DRAFT ENVIRONMENTAL ASSESSMENT

Washington Department of Fish and Wildlife
Land Exchange Project - Phase 2

Prepared for:
U.S. Fish and Wildlife Service, Region 1
Responsible Official: Chris McKay
Assistant Regional Director, Migratory Birds and State Programs
&
National Park Service, Pacific West Region
Responsible Official: Rory Westberg
Pacific West Region Acting Director

FWS Contact: Dan Edwards, Wildlife Branch Chief
Wildlife and Sport Fish Restoration Program
911 NE 11th Avenue
Portland, Oregon 97232
&
NPS Contact: Heather Ramsay, Project Manager
Community Assistance Programs
909 First Avenue
Seattle, Washington 98104-1060

Prepared by:
Washington State Department of Fish and Wildlife
Lands Division, Wildlife Program
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Jennifer Quan
Lands Division Manager
&
Washington State Department of Natural Resources
Asset Management and Recreation Division
Julie Sandberg
Assistant Asset and Property Management Division Manager

Primary Authors: Kelly Craig/Richard Tveten, Wildlife Area Section
600 Capitol Way North
Olympia, Washington 98501-1091

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CHAPTER 1: INTRODUCTION

Since 2005, the Washington Department of Fish and Wildlife (WDFW), has been working with the Washington State Department of Natural Resources (WDNR) to consolidate land ownership across the state, particularly on the eastern slopes of the Cascade Mountains. Consolidating ownership in these checkerboard areas will provide a continuous corridor of suitable habitat important for big game and a number of shrub-steppe and forest dependent species and protect, enhance, and support recreational opportunities in Washington. Additional benefits include improved land management efficiency and minimized management conflicts for both WDFW and WDNR.

Ownership consolidation efforts could potentially lead to the trade of approximately 121,500 total acres between WDFW and WDNR. If completely implemented, the exchange could result in the acquisition of approximately 83,658 acres of shrub-steppe and lower elevation forest habitats for WDFW and approximately 37,842 acres of higher elevation forest habitat for WDNR. Due to the complexity and varying degrees of difficulty associated with exchanging lands the exchange effort has been broken into phases. In August of 2009, SEPA was completed for the Phase 1 of the exchange in which WDFW proposes exchanging 5,416 acres of state-purchased WDFW land for 9,019 acres of WDNR land. **This EA is for the Phase 2 of the exchange** and involves lands acquired with federal funds. A Phase 3 is anticipated. The timing and scale of the third, or possibly more exchanges, has yet to be determined and could fall well short of the potentially exchanged land totals.

As part of the Phase 2 Land exchange, WDFW proposes to exchange lands associated with the Oak Creek, Sinlahekin, and LT Murray Wildlife Areas to WDNR. WDFW would receive lands in return from WDNR that would be added to the Colockum, Quilomene, Skookumchuck, Wenas, Methow, Klickitat and Asotin Wildlife Areas. In total, the Phase 2 exchange would involve the transfer of 12,424 acres from WDFW to WDNR in exchange for 25,849 acres. **Appendix A** contains the Phase 2 Land Exchange Parcel List. **Appendix B** and **C** contain Pre and Post Ownership Maps and Phase 2 Conversion and Replacement Maps. **Appendices D** and **E** provide similar maps with overarching exchange goals and the Phase 1 Land Exchange described above so readers can view how the Proposed Action Alternative fits into larger land exchange plans.

The Phase 2 land exchange lands by federal funding source are as follows:

- 7,636 acres of land purchased with Wildlife Restoration Program (WR) grants administered by the U.S. Fish and Wildlife Service (USFWS) would be exchanged for 19,318 acres of WDNR lands.

- 4,749 acres of land purchased with Land and Water Conservation Fund (LWCF) grants administered by the Washington Recreation and Conservation Office (RCO) in partnership with National Park Service (NPS) would be exchanged for 6,531 acres of WDNR lands not previously managed for recreation. An additional 840 acres of land acquired in the Skookumchuck watershed will complete the LWCF grant requirement for the exchange.

The proposed removal of the Federal interest in the land that WDFW is proposing to exchange with WDNR constitutes a federal action subject to the provisions of the National Environmental Policy Act of 1969, as amended. So, on behalf of the USFWS and the NPS (jointly known here after as "Services"), the WDFW has prepared this draft Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws (including the State Environmental Policy Act (SEPA)) and regulations. In addition, the proposed land exchange also must comply with federal regulations that require a determination by the Secretary of the Interior that the cultural, recreational and natural resources on the exchange properties would continue to be protected or managed in a way that is consistent with the purposes of the NPS, LWCF Program and the USFWS, WR Program. The proposed land exchange is a federal undertaking, as defined by the National Historic Preservation Act of 1966, as amended, and the Council's regulations (36 CFR 800), requiring consultation with the Advisory Council on Historic Preservation (ACHP) and other interested parties.

The USFWS and NPS maintain the ultimate responsibility for NEPA compliance and resulting decisions. The proposal, defined as the Proposed Action Alternative, is referred to as the WDFW Land Exchange Phase 2, where the WDNR and WDFW are acting on behalf of the State of Washington to implement a jurisdictional land exchange to consolidate respective ownerships.

This draft Environmental Assessment discloses the direct, indirect, and cumulative impacts that would result from the Proposed Action and alternatives. The document is organized into four chapters:

Chapter 1 Introduction: This section includes information on the history of the project proposal, the Purpose of and Need for Action, and provides details as to how the Services and WDFW informed the public, other agencies, and tribes of this Environmental Assessment and addressed their responses.

Chapter 2 Comparison of Alternatives: This section provides a detailed description of the two alternatives considered in detail (the No Action and Proposed Action alternatives), as well as other alternatives that were considered, but eliminated from further evaluation. These alternatives were developed based on key issues raised by the USFWS and NPS.

Chapter 3 Affected Environment and Effects Analysis: This section describes the potential effects on the environment resulting from implementation of the two alternatives. Within each section, the affected environment (environmental baseline) is described first, followed by the analysis of potential effects of each alternative, with the No Action Alternative providing a basis for evaluation and comparison. In addition, this section also describes the cumulative effects and provides a conclusion.

Chapter 4: This section includes the list of preparers, individuals and agencies consulted and coordinated with during the development of this Environmental Assessment, and the literature cited.

Appendices: The appendices provide additional detailed information to support the analyses presented in this EA.

Background

Much of the state public land ownership pattern in eastern Washington today resembles a checkerboard. This condition is largely a result of how lands were distributed after Washington gained statehood in 1889. Some of the inadvertent effects of that checkerboard ownership pattern are the fragmentation of wildlife habitat, difficulty planning and implementing viable, long term management strategies, and the higher management costs among different ownerships and management directives.

In two large checkerboard landscapes, WDNR and WDFW own or manage every other square mile in a 170,000-acre landscape with different management goals and legal mandates. Exchanging lands will allow each agency to better address its specific management goals. The exchange will not reduce the amount of public land available for wildlife or recreation.

WDFW's paramount responsibility is to preserve, protect, perpetuate, and manage the fish and wildlife species of the state. WDFW also strives to maximize fishing, hunting, fish and wildlife appreciation, and other outdoor recreational opportunities compatible with healthy and diverse fish and wildlife populations (RCW 77.04.012, 77.04.020 and 77.04.055). A substantial component of this responsibility involves managing big game species (e.g. mule deer, elk, etc.) which depend on the availability of particular habitat types during certain times of year. To promote better management of mule deer, elk, and other wildlife species, WDFW has acquired land (over 900,000 acres) throughout Washington. These holdings are parceled into distinct Wildlife Areas (WAs). Lands owned by other government agencies or by private parties regularly fall within the boundaries of many of these WAs and are commonly termed "inholdings," and tend to complicate management of WAs dedicated for wildlife purposes. This complexity sometimes requires WDFW to work more closely with adjacent owners in efforts to remedy land use differences, so that all landowners have their legitimate needs and interests in property ownership met, while still permitting WDFW to effectively address its own wildlife management objectives.

A primary wildlife value provided by the WAs is vital habitat for big game (e.g. mule deer, elk, etc), although it supplies habitat values for other wildlife species, including wild turkeys, sage grouse, golden eagles, etc. These WAs provide habitat that local populations of wildlife species depend on for survival because there are few or no alternative ranges or habitats available. Vital habitat is essential in supplying the life history requirements of a wildlife species. Degradation or loss of vital habitat will lead to significant declines in carrying capacity and the reduction of actual numbers of the wildlife species in question. For example, when snow depths become a serious impairment to movements and foraging, deer descend to lower elevations where conditions require less exertion, temperatures are more moderate, and where adequate forage is generally available despite the presence of some snow cover. Restricted availability of this habitat for big game, seriously limits the population size which can be supported during harsh winters. Essential habitats are of primary importance to WDFW as an essential aspect of big game management, particularly for mule deer and elk.

WDNR has been entrusted to care for state trust lands for current and future generations. The department also protects public resources and landscapes that maintain viable forestry, aquaculture, and other industries. Revenue produced from the 3.1 million acres of trust lands

serves a wide range of beneficiaries and provides non-tax revenue to support about one-third of all school construction (WDNR 2008).

WDNR's long-term asset management strategy is to consolidate trust lands into larger, more contiguous ownership blocks for long-term trust revenue, wildlife habitat management, and public access. The WDNR sells, exchanges or transfers trust lands that can no longer be managed effectively for revenue to trust beneficiaries, when necessary. The WDNR also seeks, when possible, more diversified sources of revenue to the trusts that help fund the construction of public schools, universities, and other public institutions in Washington. By managing state trust land, WDNR maintains more than the health and integrity of natural ecosystems; WDNR also maintains public resources, such as clean water and air (WDNR 2008).

The exchange effort was initiated by WDFW in response to budget reductions and to address long standing concerns about the vulnerability to disposal of the WDNR trust lands that are interspersed throughout many of WDFW's wildlife areas.

Purpose and Need for Action

The Purpose of the Proposed Action is for the Services to

1. Respond to the WDFW's proposal for a Phase 2 land exchange, specifically

- USFWS must respond to WDFW's request to amend a grant and exchange lands bought with Wildlife Restoration Program (WRP) funds. To do this, USFWS must determine that the lands being exchanged are being exchanged for appropriate reasons relative to wildlife, big game in particular, and the lands received are appropriate given their value for wildlife, big game in particular, and market value. Additionally, the USFWS must evaluate all of the potential impacts associated with this land exchange, including the cultural resource impacts.

- The NPS must determine whether the proposed action constitutes a conversion of use as defined in section 6(f)(3) of the Land and Water Conservation Fund Act and if so, whether the proposed replacement properties meet the eligibility requirements defined in 36 CFR Chapter 1 Part 59. Additionally, NPS must determine whether the parcels proposed for exchange represent at least equal fair market value, reasonably equivalent recreational usefulness and location, and are consistent with the Statewide Comprehensive Outdoor Recreation Plan (SCORP). In addition, the remaining unconverted area must remain recreationally viable. Finally, NPS must assess the potential environmental and cultural resource impacts associated with the development and management of the replacement parcels for recreation purposes.

- Implement a Programmatic Agreement between USFWS, NPS, WDFW, WDNR, Department of Archeology and Historic Preservation (DAHP), RCO and respective Tribes, which will describe how cultural resources will be managed on all of the exchange lands.

The Need for the Proposed Action

The checkerboard ownership pattern of state public land ownership pattern in eastern Washington results in fragmentation of wildlife habitat and recreation land, difficulty planning and implementing viable, long term management strategies, and higher management costs among different ownerships and management directives. Ownership consolidation would allow for managing of larger tracts of land to better protect essential habitat for big game and other wildlife, and enhance and support recreational opportunities.

The WDFW lands exchange with WDNR would also help address long-standing concerns about the vulnerability of trust lands that are interspersed throughout many of WDFW's wildlife areas. The vulnerability of disposal is driven by WDNR's asset allocation strategy for upland trust lands which addresses the composition of the trust land base and how assets should be continually evaluated and rearranged for the long-term benefit of trust beneficiaries. WDNR is legally bound as a prudent trust manager to act in the best interest of the trust. This strategic direction resides in a large array of policy plans and other documents that have been adopted over a period of years. In implementing the strategy, WDNR identifies and converts low revenue and low value assets through sale, exchange or capital improvements to assets of higher value and return. Typically, properties in blocks enable management efficiency and lower management cost and are thereby preferred. Isolated parcels with low value (including low conservation value) and low potential for financial return meet criteria for disposal. Efforts are made to direct lands with high ecological value but poor characteristics for trust management into conservation ownership, but because of statutes requiring sales of land at public auction there is no guarantee that this goal can be achieved (WDNR 2008b). While disposal of WDNR lands is not part of the project action the potential impacts of such disposals on lands proposed for exchanges are an important consideration when comparing the impacts of No Action Alternative to the Proposed Action Alternative.

Further, the WDFW must follow a disposal process dictated by federal law and, specifically, Department of Interior regulations. The federal funds used to acquire the land were appropriated through the LWCF and the WRP. Therefore, the exchange authority and procedures must conform to the Land and Water Conservation Act of 1964 (Public Law 108-198), as amended in 1968 and the Federal Aid in Wildlife Restoration Act of 1937, 50 Stat. 917, as amended. The National Park Service and U. S. Fish and Wildlife Service have regulations (36 CFR Part 59 and 43 CFR Part 12.71, respectively) that specifically address disposal of acquired real estate and exchanges of property and regulations (36 CFR Part 59.1 and 59.3 and 50 CFR Part 80.14, respectively) that specifically address the conversion and replacement of LWCF and WR lands.

WDFW used Wildlife and Sport Fish Restoration Program WRP funds to purchase 7,636 acres of land proposed for transfer to the WDNR in the Phase 2 land exchange. WDFW is required to replace these lands with lands having equal or greater wildlife habitat and fair market values. Approximately, 19,318 acres of WDNR trust lands are proposed as the replacement properties. The USFWS, Wildlife and Sport Fish Restoration Program Staff in Region 1, Portland, is the decision-making authority regarding the exchange of these lands encumbered with WRP funds. USFWS review and approval of the proposed action under NEPA is required. The USFWS must determine that:

1. There is no significant impact on the environment. In this case, the USFWS must allow for feedback from the public, other agencies, and Tribes and will do so with a 30-day comment period. After incorporating that feedback, the USFWS would prepare a Finding of No Significant Impact and notify those potentially affected; or

2. Following the 30-day comment period, the USFWS determines that the EA is not acceptable because there is a significant impact on the environment. In this case, an Environmental Impact Statement would be required instead of the EA.

In addition to complying with NEPA to accomplish the proposed Phase 2 land exchange, WDFW will prepare for USFWS review and approval a request to amend the Application for Federal Assistance for grant W-94-D, under which the 7,636 acres of land were originally purchased. This amendment will be the final compliance step through the USFWS to comply with the Wildlife and Sport Fish Restoration Program requirements.

The Land and Water Conservation Fund (LWCF) Act of 1964 encumbers properties acquired or developed with LWCF funds. Such properties must be kept open to the public and maintained for outdoor recreation in perpetuity. Requests from the project sponsor for permission to convert LWCF assisted properties in whole or in part must be submitted by the State Liaison Officer, which is the RCO Director, to the National Park Service Regional Director in writing. NPS will only approve conversion requests that meet requirements of 36 CFR 59 to ensure that recreational opportunities are maintained.

WDFW used Land and Water Conservation Funds (LWCF) to purchase 4,749 acres proposed for transfer to WDNR as part of the Phase 2 land exchange. Under LWCF guidelines, it is necessary to find replacement property with equal fair market value as established by a State-approved appraisal (prepared in accordance with uniform Federal appraisal standards) and equal recreational usefulness. Approximately, 6,531 acres of WDNR trust lands plus 840 acres of other land are proposed as the replacement properties believed to have equal fair market value and equal or higher recreational values.

The NPS is the administrative agency that oversees the LWCF program and will make the final decision regarding the proposed exchange related to the LCWF purchased lands. WDFW will submit this EA document, appraisals and other supporting documents for the conversion-of-use to the RCO for review and recommendation to the NPS. The RCO will consider WDFWs request in the March 2010 meeting of the Recreation and Conservation Funding Board which is open to the public.

Public Involvement

The WDNR launched formal, focused public involvement efforts in 2006 concerning five potential land exchanges, the WDFW Land Exchange among them, that could affect many trust properties managed by WDNR in the central Eastern Washington Cascade Mountains area, as well as other parts of the state. An outreach coordinator was hired to handle logistics and serve as the point of contact for WDNR staff, other agencies, and the public for these projects. Information and maps have been posted and regularly updated on the WDNR web site. The communications staff has supported public involvement efforts with news releases and media outreach.

In September 2006, WDNR sent letters to county commissioners, state legislators, members of Washington's federal delegation, tribes, to inform them of potential exchange activities and invite them to the open houses and public hearings. Staff also made presentations to county commissions.

WDNR held 11 open house meetings in communities across the state between November 1, 2006 and December 6, 2006, to solicit public input on the five potential land exchanges, one of which was the proposed WDFW Land Exchange. Recreation was a key topic that was discussed in presentations in a generic manner, in terms of recreational use being available on WDNR lands where and when compatible with meeting trust obligations. Open houses were conducted in Clarkston, Pasco, Everett, Hoquiam, Suncrest, Colville, Okanogan, Wenatchee, Ellensburg, Goldendale, and Longview, Washington. More than 500 general comments were received as a result of these open houses. Based on these open houses, the outreach coordinator has developed and maintained a mailing list of nearly 600 names.

In March 2007 and November 2007, WDNR provided newsletter updates on progress of the five proposed exchanges, including the WDFW Land Exchange, to parties who had expressed interest.

WDNR also held separate public hearings specifically for the WDFW Land Exchange to take comments on this project in April 2008, in Omak, Ellensburg, and Tumwater. The Ellensburg site satisfied the WDNR's legal requirement to hold a public hearing in the county where the most WDNR exchange land is located, in this case Kittitas County. The additional hearing sites were provided for the convenience of the public. Written testimony was accepted through April 30, 2008.

WDNR tracked feedback from all workshops and public meetings in spreadsheets. Specific issues raised regarding the WDFW Land Exchange included concern as to whether grazing leases on WDNR will continue to be available once property is conveyed to WDFW, how the exchange would impact public access to exchanged lands and how WDFW's management of land differs from WDNR's related to public access.

WDFW augmented the WDNR lead efforts on public involvement for the land exchange by publishing articles that described the proposed exchange in several editions (Winter 2004, Summer 2004, Summer 2006, Winter/Spring 2007, Fall 2007, and Spring 2008) of the WDFW Landline Newsletter, which has a statewide mailing list of over 1,400 interested individuals, environmental organizations, and adjacent landowners. In addition, this land exchange proposal was identified in the WDFW, 2006 Draft LT Murray/Whiskey Dick/Quilomene, Wenas, Sinlahekin, Scotch Creek, and Oak Creek Wildlife Area Management Plans (http://wdfw.wa.gov/lands/wildlife_areas/management_plans/), which were made available in 2007 for public review and comment during a 30-day period. No comments were received. Furthermore, these efforts were supplemented with news releases and other media outreach efforts.

The WDFW, WDNR, and the Services are considering approval of the Phase 2 Proposed Action Alternative, which requires a review under the State Environmental Policy Act (SEPA) and the National Environmental Policy Act (NEPA). The Services will release this Draft Environmental

Assessment (EA) for a 30-day comment period. Concurrently, WDFW, as the Lead Agency for SEPA, will release a Determination of Non-Significance (DNS) for a 30-day comment period. WDFW and the Services' will announce it with a letter to interested parties, including those individuals that were solicited for feedback on WDFW's Wildlife Area Management Plans, and during WDNR's public involvement efforts, as well as other state and federal agencies, and tribes. Following the comment period, WDFW, WDNR and the Services will address and incorporate substantive comments and prepare a Final Environmental Assessment and either retain, modify, or withdraw the DNS. Parties that comment on this draft EA will be notified of the availability of the Final EA. If a Finding of No Significant Impact (FONSI) can be made, parties that provided feedback on the draft EA will be notified of the Service's alternative selected for implementation and availability of the FONSI. If a FONSI is not warranted based on the impacts and feedback received, an Environmental Impact Statement will be prepared and parties notified accordingly. In tandem, if WDFW determines that this proposal will not likely have a significant adverse impact on the environment, state law does not require an environmental impact statement (EIS).

Issues

USFWS, WDFW, RCO, DAHP, NPS and WDNR based on internal discussions and feedback received during public involvement efforts have identified the following concerns/issues and will discuss them in the analysis in Chapter 3:

- Protection of cultural resources
- Protection of fish and wildlife (e.g. big game, etc.)
- Protection of shrub-steppe and forest habitats
- Grazing permits and leases
- Public recreation and access

This section will be supplemented with the feedback received from the comment period for the Draft EA.

Decisions Needed

The purpose of this document is to disclose the effects of the alternatives, solicit input from the public, other agencies, and tribes. The USFWS and NPS responsible officials will make a decision based on consideration of the purpose and need for the project, appropriate consideration of the full range of reasonable alternatives and their effects, and public, agency, and tribal feedback and involvement.

The decision needed from the USFWS responsible official, the Assistant Regional Director of Migratory Birds and State Programs, and the NPS responsible official, the Pacific West Region Director, working with the WDFW Lands Division Manager, WDFW's responsible official, is whether to authorize the land exchange project as proposed or if other reasonable alternatives exist that were not explored adequately. The USFWS and NPS responsible officials will also determine if the effects analyses and feedback received on this EA direct preparation of a Finding of No Significant Impact (FONSI) or preparation of an Environmental Impact Statement. If a FONSI can be made, the responsible officials will also select an alternative for implementation.

CHAPTER 2: ALTERNATIVES

This chapter describes and compares the alternatives considered for implementing the Phase 2 land exchange. The Proposed Action Alternative and the No Action Alternative were each developed in detail; other alternatives were considered, but not developed in full detail for reasons described below. This section also presents the alternatives in comparative form, describing the differences between each alternative and providing a clear basis for choice among options by the responsible officials and the public, other agencies, and tribes.

Alternatives Studied

No Action Alternative

Under the No Action Alternative, the WDFW and the WDNR would not exchange the lands and the current checkerboard ownership (See **Appendix B, Pre/Post Exchange Ownership Pattern Maps**) and management associated with those lands would remain the same with no further effort made by WDFW to acquire large tracts of WDNR exchange lands. Rights previously conveyed or permitted by both WDFW and WDNR would remain the same. These rights include easements, reservations, special use authorizations, term grazing permits, and water rights. Overall, ownership, management and conveyed or permitted rights would remain the same in the short term, but may decrease if WDNR lands are sold into private ownership in the future. If developed, the fisheries and wildlife habitat values of disposed land and adjacent lands may be impaired, altered, or limited, and fish and wildlife values could be diminished. In addition, recreation and access could also be altered, limited or restricted.

Proposed Action Alternative

The Proposed Action Alternative for the Phase 2 land exchange encompasses up to 39,215 acres of WDFW and WDNR lands, within 5 eastern Washington counties. Details about the Proposed Action Alternative (Phase 2) exchange lands are provided in **Appendix A** and maps are provided in **Appendices B, and C.** The Proposed Action Alternative is part of a larger plan that could eventually lead to the exchange of up to 121,500 acres (**See Appendix D**).

Implementation of this exchange would protect public ownership of lands, safeguard large tracts of critical habitat for big game and other wildlife, improve public access and recreation for future generations, consolidate ownerships (See **Appendix B, Pre/Post Exchange Ownership Pattern Maps**) currently in checkerboard areas for improved land management efficiency, and minimize management conflicts between WDFW and the WDNR. Because federal grant funds were used to acquire the majority of the property, WDFW must satisfy conditions established by USFWS, NPS, and RCO, who oversee the administration of the Wildlife Restoration Program (WRP), and the Land and the Water Conservation Fund Program (LWCF).

