grasses which can then host numerous annual plant species, many of which are rare. Because of the lack of weedy species in these bare soil places, the KWA is perhaps the place in Washington (or world in some cases) where these rare plants are most numerous. In addition, the Soda Springs Unit is the only place in Washington where Ceanothus cuneatus (no status yet) is located, and that unit perhaps boasts the largest concentration of mountain lady slippers in Washington. As of June 2016, I should point out that the distribution of rare plants in the wildlife area is only partly known. We found several new subpopulations of rare plants today, and will probably continue to find new populations of rare plants as we hike in the future. With this in mind, management plans may want to take note of the unique relationship between soil structure and native plants since there are so few such habitats remaining in Washington. In many cases, thinning of tree canopies or shrubs may benefit rare as well as other plant and animal species, but such actions should be done so as not to smother open soils needed by many of the rare annual plants when tree materials are chipped and discarded on the ground. Locations of rare plants and animals should be considered when allowing mechanized equipment in to a wildlife unit for the purpose of thinning. Prescribed burns may also be of benefit, but actions should be taken to prevent a hot burn which would damage the soil and also to prevent the influx of weeds. Grazing should continue to be limited to the existing allotments on Grayback Mt. and not expanded to other areas to prevent damage to the soils and introduction of weeds. Paul Slichter	the unique communities of plants they support. Known populations of rare plants are protected from negative impacts to the greatest degree practical, and ground-disturbing activities discussed in this management plan are to be mostly limited to areas that have already been affected by such activities or that are less sensitive to disturbance. Seasonal sensitivity to plant damage will also be considered. Potential introduction of weeds is recognized as a threat to native plant communities and warrants active monitoring to detect infestations early. This management plan is intended to foster retention of sensitive habitats, and this comment highlights the importance of careful consideration of the potential consequences of management actions. The WLA Plan is a place where the presence of rare species should be documented, and updated and monitored over time. We appreciate contributions of findings from volunteers and other members of the public. If new plant species are identified, please contact WLA manager.
37.	Mt. quail should only be introduced if there is previous evidence they existed in the units. I would be leery of increasing the number of non-native turkeys on these units as they damage the soil as they forage and they compete with western gray squirrels, deer and elk for acorns, fungi	See #8 comment.

	and other food sources that help the mammal game animals survive in this area. I see quite a lot of use of the area for fishing and hunting which is fine with me. Paul Slichter	
38.	I hear a fair amount of indiscriminate target shooting during non-hunting seasons in the Soda Springs Unit, so it might be good to designate a target shooting area for the safety of hikers and equestrians who visit the area. I'd prefer to see a continuation of winter vehicle closures along roads blocked for wildlife enhancement. Off road vehicles have until now stayed out of sensitive riparian areas and vernally moist swales where many of the rare plants listed in Table D are found, and where water has time to percolate into the soil to provide summer water for trees, shrubs and wildlife. Road closures into such areas may need to occur if it appears that vehicles are damaging them. Paul Slichter	Off road driving by the public is unlawful during all seasons on the Wildlife Area, and better surveillance to identify violators may be sufficient to mitigate this problem without further limiting access to law-abiding visitors. WDFW staff will consider options for location of a target shooting area. If such an area is established, target shooting will be restricted to that area. See comment response #35.

Vigue, Lauri (DFW)

From: Vanleuven, Susan (DFW)
Sent: Wednesday, June 22, 2016 10:07 AM
To: Vigue, Lauri (DFW)
Subject: FW: Klickitat WLA management plan

From: Vanleuven, Susan (DFW)
Sent: Tuesday, May 31, 2016 5:10 PM
To: 'Lenny Anderson'
Subject: RE: Klickitat WLA management plan

Hi Lenny,

Thanks for your comments. I've pasted a link from a news release here:

The public can submit comments online through June 17 at http://wdfw.wa.gov/licensing/sepa/sepa_comment_docs.html. Comments can also be submitted at the June 13 meeting.

I'll add your message to a file for comments. I and the planning team will respond to all the comments we collect after June 17. I believe comments will be included in the final draft of the document. The public meeting is at the Klickitat PUD building in Goldendale from 6 to 8 p.m. June 13.

I will try to remember to let you know about the WAC meetings. Right now, there are none on the schedule. They are generally once a year, sometimes twice.

Regards,

Susan

From: Lenny Anderson [mailto:lenny@hevanet.com]
Sent: Tuesday, May 31, 2016 3:37 PM
To: Vanleuven, Susan (DFW)
Subject: Re: Klickitat WLA management plan

Susan,
I received the requested hard copy of the draft management plan. Thanks!
I noticed a couple of small things in reading through it the other day. Map 6 (Goldendale Hatchery Unit), p 16 mislabels the main stem of Spring Creek as "Swale Creek."
Figure 1, p 21, Klickitat River Stream flow Data only goes back to 2008. I would love for it to go back another dozen years to '96, the year of the last big flood. I can probably chase that info down at USGS.
re Wolves, I see that the issue is addressed in Appendix A, Goal 9 "Manage wolf-livestock conflicts..." Do you expect this to occur in the next 10 years?
Under Recreation and Public Use, the plan mentions the Klickitat Trail, but no mention is made of the Columbia Land Trust's Haul Road. Is that intended? I read on their website that the restoration work has been completed and the road is now open for public use, except for seasonal fire closures. Now, I see that its mentioned under Forest Management, but there is no mention of public access. We discovered it in the late 90's and vowed to tell no one after we saw Catherine Creek overwhelmed and loved to death. So maybe that is by design.

Thanks again.

Lenny Anderson

PS please advise regarding public meetings on this document as well as the KWLA CAC meetings.

From: Vanleuven, Susan (DFW)
Sent: Wednesday, May 25, 2016 4:48 PM
To: Lenny Anderson
Subject: RE: Klickitat WLA management plan

Hi Lenny,

I will forward your request for a hardcopy to folks in our headquarters who can print them. It's an 80-page document so it's best to have printing done by larger capacity equipment than I have at the KWA Office.

In answer to your questions:

1. There is some discussion in the plan regarding cooperative agreements with other agencies (mainly BLM). Some of the early versions of the plan talked about working with KTC and CLT, but I'd have to check and get back to you about whether those passages made it into the latest draft. If you don't see any mention, go ahead and provide a comment if you think it appropriate.

2. Wolves will be managed according to the statewide wolf management plan, which was developed over a lengthy period of time and with much stakeholder input. The wolf management plan is available on WDFW's website.

3. Yes, acquisition of inholdings within the Soda Springs Unit continues to be a priority. Of course, sellers must be willing to conduct a transaction with WDFW. WDFW is most interested in parcels that are not owned by conservation organizations. (There is at least one inholding that belongs to Columbia Land Trust.) We have not specifically identified individual parcels for acquisition in order to avoid the appearance of pressure on current owners.

Thanks for taking the time to review the draft,

Susan

From: Lenny Anderson [mailto:lenny@hevanet.com]
Sent: Wednesday, May 25, 2016 1:30 PM
To: Vanleuven, Susan (DFW)
Subject: Klickitat WLA management plan

Ms Van Leuven,
I am reading the KWLA draft management plan on line, but would like a hard copy for making notes and for my files.

Can WDFW send one to me at my Portland address:
2934 NE 27th Avenue, Portland, OR 97212
Or do I need to purchase from the State of WA. Last year I purchased Geologic Map GM-3, "Geology of the Simcoe Mountains Volcanic Area, WA" by R.A. Sheppard. Dated, but very informative.

Some questions re the Plan: 1. Does the Plan address cooperation with NGOs like Klickitat Trail Conservancy and Columbia Land Trust as well as other public agencies? 2. How will you manage a potential Wolf population and is that expected in next 10 years? 3. Does acquisition of infill in Soda Springs Unit continue to be a priority?

Maybe these are addressed, and I missed them. Will continue my review.

Thanks,

26May,2016

MFR & PDR

From:Rob Kavanaugh
ToWDFW Comm.& Dir.
Sue Van Lueven
HR Risk Mgt.
WDFW Ethics Mgrs.
AD Wildlife Program Mr.?

Subject:Risk Mgt.,Ethics violations Past and Present.
WDFW Rifle Ranges & Public Safety?

Please provide the requested records:

Our review of the Klickitat WMA Plan,2016 reveals these facts:
The WMA Plan is very informative and based on sound WDFW policy, goals,and objectives.A plan very well done.But can it be enforced and followed given the fact that there are just two ftes to manage,maintain,and protect this jem of a Wildlife Area?
How about some summer/fall temps?Records please.

Issue:
The WDFW proposed to build a unsupervised rifle range at some undetermined and mysterous location?This is cause for risk mgt. concern for the using public from gunshot death/injury,fires, litter,and wildlife distrubance or injury.Send all records ie where,who,when,why,liability to WDFW and other options considered.
We suspect the idea come from Pamplin?Confirm or disconfirm.
Klickitat WMA only.
Provide name of WDFW gun range supv.Liability for WDFW?

Issue :
There is no CRM Appendix?
Send me a copy of the CRM plan appendix.
Name of YIN CRM rep?Who enforces?Records please.Send latest CRM report.

Issue:
The plan includes membership in the King Mtn.CRM.Send ~~records~~ records of this plan.Who is in charge?What grazing standards are uniformly enforce and followed by who?How does this CRM specifically benefit fish?Wildlife?Ecological integrity? character?Public recreation?Send all records.

Issue:
Send me a copy of the gun range EIS for the Klickitat WMA.

Issue:
Ethics violation with the Nat Pamplin appointment to the License mgr.position where the HR Dir.changed the job requirements from a BS in Bn to any degree.Send all records of all other WDFW hiring positions where the successful applicant did not meet the min education requirement posted in the Job Announcement from 2013 to present.Also the name of the WDFW official who directed that the job announcement written by the Licensing Mgr. be changed to accomodate/do favors for Nat Pamplin.

Issue:
We are aware that Comm.Wecker is doing favors for the Taylor Shellfish Co.Send all records of all of her contacts/communications with Taylor Shellfish,Shelden Shelfish about the issue oof the NPDES permit to spray eel grass in Willipa Bay.Include Dr.Patten from 2011 to presnt. Send records showing she attended a Ethics class.When.Her signature of attendance.

Issue:
The Dir.directed a series of state wide "public"meetings to

learn about public concerns.Send me all records of these meetings attendee,letters,Emails and WDFW responses.2016 only.

Issue:
We asked for a "conflict resolution meeting for WWP.Please give a date and time.
I will send you our suggested agenda.

Issue:
Send me a copy of the WDFw policy of operating rifle ranges.

Issue:
The Dir.WDFW Comm.,and the AD wildlife allowed Bestsey Bloomfield wife of Reg.3 Mgr thayer and Vice Chair of the Rec.and Cons.Board to obtain a perm.livestock grazing permit from the Tieton Co.(now the N.Cowiche WMA.This is considered to be an ethics violation. Please provide all records of RCO grants to WDFW where livestock grazing is to be or is now permitted on WDFW lands.Send all records of all communications/decisions by RCO member Joe Stohr in consumating these grants and all of his meetings and communications with Betsey bloomfield from2011 to present.

cc.Dweb
Gov.Inslee
SAO
Chair RCO Board
WWP
CTPPS
Sen.Mark Miloscia
Columbia Gorge Eco Institute
Friends of the WGS
WNPS

Issue:
WGS continue to decline.Send record of the latest Klickitat WMA WGS survey.Show what monitoring method was used.Est.number of WGS on the WMA.see USFS survey area on Major Cr.
see atchs

Issue:
PILT is a concern for local school and Fire Dist.Send records showing the amt.of PILT paid by the Klickitat WMA for 2015 and that should have been paid a 70cents per ac.open space lands. Is there an ESCROW fund to make up the difference for FY 2017 per my Legislative(Bill) request to Sen.Parlett?Send records.

Issue:
Mtn Quail on the Klickitat are declining.Send records of plans to protect/reintroduce this species.

Issue:
Bull trout are now listed ESA.Send records showing how staff are protecting the habitat for this species.

Issue:
I could not find mention of the Ore.White Oak habitat types or plans to protect this species from livestock grazing damage. Send record of solution for this issue.

Vigue, Lauri (DFW)

From: Vanleuven, Susan (DFW)
Sent: Wednesday, June 08, 2016 9:45 AM
To: Vigue, Lauri (DFW)
Subject: Comments via phone

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Lauri,

For our records, I've received the following calls:

Danny Frey, June 2, 2016: He want to see grazing continue to be permitted on the Klickitat Wildlife Area.

Ken Dragoo, June 7, 2016: He is pretty satisfied with current management. He does NOT want WDFW to sell off any land. Also, he wants the boat ramp that was washed away last winter to be replaced (at Stinson Flats Campground). While we are working on that, he wants us to allow boaters to launch from a primitive put-in at Stinson Flats.

We may receive comments from these people later, either at the public meeting or by mail, so we should watch for these.

Sue

Vigue, Lauri (DFW)

From: Klickitat Wildlife Area (DFW)
Sent: Wednesday, June 08, 2016 9:37 AM
To: Vigue, Lauri (DFW)
Subject: FW: Comment on SEPA No. 16024

Follow Up Flag: Follow up
Flag Status: Flagged

A comment for our records.

-----Original Message-----
From: Theo Anderson [mailto:tanderson0019@live.com]
Sent: Tuesday, June 07, 2016 9:52 AM
To: SEPADesk2 (DFW)
Subject: Comment on SEPA No. 16024

Dear Sir,
Many of my friends and I use the KWA regularly. Of all of us, there are only two hunters, the rest are native plant enthusiasts and hikers. The ratio of non-consumptive users to hunters is at least 8 to 1, in my experience. I would therefore like to see the KWA used with this ratio in mind. I especially feel that turkeys and grazing are not compatible with the ratio of users that I am aware of.
With this in mind I would like to see a reduction of the number of turkeys and grazing permits. Turkeys especially, as an introduced species are in direct conflict with the state threatened Gray Squirrels as well as the deer which are also a native species. I believe turkeys should be considered a noxious species and eliminated on the KWA.
I would also like to see grazing permits eliminated, as stock are not compatible with native plant species, some of which are rare. Stock eat native species and introduce non-native species through their feces. And the non-consumptive users of the KWA must very greatly outnumber the ranchers who graze their animals there.
After all, it is a "Wildlife Area", not an introduced species area or grazing area.
Thank you for your consideration of these comments.
Sincerely,
Carl T. Anderson
509-767-7195

Klickitat Wildlife Area Plan Comments

Jim White
PO Box 206
Trout Lake, WA 98650

June 14, 2016

I attended the KWA Management Plan meeting in Goldendale on June 13. The meeting was very helpful in giving more detail about the plan components and planned activities. I have a couple of comments based on reading the plan and the meeting:

KWA Plan

Page 10 states that management on adjacent private lands has shown increases in WGS populations, based on implementation of WGS guidelines. This is a good example of adaptive management, and I know WDFW worked with the landowner in implementing WGS guidelines.

Page 11 mentions the Audubon "Sun and Sage" Loop, part of the Washington State Birding Trail. A good addition, missing in earlier drafts.

The section on Forest Management (page 37) outlines a process by which forests will be managed, and refers to the Forest Plan for more detail. This is encouraging, as the 2006 plan merely said things would be assessed. I also learned at the Goldendale meeting that an initial project is now being planned. I would note that. It shows that progress is already being made (more about this below under the Forest Plan).

Forest Plan

I was encouraged at the Goldendale meeting to find that projects are already being planned. I would note this in the Forest Plan. Before the meeting, my reading of the Forest plan frustrated me, in that very little detail was shown, and it was not clear when anything would get started. I would note that work has begun, and show an actual date for implementation of the first project.

-Figure 3 incorrectly referred to as Figure 6 on page 11

-Page 9, heading should probably be "Successional Classes" instead of "Succession Classes"

-Page 10, last paragraph, should say "facilitate" not "facility".

-It may be helpful to note that I (Jim White) was a temporary employee with WDFW when I did the mentioned inventory work.

-At the meeting, Forester Rod Pfeifle discussed his silviculture prescription for stand management, including a bit about tree spacing objectives, species preference, and variable density of the thinning treatments proposed ("skips" and "gaps" with some areas more heavily thinned, other small areas not thinned). This fits very closely with work I did on the Conboy National Wildlife Refuge, another prescription with a wildlife management focus. The Forest plan itself mentions none of this. In one place, on page 14 (under "Urban Interface Management") there is a mention of a goal of thinning to 20-25 trees per acre. Nowhere else in the document is this mentioned, making it very confusing. I would add a short discussion of the proposed treatments, as Rod discussed at the meeting. Otherwise, it

leaves the reader with no clue about what exactly is proposed, other than general statements about restoring historical conditions.

Vigue, Lauri (DFW)

From: Susan Saul <susan103saul@gmail.com>
Sent: Saturday, June 18, 2016 11:45 AM
To: SEPADesk2 (DFW)
Subject: Comment on SEPA No. 16024

Follow Up Flag: Follow up
Flag Status: Flagged

These are my comments on the draft Klickitat Wildlife Area Management Plan.

I am a regular visitor to the Klickitat Wildlife Area, probably around 6 - 10 times a year. I visit the Soda Springs, Mineral Springs, Fisher Hill and Swale Creek units for hiking, birding , wildlife watching, wildflower viewing, and photography. I also volunteer as a citizen scientist rare plant monit or on the Soda Springs, Mineral Springs, Swale Creek, and Sondino units through the University of Washington 's Rare Care program. In addition, I have volunteered for Columbia Land Trust to monitor western gray squirrel populations on its Bowm an Creek preserve adjacent to the Soda Springs unit.

I support WLA Goal #1 to restore and protect the integrity of priority ecological systems and sites. One of the at tractions of visiting the Klickitat Wildlife Area is the mosaic of Oregon white oak woodlands, mixed pine-oak forest, prairie meadows, riparian areas, seasonal wet meadows and stream canyons.

On the Soda Springs unit, I use the primitive roads as hiking trails. On the Fisher Hill and Swale Creek units, I use the Klickitat Trail as access. I appreciate the seasonal road closures which protect t he road surface and adjacent meadows during the time when soils are soft. They also provide undisturbed hiking conditions for birding, wildlife watching, wildflower viewing and photography.

Regarding Goal 1, I question whether the use of livestock grazing and farming as management tools conflict with goal of maintaining or improving the ecological integrity of priority sites, particularly given the presence of a number of rare plant species on the wildlife area. Certainly, livestock grazing should not be expanded beyond the current terms of the various permits. Similarly, farming should not be

expanded beyond the current fields since land conversion to agriculture would conflict with Goal 1. The plan do es not state the renewal cycles for the permits so it is unclear

how frequently they can be reviewed and adjusted to changing climate conditions. I

support Goal 1 (C) to develop a plan for protecting critical habitats for rare plants since the plan may clarify any conflicts with current land management.

I support Goal 4 to maintain and enhance the Oregon white oak woodlands, particularly to assess white oak protection when reviewing livestock grazing permits.

I support Goal 8 (I) to implement seasonal road closures annually to limit disturbance

of wintering wildlife by vehicle traffic. These closures also protect rare plant habitat

from offroad driving when soils are moist and "mudding" would be destructive to the

land.

I support Goal 8 (J) if mountain quail range historically included the Klickitat Wildlife Area. I do not support th e introduction of any other non-native species and I do not
support the expansion of populations of currently present non-native species beyond their current levels and locations, including turkey, pheasant and chukar. I oppose any

proposals to feed non-native species to support or expands their populations since their presence is not consistent with Goal 1.

I support Goal 11 (E) to support Washington State Parks' effort to improve access to the Klickitat Trail near the Swale Creek Unit. While Harms Road is not heavily traveled, a developed parking area and restroom facility w ould offer safer public access to the

Klickitat Trail than parking on the shoulder of the road.

I support Goal 11 (H) to develop options for a low impact shooting range facility on the wildlife area. Currently, target shooters go onto the area and indiscriminately pick

places to fire their weapons. It is disconcerting to be quietly hiking and suddenly hear

gunfire nearby without knowing exactly where it is originating or in which direction the shots are being fired, a nd with the certainty that the shooters are unaware that hikers

are nearby. A designated target shooting area, with the rest of the wildlife area then closed to that activity, would enhance the safety of visitors engaged in quiet recreation pursuits.

Thank you for the opportunity to comment on this draft plan.

Susan Saul

10102 NE 10th Street

Vancouver, WA 98664-3874

Vigue, Lauri (DFW)

From: Paul Slichter <pslichter@frontier.com>
Sent: Sunday, June 19, 2016 9:57 PM
To: SEPADesk2 (DFW)
Subject: Comment on SEPA No. 16024

Follow Up Flag: Follow up
Flag Status: Flagged

To Whom it May Concern,

I have been a frequent (up to a dozen times a year) hiker, birder, photographer and naturalist volunteer in the Klickitat Wildlife Area, having visited all but the Hatchery Unit through the years. I have walked many of the jeep roads and frequently have hiked cross country through many of the units.

I do wish to emphasize that one of the unique features of many places in the wildlife area is what I would characterize as a somewhat pre-settlement natural vegetation pattern of bunchgrasses and forbs beneath oaks, pines and doug firs. In many places this is best seen by bare cryptogrammic soil patches between the native grasses which can then host numerous annual plant species, many of which are rare. Because of the lack of weedy species in these bare soil places, the KWA is perhaps the place in Washington (or world in some cases) where these rare plants are most numerous. In addition, the Soda Springs Unit is the only place in Washington where Ceanothus cuneatus (no status yet) is located, and that unit perhaps boasts the largest concentration of mountain lady slippers in Washington. As of June 2016, I should point out that the distribution of rare plants in the wildlife area is only partly known. We found several new subpopulations of rare plants today, and will probably continue to find new populations of rare plants as we hike in the future.

With this in mind, management plans may want to take note of the unique relationship between soil structure and native plants since there are so few such habitats remaining in Washington. In many cases, thinning of tree canopies or shrubs may benefit rare as well as other plant and animal species, but such actions should be done so as not to smother open soils needed by many of the rare annual plants when tree materials are chipped and discarded on the ground. Locations of rare plants and animals should be considered when allowing mechanized equipment in to a wildlife unit for the purpose of thinning. Prescribed burns may also be of benefit, but actions should be taken to prevent a hot burn which would damage the soil and also to prevent the influx of weeds. Grazing should continue to be limited to the existing allotments on Grayback Mt. and not expanded to other areas to prevent damage to the soils and introduction of weeds.

Mt. quail should only be introduced if there is previous evidence they existed in the units. I would be leery of increasing the number of non-native turkeys on these units as they damage the soil as they forage and they compete with western gray squirrels, deer and elk for acorns, fungi and other food sources that help the mammal game animals survive in this area. I see quite a lot of use of the area for fishing and hunting which is fine with me. I hear a fair amount of indiscriminate target shooting during non-hunting seasons in the Soda Springs Unit, so it might be good to designate a target shooting area for the safety of hikers and equestrians who visit the area. I'd prefer to see a continuation of winter vehicle closures along roads blocked for wildlife enhancement. Off road vehicles have until now stayed out of sensitive riparian areas and vernally moist swales where many of the rare plants listed in Table D are found, and where water has time to percolate into the soil to provide summer water for trees, shrubs and wildlife. Road closures into such areas may need to occur if it appears that vehicles are damaging them.

I look forward to many more opportunities to visit and enjoy the Klickitat Wildlife Area!

Respectfully,

Paul Slichter

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Spokane District
Wenatchee Field Office
915 Walla Walla Avenue
Wenatchee, Washington 98801

IN REPLY REFER TO:

6521 (LLORW020000) 06/13/2016

Sue Van Leuven
Klickitat Wildlife Area, Manager
Glenwood Highway
Goldendale, WA 98620

Dear Ms. Van Leuven,
The BLM has reviewed the draft Klickitat Wildlife Area Management plan and have developed several comments as it relates to this draft plan. These comments are in addition to the letter sent on May 16, 2016 that outlines our concerns related to the existing MOU regarding the management of BLM lands within the Klickitat Wildlife Area. The BLM looks is looking forward to revising the MOU and continuing our cooperative relationship into the future.

If you have any questions concerning regarding this letter or these comments, please contact Bryan Mulligan, Assistant Field Manager, at (509) 665-2119 or via email at bmulliga@blm.gov.

Sincerely,

for

Linda Coates-Markle, Manager
Wenatchee Field Office

Enclosure (1):
Attachment A: Klickitat Wildlife Area Management Plan Comments

Draft Klickitat Wildlife Area Management Plant
Bureau of Land Management, Wenatchee Field Office Comments

Section #	Page number & Line Number	Category (e.g., Alternatives, Impacts)	Agency (and commenter)	Existing Text	Comment/Suggested Revision	Response
	48	Managing Lands on Behalf of Other Entities	BLM (Priebe)		Clarify which actions will actually be occurring on BLM lands in the 2 units. Attach BLM MOU in appendix?	
	64	Goal 11	BLM (Priebe)	Support and maintain appropriate recreational opportunities. "A. Limit camping along the Klickitat River to established campgrounds by 2016."	Clarify which actions will actually be occurring on BLM lands in the 2 units. Would additional "established campgrounds" be developed for people to camp at? How would dispersed camping areas (such as BLM areas near river on Soda Springs unit) be managed or reclaimed? Although this plan can close WDFW lands to dispersed camping it will not close BLM lands.	
	65	Goal 11	BLM (Priebe)	Support and maintain appropriate recreational opportunities. H. "low impact shooting range facility"	Work with BLM to identify possible locations for low impact shooting if the desired location will be on BLM managed lands. In addition working with the BLM on identifying where shooting is currently occurring.	
	General		BLM (Priebe)		It may be appropriate to mention that BLM has found the segment of the Klickitat River in the northernmost parcel of BLM in the Soda Springs eligible for	

Section #	Page number & Line Number	Category (e.g., Alternatives, Impacts)	Agency (and commenter)	Existing Text	Comment/Suggested Revision	Response
					inclusion into the National Wild and Scenic River System. BLM is analyzing alternatives for management of this section under the draft RMP (currently under development).	
	70	Weed Control Goals at Klickitat Wildlife Area	BLM (Priebe)		Document discusses weed control at developed access sites. Weed control also should occur at popular dispersed recreation access sites along the river. Please coordinate weed treatment activities on BLM managed lands with the BLM.	
	37	**Land Ownership and Management**	BLM (Sheridan)		Clarify that BLM-managed lands in this analysis area are managed under an existing BLM Resource Management Plan and subject to federal laws including NEPA (not SEPA), ESA, cult 106 etc. For additional information please reference previous letter regarding the need to update the MOU between the BLM and WDFW.	

Draft Klickitat Wildlife Area Management Plant
Bureau of Land Management, Wenatchee Field Office Comments

Section #	Page number & Line Number	Category (e.g., Alternatives, Impacts)	Agency (and commenter)	Existing Text	Comment/Suggested Revision	Response
	38	**Property Location, Size and Other Physical Characteristics**	BLM (Sheridan)		Remove BLM-managed acres from this table or clarify in footnote that BLM-managed lands are managed under an existing BLM Resource Management Plan and subject to federal laws including NEPA (not SEPA), ESA, cult 106 etc. For additional information please reference previous letter regarding the need to update the MOU between the BLM and WDFW.	
	General	BLM Managed Lands	BLM (Mulligan)		Update management plan to include references to updating MOU with the BLM and the division of resource management on BLM managed lands.	

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Spokane District
Wenatchee Field Office
915 Walla Walla Avenue
Wenatchee, Washington 98801

IN REPLY REFER TO

6520 (LLORW0200) 5/16/2016

Lauri Vigue
Lands Division/Wildlife Program
Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501

Dear Ms. Vigue,

The Wenatchee Field Office (WFO) has briefly reviewed the draft Klickitat Wildlife Area Management Plan your office provided. Due to other workload demands we have not been able to review it in detail. In the interim, however, we would like to share with you the following concerns regarding the proposed management of the Klickitat Wildlife Area (KWA).

The Bureau of Land Management (BLM) and the Washington Department of Fish & Wildlife (WDFW) executed a Memorandum of Understanding (MOU) in December of 1964, which described the management responsibilities of the BLM lands in the KWA. Specifically, that MOU established that WDFW provide for the protection and production of mule deer and upland game species by preserving and improving the habitat, provide and improve access to the lands for public hunting, provide for public access to the Klickitat River for fishing and general recreational purposes, and post signs where practical to inform the public of the joint management responsibilities. All other resources are to be managed by the BLM, including forestry, minerals, range, and watersheds.