Conversion and Replacement Lands

Exchange lands are located within Asotin, Kittitas, Klickitat, Okanogan and Yakima counties. The exchange lands are characterized by numerous vegetation communities but consist primarily of forest and shrub-steppe ranging in elevation from about 1,000 feet to 4,500 feet. A summary of exchange lands and associated recreational opportunities is provided below. More detailed information is provided in chapter three.

The 12,285 acres of conversion lands are primarily forested habitats. The forested lands proposed for exchange between WDFW and WDNR are representative of the forests typically found on the eastern slopes of the Cascades (Ponderosa pine, Eastside montane mixed conifer, and Lodgepole pine forests). Many of the WDFW and WDNR parcels lie in checkerboard ownership patterns and support similar stands of trees. Most stands are primarily dominated by Ponderosa pine and Douglas-fir that are often interspersed with grand fir, lodgepole pine, subalpine fir, western larch, aspen, Engelmann spruce, silver fir, western red cedar, and white pine. There are no outdoor recreational facilities associated with the conversion parcels but dispersed recreation opportunities like hiking are available.

The 26,689 acres of replacement lands are primarily shrub-steppe. These properties will primarily be going from WDNR ownership to WDFW ownership as replacement lands under the Proposed Action Alternative. These sites are dominated by shrubs, primarily big sagebrush and stiff sagebrush. Threetip sagebrush (*Artemisia tripartita*), antelope bitterbrush (*Purshia tridentata*), and squaw current (*Ribes cereum*) occasionally dominate. A mix of grasses and forbs make up the understory. There are no outdoor recreational facilities associated with the replacement parcels but dispersed recreation opportunities such as fishing and hunting are allowed as long as such activities do not impact the WDNR trust activities. The exchange is intended to improve access to lands for dispersed recreation and there are no immediate plans to develop recreational facilities on replacement lands.

Under the Proposed Action Alternative for the Phase 2 exchange, sales by WDNR of the exchanged parcels is unlikely in the foreseeable future because the lands involved in this exchange were specifically requested by WDNR due to their value to meeting their mission. Since they have been determined to be of value to the agency, there is no expectation that they will be sold in the near future. That said, there is always the long term risk that WDNR could sell the lands included in this exchange. Under the Proposed Action Alternative, WDFW would exchange lands with the WDNR to address long-standing concerns about the vulnerability of trust lands that are interspersed throughout many of WDFW's wildlife areas. As previously discussed the vulnerability of disposal is driven by WDNR's asset allocation strategy for upland trust lands which addresses the composition of the trust land base and how assets should be continually evaluated and rearranged for the long-term benefit of trust beneficiaries.

Known cultural resources shall be protected under a Programmatic Agreement (PA) to provide assurances that the protection of these resources on the exchanged lands will be equivalent to federal laws and regulations once removed from federal protection. This agreement will establish protection of cultural resources that is equivalent to existing federal protections provided under Section 106 of the National Historic Preservation Act (NHPA). The agreement will also provide for continued documentation of the cultural resources and also establishes a consultation process parallel to Section 106 of the NHPA that would apply to future management actions proposed by WDNR and WDFW. In addition, this PA for cultural/historic resource protection will serve as mitigation to decrease the potential for impacts resulting from the exchange.

There are no grazing leases on the lands that WDFW would transfer to WDNR but there are grazing leases on the WDNR lands that would be exchanged with WDFW. WDFW would accept terms of existing leases on WDNR exchange lands in effect at the time of acquisition. The

WDNR grazing leases require open access to the public for the purposes of hunting and fishing on leased lands unless a closure is authorized in writing by the State. WDFW would ensure that the public access provisions are enforced. WDFW would consider future reissuance of grazing leases or permits where consistent with respective management goals and objectives. WDFW would reserve the right to make lease adjustments to meet management goals and objectives in future leases. Grazing leases and permits would not convey any interest, right or title of land. The exchange of lands also includes the conveyance of existing water rights and existing road easements.

Aside from these few exceptions, general land management directives, priorities, and activities for WDFW and WDNR will remain consistent throughout this process and regardless of the alternative ultimately selected for implementation (for additional information regarding general land management, see Chapter 3, General Land Management Assumptions and Foreseeable Actions).

Identifying Lands Available for Exchange Criteria

When identifying lands available for Phase 2 exchange, certain limiting criteria were applied to assure compliance with existing laws, regulations and policy. The following information was pertinent to identifying lands available for exchange.

- There will be no net loss in wildlife habitat. Lands would provide high quality big game habitat, important areas for seasonal migration and provide management opportunities, such as timber stand improvements and grazing, to improve big game habitat. In addition these lands should also provide for the maximum sustainable utilization of the winter range by elk, mule deer and deer.
- There will be no net loss in recreation. Lands would maximize public access and recreation opportunities.
- Lands are limited to those parcels both parties are willing to exchange and accept.
- Exchanges must be made on an equal value (e.g. fair market) for equal value basis as required under the USFWS WRP Program and the NPS LWCF Program. Acquired parcels should improve administrative efficiency (e.g. recreational access, manage and implement restoration, enhancement, weed control, road maintenance, monitoring, enforcement, fire protection, etc on a larger landscape scale), including cost effectiveness.
- Acquired parcels should minimize future management conflicts (e.g. public access and recreation, operation and maintenance, fire suppression, etc).
- The land exchange alternative development process considered each party's anticipated management plans, land stewardship, and compliance with existing state and federal laws and regulations.
- Conveyance of the parcels would not affect tribal hunting and gathering rights, as these lands would remain available to tribal members to practice reserved treaty rights.
- Exchange lands do not include Tribal Trust or Restricted Land (as defined in 25 CFR 152.1), which are held in trust by the Bureau of Indian Affairs for Indian Trust Resources.
- LWCF property proposed for replacement is of reasonably equivalent usefulness and location as that being converted.

- Appraisals were prepared in accordance with the Uniform Appraisal Standards for Federal Land Acquisition for all proposed exchange lands.
- Properties proposed for replacement meet the eligibility requirements for the LWCF assisted acquisitions as follows:
    - WDFW will obtain title of the proposed replacement properties in order to provide reasonable assurance that a conversion under Section 6(f) (3) of the LWCF Act will not occur without approval.
    - The land was not originally acquired by seller (exchanger) for recreation, if the seller (exchanger) is a public agency.
    - The land has not been managed for recreational purposes while in public ownership (WDNR, seller/exchanger).
    - No federal assistance was provided in the original acquisition by the other agency.

Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative. Table 1 compares the effects of implementation.

Table 1: Alternatives Comparison

Concern/Issue	**No Action Alternative**	**Proposed Action Alternative**
Public ownership	An unspecified number of properties may be sold by WDNR in the future.	All properties owned by WDFW remain in public ownership.
Fish and wildlife habitat	Remains the same in short-term, may decrease if interspersed lands sold by WDNR in the future, threatening WDFW habitat quality and continuity for big game and other species. Continuation of limited and fragmented protection and management.	WDFW receives 25,849 acres and WDNR receives 12,424 acres. Management of larger habitat blocks could enable more effective management for larger herds of big game animals. Timber management on lands transferred to WDNR could affect wildlife.
Soils	Remains the same in short-term, disturbance and erosion could increase if lands sold by WDNR in the future.	Remain the same.
Water Use	Remains the same in short-term. May change with development if WDNR lands sold and developed.	Ownership of existing water will change with land exchange. Water use expected to remain unchanged.
Vegetation	Remains the same in short-term, but vegetation could be degraded if lands sold by WDNR in the future.	Timber management activities may increase on lands transferred to WDNR and decrease on lands transferred to WDFW.
Noxious weeds	Remains the same in short-term, but weeds could increase if lands sold by WDNR in the future.	Land consolidation may improve the efficiency and effectiveness of noxious weed control efforts
Range Resources	Remains the same in short-term, may increase or decrease if lands sold by WDNR in the future.	WDFW receives 5,424 leased grazing acres. Existing grazing permits/leases will be honored. However, grazing permits/leases may be adjusted in the future to meet management objectives.

Concern/Issue	No Action Alternative	Proposed Action Alternative
Cultural resources	Remains the same in short-term, protections may decrease if lands sold by WDNR in the future.	WDFW receives 10 cultural resource sites and WDNR receives 7 cultural resource sites that will be protected by a Programmatic Agreement.
Public recreation and access	DNR allows for dispersed low impact recreation as long as it does not interfere with the trust obligations. Remains the same in short-term, may decrease if lands sold by WDNR in the future.	WDFW receives 26,689 acres from WDNR and adds LCWF protections to 840 acres of WDFW purchased lands resulting in a net increase of 13,174 acres with federal protections for recreation.
Scenic Resources	Remains the same in short-term, scenic resources could be degraded if lands are sold by WDNR in the future and developed.	Remain the same.
Hazardous materials	Remains the same in short-term, may increase or decrease if lands sold by WDNR in the future.	Remain the same.
Transportation	Remains the same in short-term. Access could be restricted in the future if lands are sold by WDNR in the future.	Road network remains the same but ownership would change. WDFW would acquire approximately 110 miles of road and convey about 50 miles of road to WDNR, for a net increase for WDFW of about 60 miles of road. Public access would be maintained.
Socio-Economic	No significant change anticipated	No significant change anticipated

Alternatives Considered But Eliminated From Detailed Study

WDFW, on behalf of the Services, is required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). An alternative that would purchase the WDNR parcels and two other alternatives that would 1) result in a sponsor change, and 2) place deed restrictions and/or conservation easements on conveyed WDFW parcels that were eliminated from detailed study for reasons summarized below.

Purchase WDNR Parcels

An alternative was considered to utilize state funding to purchase (i.e., fee title) the WDNR lands but was eliminated due to the lack of available funds to acquire large tracts of land. In addition, no other options, such as grant proposals or legislative budget requests, are available to implement this project. This alternative would respond to the bulk of the purpose and need, but is impractical given budgetary constraints, as discussed in the Purpose and Need section of Chapter 1.

Sponsor Change

WDNR and WDFW had the option to process the LCWF action as a sponsor change instead of as a conversion. A sponsor change is an administrative action by NPS which would not have required appraisals or review under other federal laws (e.g., NEPA & NHPA). A sponsor change

would involve WDNR accepting LWCF 6(f) 3 responsibilities for the lands it received from WDFW. WDNR rejected this option because it would not allow them the necessary flexibility to meet their needs for revenue for their trust beneficiaries, as discussed in the Purpose and Need section of Chapter 1.

Purchase Deed Restrictions and/or Conservation Easements

An alternative was considered and discussed by WDFW and WDNR to complete the Proposed Action with the purchase or replacement of deed restrictions and/or conservation easement on WDNR parcels.

However, deed restrictions and/or conservation easements could result in the following:

- The WDFW would be responsible for monitoring, administration, and enforcement in perpetuity; and/or,
- The value of the WDFW exchange lands would be reduced during the appraisal by restricting highest and best use values and therefore impact the fair market value.

Further, deed restrictions and/or conservation easements encumbering land received by WDNR are unacceptable. WDNR does participate in large and small scale conservation easements with various organizations but is compensated for the property rights lost. The WDNR exchange lands received by the WDFW are not encumbered by WDNR and WDNR expects the WDFW lands it receives to be unencumbered as well. Encumbered lands would not be acceptable to the WDNR because this would not allow them the necessary flexibility to meet their needs for revenue for their trust beneficiaries, as discussed in the Purpose and Need section of Chapter 1. In addition, deed restrictions and/or conservation easements would not fulfill the purpose and need for action (discussed in Chapter 1, Purpose and Need Section), as it would also require continued WDFW administration and oversight of the lands exchanged with WDNR. A principal objective of the land exchange is to reduce administrative costs and requirements, not increase them.

CHAPTER 3: AFFECTED ENVIRONMENT AND EFFECTS ANALYSIS

This chapter describes general land management assumptions and the direct, indirect, and cumulative effects of the two reasonable alternatives; summarizes the physical, biological, and social environments of the affected project area; as well as describes the potential changes to those environments due to implementation of the alternatives. It is not possible to describe in detail the entire affected environment of the broad geographic scope for the resources as assessed in this EA. The level of detail is commensurate with the amount of information necessary to understand the effects of the actions and their significance.

General Land Management Assumptions and Foreseeable Actions

Since the alternatives do not involve actual changes to the physical or biological environment, some things must be assumed in order to discuss potential effects. The following list of activities will occur regardless of the alternative that we ultimately select for implementation. As they will occur regardless of alternative, their impacts will not be explored in detail herein. Further, impacts of actual management by both agencies have already been evaluated under various public review processes including NEPA and SEPA, as well as consultation under ESA's Sections 7 and 10. Relevant management plans for the wildlife areas involved can be found at the following web page: http://wdfw.wa.gov/lands/wildlife_areas/management_plans/. For this

reason, we will not explore the impacts of the management itself, but rather limit this analysis to the impacts of the land exchange alone.

1. WDFW will continue to manage lands primarily to provide important habitat for big game species (e.g., mule deer, elk, deer, etc.).
2. WDFW will continue to conduct routine operation and maintenance activities per an approved USFWS Biological Assessment for Grant Number W-94-D.
3. WDFW will continue to conduct grazing activities per an approved USFWS Biological Assessment for Grant Number W-94-D.
4. WDFW will continue to conduct irrigation activities per an approved USFWS Biological Assessment for Grant Number W-94-D.
5. WDFW will continue to manage for public outdoor recreation as required for all LWCF protected properties.
6. WDFW will continue to implement wildlife area management plans to meet agency goals and objectives and to comply with federal and state laws and regulations.
7. WDFW will continue to consult with USFWS regarding future actions and compliance with NEPA, the ESA's Section 7, and the NHPA's Section 106 as they relate to federally funded actions and program-generated income.
8. WDFW will continue to implement land management practices that emphasize long-term functional habitat gains (e.g., use of prescribed timber harvest and grazing for habitat improvement purposes), in addition to other land management practices (e.g., routine operation and maintenance such as roads, parking areas and fencing; resource management (e.g., timber harvesting, grazing, and weed control); enforcement (e.g., public conduct); and emergencies (e.g., wildfire, search and rescue, etc).
9. WDNR will continue to implement land management practices that emphasize both short and long-term economic gains (i.e., use logging and grazing to generate income for the trust beneficiaries), in addition to other land management practices (e.g., routine operation and maintenance such as roads, parking areas and fencing; resource management (e.g., timber harvesting, grazing, and weed control); and emergencies (e.g., wildfire, search and rescue, etc).
10. Both WDFW and WDNR will continue to implement an integrated weed management approach. WDFW will implement wildlife area-specific weed management plans.
11. WDFW will continue to implement the Habitat Conservation and Recreation Plan, 2004-2010, as it relates to the State Comprehensive Outdoor Recreation Plan (SCORP).
12. WDFW will implement new land use rules for public conduct on WDFW wildlife areas and water-access sites to protect fish and wildlife resources and ensure public safety through establishment of a new chapter (13) in Washington Administrative Code (WAC) 232. WAC 232-13 was adopted by the Fish and Wildlife Commission on December 7, 2007 and went into effect on January 31, 2008.
13. WDFW will continue to work with Citizen Advisory Groups (CAG). The role of the Citizen's Advisory Group is to bring public input, ideas, and concerns to WDFW land management. CAG participation adds credibility/support for land management practices and helps build constituencies for wildlife areas.
14. WDFW and WDNR will continue to implement road maintenance and abandonment plans.

15. WDFW and WDNR will continue to implement various policies for fish and wildlife protection, forest management, fire management, protection of cultural resources, etc.
16. WDFW and WDNR will continue to apply best management practices to prevent hazardous waste problems, and identify and clean up waste issues related to unauthorized use of the land.
17. WDNR and WDFW will continue to evaluate the granting of easements between the agencies to foster enhanced access, habitat management, business needs, and public recreation.
18. In general, WDNR will actively manage its forested lands with more emphasis on timber production than the WDFW. WDNR is expected to continue pre-commercial and commercial thinning of overstocked stands on a broad landscape scale. WDNR's active management practices focus on uneven-aged management and utilization of dead and down timber to reduce fire hazard, especially near urban interface areas. WDNR's management activities will lead to more open forest stands. On the other hand, WDFW will continue to implement habitat improvement projects that will lead to forest stand improvements, increased forage production and availability for big game species such as elk, mule deer, etc., and improved range habitat conditions for shrub-dependent species such as sage grouse, etc.
19. WDNR's Asset Management Strategies, adopted by the Asset Management Council in March 2008, identify the lands proposed for acquisition in this exchange as being within long-term, sustainable working forest landscapes. The planning horizon for the Asset Management Strategy is 50 years, therefore creating and retaining these working forest landscapes as part of WDNR's long-term asset management strategy makes it very unlikely that lands within these landscapes will be sold, exchanged, or transferred within this time period and most likely well beyond.

The following list of foreseeable actions were identified that will begin or are currently undergoing environmental analysis and documentation and may include exchange lands. If applicable, potential impacts to fish and wildlife species and their habitat will be addressed in detail in separate SEPA and/or NEPA reviews for any future site-specific proposals on exchange lands.

1. Both WDFW and WDNR will continue to manage timber to reduce hazard fuels and improve forest health. WDNR would access and manage, within the next 10 years, timber lands evaluated in the Proposed Action Alternative according to WDNR's Forest Practices Regulations and the State Lands Trust Habitat Conservation Plan.
2. Both WDFW and WDNR will conduct cultural resource assessments, when necessary on a case-by-case basis depending on project type (i.e., capital improvement, federally funded action, etc.) and the potential for ground disturbance.
3. WDFW will continue to implement the Sherman Creek 5-Year Habitat Improvement Project: Program income generated from this project has been used to acquire perpetual timber rights (PTRs) owned by the Western Pacific Timber Company, which occur on the Oak Creek and LT Murray/Wenas Wildlife Areas. This full fee title ownership has facilitated more efficient management of the wildlife areas, increased protection for fish and wildlife and their habitat as well as public access. Ultimately, some land and PTRs may be traded to the Washington Department of Natural Resources (WDNR), in order for WDFW to acquire some of the last remaining critical shrub-steppe habitat in Eastern Washington.

4. WDFW will continue to develop a habitat conservation plan (HCP) for activities on state owned and managed Wildlife Areas. The HCP will be a long-term management plan for the conservation and protection of species that will satisfy federal requirements under the Endangered Species Act (ESA) upon approval by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. The goals of the Wildlife Areas HCP are to provide federal Endangered Species Act assurances for management, operational and recreational activities occurring on state Wildlife Areas, and to thereby contribute to the conservation and recovery of ESA listed species and their habitats. All WDFW wildlife management area activities, including those that may be impacted by this proposed land exchange, will go through this process in the near future, ensuring WDFW activities are consistent and in compliance with the Endangered Species Act.
5. As lands proposed by WDNR for exchange generally do not fit in the DNR management strategy for working forest landscapes, those lands could be disposed of into private ownership in the future. If that happens, future owner activities on those lands could affect both the disposed lands as well as adjacent lands.

Past management actions have influenced existing wildlife habitat on the exchange lands considered in the analysis. These management actions include habitat improvements (i.e., thinning, prescribed fire, weed control, restoration, enhancements, etc.), planning (i.e., wildlife area management, habitat conservation planning, etc.), policy development/implementation, routine operation and maintenance projects (i.e., road, fence, structures, etc.), and historic land uses (i.e., grazing, farming, etc.) that have occurred on the exchange lands in the past and will likely continue into the future. The inherent bio-physical conditions (e.g., elevation), natural disturbance, and succession also affect the existing and potential capability and suitability of wildlife habitat.

Effects Common To Both Alternatives And The Resources

Direct, Indirect, and Cumulative Effects

The only direct effect of either Alternative to the Phase 2 exchange is ownership of the exchange lands and the resulting change in LCWF status for exchanged lands. The Proposed Action Alternative would allow a jurisdictional land exchange between state agencies where all exchange lands would remain in public ownership. The No Action Alternative retains the current ownership pattern of the exchange lands. The Proposed Action Alternative is a negative impact to the public recreation estate for the LWCF program, which is mitigated by providing the replacement properties.

However, indirect effects are responsive to, and vary with, both alternatives, and are described in the resource sections below.

The No Action Alternative could ultimately contribute to the cumulative regional and local loss of wildlife habitat in general, if lands are sold into private ownership and managed in a manner incompatible with the needs of wildlife. Conversely, the Proposed Action Alternative would contribute to the cumulative regional and local efforts to protect and preserve wildlife habitat as well as improve management efficiencies, but could also result in timber harvest in areas where it did not actively occur previously.

Affected Environment Wildlife Resources

The wildlife resources section describes the priority species and other important wildlife known to occur or which may occur on the Phase 2 exchange lands. Additionally, threatened and endangered species that are known to occur or which may occur on the exchange lands are described in this section. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Fish and Wildlife Overview

Because of the checkerboard ownership, the exchange lands share many of the same geologic and vegetative conditions, and therefore, wildlife habitat is also much the same.

Priority Species

Priority species are fish and wildlife species requiring protective measures and/or management guidelines to ensure their perpetuation (WDFW 2008a). State-listed, state-candidate species, and species of recreational importance that could potentially be affected by the project were considered in this analysis. The WDFW Priority Species lists for counties which include potential for the phase 2 exchange parcels (Asotin, Kittitas, Klickitat, Okanogan and Yakima) indicate that the following species could potentially be present: white pelican (*Pelecanus erythrorhynchos*), state endangered; common loon (*Gavia immer*), state sensitive; western grebe (*Aechmophorus occidentalis*), state candidate; bald eagle (*Haliaeetus leucocephalus*), state sensitive; ferruginous hawk (*Buteo regalis*), state threatened; golden eagle (*Aquila chrysaetos*), state candidate; merlin (*Falco columbarius*), state candidate; northern goshawk (*Accipiter gentilis*), state candidate; peregrine falcon (*Falco peregrinus*), state sensitive; sage grouse (*Centrocercus urophasianus*), state threatened; sharp-tailed grouse (*Tympanuchus phasianellus*), state threatened; sandhill crane (*Grus canadensis*), state endangered; yellow bill cuckoo (*Coccyzus americanus*), state candidate; burrowing owl (*Athene cunicularia*), state candidate; flammulated owl (*Otus flammeolus*), state candidate; spotted owl (*Strix occidentalis*), state endangered; vaux's swift (*Chaetura vauxi*), state candidate; black-backed woodpecker (*Picoides arcticus*), state candidate; lewis' woodpecker (*Melanerpes lewis*), state candidate; pileated woodpecker (*Dryocopus pileatus*), state candidate; white-headed woodpecker (*Picoides albolarvatus*), state candidate; loggerhead shrike (*Lanius ludovicianus*), state candidate; sage sparrow (*Amphispiza belli*), state candidate; sage thrasher (*Oreoscoptes montanus*), state candidate; merriam's shrew (*Sorex merriami*), state candidate; preble's shrew (*Sorex preblei*), state candidate; townsend's big-eared bat (*Corynorhinus townsendii*), state candidate; black-tailed jackrabbit (*Lepus californicus*), state endangered; white-tailed jackrabbit (*Lepus townsendii*), state candidate; townsend's ground squirrel (*Spermophilus townsendii*), state candidate; western gray squirrel (*Sciurus griseus*), state threatened; fisher (*Martes pennanti*), state endangered; gray wolf (*Canis lupus*), state endangered; grizzly bear (*Ursus arctos*), state endangered; lynx (*Lynx canadensis*), state threatened; wolverine (*Gulo gulo*), state candidate; giant Columbia River limpet (*Fisherola nuttalli*), state candidate; great Columbia River spire snail (*Fluminicola columbiana*), state candidate; Dalles sideband (*Monadenia fidelis minor*), state candidate; California floater (*Anodonta californiensis*), state candidate; popular oregonian (*Cryptomastix populi*), state candidate; Columbia oregonian (*Cryptomastix hendersoni*), state candidate; juniper hairstreak (*Mitoura grynea barryi*), state candidate; mardon skipper (*Polites mardon*), state endangered; silver-bordered fritillary (*Boloria selene atrocostalis*), state candidate; lake chub (*Couesius plumbeus*), state candidate; leopard dace (*Rhinichthys falcatus*), state candidate; bull trout (*Salvelinus confluentus*), state candidate; Chinook salmon

(*Oncorhynchus tshawytscha*), state candidate; coho salmon (*Oncorhynchus kisutch*), state candidate; chum salmon (Oncorhynchus keta), state candidate; coastal resident/searun cutthroat trout (*Oncorhynchus clarki clarki*);); pygmy whitefish (*Prosopium coulteri*), state sensitive; steelhead (*Oncorhynchus mykiss*), state candidate; sockeye (*Oncorhynchus nerka*), state candidate; mountain sucker (*Catostomus platyrhynchus*), state candidate; river lamprey (*Lampetra ayresi*), state candidate; cascade torrent salamander (*Rhyacotriton cascadae*), state candidate; larch mountain salamander (*Plethodon larselli*), state sensitive; van dyke's salamander (*Plethodon vandykei*), state sensitive; Columbia spotted frog (*Rana luteiventris*), state candidate; northern leopard frog (*Rana pipiens*), state endangered*;* Oregon spotted frog (*Rana pretiosa*), state endangered; western toad (*Bufo boreas*), state candidate; western pond turtle (*Clemmys marmorata*s), state endangered; sagebrush lizard (*Sceloporus graciosus*), state candidate; sharptail snake (*Contia tenuis*), state candidate; California mountain kingsnake (*Lampropeltis zonata*), state candidate; striped whipsnake (*Masticophis taeniatus),* state candidate; and the Columbia River tiger beetle *(Cicindela columbica), s*tate candidate. Priority species also include recreational fish and game species such as deer (*Odocoileus hemionus columbianus*), elk (*Cervus elaphus*), bighorn sheep (*Ovis canadensis*); moose (*Alces alces*); mountain goat (*Oreamnos americanus*); mule deer (*Odocoileus hemionus hemionus*), Dusky grouse (*Dendragapus obscurus*); *westslope cutthroat (Oncorhynchus clarki lewisi*); white sturgeon (*Acipenser medirostri),* kokanee (*Oncorhynchus nerka*), and pink salmon (*Oncorhynchus gorbuscha*), as well as non-native game species such as chukar (*Alectoris chukar*), wild turkey (*Meleagris gallopavo*), quail (*Oreortyx pictus)* and ring-neck pheasant (*Phasianus colchicus*).