The BLM believes that the MOU needs to be amended to reflect the changes in law, policy, and regulations that have occurred over the last 52 years. The current MOU does not reflect several pivotal laws including: National Environmental Policy Act (NEPA) (1970), Federal Lands Policy and Management Act (FLPMA) (1976), and the National Historic Preservation Act (NHPA) (1966). In consideration of these laws the BLM is concerned that any ground disturbing actions that KWA may undertake on BLM managed lands may not meet the required legal standards.

Moving forward the BLM recommends that we begin to revise the MOU to take into account our current management situation. This would include identifying a process to ensure that the KWA management plan is compatible with the current regulatory situation affecting BLM lands. Upon completion of a revised MOU, he BLM could then work with the KWA to develop the proposed management plan into a NEPA document enabling BLM to address and analyze the proposed actions affecting BLM lands.

The BLM values our relationship with the KWA and is interested in further discussion to update the MOU and increase our opportunities for collaborative management actions that would benefit the resources our agencies manage on behalf of the public.

Please contact Bryan Mulligan, Assistant Field Manager, at (509) 665-2119 if you have any questions about this letter.

Sincerely,

Linda Coates-Markle
Manager – Wenatchee Field Office

June 15, 2016

Washington Dept. of Fish and Wildlife
Susan Van Leuven, Wildlife Area Manager

Re: Klickitat Wildlife Area Management Plan

Dear Ms. Van Leuven and WDFW planners:

The Confederated Tribes and Bands of the Yakama Nation (Yakama Nation) is a federally recognized Indian Tribe under the Treaty of June 9, 1855 (12 stat. 951). Under Article III of the Treaty, the Yakama Nation reserved rights to fish, hunt, and gather traditional foods and medicines, and pasture livestock across the Yakama Nation's Ceded Lands.

The Klickitat River is part of the Southern Ceded Lands of the Yakama Nation (YN), where the Tribe has fisheries, cultural and other resource interests protected by Federal law through the Treaty of 1855 with the U.S. Government. The Yakama Nation has invested substantially over recent decades in planning, research, monitoring, hatchery production and habitat enhancement in the basin and has a significant stake in the cultural and natural resources of the basin, and the habitats that support them. An important tribal fishery supports Yakama families at Lyle Falls, and the fish, wildlife and water resources of the basin contribute to the ecology and economy beyond the basin's borders.

The Yakama Nation appreciates the opportunity to comment on the Washington Department of Fish & Wildlife's (WDFW) draft management plan for the Klickitat Wildlife Area. We recognize the importance of ongoing efforts by the DFW to manage wildlife areas for multiple natural resources and ecological function, and would like to submit a few comments regarding the plan itself for your consideration. They are, in order as they appear in the document:

Page 19 - Fisher Hill Unit - "This segment of the river flows through a narrow channel that was fished by members of the Yakama Indian Nation and remains an important fishing site today." The phrasing seems odd, "was" implies past tense. We recommend rephrasing, for example: "This segment of the river flows through a narrow channel that has been fished by members of the Yakama Nation for centuries and remains an important fishing site today." Please be advised that the Yakama Nation has not used the word "Indian" in its name for years, and therefore we would request all references be to "Yakama Nation".

Page 20 - last sentence of the page - "The West Fork Klickitat provides most of the summer flow in the Klickitat River (J Byrne, pers comm)." This assertion should be rooted in data rather than citing personal communication. Data from the USGS gauge above the West Fork (http://waterdata.usgs.gov/usa/nwis/uv?14107000) could support such a statement. On the next page, streamflow data from the gauge at Pitt is cited.

Page 29 - A paragraph on fish passage states that "the most significant natural fish passage barriers include: Lyle Falls, Castile Falls, and Little Klickitat River Falls, West Fork Klickitat River Falls, and tributary falls (Outlet Creek, Bowman Creek, Canyon Creek and Blockhouse Creek)." We recommend re-working the phrasing in this paragraph, since the first three falls on the list are only partial barriers to fish passage and the

first two have had significant financial investments to improve passage. The next sentence in that paragraph states that bull trout could occupy the upper Klickitat basin if fish passage were improved at Castile Falls. Again, we recommend clarifying this statement, considering that substantial investments to improve passage at Castile Falls were completed in 2005 (see "Castile Falls" section at http://ykfp.org/klickitat/Hatch_AP.htm). Additionally, the West Fork is likely the stronghold for bull trout in the Klickitat.

Page 38 - Restoration - No mention is made of the Lower Klickitat Revegetation Project, a collaborative project between YN and Mid-Columbia Fisheries Enhancement Group, under which some planting occurred at sites on WDFW land. Goals of this project were to increase bank cover, increase woody debris recruitment, and increase floodplain roughness.

- Same section - Klickitat River Floodplain Restoration (Haul Road) Project - this section makes no mention of the fact that this is a collaborative effort between the YN and Columbia Land Trust or that Bonneville Power Administration has provided funding for assessment, design, and construction oversight.

Page 44 - Klickitat Trail - all language makes this appear as a passive use trail; there is little to no mention of the railroad embankment and its presence on the landscape for over a century, including significant impacts to river habitats and processes.

Thank you for considering these comments. It is the policy of the Yakama Nation to preserve, protect, and perpetuate all significant natural and cultural resources. We look forward to continuing to co-manage and steward the valuable resources and habitats of the Klickitat River with the WDFW.

Sincerely,

Phil Rigdon, Superintendent
Department of Natural Resources
Yakama Nation

cc: Jeanette Burkhardt, YN Watershed Planner
David Lindley, YN Habitat Specialist
Bill Sharp, YN Research Biologist

Klickitat Wildlife Area Advisory Committee Meeting
Klickitat PUD
1313 S. Columbus Ave
Goldendale, WA 98620

April 28, 2015
5:30-8:00 pm

AGENDA

Time	Topic	Lead
5:30	Welcome and Introductions	Susan Van Leuven
5:45	Roles & Expectations	Lauri Vigue
6:00	Klickitat WLA Planning and Process	Lauri Vigue
6:30	Klickitat WLA Draft Issues List	Susan Van Leuven
7:50	Public Comment	Lauri Vigue
8:00	Wrap-up	Lauri Vigue

Coffee and light snacks will be provided.

Klickitat Wildlife Area Advisory Committee Meeting
Final Meeting Notes

April 28, 2015
Klickitat PUD
1313 S. Columbus Ave, Goldendale, WA 98620
5:30-8:00 pm

Attendees

WAAC Members:

JP Enderby
Marty Hudson, Klickitat Co Weed Control
Neil Kayser
Buzz Ramsey
Jim White
Sara Wu

WDFW Staff:

Sandra Jonker
Dave Howe
Amber Johnson
Susan Van Leuven
Lauri Vigue

Welcome and Introductions

Susan Van Leuven, Klickitat Wildlife Area Manager welcomed everyone and introduced WAAC members and WDFW staff. Lauri Vigue, Planning Project Manager, explained the focus of the meeting is to provide an overview of the wildlife area planning process, timeline, WAAC roles and expectations and Sue would provide a draft list of wildlife area issues.

WAAC Roles and Expectations

Lauri reviewed the WAAC charter and responsibilities for members of the WAAC. One comment was made that most of the WAAC members are local representatives and do not represent an agency or organization. This issue applied under the "identify an alternate member when and if the primary representative is unable to participate". The point was made that this charter will be effective indefinitely and in the future the WAAC may include representatives from different agencies and organizations.

*Comments are due on the draft charter by May 12th.

Klickitat WLA Planning and Process

The primary purpose of this meeting is to introduce the wildlife area management planning process. The goal is to develop a wildlife area management plan for the Klickitat Wildlife Area. This is the second pilot in a series of wildlife areas that have been chosen to develop this process. The Lands Division has been developing the process over the course of the past 2-3 years. The process has become complex due to interagency coordination and integrating new internal initiatives.

The agency mission and strategic plan were introduced. An overview of Klickitat WAAC roles and expectations, contributions and responsibilities were provided; as well as the planning team responsibilities. A summary of the purpose of the plan, overarching document, forest planning, recreation strategy were introduced.

The Klickitat WLA planning process begun with a meeting with Sandra and Sue in July 2014; an internal scoping meeting was held in August, the public meeting was held on September 16, 2014; and the first planning meeting was held October 23rd.

Planning Timeline:

Klickitat WAAC	April- July 2015 (2-3 meetings total)
2nd Public meeting	August 2015
Planning meetings	June/~August
Final Draft Plan	September/October 2015

Klickitat WLA Draft Issues

Fish and Wildlife

Reintroduction of bighorn sheep
First release on Soda Springs had truck issues and animals were released in the middle of the night

- Need acclimation corral to contain sheep
- Evaluate predators (cougar)
- Doubtful whether bighorns were in the Klickitat Canyon
- Habitat assessment is needed if reintroductions are considered

Concern over wild horses moving into the WLA

Wild turkeys

- Interest at the public meeting, nuisance around private residences near the KWA

Western Pond Turtle

- Coordinate with the Diversity Division on statewide recovery
- Sondino Pond, unfortunately shell rot disease is occurring and it is a statewide issue

- Upland enhancements are needed for nesting habitat
- Hydrology issue with local landowner (climate change issue/water right not strongly worded to protect WDFW water delivery to ponds)

Wolves
- As wolves expand their range potential livestock conflicts may arise in the future

Winter Deer Range
- Migratory deer maybe affected by grazing of wild horses?
- Predators are suppressing the deer populations
- Deer populations are rebounding slowly

Pronghorn
- Should we manage for this species?

Cougar
- Accurate population counts needed

Elk
- How should we manage for elk?

Western Gray Squirrel
- Management activities will include forest planning (fire management and enhancement)
- DNR is promoting heavier thinning than would seem appropriate for fuels reduction
- Learn from Columbia Land Trust Project near the KWA Soda Springs Unit
- WDFW has launched a new 3 year population and abundance study

Habitat Management – includes forest management, ag leases, grazing permits, ecological integrity monitoring, water level monitoring, weed control

Habitat restoration
- Riparian restoration will be considered for protecting salmonids
- Grasslands?
- Dead Canyon Bridge - DNR is directing WDFW to either remove or upgrade the bridge to meet. The bridge is currently used for KWA management and is important for weed control and fire control.

Rare plants
- Wildlife area wide inventory needed
- Develop a management strategy for rare plants on a species by species basis

Oak Management

- Move toward prescribed burning to maintain oak habitat
- Remove over topping conifers where conifers threaten survival of desirable oaks
- Leave oaks alone – don't encourage shrubby growth
- Denser stands provide neotropical migrant bird benefits

Forest Management
- Future scenarios to address insects and climate change
- Manage toward returning to a natural fire regime

Grazing /Agriculture
- Current grazing/Ag leases will be maintained
- Both go through District Team review

Recreation

Disabled hunting
- The public is unsure if disabled hunting allowed
- Red/Green Dot road access worth a try
- Consider disabled hunting in designated area
- We need sources of funding for land acquisitions for this activity

Soda Springs Campground Redevelopment Issue (adding another stopover for the public and for agency use mainly to address enforcement issues)
- Avoid developing an additional campground
- The inaccessibility is the value of that spot
- We should include fire patrols on the river

Target Shooting
- A 1,000 yard target shooting range was suggested
- Trees that have been subjected to shooting or nailing are bad for possible timber sales

Privatization
- Weyerhaeuser limiting access

Target shooting (lead concerns)
- Not a large issue on the wildlife area
- More of an issue on where to locate future shooting areas

Tribal hunting
- Undocumented hunting on the wildlife area
- Impacts deer distribution and population

Wildlife Area Infrastructure

Includes maintenance of facilities for staff use

Maintenance of roads, signs, to facilitate public recreation
Maintenance of structures for habitat enhancement and protections

- Add signs saying “don’t shoot the trees”

Acquisitions
Most of the public wants more recreation opportunities, however the grant category WDFW usually receives funding is for important habitat for listed species.

Public Comment
Public comments were not provided at this meeting.

Wrap-Up

- The next WAAC meeting will occur most likely in July
- The draft plan is expected in July/August

Klickitat Wildlife Area Planning Wildlife Area Advisory Committee Meeting

April 28, 2015

Susan Van Leuven
Lauri Vigue

Agenda

- Welcome/Introductions
- Roles and Expectations
- Klickitat Wildlife Area Planning Process
- Draft List of Issues
- Public Comment

- Questions?

WDFW Mission Statement

- To preserve, protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities.

WDFW Strategic Plan

Goal 1	Conserve and protect native fish and wildlife
Goal 2	Provide sustainable fishing, hunting, and other wildlife-related recreational and commercial experiences
Goal 3	Promote a healthy economy, protect community character, maintain an overall high quality of life, and deliver high-quality customer service.
Goal 4	Build an effective organization by supporting our workforce, improving business processes, and investing in technology.

Roles and Expectations

The purpose of the Wildlife Area Advisory Committee is to provide input for the development and implementation of the new Klickitat Wildlife Area Plan.

WAAC Contributions

- Represent the views of interested stakeholders
- Communicate with larger stakeholder community
- Identify issues and concerns
- Provide local expertise and insight
- Key tool to involve the public

WAAC Responsibilities

- Attend meetings
- Review information, ask questions, discuss issues
- Speak on behalf of organization or personal interest
- Bring local perspective
- Identify and brief alternate, if necessary
- Become familiar with WDFW mission and WLA planning and management goals
- Work in a collaborative manner

Planning Team Responsibilities

- Lead the process and WAAC meetings
- Prepare and distribute materials
- Answer questions
- Promote transparency
- Consider WAAC input in WLA plan decisions
- Work in a collaborative manner

Discussion Guidelines

- All members are expected and encouraged to participate
- Everyone's perspective is valuable
- One person talks at a time
- Refrain from side conversations
- Stay focused on meeting purpose
- Listen and be respectful
- Keep comments short – 30-second big ideas
- Keep an open mind
- Turn off cell phones

Purpose of the Plan

- Sets vision (8-10 years)
- Guides management activities
- Includes public & stakeholder participation
- Ensures lands are managed consistent with WDFW mission and funding obligations

Purpose of the Plan

- Identifies priority actions and plans for implementation
- Provides transparency
- Integrates agency priorities

Overarching Document

- *Demonstrates to the public and provides guidance on how WDFW lands fit into larger planning landscape*
- *Provides overview of funding sources for purchasing and managing lands*
- *Provides an overview of agency initiatives and their application to WDFW lands*

Forest Management Strategy

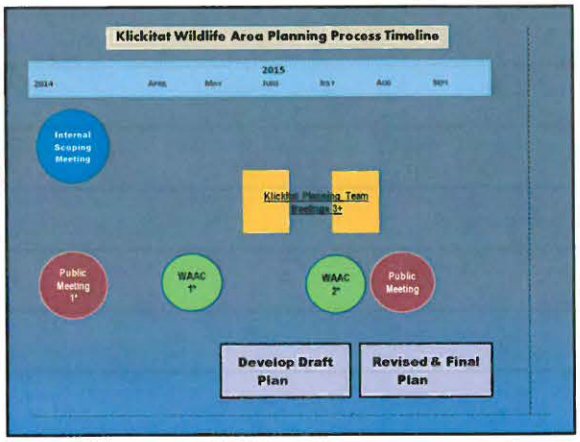
- Strategy adopted in 2014
- Forests managed for ecological integrity
- Requires forest management plan for each wildlife area, for each wildlife area that contains forest land
  - Will provide more accurate forest information
  - Will define areas for priority projects

Recreation Management Strategy

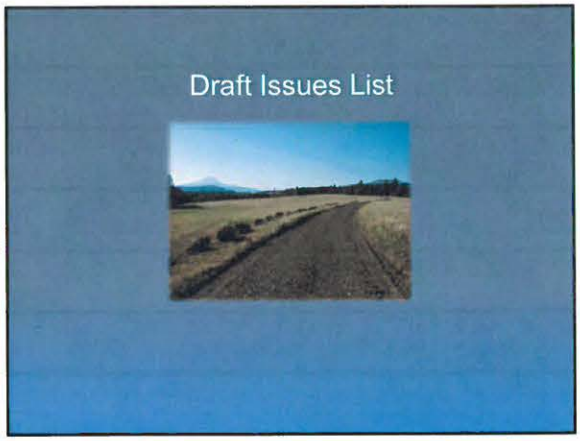
- Provide guidance and tools to evaluate impacts of other recreation uses
- Develop standards for maps, signage and other public information
- Draft expected in 2015

Basic Plan Outline

- Introduction
- Wildlife Area Description
- Ecology
- Management Direction and Approach
- Appendix
  - Weed control Plan
  - PHS information
  - Cultural Resources Summary
  - Public Process Summary


Klickitat Wildlife Area Planning Process Timeline
2015
Internal Scoping Meeting
Public Meeting 1*
WAAC 1*
WAAC 2*
Public Meeting
Develop Draft Plan
Revised & Final Plan


WLA Planning Timeline
Swanson Lakes WLA
Klickitat WLA
Okanogan Valley WLA
Oak Creek WLA
Three New Plans by January 2016
2015
2016
September
November
January
March
May
July
September
November
January
March


Draft Issues List

Fish and Wildlife

- Western Pond Turtle
- Western Gray Squirrel
- Salmon

- Bighorn Sheep
- Wild Turkey
- Deer Management

Habitat

- Forest Planning
- Riparian
- Acquisition
- Rare Plants
- Restoration

WLA Management

- Weed control
- Grazing
- Agriculture Leases
- Fence Management
- Maintenance roads, signs, reader boards

Recreation

- Disabled hunting
- River access
- Privatization
- Capacity
- Control of impacts
- Lead Concerns

Other

- Tribal hunting
- Partnerships (BLM)

Any other Issues?

Public Comment

Wrap-up

In summary,

- The next Klickitat Planning Team meeting will occur in June
- The next WAAC meeting will take place in July
- Draft plan is expected in July/August
- Final plan complete October 2015

Thank you

Klickitat Wildlife Area Management Plan

Public Scoping Workshop Summary – FINAL

September 16, 2014

Introduction

The Washington State Department of Fish and Wildlife (WDFW) hosted a public scoping workshop on Tuesday, September 16, 2014, from 5:30 to 8:00 p.m. at the Goldendale Library. The purpose of the workshop was to share information about the wildlife area planning process and to solicit public and stakeholder input.

The workshop begins the planning process for developing a new Klickitat Wildlife Area Management Plan, one of 33 plans the department will revise over the next six to eight years. The plans are updated every two years to reflect changes in landscape and management priorities; however, the larger plan efforts are more comprehensive and consider the status of wildlife species and their habitat, progress towards goals identified in earlier plans, and new wildlife area priorities. The plans will consider the interests and impacts of stakeholders and user groups; set goals for assessing and monitoring ecological integrity; outline forest management priorities; identify appropriate public use, recreation areas and facility improvements; as well as weed control practices and other operations and maintenance practices. Klickitat's current plan as developed in 2006, with subsequent updates in 2007, 2009, 2010 and 2012. These are available on the department website at http://wdfw.wa.gov/lands/wildlife_areas/management_plans/.

Twenty-six people attended and signed in at the workshop including interested parties from Klickitat County communities of Goldendale, Centerville, and from Bend, Mosier and Wasco OR. Stakeholder groups included Washington Native Plant Society, National Turkey Federation, agricultural lease holder, cattle ranching interest, as well as fishing and hunting enthusiasts and wildlife area volunteers.

Workshop Format

The workshop was designed in a combination open house/presentation format. Individual maps of each of the seven Klickitat Wildlife Area's units were posted, and participants were encouraged to share specific and general feedback after the presentation and at the map locations.

Staff presentation

Melinda Posner welcomed everyone and introduced herself as Lands Division planning/public outreach lead and facilitator for the meeting. She introduced the following staff members, and noted the absence of planner/project manager Lauri Vigue, who was unable to attend the meeting:

- Sue Van Leuven, Klickitat Wildlife Area Manager
- Rich Davis, Natural Resources Tech
- David Anderson, District Wildlife Biologist

- John Weinheimer, District Fish Biologist

Melinda emphasized the early stage in the planning process and the desire to hear from the public and stakeholders about interests, issues, and potential priorities for this wildlife area. She noted multiple methods for providing comments including written comment sheets, flip charts notes, speaking with staff and sending email comments directly to klickitatwa@dfw.wa.gov or to Klickitat Wildlife Area Manager, Susan Van Leuven at susan.vanleuven@dfw.wa.gov or by calling (509) 733-4459.

Melinda reviewed the department's overall process for updating all state wildlife area plans. She noted the following new topics the plan will consider including:

- Wildlife Area Ecological Integrity Monitoring
- Forest Management
- Recreation Management
- Expanded public outreach including public workshops, information materials and Wildlife Area Advisory Committee meetings

She summarized the nine-month planning process for Klickitat; staff expects a draft plan by the end of 2014, and potential final plan in spring 2015. Melinda introduced Susan Van Leuven, wildlife area manager for Klickitat Wildlife Area. Sue described the purpose, acquisition and funding requirements, and current and status of objectives for each of the seven wildlife area units in this wildlife area.

Soda Springs Unit

Overview: 13,000 acres of open grassland, oak woodlands, conifer forest, mixed conifer/oak forest

Purpose: Conservation of black-tailed deer winter range, western gray squirrel and wild turkey habitat

Funding source: Pittman-Robertson, State General Fund, Recreation Conservation Office includes federally owned land and land leased from Dept. of Natural Resources

Current objectives: Maintain and enhance habitat for priority fish and wildlife species, provide public hunting and fishing opportunities

Mineral Springs Unit

Overview: 1,108 acres of open grassland, oak woodland, riparian forest and shrub, conifer forest

Purpose: Public access to the Klickitat River for fishing and salmon and steelhead habitat conservation

Funding source: Recreation Conservation Office, Federal Land & Water Conservation Fund, State General Fund, includes federally owned land

Current objectives: Maintain riparian habitat and public fishing access

Dillacort Canyon Unit

*Overview***:** 340 acres of oak woodland, riparian forest, shrub, and grassland

Funding source: The state property was acquired by Dept. of Fisheries in 1950, and includes federally owned lands

Current objectives: Public access to the Klickitat River for fishing and camping, salmon and steelhead habitat conservation

Fisher Hill Unit

Overview: ~ 500 acres of oak woodland, mixed pine/oak forest, riparian forest and shrub, grassland

Funding source: The property was acquired by Dept. of Fisheries in 1950

*Current objectives***:** Salmon and steelhead habitat conservation and maintenance of woodland habitats for deer, turkey and western gray squirrel

Goldendale Hatchery Unit

Overview: 240 acres of agricultural fields, riparian shrub, and steppe

Funding source: Acquired by Dept. of Fisheries in 1963 or 1964

Current objectives: Provide public trout fishing access and pheasant hunting

Swale Creek Unit

Overview: 516 acres of steppe, riparian shrub

Funding source: State General Fund

Current objectives: Conserve riparian and steppe habitat, provide upland game bird hunting opportunities

Sondino Unit

Overview: 219 acres of perennial and seasonal wetlands, oak woodland, mixed pine/oak forest, open grassland

Funding source: State General Fund

Current objectives: Conservation of habitat for western pond turtle and support of efforts to increase western pond turtle populations in Washington State

For additional information or comments:

Klickitat Wildlife Area Management Plan Public Scoping Workshop Summary
September 16, 2014

Susan welcomes phone calls and emails, and can be reached at the wildlife area office, which is open Monday through Friday from 8:00 to 5:00 p.m., excluding holidays.

General Comments and Questions

Questions and comments captured on flip charts from verbal comments of participants are listed below.

Comment: Interest in continuing livestock grazing; family has been grazing here for many years and it can be used as a tool for maintaining and enhancing habitat

Question: What is ecological integrity and how is this being implemented? Was it initiated by a socio-political group? *Answer*: Maintaining or enhancing ecological integrity is a strategic objective of the agency. The Lands Division will integrate this into the wildlife area planning process. The wildlife area plan will identify steps to define the existing ecological integrity of the Klickitat wildlife area units, and, in the future, set goals for maintaining or enhancing it. Depending on the area habitat, species and other management activities, the plan will recommend actions to either maintain the or enhance the current ecological integrity of an area including activities such as controlling or eliminating invasive weeds, implementing habitat restoration projects, and/or managing recreation access to conserve ecological integrity values.

Ecological integrity is defined below. More information can be found at http://www1.dnr.wa.gov/nhp/refdesk/communities/eia.html.

Ecological integrity can be defined as "the structure, composition, and function of an ecosystem operating within the bounds of natural or historic range of variation." An Ecological Integrity Assessment (EIA) rates the current ecological integrity of an occurrence of a plant association or ecological system. NatureServe and the Natural Heritage Network have developed the EIA as an index of ecological integrity based on metrics of biotic and abiotic condition, size, and landscape context. Each metric is rated by comparing measured values with the expected values under relatively unimpaired conditions (i.e., operating within the natural range of variation). The ratings are aggregated into a total score or a scorecard matrix. A rating or score for individual metrics, as well as an overall index of ecological integrity, are communicated with the scorecard.

The EIA can be applied to multiple spatial scales (e.g., landscape or site-scale) and with a variety of data types (e.g., GIS or field-based). EIAs are developed for individual ecological systems using a three level approach to identify a suite of metrics, including Level 1 (remote sensing), Level 2 (rapid ground-based), and Level 3 (intensive ground-based) metrics.

In summary, the EIA framework provides a standardized currency of ecosystem integrity across all terrestrial ecosystem types. This information can then be used for setting conservation priorities, identifying restoration strategies, and monitoring the effectiveness of conservation actions.

Question: Is the ecological integrity work supported by licensing dollars?
Answer: Staff work in ecological integrity occurs at several different levels including dedicated biologists who collect data to assess ecological integrity, Geographic Information Systems (GIS) and Information Technology (IT) staff who develop models and analyze the data, land planners who review the data and

use it to develop ecological integrity goals and objectives for wildlife area plans, and staff who manage volunteers who are collecting data. Funding for these positions comes from various sources including a portion of funds from license sales.

Question: Has the advisory committed changed over the years? We used to get information about the group, and were kept informed about what was going on. We own land next to the wildlife area and want to be kept informed.
Answer: The Wildlife Area Advisory Committee (WAAC) composition may have changed over time and will continue to change when and if new stakeholder groups are interested in the WLA and/or groups decide not to participate. The WAAC meets at least once and sometimes twice a year, and will be meeting at least that often to provide input for the new plan. There is a process by which interested parties can apply for a position on the WAAC. Neighboring landowners or any members of the public are encouraged to call the KWA office with questions at any time.

Question: In the Mineral Springs Unit, is the agency involved with tribe? They have other land ownership in the area. (north and south).
Answer: WLA staff manage agency lands independently and coordinate with the tribes (and any other partners) on a project-by-project basis.

Question: Will the forest plan be separate from the Wildlife Area Plan?
Answer: When drafted, the forest plan will become part of the Wildlife Area Management Plan.

Question: Will you assess cougar kill and response (more tags) in the plan?
Answer: Wildlife biologists conduct annual deer surveys in winter/spring. Deer mortality on the wildlife area is known to occur from a variety of causes and we try to determine if there is an abnormal level of losses from any particular cause. Cougar hunting quotas and seasons are established during a separate process.

Question: Do you survey the wildlife area for cougar kills?
Answer: This depends on severity of winter season; if there is severe winter, , yes, we survey for deer mortalities. We try to determine the cause of the mortalities. This has not been the case for last several years.

Comment: We own land and run cows right next to the wildlife area; sometimes we see 20-30 cougar kills.

Question: Did we meet the goals in the old plan?
Answer: Yes, in some cases; in others we are making progress; there are some new concerns we need to consider.

Question: Near Grayback Road, there is a piece of property owned by the timber company with marginal timber value. It would be good to add to the WLA. Is there any thought about that?
Answer: The owner knows the department is interested if they decide to sell.

Question: Stacker Butte- DNR land that is closed to hunting now: Is there any way to get it opened again?
Answer: DNR has different management strategies that they employ in different areas; this is not planned to be reopened for hunting access.

Question: Is the Soda Springs Road open year round or are there gate or restrictions on that road?
Answer: The county road referred to is not maintained but is open year round.