Federally Threatened, Endangered, and Candidate Species
All endangered and threatened fish and wildlife species that could potentially be affected were considered in this analysis. Effects analysis was completed for any species that could possibly occur on the exchange lands. A review of information was conducted relating to the distribution of habitats, observations of the species on the exchange lands, known areas of occupancy, and fieldwork. Sources of information include the WDFW Priority Habitat and Species database, Salmonscape, other records and files, the WDNR Heritage Database, various federal fish and wildlife protection programs (i.e., National Oceanic and Atmospheric Administration (NOAA) Fisheries (NOAA), USFWS, etc.), as well as local jurisdictions and published research. No further analysis is needed for species that are not known to occur on the exchange lands, and for which no suitable habitat is present.

The USFWS County Specific Endangered, Threatened, and Candidate (TEC**)** species list for the following counties: Asotin, Kittitas, Klickitat, Okanogan and Yakima, indicates that the following species may be present on or near the exchange lands and therefore may be effected by the proposed land exchange: gray wolf (*Canis lupus*), endangered; endangered; bull trout (*Salvelinus confleuntus*), threatened; northern spotted owl, (*Strix occidentalis caurina*), threatened; canada lynx (*Lynx Canadensis*), threatened; grizzly bear (*Ursus arctos horriblis*), endangered; marbled murrelet (*Brachyramphus marmoratus*), candidate; greater sage grouse (*Centrocercus urophasianus*), candidate; fisher (*Martes pennant*), candidate; mardon skipper (*Polites mardon*), candidate; Oregon spotted frog (*Rana pretiosa*), candidate, and yellow-billed cuckoo (*Coccyzus americanus*), candidate.

The USFWS County specific tables also indicated that **designated critical habitat** for the following listed species are present on or near the proposed exchange lands: critical habitat for the Columbia River distinct population segment of bull trout; critical habitat for the Northern spotted owl; critical habitat for Wenatchee Mountains checker-mallow; critical habitat for the Canada lynx; and proposed additional critical habitat for the Canada lynx in the North Cascades.

Washington State TEC Species

The fisheries evaluated for all of the exchange lands include: endangered, Snake River sockeye salmon (*Oncorhynchus merka)*; endangered, Upper Columbia River spring-run chinook salmon (*Oncorhynchus ishawytschas*); endangered, Upper Columbia River steelhead (*Oncorhynchus mykiss*); threatened, Snake River spring/summer-run, Snake River fall-run, Lower and Middle Columbia River, and Snake River steelhead (*O. mykiss)*; threatened, Lower Columbia River coho salmon (*Oncorhynchus kisutch*); threatened, and Columbia River chum salmon (*Oncorhynchus keta*). These species may be present on or near the exchange lands and therefore may be affected by the proposed land exchange. The NOAA species list also indicates proposed designated critical habitat for the following listed species: Lower Columbia River coho salmon (*O. kisutch*).

Existing Conditions

The exchange lands are characterized by numerous vegetation communities including forest, shrub-steppe, riparian/wetland, woodland, etc. as described below in the Vegetation and Habitat Characterization section. The exchange lands range in elevation from about 1,000 feet to 4,500 feet. The exchange lands also provide unique land features that might provide special habitat such as caves, talus/rocky outcrops and cliffs.

The exchange lands vary in size from 40 acres to 655 acres. Many of the exchange lands, by themselves, are not large enough to support most large species, which characteristically have larger home ranges. However, the exchange lands are generally similar to surrounding habitats. Therefore, individual exchange parcels could represent a portion of the home ranges for species.

Effects Analysis

The overall effect of the Proposed Action would be an improved ability by WDFW and WDNR to manage habitat, fish and wildlife populations, including priority and sensitive species, and public recreation and access. Ownership consolidation would allow WDFW to manage contiguous tracts of land to better protect essential habitat for big game and other wildlife, and enhance and support recreational opportunities. Additional benefits include improved land management efficiency, which would curtail unnecessary expenses and complexity, and minimize management conflicts between WDFW and WDNR. Ownership consolidation facilitates larger scale projects like shrub and tree planting, prescribed burning, access management, and noxious weed treatments, which are more efficiently accomplished on contiguous tracts of land. Under this alternative, and consistent with the USFWS and NOAA Fisheries No Effect determinations under Section 7 of the ESA, it is not expected that the change in jurisdictional ownership under the Proposed Action Alternative will result in impacts to any sensitive fish or wildlife species.

By continuing the current ownership patterns, the No Action Alternative does not address the project's need to protect essential habitat and consolidate lands to provide for more efficient management of wildlife areas and state trust lands. Also, the No Action Alternative could prove

detrimental in the long-term by leaving the possibility of the disposal of land open. If WDNR were to sell its lands, populations of fish and wildlife species on private lands would more than likely continue to be reduced through development, habitat fragmentation, and land conversions. Any development or land conversion would contribute to the loss of open space, public recreation, and access, and displacement of wildlife in an area of their historic range of use. Development would continue to occur deterring more animal migration from this area making it more difficult for animals to move through the checkerboard pattern of ownership. This situation would not be optimal for wildlife, it could potentially lead to reductions in populations that could cause any species to be placed on either a federal or state list of threatened, endangered or sensitive species. These conditions would likely continue, further contributing to poor fish and wildlife distribution and a loss of important habitat. Activities continued under the No Action Alternative will be protective of listed species, but actual management of listed species would be limited by the checkerboard ownerships and different agency management priorities.

Affected Environment Sensitive Plant Resources

The sensitive plant resources section identifies the sensitive plant species known to occur or which may occur on the exchange lands. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Threatened, Endangered, and Candidate Species

All endangered, threatened and candidate plant species that could potentially be affected were considered in this analysis. Effects analysis was completed for any species that could possibly occur on the exchange lands. A review of information was conducted relating to the distribution of habitats, observations of the species on the exchange lands, known areas of occupancy, and fieldwork. Sources of information include the WDNR Heritage Database and USFWS, as well as local jurisdictions and published research. No further analysis is needed for species that are not known to occur on the exchange lands, and for which no suitable habitat is present.

The USFWS County Specific Endangered, Threatened, and Candidate (TEC**)** species list for the following counties: Asotin, Kittitas, Klickitat, Okanogan and Yakima, indicates that the following species may be present on or near the exchange lands and therefore may be affected by the proposed land exchange: *Silene spaldingii* (Spalding's silene), threatened; *Spiranthes diluvialis* (Ute ladies'-tresses), and candidate, *Artemesia campestris ssp. borealis var. wormskioldii* (Northern wormwood).

Existing Conditions

In addition to the existing conditions as described above in the Wildlife Resources Section potential habitat may exist for the species identified above. Priority Habitat Species data did not indicate any records of threatened, endangered, or sensitive plant species on the exchange lands. No onsite survey to identify sensitive plants species was conducted for this EA.

Effects Analysis

Under the No Action Alternative, active management practices would remain the same as today, and would avoid impacting any listed species. The Proposed Action Alternative would provide a measure of protection on the exchange lands from impacts to unknown sensitive species by reducing the possibility of future disposal of WDNR land into private ownership. Under the

Proposed Action Alternative, WDFW and WDNR would utilize best management practices to avoid and/or minimize disturbances and adhere to state and federal laws and regulations, which provide a basis from which to manage activities affecting plants and to measure any changes that may occur as a result. The overall effect of the Proposed Action would provide WDFW and WDNR the opportunity to survey the post-exchange lands for sensitive plant species and identify protection and conservation measures.

Under both alternatives, WDFW and WDNR would utilize best management practices to avoid and/or minimize disturbances and adhere to state and federal laws and regulations, which provide a basis from which to manage activities affecting plants and to measure any changes that may occur as a result.

Affected Environment Soil Resources

The objective of this section is to generally describe effects on soil resources of affected lands. The exchange area boundary is limited to the parcels involved in the proposed land exchange. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Geology

The exchange areas are located within the High Cascades, High Lava Plains, and Basin and Range physiographic provinces of Washington. The area is primarily a geologically young volcanic region that lies on the east flank of the Cascade Range. The great variety of volcanic landforms, volcanic rock, and glacial landforms is unique in the United States. The mountainous areas in the western part consist of many different types of rock, including basalt and andesite. The principal rock in the central and eastern parts is Yakima Basalt, which is the younger flow of Columbia River Basalt (Bingham et al. 1966). This basalt originated from large fissures or rifts along which the fluid lava swelled to the surface and spread in all directions.

Soils

Most of the soils were formed from materials deposited by volcanic eruptions. These materials include volcanic ash, pumice, and cinders. Materials from volcanic eruptions cover extensive areas of previously developed soils, which became essentially buried by the pumice, ash, and cinder deposits. The result is fairly uniform soils over large areas within the region. Most of the buried soils were formed from hard basalts, andesites, tuffs, breccias, glacial till, and outwash gravels. Bedrock is mostly composed of extrusive volcanic materials. Due to the anticipated absence of effects from either alternative, as is detailed below, soil maps, soil series descriptions, and soil interpretations were not summarized or developed for this analysis.

Soil depths range from a few inches to more than 5 feet. Most soils are in the 20 to 60-inch depth range. Soils less than 20 inches deep occur around rock outcrops and on ridges. Soils deeper than 60 inches occur in floodplains and on concave slopes, Soil productivity ranges from low to high, with low being in shallow soil rangelands, and high being in timberlands with deeper volcanic ash soils.

Existing Conditions
Soils are largely undisturbed and stable on the exchange lands. Lands that would be transferred to DNR are undeveloped and largely forested. Lands that would be transferred to WDFW are largely undeveloped shrub steppe with no soil-disturbing land uses or light grazing.

Effects Analysis
There would be no expected changes in soils under the No Action Alternative. Active management practices would remain the same. WDFW and WDNR utilize best management practices to avoid and/or minimize soil disturbances and adhere to state and federal laws and regulations, which provide a basis from which to manage activities affecting soils and to measure any changes that may occur as a result.

Under the Proposed Action Alternative, indirect effects would result due to changes in ownership and management practices, where impacts to soil are anticipated to increase on conveyed forestlands and remain the same or decrease on conveyed rangelands. Therefore, while indirect effects to soils could result from changes in land management practices (e.g., emphasis on short and long-term economic gains (i.e., increased logging and grazing) versus emphasis on long-term functional habitat gains (e.g., use of prescribed timber thinning and grazing for habitat improvement purposes), the productivity of soils is not expected to change substantially, due to the protective soils management practices implemented by both WDFW and WDNR.

Affected Environment Water Resources
The objective of this section is to describe the existing water resources associated with the proposed land exchange. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Basins/Watersheds
Exchange lands are located in the Columbia River and Snake River Basins.

Surface Water
Parcels containing or abutting the following named streams would be transferred from WDFW to WDNR: Rattlesnake Creek , Little Rattlesnake Creek, Indian Creek, North Fork Oak Creek, Counterfeit Creek, Spikenan Creek, and Cedar Creek. Parcels containing or abutting the following named streams would be transferred from WDNR to WDFW: Columbia River, Quilomene Creek, Brushy Creek, SF Brushy Creek, Little Brushy Creek, Bryant Creek, Coulee Creek, Canyon Creek, Rattlesnake Creek, NF Perkins Fork and Perkins Fork of Quilomene Creek, Tekison Creek, Cedar Creek, Taneum Creek, Wenas Creek. George Creek, Jackknife Creek, Little Bohinckleman Creek, Skookumchuck Creek, NF Skookumchuck Creek, Tarpiscan Creek, SF Tarpiscan Creek, and Charley Creek. A good number of creeks are shown as perennial flows on the U.S. Geological Survey topographic maps. In most years, however, portions of many headwater streams are intermittent, with stream flow diverted for irrigation use.

Floodplains
Floodplains are those areas adjacent to channels that are occupied and formed by occasional high water events. Floodplains play an important role in dissipating high velocities associated with high flow events and in providing slow and slack water refuge areas for fish and other aquatic animals (USDA, 2006).

Most named streams that occur do not have Federal Emergency Management Agency (FEMA) mapped floodplains on lands that would be exchanged. Exceptions include narrow floodplains associated with the Columbia River, Wenas Creek and Rattlesnake Creek.

Wetlands

Riparian and wetland habitats dominated by woody plants are found throughout eastern Oregon and eastern Washington.

Mountain alder-willow riparian shrub lands are major habitats in the forested zones of eastern Oregon and eastern Washington. Eastside lowland willow and other riparian shrub lands are the major riparian types throughout eastern Oregon and Washington at lower elevations. Black cottonwood riparian habitats occur throughout eastern Oregon and Washington, at low to middle elevations. White alder riparian habitats are restricted to perennial streams at low elevations, in drier climatic zones in Hells Canyon at the border of Oregon, Washington, and Idaho, in the Malheur River drainage and in western Klickitat and south-central Yakima counties, Washington. Quaking aspen wetlands and riparian habitats are widespread but rarely a major component throughout eastern Washington and Oregon. Ponderosa pine-Douglas-fir riparian habitat occurs only around the periphery of the Columbia Basin in Washington and up into lower montane forests (Johnson 2001).

National Wetland Inventory maps (U.S. Fish and Wildlife Service 1992) were consulted to determine the areas and types of wetland vegetation found within the exchange area. Identified from high-altitude aerial photographs, wetlands are identified on these maps based largely on their dominant vegetation. These areas contain one or more characteristics of a wetland but do not necessarily represent the boundaries of wetlands that come under the jurisdiction of the U.S. Army Corps of Engineers and Section 404 of the Clean Water Act. Site-specific wetland studies of hydrology, soils, and vegetation would be required to identify the precise location of jurisdictional wetland boundaries.

Many of the wetland areas that fall within the exchange area are associated with streams, seeps, and springs. Four types of wetlands are found within the exchange area: Herbaceous wetlands, Westside riparian-wetlands, Montane coniferous wetlands, and Eastside riparian-wetlands. Wetlands are typically dominated by rushes, sedges, and grasses and typically found on permanently flooded sites that are usually associated with lakes, rivers, streams, ponds, potholes, or irrigated waterways. This type of habitat can best be characterized by wetland hydrology or soils, periodic riverine flooding, or perennial flowing freshwater. In addition, seasonally to semi-permanently flooded wetlands are found where standing freshwater is present through part of the growing season and the soils stay saturated throughout the season. Riparian habitats appear along perennial and intermittent rivers and streams. This habitat also appears in impounded wetlands and along lakes and ponds. Their associated streams flow along low to high gradients. The riparian and wetland forests are usually in fairly narrow bands along the moving water that follows a corridor along montane or valley streams.

Water Rights

The exchange lands also include water rights for a portion of the water diverted from the streams for stock watering, domestic use and irrigation. In Appendix D, Tables 2 provides a listing of existing water rights associated with the exchange lands.

All parties to this land exchange would need to submit water right ownership update forms to the Washington Department of Ecology. The "Water Right Ownership Update" form must be used for certificates and the "Request for Assignment" form must be used for permits. All functioning water developments would continue to be maintained.

Existing Conditions
Under existing federal, state and local laws and regulations surface waters, floodplains and wetlands are maintained, protected and restored. All land management activities implemented by both agencies are conducted in accordance with federal and state requirements.

Effects Analysis
Under the No Action Alternative water resources would likely remain the same because the land uses would likely remain the same. In addition, water rights would continue to remain in their respective ownerships. Water rights will continue to be used or could be placed into a water rights trust as a temporary measure to maintain the rights if they are not used.

Overall water resources would remain the same under the Proposed Action Alternative. Both agencies are required to be in compliance with federal and state laws and regulations when conducting land management activities. Surface irrigation water rights are appurtenant to the land, so under the Proposed Action Alternative, water rights would be conveyed with the land to provide for continued beneficial use on the conveyed land, and to not diminish the property's market value. The existing impacts to water quality and quantity would continue under the Proposed Action, but would not be exacerbated by its implementation. The Proposed Action Alternative would indirectly result in the protection of existing quality and quantity of the water resources, by prohibiting development and land conversion.

Under both Alternatives any disposition of water rights would be in accordance with laws and rules in effect at that time.

Affected Environment Vegetation and Habitat Characterizations
The vegetation section describes the current conditions with regards to plant associations and sensitive plants not included in the Sensitive Plant Resources section above. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Steppe Vegetation
Within the exchange area the primary habitat type is shrub-steppe (approximately 26,689 acres). These properties will primarily be going from WDNR ownership to WDFW ownership under the Proposed Action Alternative.

The steppe vegetation of eastern Washington has been characterized by Daubenmire (1970). Daubenmire's classification includes nine vegetation zones; each zone is based on climate, vegetation structure, and floristics. The majority of the exchange lands are within the *Artemisia tridentata – Agropyron* zone. In an undisturbed condition, this zone is distinguished by big sagebrush (*Artemisia tridentata*) as the principal shrub and bluebunch wheatgrass (*Agropyron [Pseudoroegeneria] spicata*) as the principal grass. The soils in this zone are mostly loams or stony loams. Grazing by domestic livestock in this zone tends to result in a decline in large

perennial grasses and an increase in annual cheatgrass, an invasive, non-native species. Big sagebrush cover can vary from 5 to 26 percent, and does not seem to be correlated to grazing (Daubenmire 1970).

In addition to big sagebrush, a number of other shrub species may be present in the *Artemisia tridentata – Agropyron* zone in small numbers; these include rabbitbrushes (*Chrysothamnus* spp. and *Ericameria* spp.), threetip sagebrush (*Artemisia tripartita*), and spiny hopsage (*Grayia spinosa*). The bluebunch wheatgrass is supplemented by variable amounts of needle-and-thread grass (*Hesperostipa comata*), Thurber's needlegrass (*Achnatherum thurberianum*), Cusick's bluegrass (*Poa cusickii*), and bottlebrush (*Elymus elymoides*). A low layer of plants consisting of Sandberg's bluegrass, cheatgrass, and flatspine stickseed (*Lappula occidentalis*) may also be present (Daubenmire 1970).

Within the steppe region, a variety of habitats occur that have soils sufficiently unusual in physical or chemical properties to develop unique climax communities that are not necessarily associated with a particular vegetation zone. Lithosol (shallow soils) habitats are one such habitat that commonly occurs on the ridge tops. Daubenmire (1970) recognizes a variety of lithosolic plant associations. All are typically composed of a uniform layer of Sandberg's bluegrass, over a crust of mosses and lichens, with a low shrub layer above. The primary difference in these communities is in the composition of the shrub layer. Within the exchange area, the shrub layer on these lithosols is principally composed of stiff sagebrush (*Artemisia rigida*) and/or several different buckwheat species (*Erigeron spp.*).

The above descriptions of generalized vegetation zones and associations are based on climax communities, which typically develop over time in the absence of anthropogenic disturbance. Within most of the shrub-steppe region, including the exchange lands, many of the plant communities have been modified due to numerous disturbance factors. Livestock grazing, introduction of exotic plant species, and ground disturbance from recreational activities have resulted in a shift in plant community composition from the climax communities described above. Notable in the exchange area is a lower percentage of native grass species and grass cover in general as compared to climax communities, attributable to livestock grazing (L. Stream, WDFW, pers. comm.). Additionally, the exchange lands do contain some non-native species and weedy species; however, native species overwhelmingly dominate these lands (PSE 2008).

Habitat Characterization

These sites are dominated by shrubs, primarily big sagebrush and stiff sagebrush. Threetip sagebrush (*Artemisia tripartita*), antelope bitterbrush (*Purshia tridentata*), and squaw current (*Ribes cereum*) occasionally dominate. A mix of grasses and forbs make up the understory. Big sagebrush is typically dominant in areas with deeper soils, while stiff sagebrush is dominant on exposed sites with shallow soils, including lithosols. The shrub-steppe habitat type can be further broken down into three categories based on relative spatial density of the shrub layer – dense (greater than 60 percent shrub cover), moderate (30 to 60 percent shrub cover), and sparse (less than 30 percent shrub cover). In general, areas with a dense shrub layer are found on deep-soiled sites on slopes and dominated by big sagebrush, antelope bitterbrush, or squaw current. Areas with a moderate shrub layer are found on flat to gentle sloped areas throughout the exchange area. Washington's shrub-steppe communities support a wide diversity of wildlife species, that includes several species of birds such as sage and Brewer's sparrows, sage thrashers, sage and

sharp-tailed grouse, numerous raptors such burrowing owls, ferruginous and Swainson's hawk, red-tailed hawk, etc., various mammals such as gophers, voles, white and black-tailed jackrabbits, Washington ground squirrels, pygmy rabbits, marmots, mule deer, elk, bighorn sheep, etc., and many reptile and amphibian species such as northern leopard and spotted frogs, western and painted turtles, rubber boa, western rattlesnake, striped whipsnake, horned lizards, etc.

Existing Conditions

Shrub-steppe habitat in eastern Washington has been significantly altered by agricultural, residential, and urban development over the past century. There are three large areas of shrub-steppe remaining in the Yakima River basin, two are on public lands, the Yakima Training Center and the Hanford Reach National Monument, and the third is on the Yakama Reservation. These large blocks are protected from future residential and urban development. Management efforts are occurring or in the process of being implemented at these three remaining sites to preserve, restore, and increase shrub-steppe habitat and connectivity. Both the South Central Washington Shrub Steppe/Rangeland Conservation Partnership and Washington's Greater Sage-Grouse Recovery Plan seek to implement these objectives for the remaining tracts of shrub-steppe (Burkepile, 2007). Outside of these areas, the residual habitat and the wildlife that subsists within it continue to be threatened by urban and residential development and habitat fragmentation where shrub-steppe occurs on private land. While development to date has been primarily in the valley bottom where irrigated agriculture is dominant, shrub-steppe habitat is being lost to development in some places such as the north slope of the Moxee Valley, the north end of the Yakima River canyon south of Ellensburg, and near Richland and Kennewick (USDI 2008).

Forest Habitat

Descriptions of the forest habitat types typical of the area involved in the exchange are based on information from Wildlife-Habitat Relationships in Oregon and Washington, Johnson and O'Neil Managing Directors, Oregon State University Press, 2001.

Within the exchange area (38,375 acres), 12,285 acres are primarily forested habitats. These properties will primarily be going from WDFW ownership to WDNR ownership under the Proposed Action Alternative.

Ponderosa Pine Forest and Woodlands

Ponderosa pine habitat occurs in much of eastern Washington, including the eastern slopes and base of the Cascades at elevations ranging from 100 feet in the Columbia River gorge to over 6,000 feet. This habitat generally occurs on the driest sites supporting conifers, with average annual precipitation ranging from about 14 to 30 inches. The trees are usually widely spaced in a woodland or savanna setting. Fire plays an important role in creating and maintaining the vegetation structure. Before 1900, this habitat type was open and park like, with relatively few understory trees. However, much of the landscape in the ponderosa pine forest habitat type now has a multilayered canopy, with shade tolerant understory trees due to a century of fire suppression. This habitat may also include Douglas fir, with Grand fir present in the undergrowth on more productive sites. The undergrowth may include dense stands of shrubs or be dominated by grasses, sedges and forbs.

Eastside Montane Mixed Conifer Forest

This habitat type is found in the east Cascades and Okanogan Highlands area, as well as the Blue Mountains of Washington and Oregon, parts of Idaho and Western Montana, and British Columbia. The elevation may range from 1,000 feet to 7,000 feet, but most examples of the habitat type occur between 3,000 and 5,000 feet. The average annual precipitation range is 30 inches to 80 inches. Douglas-fir is the most common species found in Eastside Montane Mixed Conifer habitat type, but these forests are made up of a wide variety of other species, including ponderosa pine, grand fir, western red cedar, western larch, western white pine, Engelmann spruce, lodgepole pine and subalpine fir.

At lower elevations along the eastern slope of the Cascades and in the Eastern Okanogan Highlands, this habitat type includes Douglas-fir-ponderosa pine forests and borders ponderosa pine forests and woodlands. Some grand fir-Douglas fir forests and western larch forests are distributed along the east slope of the Cascades north of Lake Chelan and in the Eastern Okanogan Highlands. On moister sites, grand fir and western red cedar may be dominant or co-dominant, and subalpine fir occurs on colder sites.

Lodgepole Pine Forest and Woodlands

This habitat type occurs within the Montane mixed conifer forest east of the Cascade crest and in cooler Eastside mixed conifer forest habitats. It is found in the Eastern Cascades and the Okanogan Highlands at elevations of 3,000 to 9,000 feet, in cold and usually dry environments. Most lodgepole pine habitat is interspersed with ponderosa pine forest and woodland habitats, located between mixed conifer forests and shrub steppe habitat. Forest health issues have affected many lodgepole stands. Stands became overstocked because of fire suppression and with drought have become vulnerable to insect and disease outbreaks. The forest floors in these stands have accumulated woody fuels, increasing the risk of loss to catastrophic fire.

Habitat Characterization

The forested lands proposed for exchange between WDFW and WDNR are representative of the forests typically found on the eastern slopes of the Cascades (Ponderosa pine, Eastside montane mixed conifer, and Lodgepole pine forests). Many of the WDFW and WDNR parcels lie in checkerboard ownership patterns and support similar stands of trees. Most stands are primarily dominated by Ponderosa pine and Douglas-fir that are often interspersed with grand fir, lodgepole pine, subalpine fir, western larch, aspen, Engelmann spruce, silver fir, western red cedar, and white pine.

Existing Condition

A combination of forces is increasing forestland fragmentation in Washington. Rising property taxes, increased real estate values and land use planning are promoting the development of privately owned forestland. This development is resulting in shrinking parcels and fragmented forests. Since 43 percent of Washington forest is in private ownership, this fragmentation trend will continue to have serious impacts on the long-term viability of working forests, forest reserves, and wildlife species that require healthy, continuous forests.

Forestland has declined greatly since the late 1980s, being converted to agriculture, urban development, or other non-forest land uses. The conversion is usually a multi-step process, with industry landowners selling to non-industrial owners, who then may convert to non-forest uses or

divide the land into developable parcels. Even low-density residential use usually eliminates commercial forestry on surrounding lands. Conversion is greatest closest to urban populations and major transportation routes. In these cases development values of land can exceed commercial forestry values by 15-20 times. Regulatory cost and complexity, social pressure from new residents and, for family forest land owners, generational changes and estate taxes are other motivations to convert. Forest conversion eliminates timber economic benefits and much of the ecological benefit of forestlands. Current incentives to support continued forest management are under-funded and sporadic (WDNR 2007).

Freshwater Habitats

Freshwater habitat is supplied by lakes, ponds, rivers, streams and wetlands provide benefits to both aquatic and terrestrial species. Most water bodies associated with exchange parcels are smaller, headwater streams. Many of the streams are seasonal with flows corresponding to melting of snow in the spring. As most parcels are in remote, undeveloped locations, water quality is good and hydrology is relatively natural.

Habitat Characterization

While a limited component of the exchange lands, freshwater habitats provide critical habitat components. Nearly all wildlife species rely on freshwater habitats to some degree for water, food and cover. Fish and other aquatic species are completely dependent on freshwater habitats for all life stages. Aquatic habitats are critical for reproductive life stages of all amphibians and many insects. Some of the larger streams provide spawning and rearing habitat for cold-water adapted salmonids and amphibians.

Surrounding Lands

Agriculture, Pastures, and Mixed Development

This habitat type occurs at low to mid-elevations in flat land to gently rolling hills. It is abundant within river valleys and in areas with irrigation. Unlike most other habitat types, its landscapes often have straight borders and geometric patterns (squares, rectangles and circles) because of ownership lines, crops and roads, causing abrupt shifts to adjacent habitat types. While it can be structurally diverse based on the land use (grasses, row crops, vineyards, orchards) there is usually little diversity of scale within the chosen type of cultivation (aside from an annual planting and harvest cycle) because particular crops or trees are grown to generally uniform heights. Agricultural, pasture and mixed development habitats include cultivated annual and perennial crop lands, dry land grain crop lands, orchard/vineyard/nursery, Christmas tree farms, and improved and unimproved pastures, and former grasslands and shrub steppe habitat modified by grazing.

Habitat Characterization

Birds, reptiles, and amphibians use these habitats primarily for feeding but may also breed or nest in crop fields or nearby windbreaks, fence rows and field borders. Unimproved pastures offer grazing for wildlife such as deer and elk. Neotropical migrants may stop over to feed or breed in agricultural habitats, and fruit and nut orchards provide nesting and foraging habitat for songbirds.

Existing Conditions
While public lands would continue to provide beneficial functions, the ownership pattern and activities on private lands would continue to fragment and reduce the connectivity of other types of surrounding lands and their habitats. Intensive land development and conversion by private landowners is expected to reduce the amount and distribution of some of these mixed development areas in the future, reducing the quality of these habitats and their associated species as well as reducing historical working landscapes. Continued development and conversion on private lands adjacent to and/or intermingled with WDFW and WDNR lands is expected to increase the contrast and isolation of these mixed development areas, maintaining or increasing habitat fragmentation and decreasing habitat connectivity. Continued development and conversion of private lands is expected to make it increasingly more difficult for associated species to disperse across the landscape and reduce the effectiveness of these areas as refugia.

Effects Analysis
Under the No Action Alternative, active management practices would remain the same for WDFW and WDNR, and the existing habitat characterization would persist.

The Proposed Action Alternative would result in the acquisition and protection of approximately 25,849 acres of important wildlife habitat and species that occupy them plus the addition of LCWF protections on 840 acres of WDFW purchased lands. The proposed land exchange is not expected to negatively impact wildlife, including any federally listed or candidate species or their designated critical habitat. The indirect effects of this Alternative results in large blocks of contiguous forest and shrub-steppe lands facilitating land management in a manner that can provide the connectivity, forage, and cover needed by wildlife, including forest and shrub-steppe dependent species.

Affect Environment Noxious Weeds
The objective of this section is to describe the degree of noxious weeds presence on the exchange lands. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Existing Conditions
Aggressive non-native plants, or noxious weeds, can invade and displace native plant communities causing long-lasting management problems. Noxious weeds can displace native vegetation, increase fire hazards, reduce the quality of recreational experiences, poison livestock, and replace wildlife forage. In addition to noxious weeds, which are designated by the State, there is a group of non-native plants that are also aggressive though are not officially termed "noxious."

In general, there are populations of weeds along all roads within the exchange lands, at field edges, at building edges, along the roads on the perimeter of the properties, and along streams and rivers that flow through the exchange lands.

All of the lands within the proposed land exchange have not been completely surveyed for the presence of noxious weeds. Therefore, <u>all</u> exotics species, let alone, weed species that may be present have not been identified and detected. However, limited field surveys conducted by the WDFW Weed Coordinator and Wildlife Area Managers on wildlife areas affected by the

proposed land exchange have revealed the potential presence of diffuse knapweed (*Centaurea diffusa*), perennial pepper weed (*Lepidium latifolium L*), scotch thistle (*Onopordum acanthium*), spotted knapweed (*Centaurea biebersteinii*), purple loosestrife (*Lythrum salicaria*), Russian knapweed (*Acroptilon repens*), Houndstongue (*Cynoglossum officinale*), Kochia (*Kochia scoparia*), musk thistle (*Carduus nutans L.*), Japanese knapweed (*Polygonum cuspidatum*), and watermilfoil (*Myriophyllum spicatum*), Dalmatian toadflax (*Linaria dalmatica ssp. dalmatica*), hoary alyssum (*Berteroa incana*), herb-Robert or Robert geranium (*Geranium robertianum*), perennial sowthistle (*Sonchus arvensis*), saltcedar or tamarix (*Tamarix* spp.), black henbane (*Hyoscyamus niger*), whitetop or hoary cress (*Cardaria draba*), Canada thistle (*Cirsium arvense*), bull thistle (*Circium vulgare*), field morning-glory or bindweed (*Convolvulus arvensis*), dodder (*Cuscuta approximata*), baby's breath (*Gypsophila paniculata*), St. John's-wort (*Hypericum perforatum*), Yellow iris (*Iris pseudacorus*), white campion or white cockle (*Lychnis alba* aka *Silene alba*), reed canarygrass (*Phalaris arundinacea*), silvery cinquefoil (*Potentilla argentea*), watercress (*Rorippa nasturtium-aquaticum*), yellow star thistle (*Centaurea solstitalus*) and common mullein (*Verbascum thapsus*). In addition, the following weedy species are not currently listed as noxious by the State of Washington: cheatgrass (*Bromus tectorum*), bulbous bluegrass (*Poa bulbosa*), and foxtail barley (*Hordeum jubatum*). Because of the checkerboard ownership, it is assumed that the WDNR exchange lands exhibit many of the same vegetative conditions, especially weed problems.

Noxious weed infestations are expanding and presenting an increasing threat to native plant communities, wildlife, agriculture and human health and welfare in many parts of the United States. Populations of these weeds are expanding in the Pacific Northwest at high rates. The problem of noxious weeds within the land exchange area is a small part of the larger expansion of these species. Current costs of noxious weed control can range from about $8 - $294 per acre from an integrated weed management approach. Some aspects of this approach such as biological controls are being attempted but remain in the research and experimental stage (Heimer, D. personal communication).

Control for certain, listed species is mandated by state law (RCW 17.10 and 17.26) and enforced by the County Noxious Weed Board. WDFW and WDNR will strive to meet their legal obligation to control for noxious weeds listed according to state law (Class A, B-Designate, and county listed weeds) (WDFW 2006). Noxious weeds acquired and conveyed would be managed according to site-specific weed management plans and/or other agency policy guidance. Regardless of the alternative, a weed concern will persist for some time on the exchange lands in general.

Effects Analysis

Under the No Action Alternative, the scattered ownerships would continue to make implementation of integrated weed control programs difficult due to the need to coordinate between the agencies. Timing of control operations will most likely be more expensive than if large single ownerships can have treatment operations conducted as a block. Isolated parcels often provide protection for weed seed sources, they cannot be monitored as effectively, and they make coordination of control operations less likely. The No Action Alternative provides the lowest level of management for the exchange lands in the future, especially if those lands are sold into private ownership, where it can be expected that greater weed spread will result from development and/or land conversion and so is unlikely to reduce the noxious weed populations.

Under this Alternative, noxious weed sites would not be acquired and each respective landowner would manage weeds according their policies, therefore no change in weed management would occur under the No Action Alternative.

Under the Proposed Action Alternative, with consolidated ownership blocks, WDFW and WDNR would institute integrated weed control strategies in a more timely and cost efficient manner than where isolated and scattered ownership patterns exist. Elimination of isolated parcels makes refuge for noxious weed seed sources less likely. Consistent monitoring and management of weeds over large blocks of land make it less likely that untreated isolated weed infestations will counteract weed control operations over the landscape. In addition, the Proposed Action could lead to more efficient management activity due to ownership consolidation, which could in turn lead to greater weed control. Under the Proposed Action Alternative, there would be no direct or indirect effects of the land exchange on weed spread since this project would involve no ground disturbance on acquired lands.

Affected Environment Range Resources

The objective of this section is to describe the probable changes in range health by alternative in general terms, as well as describe and compare the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Existing Conditions

Since 1939, WDFW has been grazing on wildlife areas. In, 2008, WDFW had a total of 33 statewide grazing permits on approximately 78,216 acres (~8.7% of WDFW current lands portfolio) for roughly 8,355 animal unit months (AUMs), which are defined as the number of cows and calves that can be supported by a given acreage and habitat. Livestock grazing is used to improve range conditions and enhance wildlife habitat, consistent with state laws and WDFW policy and is compatible with wildlife management goals and objectives. WDNR leases over 800,000 acres (~26.7% of WDNR current trust lands portfolio) of land including 5,424 acres on parcels that have been proposed for exchange to WDFW that are suitable for grazing to manage in trust for various beneficiaries. These grazing leases provide grazing opportunities on lands with grass and shrub vegetation that is suitable for livestock consumption as well as the necessary livestock structural improvements, such as water developments, and boundary and internal pasture fences.

Grazing provides income to DNR trust beneficiaries, through collection of fair market rental on leases and permits. There is a symbiotic relationship between the beneficiaries, DNR, and the lessee. The beneficiaries get revenue as DNR collects rent. DNR meets its management and stewardship responsibilities, partially through third-party management of dispersed lands. The lessee or permit holder gets access to land suitable for grazing, while assuming the obligation to be a good steward of the trust's natural resources. If the lands are not leased, then the revenue generation does not occur.

House Bill (HB) 1309 Ecosystem Standards, was passed by the state legislature in 1993 and, maintains that WDFW and WDNR (state agencies) "…shall implement practices to meet the standards on agency-owned and managed agricultural and grazing lands." The 26 Ecosystem Standards, included in HB 1309 and created by the Ecosystem Standards Advisory Committee (ESAC), are intended to maintain and restore fish and wildlife habitat by improving ecosystem

health. These standards include noxious weed control, stream temperature, fish passage, soil stability and watershed function, plant community status/condition, and stream channel width to depth ratios, among others. The intent of each Ecosystem Standard is achieved by implementing practices that maintain or make measurable progress towards achieving the desired ecological conditions (Asher 2009). Under department grazing policy, WDFW may issue grazing permits conditionally upon meeting the requirements of HB 1309. In addition, the permits include best management practices, conservation, and resource protection measures. WDNR issues grazing leases pursuant to HB 1309 as well.

Grazing Permits and Leases

Livestock use on WDFW exchange lands is authorized through grazing permits; WDNR authorizes livestock use through grazing leases, grazing plans, and the coordinated resource management process on (5,424 acres) of the lands that are proposed for exchange to WDFW. There are no grazing leases on the land that WDFW would transfer to WDNR.

Effects Analysis

Under the No Action Alternative, the availability of public grazing would remain unchanged.

Under the Proposed Action Alternative, public grazing would continue on both WDFW and WDNR exchange lands. The Proposed Action would result in 5,424 more grazing acres for WDFW but no net change in which exchange lands are grazed. Existing terms and conditions of the acquired permits and leases would be honored but WDFW reserve the right to implement adaptive management that involves monitoring and evaluating livestock grazing activities, and incorporating new scientific research into future grazing management. As needed, monitoring results would be used to modify the timing, intensity and duration of the livestock grazing. Additionally, consistent with HB 1309 and agency policies and priorities, grazing levels could be changed in the future to ensure that habitat goals like deer forage maintenance are met. Further, WDFW grazing permits ensure public access and recreation.

Table 2: Parcels to be Conveyed from WDNR to WDFW with Leased Grazing Acres

Parcel Number*	WDFW Replacement Land Funding Source	Grazing Lease Expiration Date	AUM*	Leased Acres
S-017	WRP	9/31/2007	8	40
S-157	WRP	2019**	156	614
S-246	WRP	7/31/2014	1	8
S-306	WRP	6/30/2010	24	150
S-309	WRP	6/30/2011	135	420
S-124	LWCF	10/31/2011	163	640
S-134	LWCF	10/31/2011	26	100
S-215	LWCF	4/30/2018	132	240
S-216	LWCF	4/30/2018	7	200
S-217	LWCF	4/30/2018	43	40
S247	LWCF	7/31/2015	57	80
S-347	LWCF	7/1/2013	10	640
S-070	LWCF	7/31/2015	41	573
S-300	LWCF	7/31/2015	27	320
S-125 S-132 S-133	LWCF	10/31/2011	345	640 626 361

*DNR leases are not based on AUM (Animal Unit Months). AUMs listed in this table are rough estimate of carrying capacity.
**Lessee participates in a Coordinated Resource Management Planning (CRM) Process. AUMs change annually due to pasture rotation. The leases are part of the CRM and are currently being evaluated through a SEPA EIS.

Affected Environment Cultural Resources

The cultural resources section describes management actions with regards to protecting cultural resources. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Existing Conditions

Complying with Section 106 of the National Historic Preservation Act for WRP and LWCF and other federally funded projects (including program income generation) requires: 1) careful planning; 2) consultation with interested parties including the Washington Department of Archeology and Historic Preservation (DAHP), Indian Tribes, USFWS, NPS, RCO and the Advisory Council on Historic Preservation (ACHP), and 3) weighing of project alternatives to avoid or minimize damage to significant cultural or historic properties.

The exchange lands cover a large geographic area and may contain landmarks of historic, archeological, scientific, and cultural importance. A very small percentage of public lands have been sufficiently surveyed to identify the presence of unrecorded archeological sites. To date, there are 7 known archaeological sites on WDFW exchange parcels and 10 on WDNR exchange parcels. Eight of the parcels have prehistoric archaeological or cultural attributes, five for historic attributes, and one for which no data is available. Furthermore, most archeological sites, as well as other cultural resources have not been evaluated as historic properties (i.e., meet the criteria for the National Register of Historic Places).

Present conditions pose the threat of impacts to cultural resources on the exchange lands. Such potential impacts can result from natural or human agents. These impacts could result from inadvertent or indirect disruption of archaeological sites or from willful excavation or looting of artifacts. The WDFW exchange lands are currently protected under federal and state cultural resource laws and regulations as well as departmental policy. In addition, WDNR exchange lands are primarily protected under state laws and regulations and departmental policy.

Effects Analysis
Under the No Action Alternative, both WDNR and WDFW would continue to protect cultural resources according to existing laws and respective agency policies.

The Proposed Action Alternative, the exchange itself, will not directly affect cultural resources. However, removal of federal protection, as is proposed for WDFW lands funded by WRP and LWCF being traded to WDNR, would be considered an adverse affect, which is considered a significant impact under NEPA. The Services are in the process of consulting with interested parties to develop a programmatic agreement to ensure the future protection of cultural resources and significant impacts to cultural resources are avoided.

Affected Environment Recreation and Access

The recreation section describes the current conditions with regards to recreational access and use on the proposed exchange lands. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

General Overview
Statewide, Washington has 21 WDFW Wildlife Areas (WA) comprised of more than 900,000 acres that include Department-owned and managed lands and over 600 access sites; and WDNR has 3.1 million acres of state trust lands. The WAs fill a special niche for state tourism and play an important role as places for outdoor recreation, providing excellent hunting, fishing, hiking, camping, wildlife viewing, biking, horseback riding, sightseeing, wildflower observations, cross-country skiing, motorized vehicles, dog trials, shooting ranges, etc. State trust lands provide revenue to help pay for construction of public schools, universities, and other state institutions, and funds services in many counties. Much of this funding comes from sustainable and environmentally responsible harvesting of timber on state trust lands. Some of it comes from leasing trust lands to farmers and ranchers to grow wheat, apples, wine grapes, other crops, and for grazing.

Dispersed Recreation
WDFW primarily provides opportunities for dispersed recreation activities. Most parcels are forest or shrub-steppe in character. A majority of the dispersed activities that occur on WDFW exchange lands are scattered across a large landscape reflecting the checkerboard ownership pattern. With population growth and diminishing lands available for public use, public use demands are increasing dramatically. Statewide, WDFW exchange lands provide access to the public for recreational opportunities. These widely dispersed opportunities often include access for activities such as hiking, hunting, fishing, biking, horseback riding, wildlife viewing, camping, etc.

In general, the dispersed recreational value of lands included in the exchange can be grouped into three categories:

- Popular lands (i.e., traditional or historic user sites)
- Lands adjacent to rural residential areas, and
- General forest and shrub-steppe lands.

Popular lands include lands that have a special attribute or qualities such as rivers and streams that have historically drawn people to them and lands adjacent to rural residential areas such as Ellensburg, Wenatchee, Twisp, Conconully, Yakima, etc. In general, recreation on forest and shrub-steppe lands is often transitional, meaning people are passing through an area or in search of something more specific, rather than as a destination for recreation.

Dispersed recreation in the form of day uses, such as walking, hiking, wildlife viewing, fishing, hunting, bicycling, horseback riding, driving on open roads, Nordic skiing, and snowshoeing takes place on WDFW lands within and adjacent to the exchange area in accordance with public conduct rules. Additionally, camping (day/overnight use) is also permitted. WDFW policies allow for various types of recreational uses, unless otherwise posted. Seasonal and location specific restrictions also occur; typically these closures are for protection of resources, e.g. deer winter closures and to impose fire restrictions.

WDNR's primary objective in managing trust lands is to meet beneficiary needs by generating income on their behalf. WDNR, under the Multiple Use Act, allows access for recreation provided that recreationists comply with public use policies and laws, to the extent that it is compatible with meeting the trust obligations. Dispersed recreation uses on the WDNR parcels proposed for exchange are similar to those on the WDFW lands. While dispersed recreation use is allowed on WDNR trust land, WDNR does not manage for this use and reserves the authority to restrict dispersed recreation in order to manage resources appropriately for the trust beneficiaries and the public.

Recreational Facilities, Utility and Location

There are no developed recreational facilities on the Phase 2 exchange parcels. Accordingly no such facilities would be impacted be either alternative.

Access

Access to these lands is clearly a crucial component of the recreational experience. Roads within the exchange area provide access for a variety of activities such as big game hunting, forest product gathering, wildlife viewing, hiking, etc. Access to much of the exchange lands for recreational use, however, is restricted due to the pattern of mixed and private ownership and physical barriers, such as fences, that prevent access to blocks of public lands. Largely, because of this restricted access, recreational use is not considered to be high within the area of the lands to be exchanged. However, demands for recreational use and access to these lands are expected to increase since the proposed exchange areas are within a short drive of some rapidly growing communities whether the exchange occurs or not.

Existing Conditions

WDFW, in keeping with its respective public use policies, maintains access to public lands. Some land management practices may cause temporary disruption in recreational use or access.

Other situations, such as the protection of threatened, endangered, and sensitive species and their habitats, as well as preventing human disturbance of animals during critical life cycles (e.g., calving, breeding, and migration), may require temporary or seasonal closings or vehicle restrictions. WDFW works with traditional and new user groups to prevent inappropriate uses that result in resource damage, such as poaching, littering, vandalism, and arson.