Question: If a road is closed to motorized access, does that apply to All Terrain Vehicles (ATV)?
Answer: Yes, road closures are for motorized vehicles but do not prohibit nonmotorized access.

Question: How many people are on the WAAC?
Answer: There are currently seven to eight members.

Question: The WAAC is made up of stakeholders?
Answer: A stakeholder is any individual or group that is interested or affected by the wildlife area activities. The department encourages the participation of stakeholders on the WAAC, and ideally looks for individuals who represent a larger stakeholder group. WAAC members are responsible for attending meetings and bringing information back to their group, and vice versa, bringing collective comments from their group to the WAAC.

Comment: There used to be a lot of deer in the Leidl grade area; the guard rails interfere with deer mobility on their winter range.

Question: How does the deer population on the wildlife area compare to the deer population on nearby private properties?
Answer: Deer are mobile. It's expected that many that are seen on private property were also on the public property. In addition, private property in agricultural production attracts more deer (does especially). There isn't the same population composition on the WLA; there are less does on the WLA property. A key objective of the department is to discourage private property damage from deer. Fencing and food plots help with some of this. Agricultural lands on the WLA include 90+-acres in wheat and alfalfa, a 46-acre alfalfa plot and some smaller food plots.

Question: Is there a need to control the number of hunters per day?
Answer: This might have been something to consider in the past when these areas were packed with hunters; that is not the case so much anymore.

Comment: Encourage staff to study the cougar kills. It's believed that they are a big impact to reduction in deer population. It was noted that when the weather stays milder at higher elevations (less severe winter), the deer don't drop down to lower elevations as much.

Question: What are some of the key wildlife area priorities or projects?
Answer: Susan shared the following:

- Food plots

- Forest thinning, fuel reduction corridors on Soda Springs Unit
- Fence replacement on Hatchery Unit
- Weed control projects

Comment: DNR did some good clearing in the Glenwood Highway area. The trees were limbed up and the smaller stuff taken out; it looks good.
Response: That is a good example of what staff will do on the WLA where the boundaries are adjacent to private property and along corridors along roads on the WLA.

Question: What is the status of the Rock Creek project?
Answer: The project didn't move forward.

Comment: Concerned about oaks, and that thinning may create thickening over time unless the bases are poisoned.
Response: The current department strategy is retaining one to three dominant leaders in a clump; this seems to reduce sprouting, and deer foraging helps.

Comment: The new plan should address beetle kill.

Comment: There is more garbage in the WLA, near the river.

Comment: Interested in ecological integrity and wildflowers; the latter have no advocate or big funding sources. Land disturbance creates opportunities for invasive plants and reduced ecological integrity. Some areas should be close to human access.

Comment: Young people should be involved in the WLA; need for promotion and outreach to schools.

Comment Sheets – Combined Responses

Interests

- High value hunting and fishing habitat access
- Beautiful habitat scenery!
- Oregon white oak habitat enhancement
- Harvestable surplus of wild turkey
- Hunting access, easements, acquisitions
- Fire management
- Hiking, fishing, hunting
- Maintenance of diverse habitat that includes supporting rare wildflowers found in area
- Wildflower viewing
- Beautiful scenery – scenic meadows and oak woodlands, native plants

Affiliation

- Lifelong hunter/fisher
- National Wild Turkey Foundation
- Recreation user and conservation group

- Suksdorfia Chapter of the Washington Native Plant Society
- Native Plant Society of WA and OR

Recreation Pursued at Klickitat

- Hunting
- Fishing
- Wild turkey hunting
- Hiking
- Wildflower viewing and identification, looking at oak ecology
- Photography

Frequency of Use

- Just beginning – new to area; no significant history
- 2-4 times/year (wild turkey hunting, hiking, wildflower viewing)
- Multiple times per month

Recommended Changes or Improvements

- Forest management to enhance wildlife feed
- More active forest management: manage for larger oaks, improved understory forage, conifer removal from oak stands, meadow maintenance/enhancement
- Pursue easement/acquisition opportunities
- Expand food plots
- Feel management is doing a good job
- Grazing is the greatest threat to wildflowers; please do not increase the number of cattle and decrease if possible. Do not put water tanks near good flowers.

Other Topics of Interest

- All users and input stakeholders need to be funding contributors
- Health wild turkey populations; roosts, brooding, nesting and winter forage requirements addressed
- Would like to see trash and garbage addressed in the management plan, particularly along the river
- Overgrazing by livestock which leads to invasive weeds
- Invasive weeds
- Limit access to designated trails, roads and other areas
- Oaks: Theories on “oak restoration” come from west side research. No oak research has been done east of the Cascades. Through many stands of oaks have been thinned, no data has been taken. The oaks are not in danger. Do not hurry to do anything to them. You have wonderful oaks. If you need to thin them, do not thin within clumps. Those clumps *are* trees; single trees with many stenms. The stems may meld in time – many big oaks are double, triple or more stems melded. Rather, take out entire clumps and poison bases so they don’t regrow.

Other Feedback

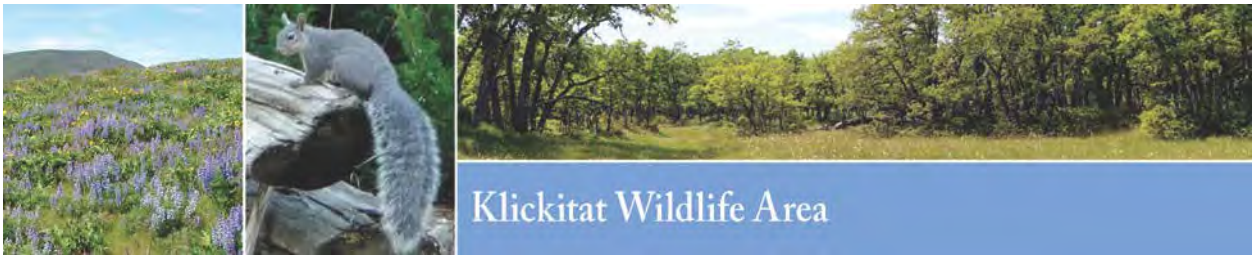
The following comments include those from meeting participants and comments received after the meeting.

- Youth hunters and fishers
    - Establish promotional program
    - Develop tradition/perpetuate values
- Would be nice to see a wild turkey census similar to Colville (winter, road route) to track trends in wild turkeys. Poult production counts would be even better. This would enhance information on tag allocation/bag limits particularly regarding fall season discussions.
- Conservation partnerships should be leveraged to accomplish forest management
- Host workshop for managers and landowners on white oaks management
- Survival of fish and wildlife depends on delicate and diverse balance of plant and animal activity; humans tend to disturb the balance by our very efficiency in what we do
- Letter and Guiding Policy from Red's Fly Shop
- Lomatium Suksdorfii is a WA listed species. There is some in Oregon but most on private ranchland with grazing and cattle do eat it. It likes to grow in soil rather than rocky areas, so cattle can get to most of it. I was one of 3 people who did the first plant survey for the Klickitat River when it became a "Wild and Scenic River" and I have photos of fenceline contrast with Lomatium Suksdorfii on one side of a fencse and not on the grazed side. I would say that the Klickitat Wildlife Area has the largest population of any place that I know, and is the only public land that has much. Oregon has very little and none is protected. WA has a little at Catherine Creek, the edges of Major Creek Road, the edge of Hwy 142, and quite a bit on private land above the Klickitat River, which is being grazed. It is important to restrict grazing so this plant will survive in the Wildlife Area.

Meeting Materials

The following meeting materials are attached:

- Agenda
- Klickitat Wildlife Area Management Plan Fact Sheet
- Workshop Postcard
- Media coverage
- Scanned comment sheets



WILDLIFE AREA MANAGEMENT PLAN

PUBLIC WORKSHOP AGENDA

5:30-8:00 p.m.

September 16, 2014

Goldendale Public Library

5:30-6:00 p.m. **Open House**

6:00-6:45 p.m. **Planning Presentation**

Welcome, Workshop Purpose & Expectations – Melinda Posner, Wildlife Area Planning, Recreation & Outreach Manager

Planning Process & Timeline – Lauri Vigue, Project Manager

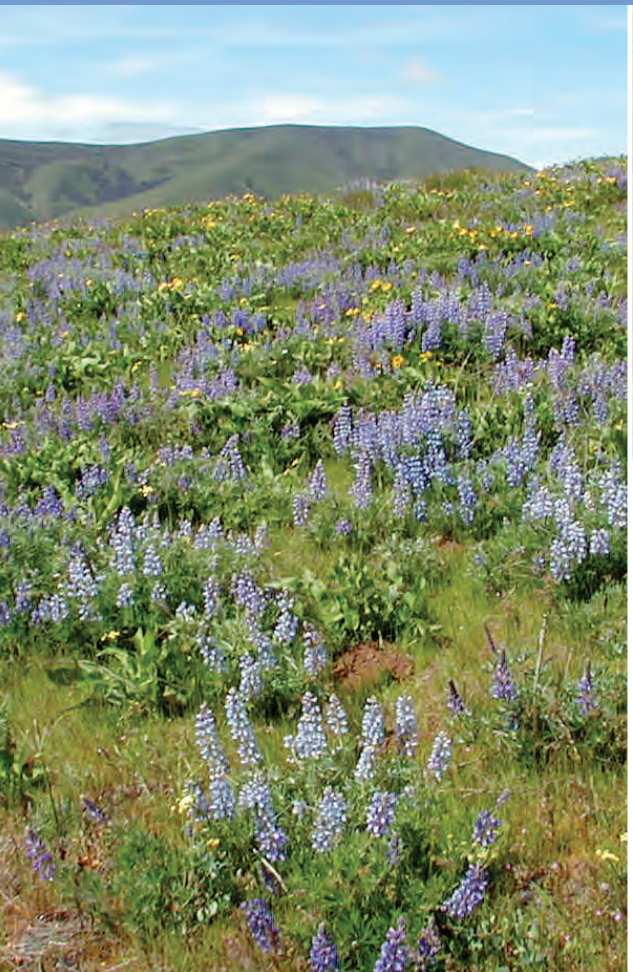
Klickitat Wildlife Area – Susan Van Leuven, Wildlife Area Manager

Q & A – Melinda Posner

6:45-8:00 p.m. **Open House**

Washington Department of FISH and WILDLIFE

Klickitat Wildlife Area



We want your input!

Plan to attend:

WHAT: Public workshop to learn about the wildlife area planning process and share your ideas about habitat management and public use.

WHEN: 5:30 to 8 p.m., Sept. 16

WHERE: Goldendale Community Library
131 W. Burgen St., Goldendale, WA 98620

CONTACT: Susan Van Leuven - (509) 773-4459
or susan.vanleuven@dfw.wa.gov

Washington Department of FISH and WILDLIFE

Washington Department of FISH and WILDLIFE

Washington Department of Fish and Wildlife

1111 Washington Street SE

Olympia, Washington 98501-1091

wdfw.wa.gov

Klickitat Wildlife Area

Klickitat wildlife area management plan

The Washington Department of Fish and Wildlife (WDFW) has begun a multi-year planning process for the department's 33 wildlife areas. As part of that process, WDFW is developing a management plan for the Klickitat Wildlife Area, a nearly 16,000-acre area in south central Washington.

Most of the area's seven units border the Klickitat River, which provides habitat for federally listed steelhead, spring chinook and bull trout. The wildlife area's uplands serve as winter range for black-tailed deer and year-round habitat for wild turkeys. Other wildlife species that live in the area include western gray squirrels, golden eagles, western pond turtles and Lewis' woodpeckers.

The new management plan will address the status of wildlife species in the area and their habitat, the progress of restoration efforts, and public recreation opportunities.

Soda Springs consists of about 13,000 acres in mostly contiguous parcels. About 2,100 acres are managed jointly between WDFW and the Bureau of Land Management (BLM). This unit is managed to preserve and enhance habitat for game species, primarily black-tailed deer and wild turkeys. Western gray squirrels, which are a threatened species in the state, also can be found on this unit. Hunting, camping, hiking and wildlife watching are popular activities.

Mineral Springs is located in the Klickitat River Canyon. The 1,108-acre area is mostly Oregon white oak, ponderosa pine woodlands and some Douglas fir. Grasslands occur on south slopes. Wildlife species include deer, grouse, turkeys and many songbirds associated with the riparian habitat. The chimney of an old water bottling plant on the property is a roost site for Vaux's swifts. Public use is primarily for fishing and hunting, with a boat access site and overnight camping.

Dillacort Canyon includes 340 acres within the Klickitat River Canyon. WDFW and BLM jointly manage portions of the property. Habitat types include oak woodlands, grasslands and riparian areas. A water access site along the Klickitat River is popular for camping and fishing.

Fisher Hill consists of several parcels over roughly 500 acres. It is located on the Klickitat River, downstream from the Dillacort Canyon unit. This segment of the river flows through a narrow channel that was fished by the Yakama Tribe and remains an important fishing site. Habitat types at Fisher Hill are pine-oak woodlands and open grasslands similar to those at Dillacort Canyon.

For more information:

Susan Van Leuven
509-773-4459
susan.vanleuven@dfw.wa.gov

wdfw.wa.gov

Washington Department of FISH and WILDLIFE

Goldendale Hatchery Unit is located along Spring Creek adjacent to WDFW's Goldendale Fish Hatchery. The 240-acre unit historically was a farm and its agricultural fields are now being cultivated under a sharecrop agreement. A portion of the wheat produced is left in the field as supplementary feed for upland game birds. Pen-reared pheasants are released for fall hunting. Other public uses include waterfowl hunting and trout fishing.

Swale Creek Unit consists of 516 acres straddling Swale Creek, west of Centerville. The habitat is mostly steppe with riparian areas along two creeks, offering upland game bird hunting opportunities. Hiking and wildlife watching also are popular activities in the wildlife area unit.