WDNR accommodates recreational uses on trust lands when compatible with generating revenue for the trust beneficiaries. While trust lands in the exchange area generally are open for public use consistent with WDNR policies and laws, closures may be necessary for land management activities or to address or prevent resource damage.

Effects Analysis

Recreational impacts

Under the No Action Alternative, access to WDFW and WDNR lands would remain the same.

The Proposed Action would help safeguard public access for future generations by moving lands into more viable ownerships for both agencies. As there are no facilities on the exchange lands, no existing recreational facilities would be removed, closed or otherwise adversely impacted. The recreational utility of the WDFW property purchased with LWCF funding is dispersed recreation for fishing, hunting, and wildlife viewing. The recreational utility for the WDNR property would be of similar dispersed recreational use as the WDFW property. Therefore, the recreational utility of the WDFW exchange property is functionally equivalent. There would be a net increase in acreage that WDFW owns and would manage for recreation. Recreational use of public lands is increasing due to increasing population, especially in close proximity to places like Ellensburg, Yakima, and Wenatchee, and will likely continue to increase. Recreational demand needs may be better met under the Proposed Action Alternative relative to the No Action Alternative and recreation due to the protection of public access. In addition, access for traditional uses and the exercising of treaty rights are more likely to be preserved.

The result of the Proposed Action Alternative is greater certainty that large, contiguous blocks of land are maintained open for public recreation with better access than otherwise might be available under the No Action Alternative.

Affected Environment Scenic Resources

The scenic resources section describes the current conditions regarding scenic beauty associated with the exchange lands. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

General Overview

In rural settings, natural features dominate, whereas in urban settings, the landscape is composed predominantly of man-made features. Within an urban setting, natural features that may be present include parks and other green spaces, waterfalls, and ponds. Examples of manmade features in rural settings include farms (houses and barns), bridges, highways, ports (jetties and piers), paths, and lighthouses.

Existing Conditions
The exchange lands are located within areas of spectacular scenic beauty. Steep and rocky hillsides and cliffs characterize some of the higher elevations, and the transition from shrub steppe into timber makes for a wide range of diverse habitat for many species of wildlife.
The exchange area can be defined as having a diverse landscape character (i.e., forest and shrub-steppe habitats and their associated cliffs, talus, caves, etc). The landscape form on both WDFW and WDNR lands is similar where vegetation patterns consist primarily of ponderosa pine, lodgepole pine, mixed conifer forests, and shrub species of all age and size classes. The proposed exchange lands are located in an area where land use jurisdiction ranges from low-density residential and commercial development to multiple-use forest and range management. The most prominent visual features are the views of the Cascade Mountains from either side of the range. Other visual features include cliffs, talus, cinder buttes, ridges, small streams, rivers, lakes and open meadows.

Effects Analysis
Under the No Action Alternative, the scenic resources would remain the same.

The Proposed Action Alternative would have little to no impact to visual resources. Any actions that alter the character of the landscape in the surrounding area would be temporary, and the area would naturally return to its original state following the action.

Affected Environment Hazardous Materials
The objective of this section is to address hazardous materials and solid waste such as trash and debris. The analysis area boundary is parcels to convey and acquire. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Property Acquisition and Conveyance
Before properties are acquired on behalf of the United States, or before any lands are conveyed on behalf of the United States, the WDFW and WDNR must exercise due diligence in determining whether any contamination or other environmental liabilities are present on the exchange lands. Examination of Washington Department of Ecology (Ecology) and Environmental Protection Agency (EPA) records of registered underground storage tanks, contaminated sites, Superfund sites, National Priorities List sites, Resource Conservation and Recovery Act (RCRA) listed disposal operations, etc., revealed no sites of concern on any of the parcels. No landfills were located on or adjacent to any of the exchange parcels.

All parcels to be acquired by both agencies will be inspected by appropriate WDFW and WDNR personnel for the presence of non-hazardous substances such as scrap timber, metal, glass, etc, and wastes typically segregated for recycling such as office paper, glass, cans, cardboard, pallets etc.

Effects Analysis
During 2008, as part of the appraisal process WDFW conducted a Phase 1 pre-acquisition site assessment of the exchange lands to be conveyed and acquired to assess the potential environmental risks associated with historic and surrounding land uses. No hazardous materials or sites were found.

Under the No Action Alternative, the existing environmental situation would remain unchanged.

Under the Proposed Action Alternative, existing environmental situation would remain unchanged and WDFW and WDNR would continue to apply best management practices to prevent hazardous waste problems, and identify and clean up waste issues related to unauthorized use of the land.

As no hazardous materials are known to exist in the area, there would be no impacts under either the Proposed Action or the No Action Alternative.

Affected Environment Transportation

The transportation section describes the current conditions with regards to existing roads and access. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

Roads

The exchange area is very large and contains many roads with a wide variety of legal and physical access issues. The Phase 2 exchange area has a total of about 150 miles of road. WDFW exchange lands have a total of about 50 miles of road and WDNR exchange lands have a total of 110 miles of road.

Most of these roads in the exchange area have low traffic volumes unless they are primary access roads or are associated with recreation activities like informal hiking trails or dispersed recreation sites. Some roads in the exchange area receive little use during most of the year. These roads are primarily lower maintenance level native surface roads, requiring high clearance vehicles to travel, particularly in poor weather conditions in comparison with main arterial roads, such as I-90, I-82, US 97, SR 20, SR 12, SR 2, and various county roads that are higher maintenance roads and are suitable for passenger cars.

Easements

Currently, WDFW and WDNR use the roads across each other's land by agreement. In this exchange, the two agencies intend to provide legal access along with the parcels they are exchanging. To accomplish this, each party will (1) reserve use of roads by *reservation* across parcels that it will no longer own, and (2) accept *easements* across parcels that the other party is retaining. The road easements will be conveyed only for the benefit of the specified exchange parcels. Other traffic on the roads will continue to be by permission of the landowner.

For the most part, the road easements and reservations in this exchange are in Kittitas County. In western Kittitas County, WDNR will need to cross WDFW lands heading east to county roads. Conversely, in eastern Kittitas County, WDFW will need to cross WDNR lands heading west to county roads.

Effects Analysis

From an overall landscape perspective, miles of road and access might remain unchanged as long as the roads remain in public ownership (No Action Alternative) and if the agencies continue with the past non-binding agreement. If, however, exchange lands, are sold into private

ownership most roads would not be available to immediately access the lands and would result in an increased need for joint road use agreements. WDFW lands (i.e., parcels) that would become isolated by private land would become difficult to access and would require additional staff time to visit potentially multiple landowners to gain permission. The indirect effects of this would be higher management costs (e.g., administrative cost associated with maintaining special uses, title claims, rights of way grants and easements) and continued management inefficiencies, because staff time would be devoted to requesting and negotiating desired road access.

The overall road density would remain at current levels under the Proposed Action Alternative. Even though the total number of road miles on exchange lands will remain constant, miles of road ownership would increase for WDFW and decrease for WDNR. The WDFW would acquire approximately 110 miles of road and convey about 50 miles of road to WDNR, for a net increase of 60 miles of road. The Proposed Action Alternative would preserve legal access to exchange lands that would allow both WDFW and WDNR to use roads necessary for land management purposes.

Affected Environment Socio-Economic

This section addresses the potential social and economic effects of the alternatives. This section also describes and compares the environmental effects associated with the two alternatives (No Action Alternative and Proposed Action Alternative).

General Overview

The parcels proposed for exchange are distributed across five Washington counties, with the majority of the exchange lands in Kittitas and Yakima counties. The exchange area may be generally characterized as forest, rangeland, grasslands, and agricultural lands. The following presents a general overview of the social and economic conditions of the counties that contain parcels proposed for exchange and provides a baseline that the potential effects of the alternatives may be measured against. The discussion is organized into three topics that address population, ethnicity, unemployment, environmental justice and the economy, and state payments in-lieu of taxes, respectively.

Population

The five counties containing exchange lands had a total population of 355,345 in 2005, with county populations ranging from 20,377 in Klickitat County to 234,564 in Yakima County. The exchange population tends to be concentrated along the major transportation corridors, with approximately 66% percent of the area's population residing Yakima County. Population projections developed by the U.S. Census Bureau in 2005 anticipate continued population growth through 2030 in all of the exchange area counties.

Ethnicity

Populations in the potential exchange counties have predominantly white populations. Yakima County is considered the most diverse, with a relatively large Hispanic/Latino population, 29.8 percent, compared to a statewide average of 6.2 percent, respectively. Okanogan County is diverse as well with a relatively large American Indian population, with 9.8 percent of the population identifying as American Indian, compared to 1.4 percent statewide.

Unemployment
According to the U.S. Bureau of Labor Statistics Local Area Unemployment Statistics, average annual unemployment rates in June 2009 for Asotin, Kittitas, Klickitat, Okanogan, and Yakima counties represent were 7.1%, 8.1%, 9.4%, 7.9%, and 8.2% respectively, compared to the statewide average of 9.1%. Unemployment rates only exceeded the state annual average in Klickitat County.

Environmental Justice
Presidential Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" was issued in February 1994. This directed federal agencies to consider, as part of the NEPA analysis process, how their proposed actions or projects might affect human health and environmental conditions on minority and/or low-income communities. Two fundamental questions are posed by the Environmental Protection Agency (EPA) to help agencies address these and related factors: 1) "Does the potentially affected community include minority and/or low-income populations?" and, 2) "Are the environmental impacts likely to fall disproportionately on minority and/or low-income members of the community and/or tribal resources?"

In answering the first question, WDFW used 2005 Census data to examine the minority and low-income populations in the counties where the Proposed Action would occur. For this analysis, the affected area is identified as Asotin, Kittitas, Klickitat, Okanogan, and Yakima counties and the state of Washington is used as the geographic reference for the general population. The minority populations for Asotin, Kittitas, Klickitat, Okanogan and Yakima counties represent less than 2.2%, 5.1%, 7.2%, 6.6% and 33.6% respectively, of the total population for those counties. This compares to a 7.6% average minority populations for the whole of Washington. EPA guidance identifies a minority population as one where either: a) the minority population of the affected area exceeds 50 percent or b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population. Yakima County meets the second condition. The percentage of persons below the poverty level in Yakima counties is 15.7% compared to 11.4% percent for Washington. Based upon the known demographics of the county, it is assumed that a large percentage of minority persons have low incomes. Therefore, Yakima County is presumed to have minority and/or low income populations. It is not anticipated that the environmental impacts of the Proposed Action alternative would disproportionately impact minority and/or low-income members of the community and/or tribal resources because the land exchange maintains recreational opportunities for all citizens and has minimal potential to impact the economy.

State Payments In-Lieu of Taxes (PILT)
"Payments in lieu of taxes" (PILT) payments are state payments to local governments that help counties offset losses in property taxes associated with nontaxable state land located within a county's boundary. Prior to 2007, WDFW was the only state agency to contribute directly to counties through PILT. Beginning in December 2007, WDNR was required to start making PILT on their Natural Areas and Natural Resource Conservation Areas. This was a legislative change, which addresses the 15-year-old Washington Wildlife Recreation Program. Although, the land exchange would result in a net gain of WDFW acres, the lands that WDFW receives in this exchange would not be subject to PILT per RCW 77.12.201 and 203. In addition, because

WDNR will manage WDFW exchange lands as part of the State Trust Lands rather than part of the Natural Areas and Natural Resources Areas, those lands would not be subject to PILT either.

Other Taxes

State and local governments in Washington receive revenue from both private and public lands through other methods such as property taxes paid on private lands, taxes paid on timber harvests and the assessments paid for fire protection. These methods will not be summarized or developed further for private lands in this analysis because they will not be impacted because the exchange is limited to public lands. The Proposed Action Alternative could lead to a slight increase in the amount of timber excise tax collected. WDNR anticipates more management of the forest areas and likely some additional harvesting of timber than WDFW has recently undertaken due to a desire for trust income, stocking control to promote forest health, and moving stands towards a more sustainable long-term pine forest type. This may result in a slight increase in the timber excise tax generated for at least 2-3 decades. Improved forest health and the control of catastrophic fires would also result in a more stable and predictable sources of forest excise tax over time.

Effects Analysis

Under the No Action Alternative, the lands proposed for exchange would continue to be owned and managed by their current owners. However, if WDNR chooses to dispose of some of its lands into private ownership, this change could result in minor changes to the current social and economic conditions and trends described in the affected environment section. It is unlikely that residents would move from the region or residents from outside the region would decide to move to the region based on current ownership, however, if a private landowner decides to convert and develop land for residential purposes this could encourage population growth. Further, no adverse human health impacts to any human population have been identified for this Alternative. In addition, the No Action Alternative would not affect PILT payments to counties; but disposal of lands into private ownership, would result in a net increase in property tax revenues. Under the No Action Alternative, there would be no impacts because no changes from existing land use patterns or economic activities would occur.

The Proposed Action Alternative would have no distinct effect on regional populations or economy. Local populations could potentially be affected by changes in ownership. The degree to which the changes would affect the amenities local residents enjoy is dependent upon the amount of change that would occur as a result of the change in land management. The primary changes, which would be expected to affect local populations, would be changes in access or ownership conditions, which would cause negligible modifications of current behaviors or perceptions of personal amenities. In addition, no adverse human health impacts to any human population have been identified for this Alternative. Due to the nature of the Proposed Action (a land exchange that does not include any existing permanent residences) no residents or businesses would be displaced. Since no development is proposed, there would be no future or long-term impacts that would affect the livability of the surrounding areas. Opportunities for recreation on the WDFW property would extend to minorities and people with low incomes in the area. The Proposed Action Alternative would indirectly affect PILT payments, resulting in an estimated total net reduction of approximately $13,000 per year with estimated reductions of approximately $7,500, $5,000, and $500 in Yakima, Kittitas, and Okanogan Counties respectively which are insignificant in terms of overall county revenues. The Proposed Action

Alternative, however, may lead to a slight increase in jobs and tax revenue created through slight increases in timber harvest on lands transferred to WDNR for forest health and stocking of desired species is addressed.

Cumulative Effects

Cumulative effects are effects on the environment that result when the incremental effect of the proposal is added to other past, present, and reasonably foreseeable future actions including the other land exchange phases. This discussion is organized by resource area.

The geographic area for analyzing cumulative impacts of the Proposed Action and No Action Alternatives covers a large geographic region and encompasses five counties throughout eastern Washington. The current land exchange, when added to past and future proposals, has an overall cumulative effect of improved management of public lands through consolidation of ownership. The Phase 2 land exchange associated with the Proposed Action Alternative is primarily intended to acquire and protect important wildlife habitat, to increase public recreational opportunities, and to improve management effectiveness through consolidation of land ownership patterns. The reconfiguration of state land ownership enables more efficient management and alleviates conflicts between users of the public land. Specific criteria must be met to ensure that the proposal is consistent with law, regulations, and policy. The proposed land exchange, in accordance with law, policy and regulations, will result in a balanced land swap, taking into account the value of the properties, so that the net immediate effect is neutral. Overall cumulative effects would be minimal to none beyond the indirect effects discussed for each resource area in the Chapter 3, Affected Environment Section.

Wildlife Resources

Wildlife habitat quantity and quality has decreased overall in Washington due to land use and development since western settlement began in the 1800's. Overexploitation of wildlife and their habitats along with land conversion have reduced populations of many wildlife species. Public lands managed by WDFW and DNR have helped preserve habitat and serve increasingly important roles in restoring wildlife. As human populations continue to grow wildlife resources will likely become increasingly stressed on private lands under both the No Action and Proposed Action Alternatives.

Under the No Action Alternative, active management practices and impacts would remain the same. The Proposed Action Alternative will help WDFW and DNR more effectively prevent additional future adverse impacts to wildlife resources because it will;

- Create larger blocks of land actively managed for wildlife to better meet the needs of wide ranging species.
- Create larger blocks enabling more efficient use of public land management resources that benefit wildlife.
- Transfer ownership of habitats to the agencies best suited to manage them.
- Reduce the possibility of public lands disposal and potential development which could lead to direct habitat loss and habitat fragmentation that would reduce the wildlife value of remaining public lands.

Sensitive Plants

There are numerous sensitive plants in Washington due to land use and development since settlement began in the 1800's. Widespread land conversion, past overgrazing, and introduced plants including noxious weeds have all contributed to the decline of sensitive plant species. This EA did not identify any records of threatened, endangered, or sensitive plant species on the exchange lands. But potential habitat may exist for the sensitive plant species. As human populations continue to grow, sensitive plants will likely become increasingly stressed on private lands. Under both alternatives, WDFW and WDNR would utilize best management practices to avoid and/or minimize disturbances and adhere to state and federal laws and regulations to protect sensitive plants.

Soil Disturbance

Soil disturbances are widespread in Washington due to land use including agriculture, silviculture, and grazing and development since settlement began in the 1800's. Unmitigated soil disturbance can lead to reduced fertility and to air and water quality impacts. Current regulations and associated best management practices to protect soil, air and water quality have led to reduced impacts associated with soil disturbing activities. Soils will continue to become impacted as the human population grows and lands are converted. There would be no expected changes to soils under the No Action Alternative or the Proposed Action Alterative as active management practices would remain the same on exchange lands. WDFW and WDNR utilize best management practices to avoid and/or minimize soil disturbances and adhere to state and federal laws and regulations.

Water

In general, water resources have been greatly altered in Washington due to surface and ground water withdrawals, hydropower facilities, dikes, wetland dewatering and stormwater runoff in association with land development since settlement began in the 1800's. Private lands continue to be developed, however, and water resource impacts result from those developments. Water resources on proposed exchange lands are largely undeveloped due to their undeveloped nature.

No impacts to water resources are anticipated under either the No Action or Proposed Action Alternatives as the lands will be managed for wildlife or silviculture. Management activities by both agencies on potential exchange lands will continue to be conducted in accordance with federal and state requirements to protect water resources.

Vegetation and Habitat Characterizations

In general, vegetation and wildlife habitat have been greatly degraded in Washington due to land conversions and land use activities such as agriculture, silviculture and grazing since settlement began in the 1800's. Vegetation and habitat have been most heavily impacted on private lands. Forestland conversion to agriculture, urban development, or other non-forest land uses has increased greatly since the late 1980s and may increase in the future. While shrub steppe development to date has been primarily in the valley bottoms where irrigated agriculture is dominant, shrub-steppe habitat is now being lost to development in the foothills and will likely continue in the future. Development on all land types results in water rights usage which impacts water availability for habitat.

Private land conversion will likely continue with increased impacts to vegetation and habitats as the human population grows. While public lands provide beneficial functions, the ownership pattern and activities on private lands affect the ability of public lands to continue to meet and provide adequate habitat for wide ranging species. Continued development and conversion on private lands adjacent to and/or intermingled with WDFW and WDNR lands is expected to increase habitat fragmentation and decrease habitat connectivity. The Proposed Action Alternative has no affect on the development of existing private lands; rather it reduces the potential for the disposal of public lands in to private ownership.

Noxious Weeds

The number and extent of noxious weeds has increased ever since settlement began in the 1800's. Noxious weeds within the exchange lands are a small part of a larger, widespread problem. Populations of weeds are expanding in the Pacific Northwest at high rates and are a problem in many parts of the United States. Noxious weed impacts will likely continue to increase despite control efforts on exchange lands under either alternative. While lands containing noxious weeds would change ownership under the Proposed Action Alternative, there would be no direct or indirect effects of the land exchange on weed spread in the short term since this project would involve no ground disturbance on acquired lands and all land would remain in public ownership. In the long term the Proposed Action Alternative could lead to more efficient and effective weed control efforts due to consolidated land ownership.

Range Resources

Grazing has been a widespread land use in Washington since settlement began in the 1800's. Grazing is an important, widespread activity in lands surrounding many of the exchange lands, especially in eastern Washington. While properly managed grazing can be benign or have beneficial effects, overgrazing can lead to negative impacts including loss of native vegetation, introduction of weeds, increased erosion, riparian zone degradation. Many eastern Washington State areas have been degraded by past overgrazing.

Under the No Action Alternative, grazing will continue as is and the current condition will be maintained. Under the Proposed Action Alternative existing leases on 5,424 acres of land being transferred from WDNR to WDFW will be honored for ten years. No change in range resources is expected during that time. WDFW require that grazing be compatible with habitat management objectives. Grazing practices may or may not need to be adjusted over time to improve range conditions if necessary. Such adjustments, if needed may or may not affect lease holders.

Recreation and Access

Dispersed outdoor recreation including hiking, hunting, fishing, biking, horseback riding, wildlife viewing, camping, etc., is an important activity in Washington. Providers of access to large blocks of public lands specifically for outdoor recreation include National Parks, National Forests, State Parks and WDFW Wildlife Areas. Other agencies including WDNR provide access for recreation but often have other priorities that can limit recreational access. Undeveloped private lands have historically provided such access as well. Use of public lands for dispersed outdoor recreation is increasing and will continue to increase as the human population grows and private lands that once served as recreation areas are lost to development. Under the No Action Alternative, access to WDFW and WDNR lands would remain the same as

well as the susceptibility of DNR exchange lands to disposal. The Proposed Action Alternative would help secure public ownership of exchange lands and slightly increase the amount of public land that is managed with recreation as a higher priority.

Scenic Resources

Scenic resources have been increasingly impacted since settlement began in the 1800's. Increasing population has led to increased development pressure that continues to fragment and degrade scenic tracks of undeveloped lands. The pressure to develop in remaining scenic areas is expected to continue. Some of the exchange lands are located within areas of spectacular scenic beauty and contain some of the best vistas of remaining undeveloped land. Under the No Action Alternative, the scenic resources would remain the same. The proposed land exchange is anticipated to have no or little impact to visual resources and may help safeguard them by securing public ownership.

Transportation

Most of the roads in the exchange area are lower maintenance level native surface roads with low traffic volumes. Under both alternatives the total miles of road would remain unchanged as well as the nature of the roads in the short term. Under the Action Alternative continued access rights for the public would be more secure.

Socio-Economic

The exchange area may be generally characterized as uninhabited forest, rangeland, grasslands, and limited agricultural lands with low potential to exert significant socioeconomic impacts under either alternative. Accordingly, no evaluation was performed as to how the alternatives would affect the cumulative social economic factors in the five counties with exchange land parcels was not developed.

Conclusion

The Proposed Action Alternative is the only alternative that meets the project needs to consolidate ownership and better provide continuous corridors of suitable habitat important for big game and a number of shrub-steppe and forest dependent species and protect, enhance, and support recreational opportunities in Washington. Additional benefits include improved land management efficiency, which would curtail unnecessary expenses and complexity, and minimize management conflicts between WDFW and WDNR. Under the Proposed Action Alternative, numerous resource protection measures required by federal and state laws and management actions would be in effect to avoid impacts. Additionally, mitigation measures specific to the Proposed Action Alternative, would further protect resources associated with the properties to be exchanged. Given, these protections, no significant negative impacts are anticipated under the Proposed Action Alternative. When added to past, present, and reasonably foreseeable actions, the Proposed Action Alternative would not significantly negatively affect the resources, rather it would prevent future impacts associated with the No Action Alternative. Similarly, beyond the administrative benefits and minor increase in acreage available for recreation, the benefits are limited to those indirectly influenced by the administrative efficiencies. As such, they are valuable, but not anticipated to be significant given their context.

CHAPTER 4

Listed below are the members of the interdisciplinary team and other individuals that participated in the development of this EA.

Agencies and Persons Involved

Barb Behan	Fish and Wildlife Biologist/Grants Manager, U.S. Fish and Wildlife Service (USFWS)	Endangered Species Act, Section 7
Leslie Ryan-Connelly	Grant Manager, Recreation and Conservation Office (RCO)	WWRP and LWCF Lands
Patty Betts	SEPA Coordinator, Department of Natural Resources (WDNR)	WDNR SEPA
Dan Budd	Real Estate Section Manager, Washington Department of Fish & Wildlife (WDFW)	PILT, Due Diligence, Easement Negotiations
Kelly Craig	Deputy Assistant Manager, Wildlife Area Section, WDFW	Project Lead, NEPA/SEPA, Section 7/106, Primary Author
Richard Tveten	Restoration Biologist Wildlife Area Section, WDFW	Project Lead, NEPA/SEPA Secondary Author
Bruce Crespin (Deceased)	Regional Cultural Resources Specialist, Bureau of Land Management (BLM)	National Historic Preservation Act (NHPA), Section 106
Paul Dahmer	Wildlife Program Section Manager, WDFW	Contributor, Document Review/Edit, Public Outreach
Dan Edwards	Wildlife Branch Chief, USFWS	Project Approval, Project Oversight
Teresa Eturaspe	SEPA Coordinator, WDFW	WDFW SEPA
Nell Fuller	Fish and Wildlife Biologist/Grants Manager, USFWS	NEPA
Brian Hall	GIS Analyst, WDFW	Recreational Facilities Maps and List, Road Easement Maps
Dave Heimer	Weed Coordinator, WDFW	Integrated Weed Management, Cost Estimate
Chuck James	Bureau of Indian Affairs (BIA)	NHPA, Advisory Council on Historic Preservation
Elyse Kane	Property Acquisition Specialist, WDFW	Conversion and Replacement Parcel Maps and List, Easement Negotiations, Road Easement Data

Jennifer Maze	Property Acquisition Specialist, WDFW	PILT
Marc McCalmon	GIS Analyst, WDFW	Modified Conversion and Replacement Parcel Maps, Road Density Estimation, Pre/Post Ownership Maps
Jennifer Quan	Lands Division Manager, WDFW	Project Oversight, WDFW Responsible Official
Heather Ramsay	Land & Water Conservation Fund (LWCF) Project Manager, National Park Service	LWCF Lands
Julie Sandberg	Assistant Asset and Property Management Division Manager, WDNR	Project Oversight,
Anne Sharar (Retired)	Trust Lands Supervisor, WDNR	WDNR Project Lead, Secondary Author
Lee Stilson	State Lands Archeologist, WDNR	Cultural Resources Protection Programmatic Agreement/MOA
Bob Winslow	Exchange Project Manager, WDNR	Water Rights, Grazing and Facilities to be Conveyed Tables

Consultation and Coordination

Listed below are the agencies consulted in the development of this EA.

Advisory Council on Historic Preservation, Section 106, National Historic Preservation Act

National Park Service, Partnership Programs: LWCF, NEPA and NHPA Section 106

U. S. Fish and Wildlife Service, Wildlife Restoration Program: NEPA, ESA Section 7, and NHPA Section 106

Washington State Department of Archaeology and Historic Preservation, Cultural Resources

Washington State Department of Fish and Wildlife, Habitat Program: SEPA

Washington State Department of Natural Resources, Land Management Division

Washington State Department of Natural Resources, SEPA Program

Washington State Recreation and Conservation Office, LWCF and WWRP Programs

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Appendix A: Phase 2 Land Exchange Parcel List

TWP	RG	SEC	COUNTY	WLA	PARCEL #	ACRES
LWCF CONVERSIONS						
19	16	14	KITTITAS	LTMURRAY	W048	78.66
19	16	15	KITTITAS	LTMURRAY	W050	162.19
19	16	18	KITTITAS	LTMURRAY	W049	153.34
19	16	19	KITTITAS	LTMURRAY	W047	653.83
19	16	20	KITTITAS	LTMURRAY	W034	560.00
19	16	21	KITTITAS	LTMURRAY	W046	206.00
19	16	22	KITTITAS	LTMURRAY	W045	614.90
19	16	23	KITTITAS	LTMURRAY	W044	308.72
19	16	26	KITTITAS	LTMURRAY	W043	395.37
19	16	28	KITTITAS	LTMURRAY	W042	320.00
19	16	29	KITTITAS	LTMURRAY	W041	640.48
19	16	35	KITTITAS	LTMURRAY	W035	655.14
TOTAL LWCF CONVERSIONS						***4,749.63***

LWCF REPLACEMENTS						
5	14	34	KLICKITAT	KLICKITAT	S327	90.00
7	45	36	ASOTIN	ASOTIN	S309	420.20
14	16	8	YAKIMA	OAK CRK	S247	80.00
15	15	2	YAKIMA	OAK CRK	S254	360.67
15	15	12	YAKIMA	OAK CRK	S253	440.00
16	17	10	YAKIMA	WENAS	S300	320.00
16	18	6	KITTITAS	WENAS	S070	573.12
18	22	4	KITTITAS	SKOOKUMCK	S124	614.76
18	22	10	KITTITAS	SKOOKUMCK	S134	640.00
18	22	14	KITTITAS	SKOOKUMCK	S133	361.20
18	22	16	KITTITAS	SKOOKUMCK	S125	640.00
18	22	18	KITTITAS	SKOOKUMCK	S132	626.44
33	21	3	OKANOGAN	METHOW	S337N	40.59
33	21	3	OKANOGAN	METHOW	S337S	41.00
33	22	1	OKANOGAN	METHOW	S338	40.00
34	22	16	OKANOGAN	METHOW	S347	640.00
35	25	2	OKANOGAN	SINLAHEKIN	S215	319.40
35	25	11	OKANOGAN	SINLAHEKIN	S216	243.16
36	25	35	OKANOGAN	SINLAHEKIN	S217	40.00
18	22	17	KITTITAS	SKOOKUMCHUCK	6F-17	640
18	22	20	KITTITAS	SKOOKUMCHUCK	6F-20	200
TOTAL LWCF REPLACEMENTS						***7,370.54***
LWCF REPLACEMENTS MINUS CONVERSIONS						***2,621.91***

PR CONVERSIONS						
TWP	**RG**	**SEC**	**COUNTY**	**WLA**	**PARCEL #**	**ACRES**
PR CONVERSIONS						
15	15	7	YAKIMA	OAK CRK	W076*	624.48
15	15	9	YAKIMA	OAK CRK	W087	640.00
15	15	15	YAKIMA	OAK CRK	W086	640.00
15	15	17	YAKIMA	OAK CRK	W078	640.00
15	15	19	YAKIMA	OAK CRK	W085	624.08
15	15	21	YAKIMA	OAK CRK	W084	640.00
15	15	23	YAKIMA	OAK CRK	W083	640.00
15	15	27	YAKIMA	OAK CRK	W082	640.00
15	15	29	YAKIMA	OAK CRK	W081	640.00
15	15	31	YAKIMA	OAK CRK	W080	627.76
15	15	33	YAKIMA	OAK CRK	W079	640.00
36	25	6	OKANOGAN	SINLAHEKIN	W070	160.00
36	25	7	OKANOGAN	SINLAHEKIN	W071	80.00
36	25	8	OKANOGAN	SINLAHEKIN	W072	320.00
36	25	18	OKANOGAN	SINLAHEKIN	W073	120.00
TOTAL PR CONVERSIONS						***7,636.32***

TWP	**RG**	**SEC**	**COUNTY**	**WLA**	**PARCEL #**	**ACRES**
PR REPLACEMENTS						
7	46	36	ASOTIN	ASOTIN	S005*	640.00
9	44	8	ASOTIN	ASOTIN	S017	320.00
9	44	16	ASOTIN	ASOTIN	S018	416.29
9	44	17	ASOTIN	ASOTIN	S015	440.00
9	45	16	ASOTIN	ASOTIN	S021	640.00
14	16	36	YAKIMA	COWICHE	S246	481.58
16	17	30	YAKIMA	WENAS	S306	332.56
16	17	32	YAKIMA	WENAS	S307	185.00
19	21	10	KITTITAS	COLOCKUM	S136	640.00
19	21	28	KITTITAS	QUILOMENE	S144	640.00
19	22	2	KITTITAS	COLOCKUM	S152	423.84
19	22	6	KITTITAS	COLOCKUM	S161	627.22
19	22	8	KITTITAS	COLOCKUM	S153	640.00
19	22	12	KITTITAS	COLOCKUM	S160	299.51
19	22	14	KITTITAS	COLOCKUM	S154	640.00
19	22	16	KITTITAS	COLOCKUM	S159	640.00
19	22	20	KITTITAS	COLOCKUM	S158	520.00
19	22	30	KITTITAS	QUILOMENE	S156	644.18
19	22	32	KITTITAS	QUILOMENE	S157	640.00
20	21	14	KITTITAS	COLOCKUM	S175	640.00
20	21	16	KITTITAS	COLOCKUM	S174	641.78

20	21	22	KITTITAS	COLOCKUM	S171	640.00
TWP	**RG**	**SEC**	**COUNTY**	**WLA**	**PARCEL #**	**ACRES**
PR REPLACEMENTS						
20	21	24	KITTITAS	COLOCKUM	S170	640.00
20	21	26	KITTITAS	COLOCKUM	S169	640.00
20	21	28	KITTITAS	COLOCKUM	S168	640.00
20	21	34	KITTITAS	COLOCKUM	S166	640.00
20	21	36	KITTITAS	COLOCKUM	S165	640.00
20	22	16	KITTITAS	COLOCKUM	S185	252.40
20	22	18	KITTITAS	COLOCKUM	S183	638.56
20	22	20	KITTITAS	COLOCKUM	S182	640.00
20	22	28	KITTITAS	COLOCKUM	S180	480.00
20	22	30	KITTITAS	COLOCKUM	S181	638.92
20	22	34	KITTITAS	COLOCKUM	S184	640.00
20	22	36	KITTITAS	COLOCKUM	S186	456.55
TOTAL PR REPLACEMENTS						***18,678.39***
PR REPLACEMENTS MINUS CONVERSIONS						***11,002.07***

ADDITIONAL REPLACEMENT - will be inside Colockum 6F boundary						
21	21	36	CHELAN	COLOCKUM	S025	640.00

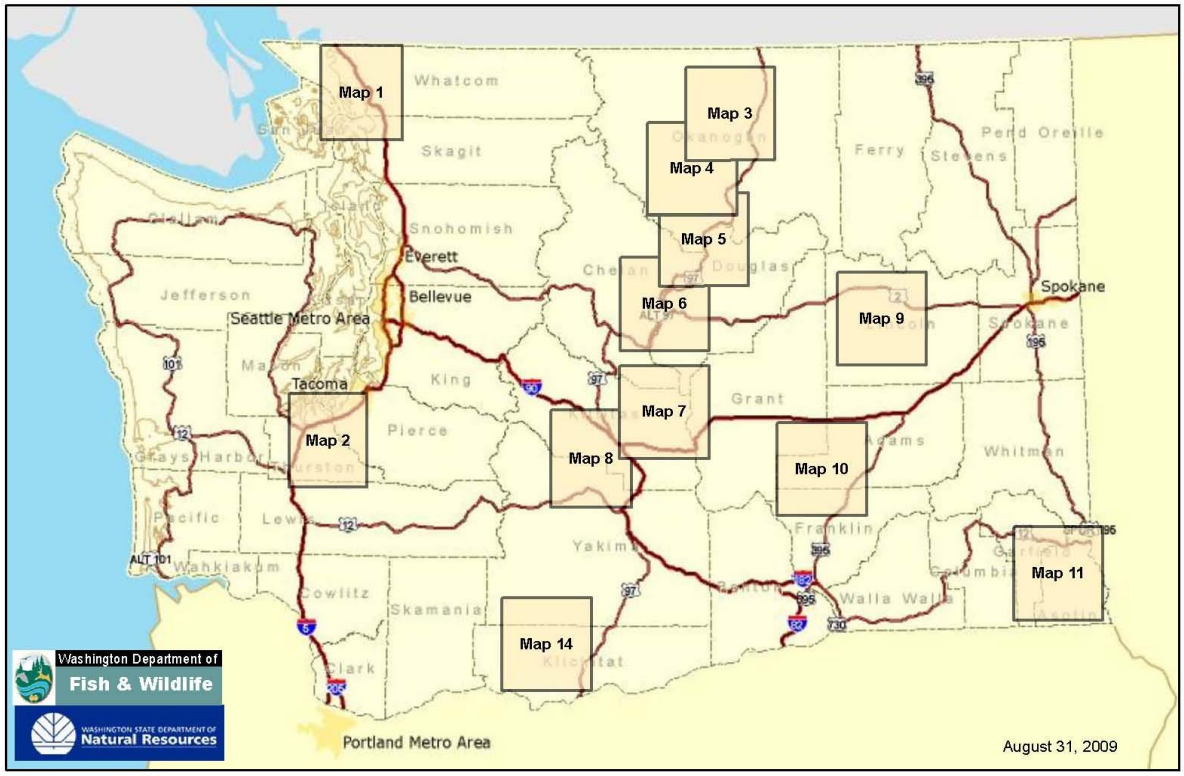
TOTAL CONVERSIONS IN PHASE 2				12,285.95
TOTAL REPLACEMENTS IN PHASE 2				26,688.93
REPLACEMENTS MINUS CONVERSIONS IN PHASE 2				***14,403.98***

Appendix B: Phase 2 Pre and Post Land Exchange Ownership Maps
The following maps illustrate which lands will be exchanged between agencies and how those changes will affect land ownership patterns,

Note: Maps for the Phase 2 Land Exchange are numbered 3, 4, 7, 8, 11 and 14. The incomplete numbering series represents a complete set of maps for the Phase 2 Land Exchange. The map numbering system was based on the below map index which includes all areas where exchanges would need to occur to meet overall exchange goals. Numbering consistency was maintained to prevent confusion.

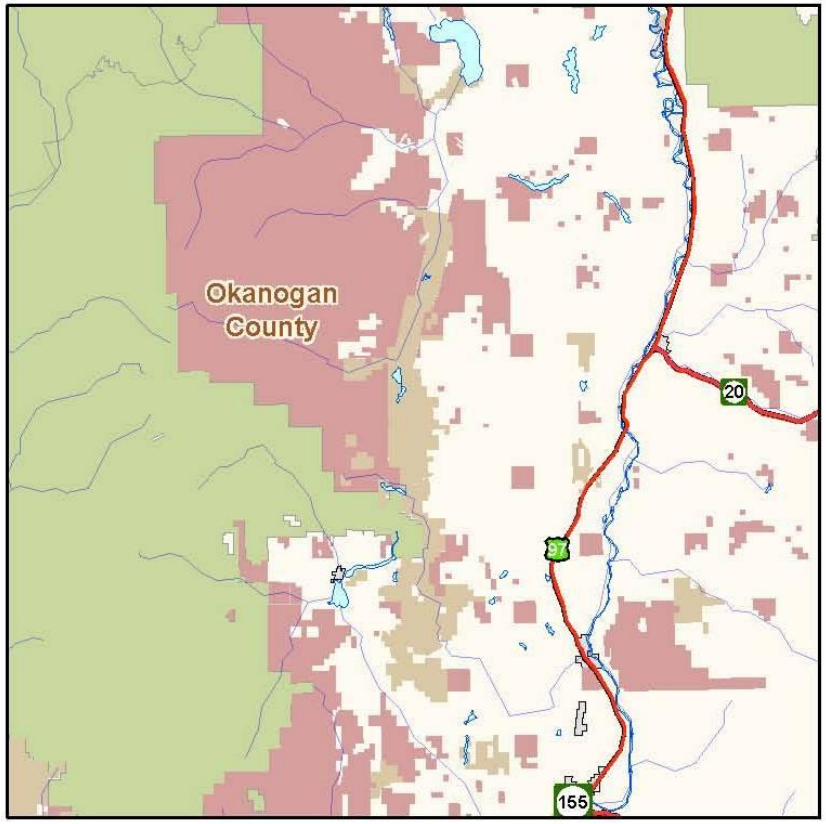
Washington Department of Fish & Wildlife

Map Index of the WDFW Proposed Land Exchange

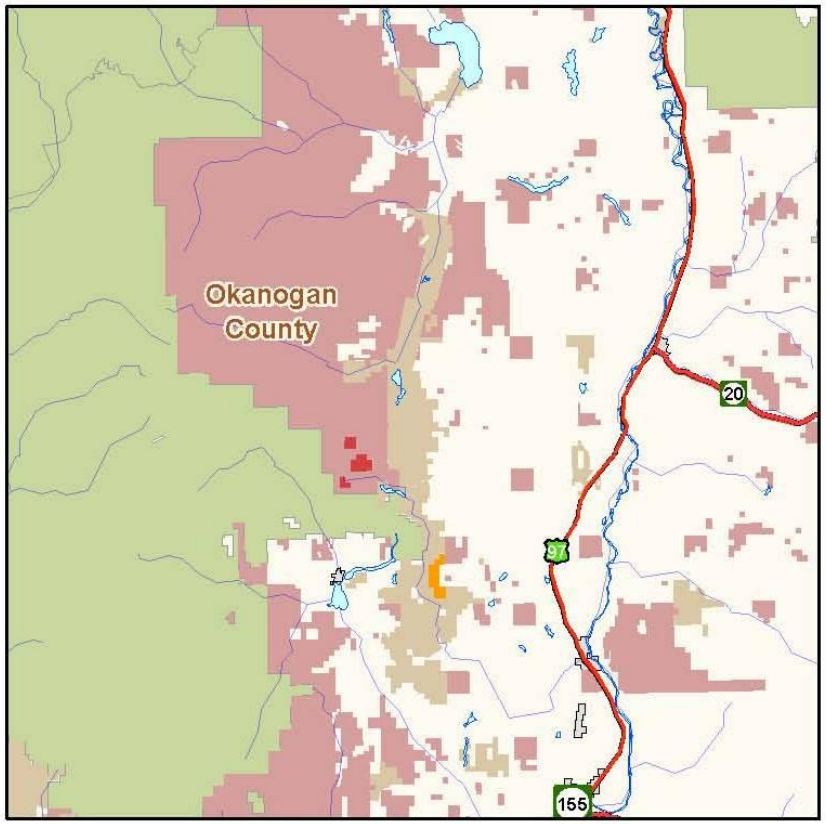


Potential Phase 2 Exchange Parcels

Map Series 3



Pre-Phase 2 Ownership



Post-Phase 2 Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

Ownership

- Parcels new to WA Dept of Natural Resources
- Parcels new to WA Dept of Fish and Wildlife

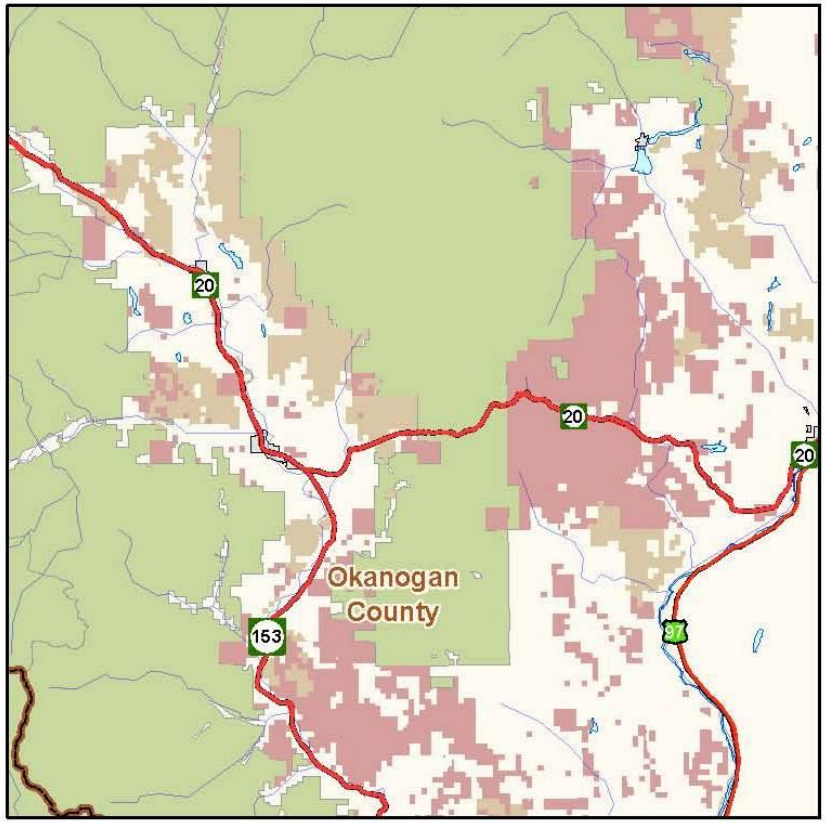
0 1 2 3 4 5 Miles

N

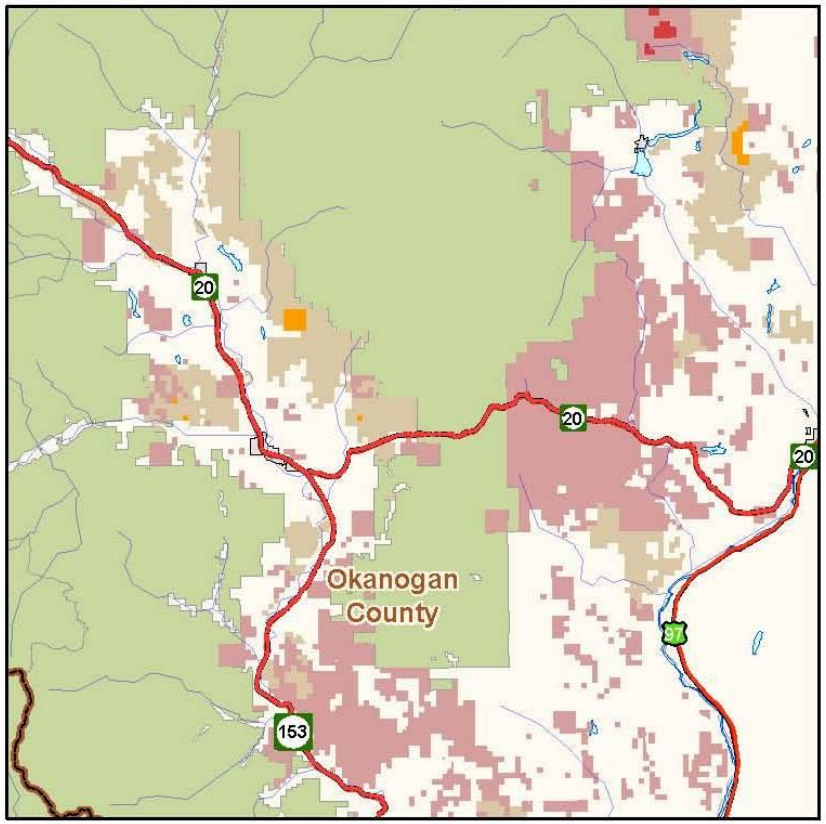
Date of Map: September 25, 2009

Potential Phase 2 Exchange Parcels

Map Series 4



Pre-Phase 2 Ownership



Post-Phase 2 Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

0 1 2 3 4 5 Miles

N

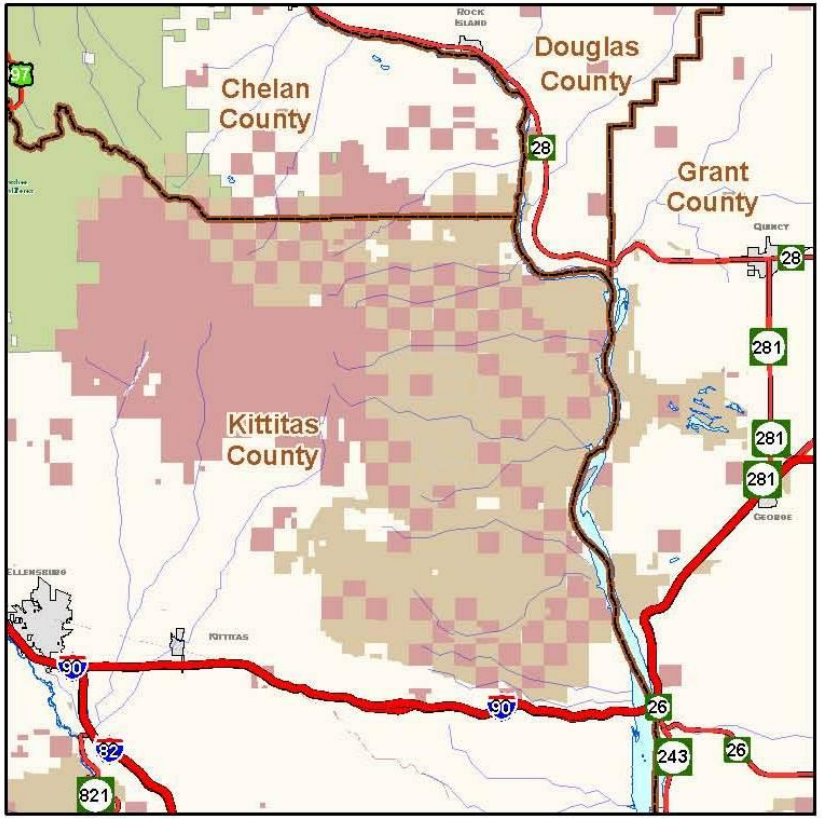
Ownership

- Parcels new to WA Dept of Natural Resources
- Parcels new to WA Dept of Fish and Wildlife