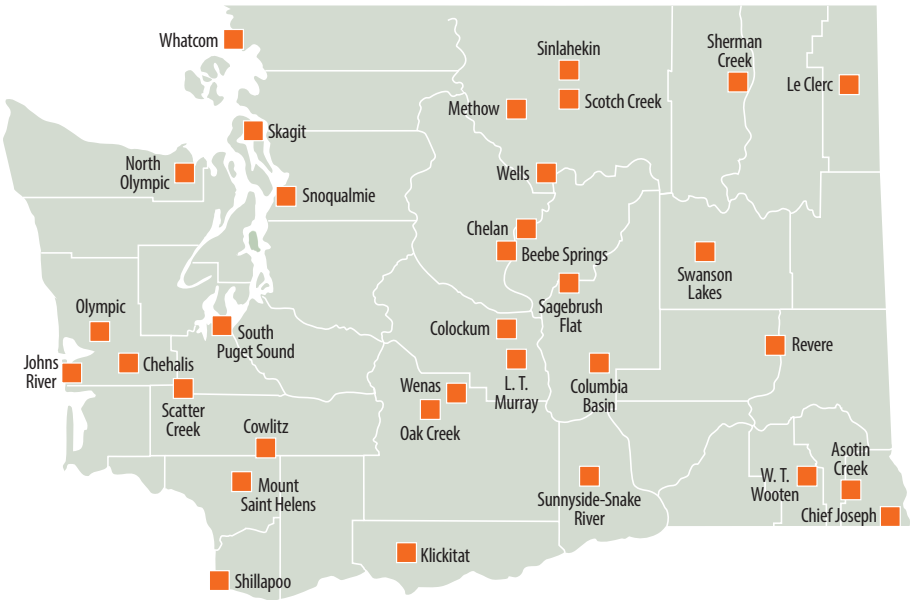
Sondino Ponds area is considered the most important western pond turtle habitat in Washington. WDFW bought the 219-acre area near Lyle to protect this species. The parcel historically was used for agriculture and contains seasonal and year-round wetlands. Access to the unit is restricted in order to maintain the turtle population and restore the native habitat.

The public is invited to participate in the planning process, through public workshops, by sending public comments to klickitatwa@dfw.wa.gov and by attending Klickitat Wildlife Area Advisory Committee meetings.

WDFW developing new plans for 33 wildlife areas

WDFW manages nearly 1 million acres of land, divided into 33 wildlife management areas. Each year these areas attract about 4 million visitors who hunt, fish and observe wildlife in their natural environments.

Each area is guided by a management plan that addresses the status of wildlife species and habitats, public recreation, habitat restoration, operations and maintenance (such as weed management and facility improvements), and other activities to meet the department's mission of preserving, protecting and perpetuating fish, wildlife and ecosystems. Plans are revised periodically to reflect current conditions and the progress of past activities, and to identify new management priorities.



WDFW involves citizens on advisory committees that help develop each management plan and provide feedback throughout the planning process.

For more information about the multi-year wildlife area planning effort, please contact Lauri Vigue at (360) 902-2549 or lauri.vigue@dfw.wa.gov.

Media coverage of Sept. 16, 2014, meeting for Klickitat Wildlife Area management plan

The Goldendale Sentinel, Goldendale, Sept. 3, 2014: http://www.goldendalesentinel.com/story/2014/09/03/features/wdfw-seeks-public-participation-in-planning-for-klickitat-wildlife-area/4650.html

The News Tribune, Tacoma, Sept. 6, 2014:

http://www.thenewstribune.com/2014/09/06/3358129_state-developing-management-plan.html?rh=1

The Olympian, Olympia, Sept. 6, 2014: http://www.theolympian.com/2014/09/06/3296918_state-developing-management-plan.html?rh=1

The Bellingham Herald, Bellingham, Sept. 6, 2014: http://www.bellinghamherald.com/2014/09/06/3832958_state-developing-management-plan.html?rh=1

The Columbian, Vancouver, Sept. 8, 2014: http://www.columbian.com/news/2014/sep/08/outdoors-workshop-klickitat-wildlife-area/

The Goldendale Sentinel

Features

September 3, 2014 Vol.135 No.36

WDFW seeks public participation in planning for Klickitat Wildlife Area

By

The Washington Department of Fish and Wildlife (WDFW) will hold a public workshop Sept. 16 to discuss the development of a new management plan for the Klickitat Wildlife Area.

The Klickitat Wildlife Area consists of seven separate units and nearly 16,000 acres in south central Washington. The management plan will address the status of wildlife species and their habitat, restoration efforts and public recreation for all seven units, said Susan Van Leuven, WDFW manager for the Klickitat Wildlife Area.

"We want to encourage people who are interested in the wildlife area to help shape our plan, including how we manage habitat and public use," Van Leuven said.

The workshop is scheduled from 5:30 to 8 p.m., Sept. 16, at the Goldendale Community Library, 131 W. Burgen St., Goldendale.

At the meeting, WDFW staff members will review the planning process, the wildlife area's history and restoration efforts. The department will ask for public comments on future management strategies.

Input from the public will be considered as planners develop the new management plan, along with feedback and guidance from the Klickitat Wildlife Area Advisory Committee, a citizen- and stakeholder-based group that reviews wildlife area management activities. For more information, contact Van Leuven at 509-773-4459 or susan.vanleuven @dfw.wa.gov .

The department revises management plans for its 33 wildlife areas every six to eight years to reflect current conditions and identify new priorities and initiatives, said Clay Sprague, WDFW lands division manager.

Information on the Klickitat Wildlife Area's seven units is available on WDFW's website at wdfw.wa.gov/ lands/ wildlife_areas/management_plans/Klickitat.

For more information on the wildlife area planning process, visit wdfw.wa.gov/lands/ wildlife_ar

WDFW lands division manager. WDFW also is updating the management plans for Swanson Lakes and Revere wildlife areas in eastern Washington and will begin the planning process early next year for the Sinlahekin Wildlife Area.

Goldendale Sentinel | 117 W. Main St., Goldendale, WA 98620
Ph: (509) 773-3777 | info@goldendalesentinel.com | www.goldendalesentinel.com

The News Tribune

Previous Story
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State developing management plan for Klickitat Wildlife Area

By Jeffrey P. Mayor

Staff writerSeptember 6, 2014

The state Department of Fish and Wildlife is beginning to develop a new management plan for the Klickitat Wildlife Area that covers almost 16,000 acres in southcentral Washington.

STATE DEPARTMENT OF FISH AND WILDLIFE

Get involved

LEARN MORE: For more information, contact Susan Van Leuven, Klickitat Wildlife Area manager, at 509-773-4459 or susan.vanleuven@dfw.wa.gov.

ABOUT THE AREA: Information on the seven units of the Klickitat Wildlife Area can be found at wdfw.wa.gov/lands/wildlife_areas.

PLANNING PROCESS: For more information on the wildlife area planning process, go to wdfw.wa.gov/lands/wildlife_areas/management_plans.

The state wants to develop a new management plan for the Klickitat Wildlife Area. The area covers almost 16,000 acres in seven units across southcentral Washington.

The plan will look at the status of wildlife species and habitat, restoration efforts and public recreation for all the units, said Susan Van Leuven, manager for the wildlife area.

The state Department of Fish and Wildlife manages 33 wildlife areas. It revises the management plans for each areas every six-eight years, making sure plans reflect current conditions and identify new priorities and initiatives, said Clay Sprague, lands division manager for the agency.

The agency also is updating the management plans for Swanson Lakes and Revere wildlife areas in eastern Washington and will begin the planning process early next year for the Sinlahekin Wildlife Area.

As part of the public participation portion of the Klickitat plan's development, a workshop is scheduled from 5:30-8 p.m. Sept. 16 at the Goldendale Community Library.

At the meeting, staff members will review the planning process, the wildlife area's history and ongoing restoration efforts. The department also will ask for public comments on future management strategies.

As planners develop the new plan, it will consider feedback and guidance from the public and the Klickitat Wildlife Area Advisory Committee, a citizen- and stakeholder-based group that reviews wildlife area management activities.

Jeffrey P. Mayor: 253-597-8640 jeff.mayor@thenewstribune.com

Join The Conversation

The News Tribune is pleased to provide this opportunity to share information, experiences and observations about what's in the news. Some of the comments may be reprinted elsewhere in the site or in the newspaper. We encourage lively, open debate on the issues of the day, and ask that you refrain from profanity, hate speech, personal comments and remarks that are off point. Thank you for taking the time to offer your thoughts.

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The Olympian

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Join The Conversation

Workshop scheduled Sept. 16 on Klickitat Wildlife Area plan

(http://columbian.media.clients.ellingtoncms.com/img/croppedphotos/2014/09/08/Klickitat_WA.JP

The scenic Klickitat River cuts a canyon through the heart of the state's Klickitat Wildlife Area. (Washington Department of Fish and Wildlife)

By The Columbian
Published: September 8, 2014, 4:58 PM

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GOLDENDALE — A public workshop to discuss a new management plan for the state's Klickitat Wildlife Area will begin at 5:30 p.m. Sept. 16 at Goldendale Community Library, 131 W.Burgen St.

↓A ↑A

The wildlife area is seven units totaling almost 16,000 acres in Klickitat County. The new land plan will address the status of wildlife species, habitat restoration and public recreation for all seven units.

State officials will review the planning process, the wildlife area's history and restoration efforts, plus ask for public comment on management strategies.

Comments also in expected from the Klickitat Wildlife Areas Advisory Committee, a citizen group that reviews activities at the wildlife area.

The Department of Fish and Wildlife revises management plans for its 33 wildlife areas every six to eight years to reflect current conditions.

For more information, contact Susan Van Leuven, Klickitat Wildlife Area manager, at 509-773-4459 or susan,vanleuven@dfw.wa.gov.

Add a comment...

Comment

Facebook social plugin

Community guidelines (/guidelines/)

BLOGS (HTTP://BLOGS.COLUMBIAN.COM) +

Klickitat Wildlife Area Management Plan: Comment Sheet

Please share your thoughts about the Klickitat Wildlife Area Management Plan by answering the questions below and adding any other comments or questions.

Return to WDFW staff at the workshop, email to: Klickitatwa@dfw.wa.gov or mail to: Melinda Posner, WDFW, 600 Capitol Way North, Olympia, WA 98501-1091

1. What interests you about the Klickitat Wildlife Area?
   Oregon white oak habitat enhancement
   Harvestable surplus of wild turkey
   Hunting access, easements, acquisitions
   Fire management
2. Are you a member of a larger stakeholder group? If so, please list. For example, recreation user group, conservation group, etc. National Wild Turkey Federation
3. What recreation activities do you pursue at the Klickitat Wildlife Area?
   Wild turkey hunting
4. How often do you visit the Klickitat Wildlife Area? 2-4x/year
5. What changes or improvements would you like to see on the wildlife area or in the way it is managed? More active forest management; manage for larger oaks; improved understory forage; conifer removal from oak stands; meadow maintenance/enhancement; pursue easement/acquisition opportunities; expand food plots
6. What other topics or issues are you concerned about on the wildlife area?
   - healthy wild turkey populations: roosts, brooding, nesting, & winter forage requirements addressed.

7. Provide any additional feedback – questions, suggestions or other input about the Klickitat Wildlife Area and planning process:

- Would be nice to see a wild turkey census similar to Colville (winter, road route) to track trends in wild turkeys. Poult/production counts would be even better. This would enhance info on tag allocation/bag limits, particularly regarding fall season discussions.

- Conservation partnerships should be leveraged to accomplish forest management.

- Host workshop for managers & landowners on white oaks management.

8. Provide name and contact information if you want to be added to the Interested Parties database:

Mikal Moore
NWTF Regional Biologist
1021 NE Bennington Ln
Bend, OR 97701
mmoore@nwtf.net
541-550-7074

For more information, visit
http://wdfw.wa.gov/lands/wildlife_areas/management_plans/klickitat/index.html.

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1. What interests you about the Klickitat Wildlife Area?
   High value hunting and fishing habitat access
   Beautiful habitat scenery !
2. Are you a member of a larger stakeholder group? If so, please list. For example, recreation user group, conservation group, etc. Lifelong hunter / fisher
3. What recreation activities do you pursue at the Klickitat Wildlife Area?
   hunting & fishing
4. How often do you visit the Klickitat Wildlife Area? just beginning - new to area - so no significant history
5. What changes or improvements would you like to see on the wildlife area or in the way it is managed? forest management to enhance wildlife feed
6. What other topics or issues are you concerned about on the wildlife area?
   All users and input stakeholders need to be funding contributors

7. Provide any additional feedback – questions, suggestions or other input about the Klickitat Wildlife Area and planning process:

Youth hunters and fishers
establish promotional program
develop tradition / perpetuate values

8. Provide name and contact information if you want to be added to the Interested Parties database:

Marvin Fast
97 Mustang Dr. Horseshoe Bend / Little Klickitat / area
Centerville WA
98613
(360) 201 8057

For more information, visit
http://wdfw.wa.gov/lands/wildlife_areas/management_plans/klickitat/index.html.

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1. What interests you about the Klickitat Wildlife Area?
   Hiking, Fishing, hunting
2. Are you a member of a larger stakeholder group? If so, please list. For example, recreation user group, conservation group, etc. recreation user & conservation group?
3. What recreation activities do you pursue at the Klickitat Wildlife Area?
4. How often do you visit the Klickitat Wildlife Area? mulitiple times monthly
5. What changes or improvements would you like to see on the wildlife area or in the way it is managed?
6. What other topics or issues are you concerned about on the wildlife area? would like to see TRASH & GARBAGE addressed in the management plan PARTICULARY along the river.

7. Provide any additional feedback – questions, suggestions or other input about the Klickitat Wildlife Area and planning process:

8. Provide name and contact information if you want to be added to the Interested Parties database:

Daniel & Donna Enz
379 Canyon Rd
Lyle WA 98635
denz@gorge.ws

For more information, visit
http://wdfw.wa.gov/lands/wildlife_areas/management_plans/klickitat/index.html.

Washington State Department of Fish and Wildlife
1111 WASHINGTON ST SE, 600 CAPITOL WAY NORTH, OLYMPIA, WA 98501-1091

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1. What interests you about the Klickitat Wildlife Area?

   Maintenance of a diverse habitat that includes supporting some rare wildflowers found in the area.