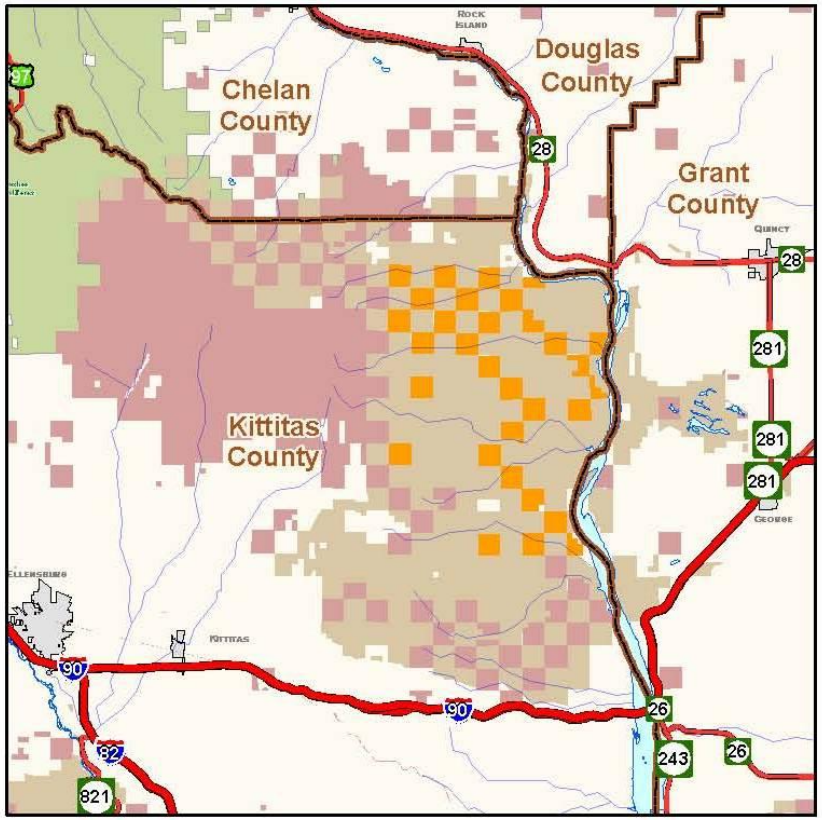
Date of Map: September 25, 2009

Potential Phase 2 Exchange Parcels

Map Series 7



Pre-Phase 2 Ownership



Post-Phase 2 Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

Ownership

- Parcels new to WA Dept of Natural Resources (none on this map)
- Parcels new to WA Dept of Fish and Wildlife

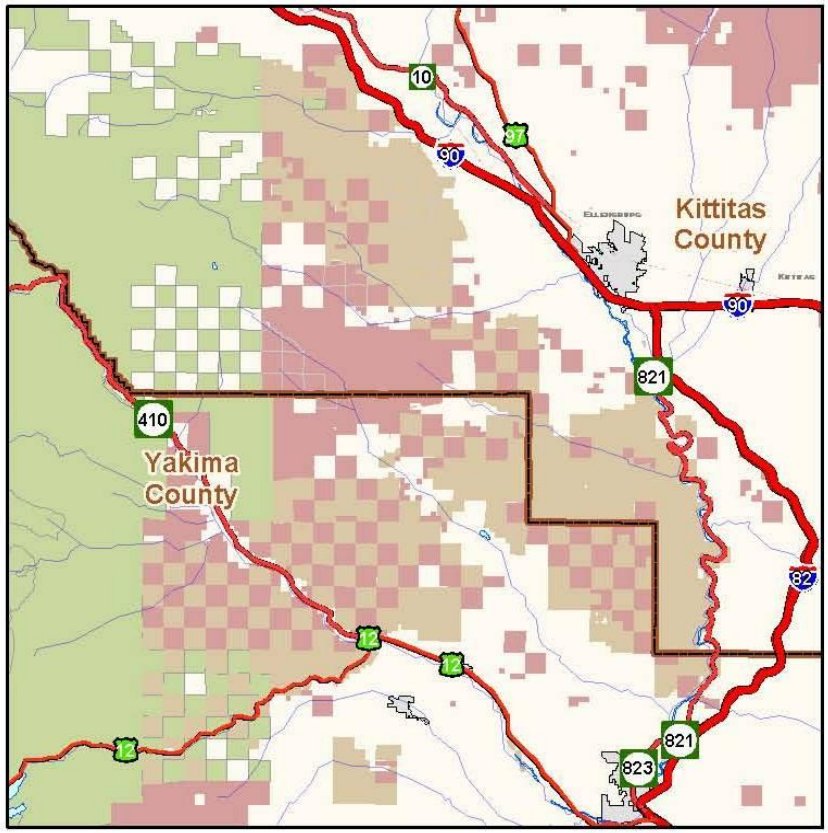
0 1 2 3 4 5 Miles

N

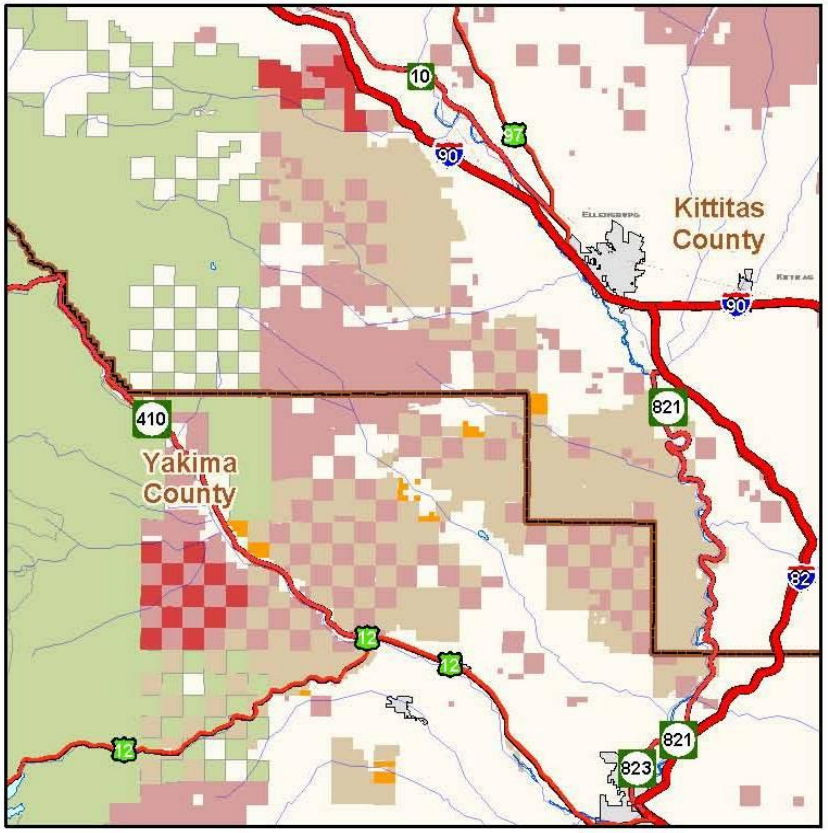
Date of Map: September 25, 2009

Potential Phase 2 Exchange Parcels

Map Series 8



Pre-Phase 2 Ownership



Post-Phase 2 Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

0 1 2 3 4 5 Miles

N

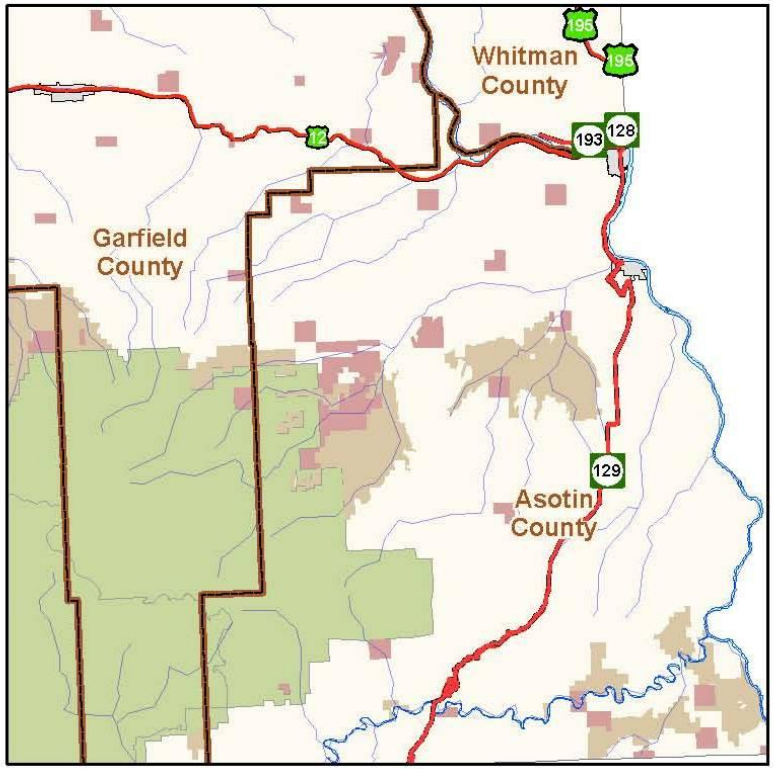
Ownership

- Parcels new to WA Dept of Natural Resources
- Parcels new to WA Dept of Fish and Wildlife

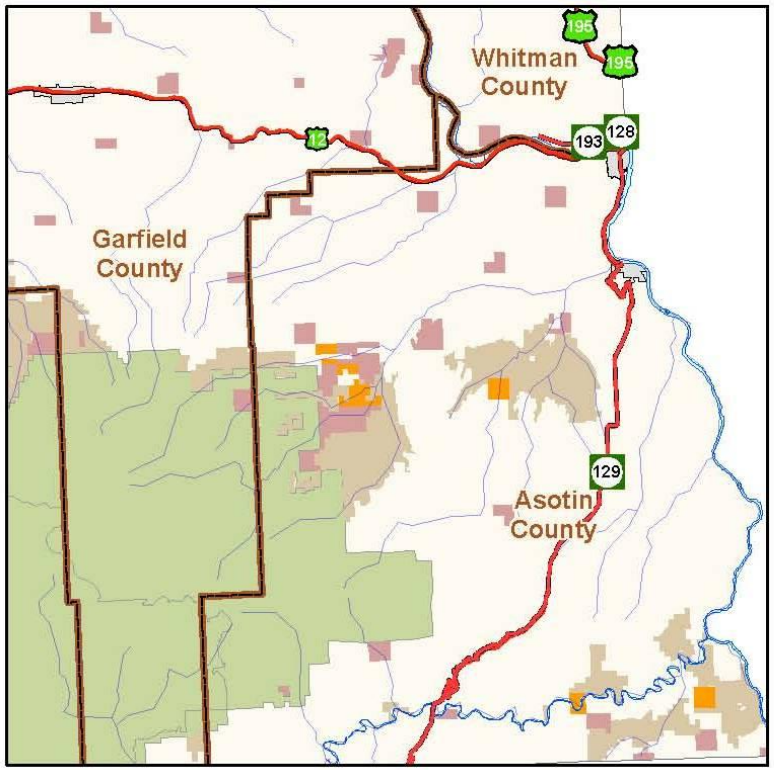
Date of Map: September 25, 2009

Potential Phase 2 Exchange Parcels

Map Series 11



Pre-Phase 2 Ownership



Post-Phase 2 Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

Ownership

- Parcels new to WA Dept of Natural Resources (none on this map)
- Parcels new to WA Dept of Fish and Wildlife

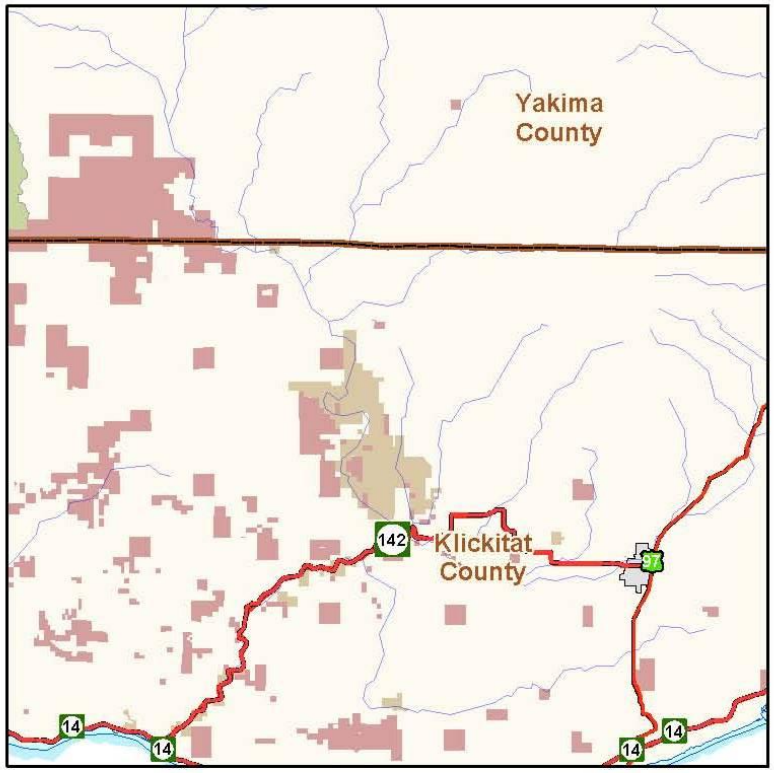
0 1 2 3 4 5 Miles

N

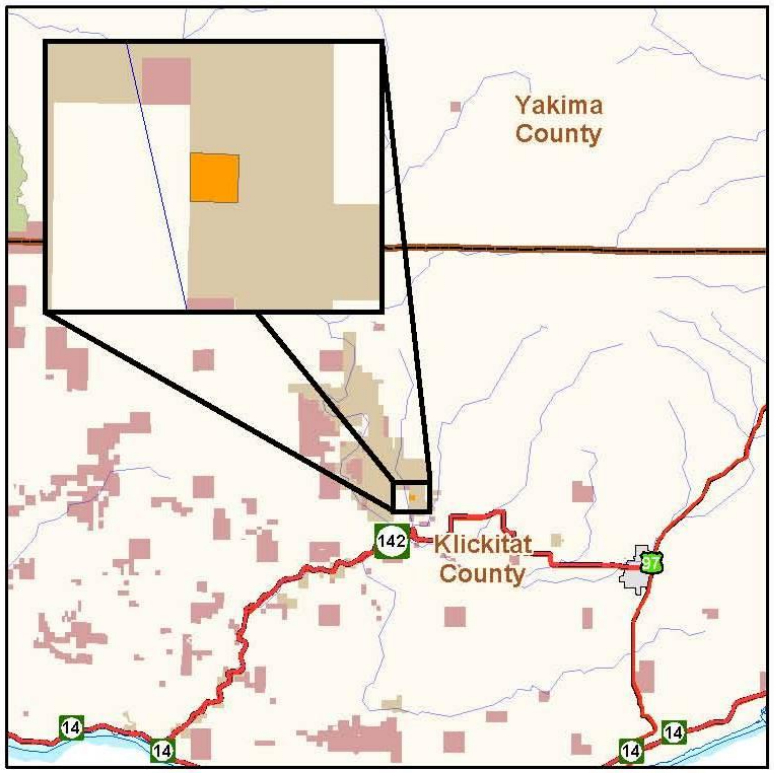
Date of Map: September 25, 2009

Potential Phase 2 Exchange Parcels

Map Series 14



Pre-Phase 2 Ownership



Post-Phase 2 Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

Ownership

- Parcels new to WA Dept of Natural Resources (none on this map)
- Parcels new to WA Dept of Fish and Wildlife

0 1 2 3 4 5 Miles

N

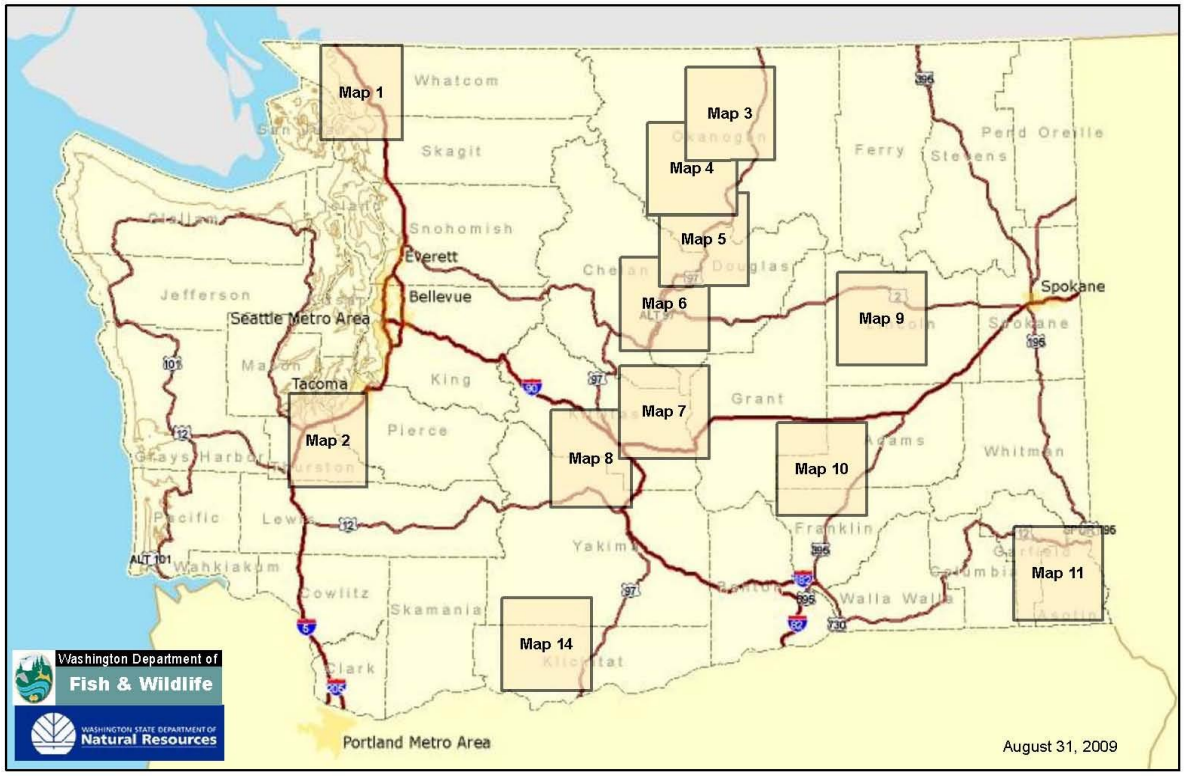
Date of Map: September 25, 2009

Appendix C: Phase 2 Land Exchange Conversion and Replacement Maps
This map series show the same exchange of land as shown in Appendix B but with added detail regarding the different funding sources of exchange lands and what lands will replace them.

Note: Maps for the Phase 2 Land Exchange are numbered 3, 4, 7, 8, 11 and 14. The incomplete numbering series represents a complete set of maps for the Phase 2 Land Exchange. The map numbering system was based on the below map index which includes all areas where exchanges would need to occur to meet overall exchange goals. Numbering consistency was maintained to prevent confusion.

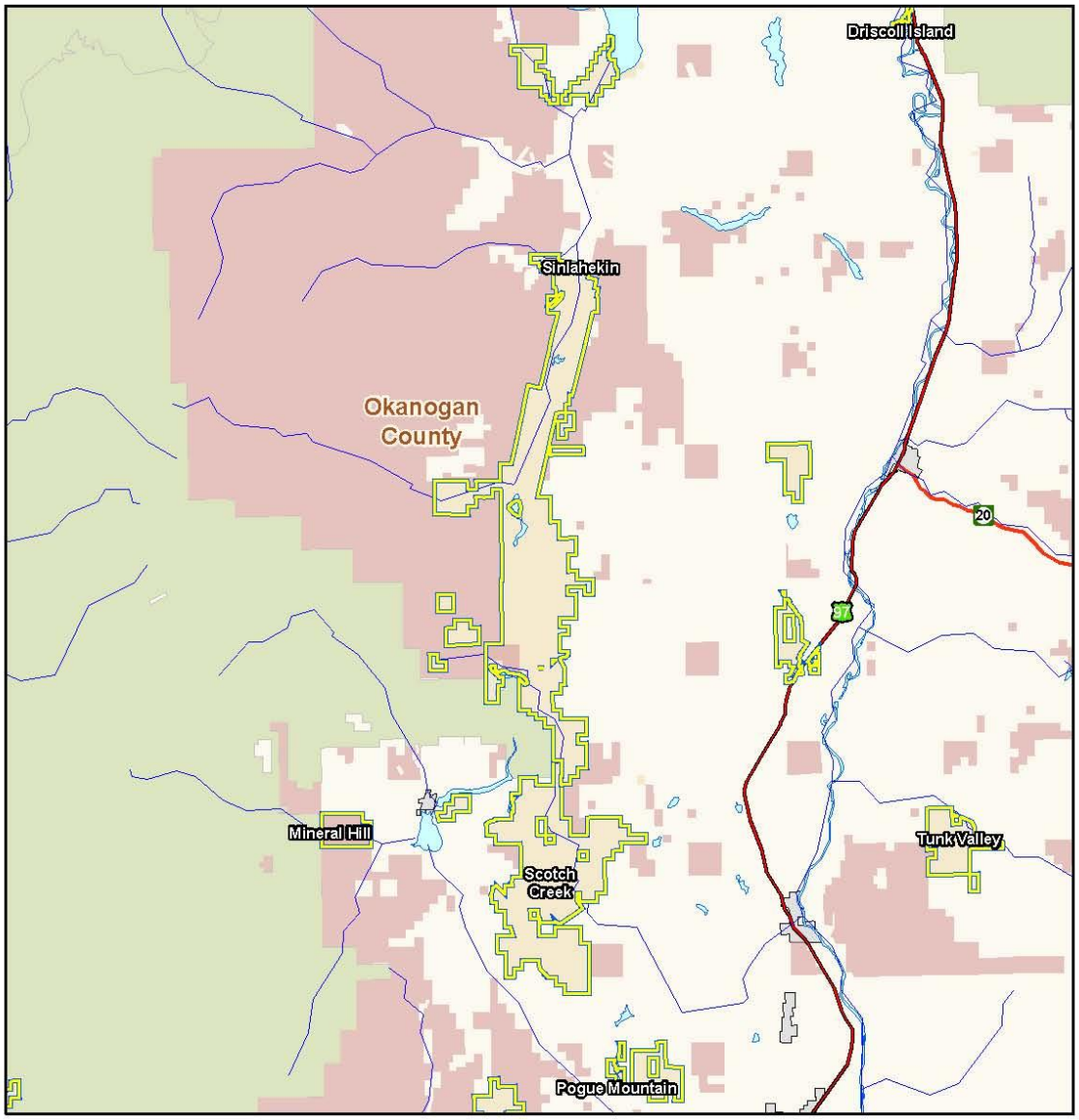
Washington Department of Fish & Wildlife

Map Index of the WDFW Proposed Land Exchange



WDFW Proposed Land Exchange - Pre-Phase 2
Conversion and Replacement Maps

Map 3



Legend

Pre-exchange NPS 6F Boundary (none on this map)