2. Are you a member of a larger stakeholder group? If so, please list. For example, recreation user group, conservation group, etc. Suksdorfia Chapter of the Washington Native Plant Society

3. What recreation activities do you pursue at the Klickitat Wildlife Area?

   Hiking

4. How often do you visit the Klickitat Wildlife Area? 2-3 x per year

5. What changes or improvements would you like to see on the wildlife area or in the way it is managed? I feel management is doing a fine job

6. What other topics or issues are you concerned about on the wildlife area?

   ① Overgrazing by livestock which leads to

(2) Invasive "weeds"

(3) Limit access to the area to identified trails, roads, & areas

7. Provide any additional feedback: – Questions, suggestions or other input about the Klickitat Wildlife Area and planning process.

As you are already so well aware survival for fish and wildlife depends a delicate & diverse balance of plant and animal activity. All of us love to watch ~~both~~ animals, wildlife, and seein nature up close and personal. But as humans we are intruders without any natural rights who tend to disturb that balance by our very efficiency in what we do. Thank you for being an agency that helps us look at what we do, often too well.

8.Provide name and contact information if you want to be added to the Interested Parties database

Don Hardin
sukedorfia wnps @ gmail.com
P.O. Box 2614, White Salmon, WA 98672
509 493 4819

Visit http://wdfw.wa.gov/lands/wildlife_areas/management_plans/klickitat/index.html for more info

Washington State Department of Fish and Wildlife
1111 WASHINGTON ST SE, 600 CAPITOL WAY NORTH, OLYMPIA, WA 98501-1091

Steve Joyce, Red's Fly Shop email and Guiding Policy

September 25, 2014

Subject: Klickitat River Permitting
From: steve@redsflyshop.com
To: "Easterbrooks, John A (DFW)" <John.Easterbrooks@dfw.wa.gov>
CC: Joe Rotter <joe@redsflyshop.com>

John,

As you know, and we have previously discussed, the Klickitat River has gotten much more popular in recent years. It hosts a variety of users targeting steelhead and salmon, including gear and fly anglers both from the boat and on foot, with and without guides. Like WDFW, we receive a lot of "concerns and recommendations" from the public regarding river use on the Klickitat. I'd like to officially share my observations with WDFW, as I'm sure other users have.

First of all, I feel the Klickitat River is only "overcrowded" on a few Saturdays each year. The busiest time is early to mid October, especially during years with high salmon runs. Weekdays don't get near the traffic, and by Sunday afternoon, anglers have typically packed up and headed home. Several large fly clubs have hosted annual outings on the Klickitat, and have had as many as 30 boats camping at Stenson. They did not do this last year, but in years past, those weekends would get blamed as the standard on the Klickitat. I understand WDFW has a census person monitoring use on the river, so it's likely my observations align with theirs. I am happy to be in direct contact wit this staff person if it would be helpful in any way, to report our boat use or even have our staff count other boats on any given day.

I can't speak for others in guided or unguided boats, but our river etiquette policy (which I've shared with many public anglers) is attached here. Our guides do, and have always followed these guidelines. We do run perhaps the largest guide service on the river, and we feel it is important to set an example for others to follow. Because we run a large guide service, some anglers and possibly other guides, tend to blame Red's for every case of bad behavior that takes place down there. Anytime I hear of something, I try to go straight to the horses mouth and resolve things quickly and accurately. We have been huge supporters in the town of Klickitat the past several years. We've leased 2 houses and a 4 unit apartment building to operate our all inclusive lodge. To operate this required a staff of 5 local residents plus our guides. All of our lodge business, including shuttles is done at the Canyon Market. We have been guiding the Klickitat River under the umbrella of Red's Fly Shop since 2003. We set up and operated a wall tent camp at Leidl and Stenson in 2006 then moved into the lodge in town in 2012. We have most recently relocated our overnight accommodations to the Mount Adam's lodge this year.

At the end of the day, the experience our guests and guides have is exactly the same as every other user on the river. If a wade angler feels the river is crowded, then our guests and guides probably feel that way, too. Like I said, we have felt crowded on a few select weekends in October when the salmon and steelhead are both running. Aside from that, we see boats and wade anglers each day, and we are polite and courteous to all of them regardless of their attitude. That being said, we, like everyone else, would love to have less people on the river and have the prime runs to ourselves:-) Five years ago, I would have thought: OK, do we really need user restrictions in place to alleviate too much river pressure on 1 or 2 Saturdays in October? Last year we saw more traffic, and this year has already been busy, too. The Klickitat is getting more popular, and the great fish runs the past few years is bolstering it. To be clear, this is not a "fish survival" issue it is a "user crowding" issue. I have not personally seen, nor have I read any science that leads me to believe anglers are adversely affecting salmon or steelhead numbers on the Klickitat. I think the wild steelhead mandatory release program is working well and being followed by everyone on the water. I think it has actually curbed a lot of poaching that may have taken place in previous years.

With all of this being said, I think the following actions could be considered to prevent the crowding issue on the Klickitat from getting worse, and possibly even improve it:

1. I do think there should be a guide "moratorium" placed on the Klickitat River. Let the guide services that are operating now (take inventory) continue to operate, but don't let any new ones come in. The thing that worries me more than anything is that the steelhead season begins at the end of trout season in MT, CO, UT, ID. We, and other services, have hired guides from those states to come work our steelhead season on the Klickitat, and it would be very easy for them to start their own guide services. These permitted guide services would then need to purchase an annual Klickitat River outfitter license. This revenue in turn would pay for enforcement and support of WDFW.

2. Sell boater permits (ala Smith River MT or Deschutes, OR). Every boat that goes down would need to have one. A $10-$20 daily permit would GREATLY decrease the boat traffic. In other states, boater's permits are called "invasive species permit" or even "corridor protection fee".

3. Charge a "classified waters" daily fee to fish the river. This is what they've done in BC. Whether you boat or wade, you need to pay $20 per day to fish their trophy rivers. They report traffic is down but revenue is up.

4. In addition to a moratorium being placed on guide services, a maximum number of user days could be placed on each guide service. Historically, when permitting has taken place on rivers (Beaverhead, MT, Smith, MT, Bulkley, Skeena, BC) this was done by taking a 3 year average of how many days they've operated on that particular river each season. Again, guide services would be granted enough days to continue running their business as they have for the previous 3 year average (but not grow more unless they bought another guide service out to increase their days). This permit would have value, but they would need to pay an annual fee for it, too.

Things I've heard that absolutely WON'T work:

1. Make Klickitat or section(s) No Guides allowed. This is not only unfair, but then moves the crowding to the other sections of the river. The lower Wild and scenic already is restricted for guide use. There are only 3 sections on the river!

2. No fishing from boats. This works on a big river like the Deschutes, but would not work on the Klickitat. It is actually the worst recommendation I've heard, and here's why. Let's say 6 boats put in together at 7 am. Boat 1 takes the first good piece of water, boat 2 goes past this water as boat 1 has it, and stops at the next..... So by the time boat 6 goes past boat 1, and 2, and 3, and 4.... those runs have only been fished 1 time each - which is desirable by anyone's standards. Wade angling takes more time, and one wade angler will fish every single one of them. There will be people in those runs all day long. The Klickitat is a tiny river. A wade angler can fish every run on it easily, and there is trail access to all parts of the river. There would be no "sanctuary zones" created by doing this. Again, this is a crowding problem, not a fish protection concern. If this river went to no fishing from boats, guides would likely not float the river. They would wake up early and get their clients into prime runs. Anglers would probably work in groups to procure good runs early and rotate with others to keep them all day long. Instead of being fished by a few boats for an hour or 2 each day, the runs would be pounded on all day long by wade anglers. Tensions would mount, tempers would surely flare....

I am happy to help, contribute, meet, discuss, etc... with any of the WDFW staff at anytime to come up with some sort of a management plan for the Klickitat River. Again, I wrote this note because I have heard a great deal about this in the recent years and want to have an official opinion on the record. We view our business as a partnership with WDFW (no fish or bad experiences = no anglers = no business for us and no license sales for WDFW), and we appreciate the expertise and professionalism you have always conducted yourselves with.

Sincerely,

Steve Joyce

Managing Partner

Red's Fly Shop

Red's Fly Shop Steelhead Fishing & Guiding Policy

The Pacific NW Steelhead is an amazing fish that we are fortunate to have a recreational opportunity to pursue. Because it's a such a popular fishery and a short season, we may find ourselves fishing crowded waters. Red's has had a strong presence on these rivers for many years, and we are definitely "in the spotlight". Therefore, it's important that we all set a high standard of conduct when guiding or fishing on our own. The following guidelines have been established to encourage a positive interaction between anglers and enhance everyone's fishing experience. We expect our guides and staff to follow these guidelines as rules – and try at all costs to prevent any type of negative on river interaction with other anglers or guides.

WA State Laws: It is your responsibility to obtain proper licenses and know the fishing regulations on each waterway before you go fishing. Practice safe catch and release techniques, and report any violations you see.

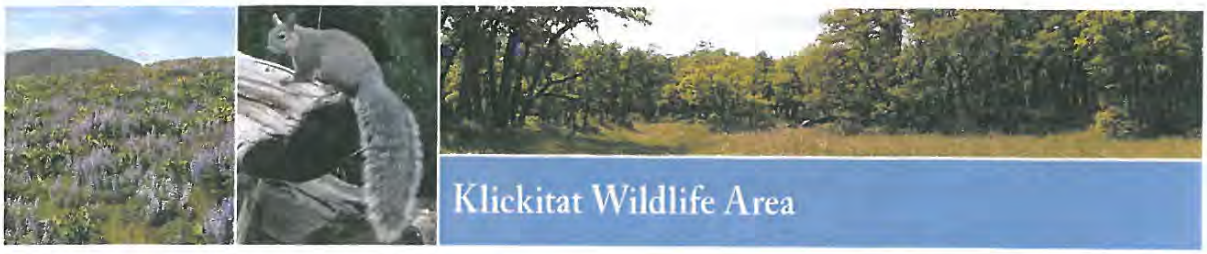
For wade anglers:

1. Do not wade over or disturb spawning fish or their redds (gravel beds where fish have laid their eggs - noted by clean rock piles in shallow riffles).
2. It is proper etiquette for wade anglers to start at the head, or top of a run, and step downstream at a steady rate of 2-4 steps after every few casts.
3. In a small river or run, if an angler or group of anglers are already present, then wait on the bank for them to finish, or go somewhere else and return later. A run is typically defined as one continual "trough" that has a shallow head, deepens in the middle, and broadens and shallows again in the tail. A run includes both sides of the river if an angler can cast over halfway across it.
4. Never step into a run on the downriver side of another angler(s) who was there first. The proper entry point is upstream of anglers who were in the run first, as they are working downstream. If you are thinking about doing this, you may want to ask "would you like me to step into the line, or sit and wait until you finish the run if you are going to leave after fishing it."

For boat anglers:

1. Wade fisherman and anchored boats have the right of way. Try to pass them on the side of the river they are not fishing if possible. If not possible, pass them in the safest and least disturbing manner for their fishing.
2. Do not fish through a run another boat or wade angler is fishing in. If you have "local" knowledge and know they may not be able to fish a particular zone from their position, then ask them if they mind if you fish through, or below, or across.... DO NOT ASSUME!!!
3. Do not anchor in the middle of the river unless fishing. This is the safe passage way for other boats.
4. Never drag an anchor in the river. It is not only dangerous, but also detrimental to insect beds and redds.
5. The 3 minute rule applies at the boat launch. Do not block the launch until your boat is ready to be launched, and pull your boat away from the launch before strapping it down and tidying it up if others are waiting.

Interactions with other anglers on the river are a key part of the daily fishing "experience". A negative exchange ruins the day for both parties involved. In any exchange there is one party who was there first - so if there's a grey area, ASK BEFORE DOING!



Klickitat Wildlife Area Management Plan: Comment Sheet

Please share your thoughts about the Klickitat Wildlife Area Management Plan by answering the questions below and adding any other comments or questions.

Return to WDFW staff at the workshop, email to: Klickitatwa@dfw.wa.gov or mail to: Melinda Posner, WDFW, 600 Capitol Way North, Olympia, WA 98501-1091

1. What interests you about the Klickitat Wildlife Area?
   Wildflower viewing, hiking, beautiful scenery. I am very interested in native plants, and you have some that I can only see by coming up there, as well as some beautiful, scenic meadows and oak woodlands full of native wildflowers.
2. Are you a member of a larger stakeholder group? If so, please list. For example, recreation user group, conservation group, etc. Native Plant Society of WA, also Native Plant Society of OR
3. What recreation activities do you pursue at the Klickitat Wildlife Area? hiking, photography, wildflower viewing and identification, looking at oak ecology
4. How often do you visit the Klickitat Wildlife Area? About 3 times a year.
5. What changes or improvements would you like to see on the wildlife area or in the way it is managed? Grazing is the greatest threat to the wildflowers. If you must graze, the later the grazing starts, the better. Please do NOT increase the number of cattle, & decrease it if possible. Also, do not put water tanks near good flowers.
6. What other topics or issues are you concerned about on the wildlife area? Oaks; Theories on "oak restoration" all come from West Side research. NO oak research has been done east of the Cascades. Though many stands of East Side oaks have been thinned, NO data has been taken. The oaks are not in danger. Do not hurry to do anything to them.

(The East Side is much drier, rockier, & in the Gorge, windier than the ~~East~~ West Side.)

2) You have wonderful oaks. If you need to thin oaks, do NOT thin within clumps. Those clumps are trees, single trees with many stems. The stems may meld in time - many big oaks are double, triple or more stems melded. Rather, take out entire clumps, + poison the bases so they don't regrow.

7. Provide any additional feedback – questions, suggestions or other input about the Klickitat Wildlife Area and planning process:

1) Lomatium Suksdorfii is a WA listed species. There is some in OR, but most on private ranchland with grazing, + cattle do eat it. It likes to grow in soil rather than rocky areas, so cattle can get to most of it. I was one of 3 people who did the 1st plant survey for the Klickitat River when it became a "Wild & Scenic River", and I have photos of fenceline contrast with Lomatium Suksdorfii on one side of a fence, + not on the grazed side. I would say that the Klickitat Wildlife Area has the largest populations of any place I know, + is the only public land that has much. Oregon has very little, + none is protected. WA has a little at Catherine Creek, the edge of Major Creek Rd, the edge of Hwy 142, and quite a bit on private land above the Klickitat River, which is being grazed. It is important to restrict grazing so this plant will survive in the Wildlife Area.

8. Provide name and contact information if you want to be added to the Interested Parties database:

Barbara Robinson barbrob@gorge.net
P.O. Box 682
Mosier, OR 97040
541-296-5334

For more information, visit
http://wdfw.wa.gov/lands/wildlife_areas/management_plans/klickitat/index.html.

WILDLIFE AREA MANAGEMENT PLAN

PUBLIC MEETING AGENDA

Washington Department of Fish and Wildlife
Klickitat County PUD, Goldendale, WA

June 13, 2016

6:00 p.m.	**Welcome/Introductions – Sandra Jonker, Wildlife Program Regional Program Manager**
6:10-6:45 p.m.	**Purpose and Meeting Format/Wildlife Area Planning Overview – Lauri Vigue, Project Manager**
	Klickitat Wildlife Area Management Plan Highlights – Lauri Vigue, Project Manager
	Forest Plan Highlights – Rod Pfeifle, Forester
	Objective Highlights – Susan Van Leuven, Wildlife Area Manager
6:45-8:00 p.m.	**Public Comment**
8:00 p.m.	**Adjourn**

Klickitat Wildlife Area Management Plan

Public Scoping Workshop Summary – FINAL

June 13, 2016

Introduction

The Washington State Department of Fish and Wildlife (WDFW) hosted a public scoping workshop on Monday, June 13th from 6:00 to 8:00 p.m. at the Klickitat County PUD. The purpose of the workshop was to collect public comments on the draft Klickitat Wildlife Area Management Plan.

Nine people attended the workshop including interested parties from Klickitat County communities of Goldendale, Centerville, Lyle and Trout Lake. Stakeholder groups included Columbia Land Trust, Washington State Parks and Klickitat County. The plan is currently in the State Environmental Policy Act (SEPA) review process for 30-days.

Staff presentation

Sue Van Leuven, Klickitat Wildlife Area manager, welcomed everyone and introduced the following staff members:

- Dave Howe, Habitat Program Regional Program Manager
- John Weinheimer, Fish District Biologist
- David Anderson, District Wildlife Biologist
- Rod Pfeifle, Forester
- Lauri Vigue, Plan Project Manager

Lauri Vigue provided an overview of the planning process including the purpose of the plan, WDFW mission statement, and an overview of the Framework document. The issues list is a partial list that came from the early public comment and internal planning team. Sue reviewed the issues list with the public. The issues helped formed the development of the objectives/performance measures listed in the appendix A. The partial issues list includes:

- Protection of rare plants
- Determine the status of hydrology at the Sondino Ponds unit
- Develop forest plan and protection of the western gray squirrel
- Oregon white oak enhancement
- Klickitat River access issues
- Provide an area for disable hunting
- Target shooting lead concerns
- Stinson boat ramp replacement
- Weed control

Lauri provided a general overview of the public review draft Klickitat Plan and management plan elements (e.g. species management, habitat management, public on the landscape and appendix). The wildlife area goals were also described. Sue provided detail on the selected objectives in the power point presentation, topics included: western pond turtle, ecological integrity, forest health, protection of Oregon white oak habitat, enhancing deer and upland bird habitat.

Rod Pfeifle, forester, described the draft Klickitat Forest Management Plan strategy. There are approximately 10,965 forested acres on the wildlife area. Actual acres to be treated will be determined through a forest assessment process. The goal for the Klickitat Wildlife is to improve forest health while maintaining and/or improving western gray squirrel and Oregon white oak habitat.

Comments are due on the draft management plan by June 17th; however the deadline was extended to June 20th due to the agencies website being down. The Wildlife Area Advisory Committee will review the final plan in July. The plan is expected to be finalized and approved by the director and placed on the website in late July early August.

General Comments and Questions

Questions and comments captured from participants are listed below.

Question: What is the source of hydrology for the Sondino Ponds?

Answer: It results from a domestic water supply and a combination of groundwater, seasonal streams, springs and ditches when considering all the ponds and wetlands (including Balch Lake). The wildlife area hopes to purchase part of this water right in the future since it is no longer needed by the homeowner.

Question: How is forest treatment expected to impact western gray squirrel?

Answer: Surveys will be conducted prior to any work and one year later. In addition, forest treatment will be expected to maintain suitable western gray squirrel habitat and to reduce the potential for stand replacement fire impacts.

Comment: Guzzlers can be used as a source of water in a fire.

Question: Do we know the ratio of active squirrels per nest?

Answer: Our data from Klickitat County indicate a mean of about 10 nests used per female over the course of 1 year. This is based on animals followed using telemetry and the number of nests they were found in at least 1 time.

Question: Will the forest treatments result in any revenue for the wildlife area?

Answer: Most projects will be revenue neutral, self-sustaining. Our prescription will be more conservative than the Land Trust prescription. Or we may generate revenue; it depends on the market at the time.

Question: The north property borders DNR lands, they have considerable fuel left in the forest, and they are not responding to the public regarding forest health issues. Is it possible for the agency to work on large landscape projects with private landowners?

Answer: Yes WDFW is currently in negotiation with one large private landowner looking into the potential for a landscape forest management plan that protects WGS habitat and that addresses forest health issues.

Question: Do we know the carrying capacity of western gray squirrels per acre?

The mean use area or "home range" for female WGS on KWA was 55 acres; for males it was 183 acres. Rather than presenting animals per acre (a small fraction) we could say that 100 acres of suitable habitat might be expected to support 2-3 squirrels. This is somewhat simplistic in that it doesn't include overlap.

Answer: The wildlife area has a mosaic of different habitats, primary vs marginal habitat available for western gray squirrel. They can adapt and use marginal habitat in fire replacement stands. Catastrophic fires are of most concern.

Comment: We have a 10-year draft forest plan, but it does not provide on information on the prescription. Include in the forest plan tree spacing information and projected timing of project work.

Question: Why are deer populations declining in the high prairie area? Is chronic wasting disease an issue? Why are so many doe tags issued? Deer population seems to be down but lots of does are still being seen.

Answer: WDFW conducts annual surveys to monitor the deer population in Klickitat County. Our information suggests that the deer population is stable. There are certain habitats were does are more plentiful and damage occurs on private lands. In these areas WDFW sometimes issues doe tags. High Prairie is a mosaic of small residential farm lands and larger agricultural commercial areas. These areas are intermixed with forest lands and are considered excellent deer habitat. Our information suggests that the deer population in the High Prairie is stable as we have agricultural land owners that complain to WDFW that there are too many deer. Regarding chronic wasting disease, there is no know occurrence of this disease in Washington.

Question: Is data on range monitoring available to permittees?

Answer: Information is available to the public.

Question: For forest management projects, can outside contractors or stewards be involved?

Answer: Yes.

Question: How big an issue is lead in shots and bullets?

Answer: Ground squirrels are shot with lead bullets and their carcasses are left, and golden eagles may consume. There is a concern that golden eagles are susceptible to lead poisoning. At this time we do not know if this is a concern on the wildlife area. The focus of the objective is to assess the toxicity to golden eagle to see if there is a concern and if further action is warranted.

Question: Will other entities potentially be limiting public access to boat ramps (e.g. tribal fishing)?

Answer: Treaty rights allow native tribes to use certain areas along the Columbia River.

Question: Are there any proposals to expand the wildlife area under this plan?

Answer: Simcoe is the only active acquisition at this time. It is not mentioned in the plan since the acquisition is not yet complete. The agency will work on the development of a management plan with the Washington Conservations Commission. Simcoe lands will be added to the Klickitat Wildlife Area.

Meeting Materials

The following meeting materials are attached:

- Agenda
- Press Release
- Forest Plan Power Point

Klickitat Wildlife Area Forest Management Plan

WDFW Vision Statement

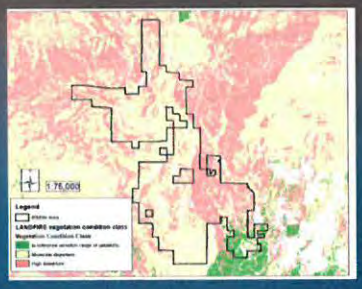
WDFW preserves, protects and perpetuates its forests as fish and wildlife habitat while providing sustainable fish and wildlife, recreational and commercial opportunities. To ensure that habitat is protected, WDFW forests will generally be managed for high ecological integrity.

Ecological Integrity

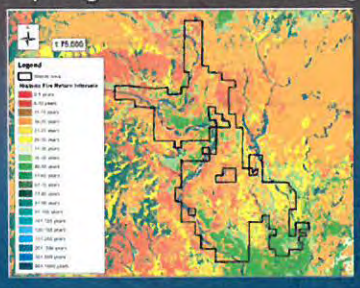
Ecological integrity can be defined as "the structure, composition and function of an ecosystem operating within the bounds of natural or historic range of variation."

KWA Soda Springs Unit

Soda Springs Condition Classes



Soda Springs Historic Fire Regime



Soda Springs Insect Risk

KWA Management Goal 3

Improve forest Health while maintaining and/or improving western gray squirrel and Oregon white oak habitat.

KWA Management Objective 3A

Determine the forest treatment strategy for the Soda Springs Unit as defined in the forest management plan.

1. Identify phase 1 project area and acreage.
2. Identify additional acreage where forest improvement projects are appropriate.

This work will be completed by the forester, WLA manager and district biologist. After identifying appropriate management areas, forester and WLA manager will develop a 10 year action plan for high priority areas.

KWA Management Objective 3B

Implement PHS western gray squirrel management recommendations in forest treatment prescriptions. Complete at least 2 WGS surveys prior to treatment.

1. Forester, WLA manager and District biologist will develop thinning prescriptions prior to thinning.
2. Forester, WLA manager and District biologist will conduct spring squirrel nest surveys prior to thinning.
3. Conduct pre-thinning surveys in early fall prior to thinning.
4. Conduct post-thinning surveys to determine success of thinning treatments.

Forest Management Goal 4

Address oak habitat protection when implementing KWA forest management and grazing plans.

1. Range ecologist and forester will monitor oak height classes to ensure that oak recruitment is occurring.
2. Range ecologist and forester will monitor understory and coniferous vegetation to detect potential correlations.
3. Range ecologist will standardize these procedures across grazing permits.

Fire Dependent Dry Forest Types: Before and After

Oak Woodlands: Before and After

A Synopsis of KWA Forest Management Needs

There are approximately 10,965 forested acres on the KWA. Actual treatment acres to be determined through a forest assessment process. Stands will be classified into one of the following 3 categories:

1. Forest areas that don't currently need treatment
2. Forest area that need treatment and can be treated.
3. Forest areas that many need treatment but can't currently be treated.

Questions?

Rod Pfeifle
Statewide Forester
Washington Department of Fish & Wildlife
713 Bowers Road
Ellensburg, WA 98926
509-680-3175

NEWS RELEASE
Washington Department of Fish and Wildlife
May 17, 2016
Contact: Susan Van Leuven, (509) 773-4459

WDFW seeks comments on management plan for Klickitat Wildlife Area

WDFW seeks comments on management plan for Klickitat Wildlife Area

OLYMPIA - The Washington Department of Fish and Wildlife (WDFW) is seeking public comments on a draft management plan for the Klickitat Wildlife Area in south central Washington.

WDFW also will host a public meeting next month to discuss the plan. The meeting is scheduled from 6 to 8 p.m., June 13, at the Klickitat PUD, 1313 S. Columbus Ave., Goldendale.

The draft plan covers seven separate wildlife area units and nearly 16,000 acres in Klickitat County. Over the past year, WDFW staff has worked with a citizen-based advisory group to develop a draft management plan that addresses the status of wildlife species and their habitat, forest management, restoration efforts and public recreation on the wildlife area.

"Wildlife areas are public lands, so it is critical for us to have public input to inform management," said Clay Sprague, WDFW lands division manager.

The plan is now available for review on WDFW's website at http://wdfw.wa.gov/lands/wildlife_areas/management_plans/klickitat/.

The public can submit comments online through June 17 at http://wdfw.wa.gov/licensing/sepa/sepa_comment_docs.html. Comments can also be submitted at the June 13 meeting.

The public comment period will be conducted under the State Environmental Policy Act, which is designed to ensure that Washington citizens can participate in governmental decisions that could affect the environment.

The department is revising management plans for the state's 33 wildlife areas to reflect current conditions and identify new priorities. WDFW is currently updating plans for Oak Creek Wildlife Area in Yakima County, Snoqualmie Wildlife Area in King and Snohomish counties, and Sinlahekin and Scotch Creek wildlife areas in Okanogan County.

Persons with disabilities who need to receive this information in an alternative format or who need reasonable accommodations to participate in WDFW-sponsored public meetings or other activities may contact Dolores Noyes by phone (360-902-2349), TTY (360-902-2207), or email

(dolores.noyes@dfw.wa.gov). For more information, see http://wdfw.wa.gov/accessibility/reasonable_request.html.

Appendix J. Individual Klickitat Wildlife Area Land Acquisitions by Date and Property Size

Soda Springs Unit		
Seller	**Acres**	**Year**
#1	1773	1948
#2	10	1950
#3	243	1950
#4	243	1950
#5	40	1950
#6	80	1950
#7	160	1950
#8	40	1951
#9	80	1953
#10	2206	1955
#11	160	1960
#12	40	1962
#13	760	1964
#14	461	1965
#15	369	1967
#16	860	1971
#17	160	1972
#18	649	1974
#19	160	1974
#20	463	1990
#21	840	1991
#22	10	1992
#23	80	1995
#24	81	1998
#25	20	1998
#26	20	1998
#27	200	1999
#28	40	2003
#29	90	2013

Fisher Hill Unit		
Seller	**Acres**	**Year**
#30	508	1950

Mineral Springs Unit		
Seller	**Acres**	**Year**
#31	1	1967
#32	3	1967
#33	880	1973
#34	120	1981
#35	320	2000
#36	249	2000

Dillacort Canyon Unit		
Seller	**Acres**	**Year**
#37	131	1950
#38	2	1968
#39	10	1982

Sondino Unit		
Seller	**Acres**	**Year**
#40	114	1992
#41	10	1993
#42	40	1993
#43	5	1994
#44	4	1995
#45	16	2002
#46	32	2005
#47	10	2006
#48	1	2008

Hatchery Unit		
Seller	**Acres**	**Year**
#49	240	1967

Swale Creek Unit		
Seller	**Acres**	**Year**
#50	516	2007