Ownership and Administrative Boundary

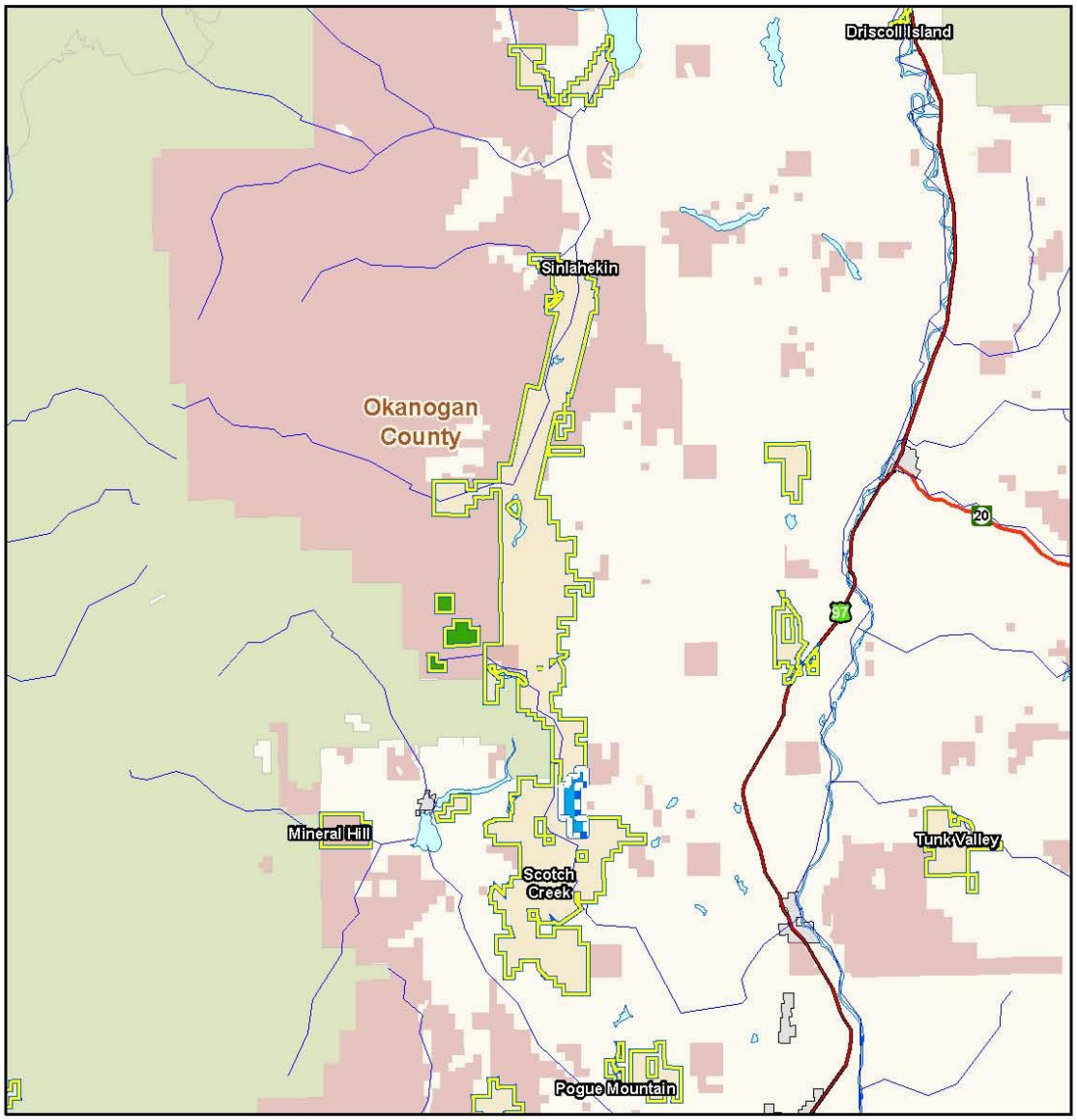
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Post-Phase 2 Conversion and Replacement Maps

Map 3



Legend

- Post-exchange NPS 6F Boundary
- LWCF Replacement
- PR Conversion

Ownership and Administrative Boundary

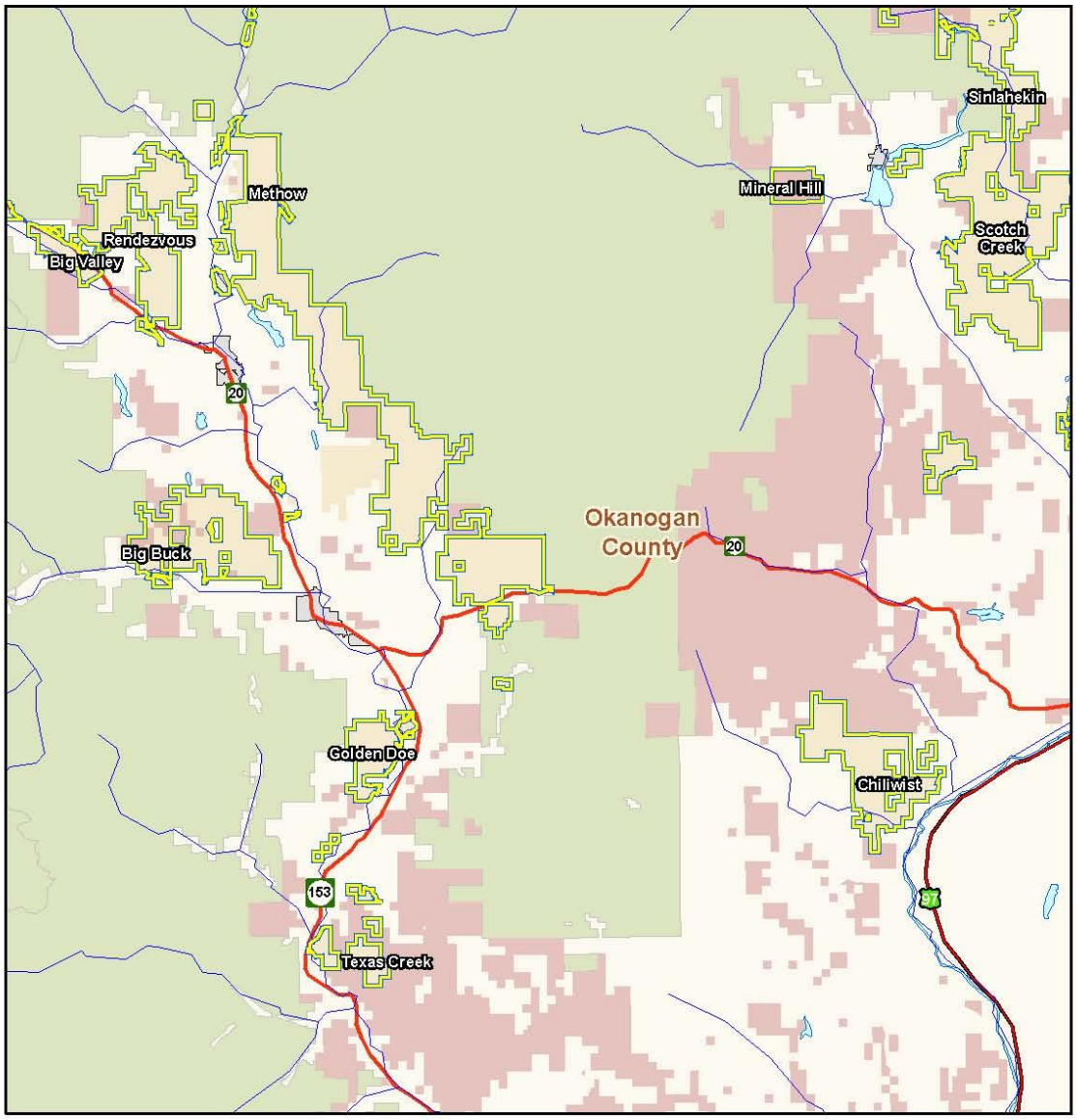
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Pre-Phase 2
Conversion and Replacement Maps

Map 4



Legend

Pre-exchange NPS 6F Boundary (none on this map)

Ownership and Administrative Boundary

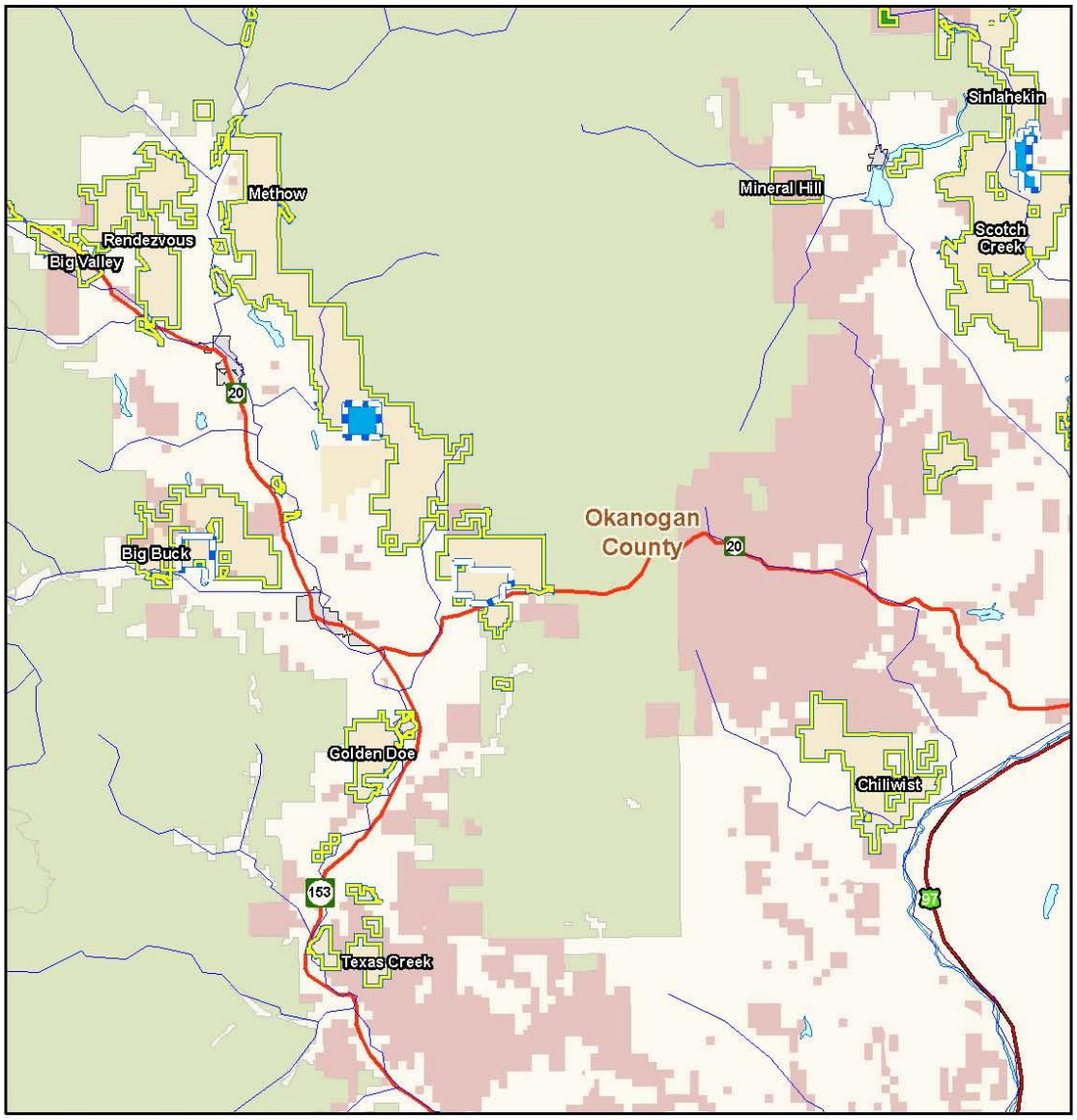
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Post-Phase 2 Conversion and Replacement Maps

Map 4



Legend

- Post-exchange NPS 6F Boundary
- LWCF Replacement
- PR Conversion

Ownership and Administrative Boundary

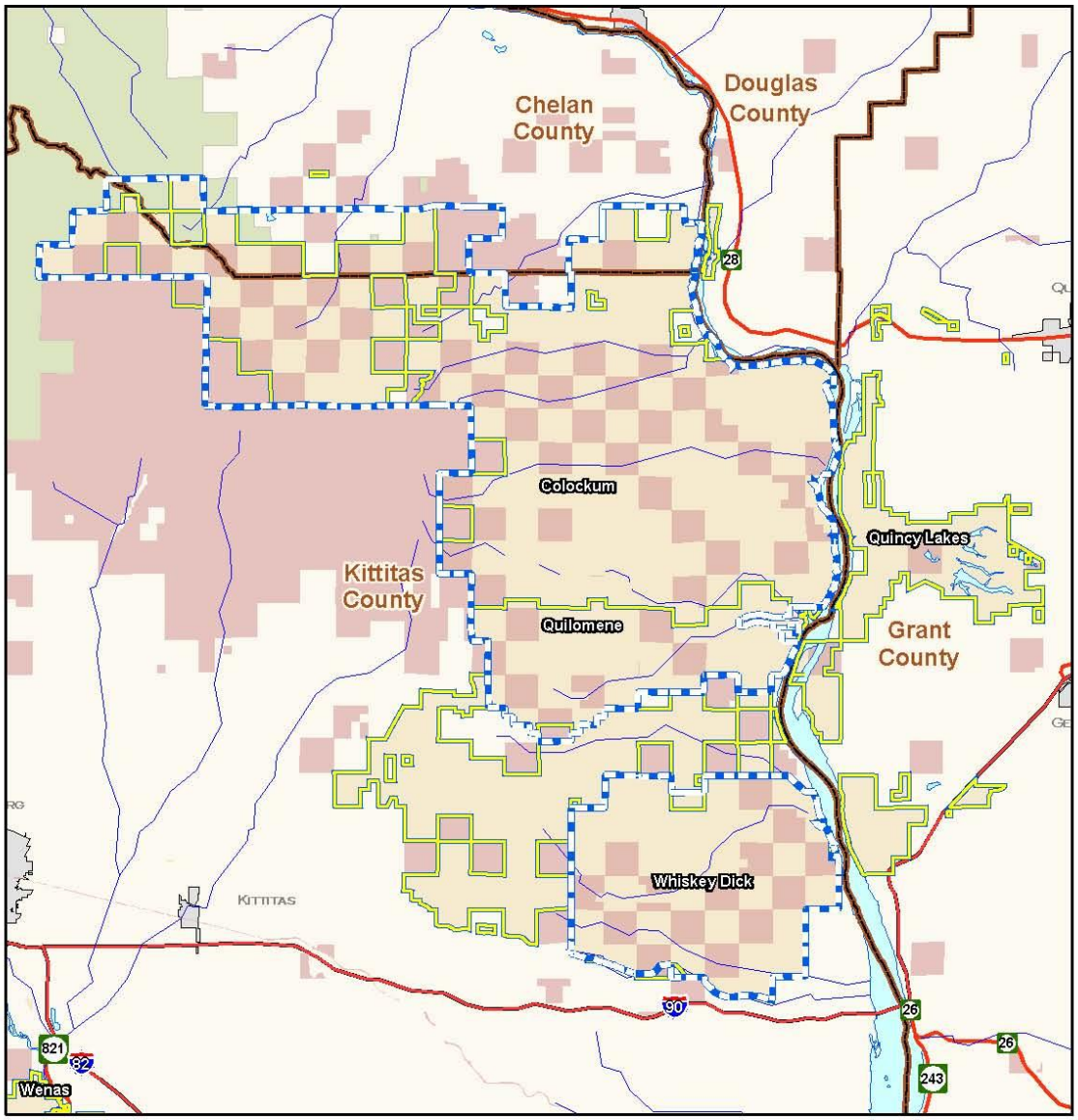
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Pre-Phase 2
Conversion and Replacement Maps

Map 7



Legend

Pre-exchange NPS 6F Boundary

Ownership and Administrative Boundary

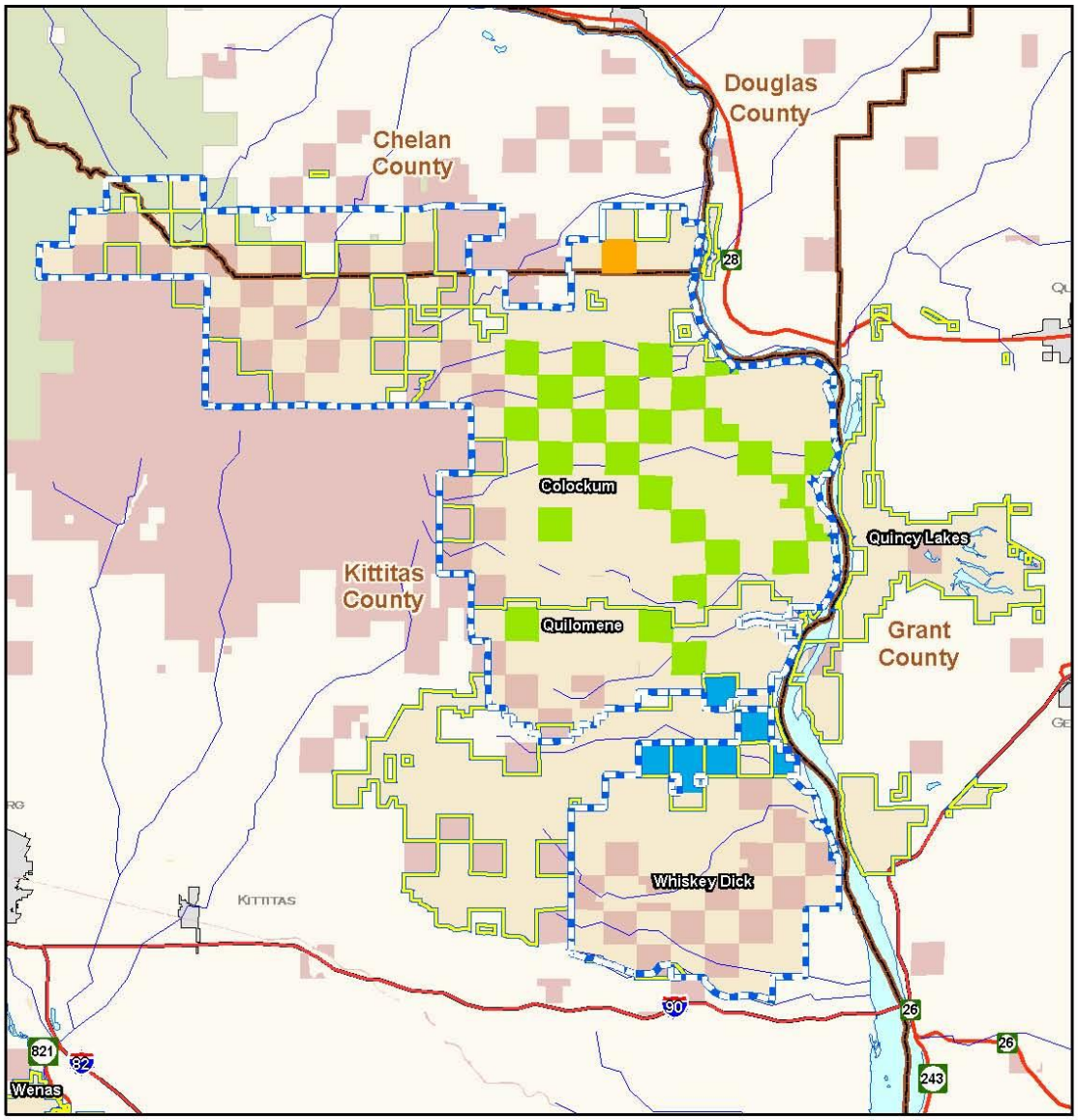
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Post-Phase 2
Conversion and Replacement Maps

Map 7



Legend

- Post-exchange NPS 6F Boundary
- LWCF Replacement
- PR Replacement
- Other Replacement

Ownership and Administrative Boundary

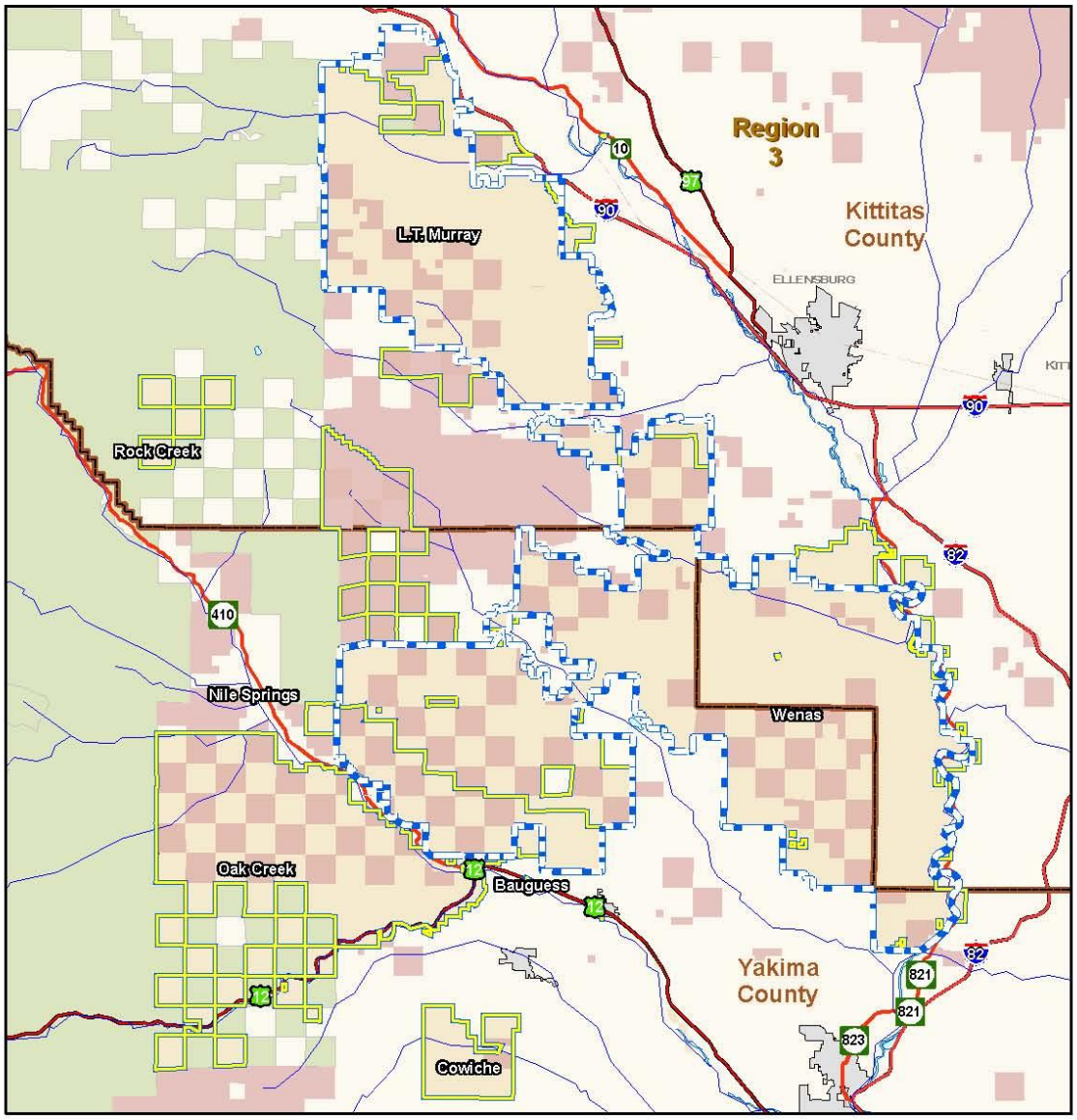
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Pre-Phase 2
Conversion and Replacement Maps

Map 8



Legend

Pre-exchange NPS 6F Boundary

Ownership and Administrative Boundary

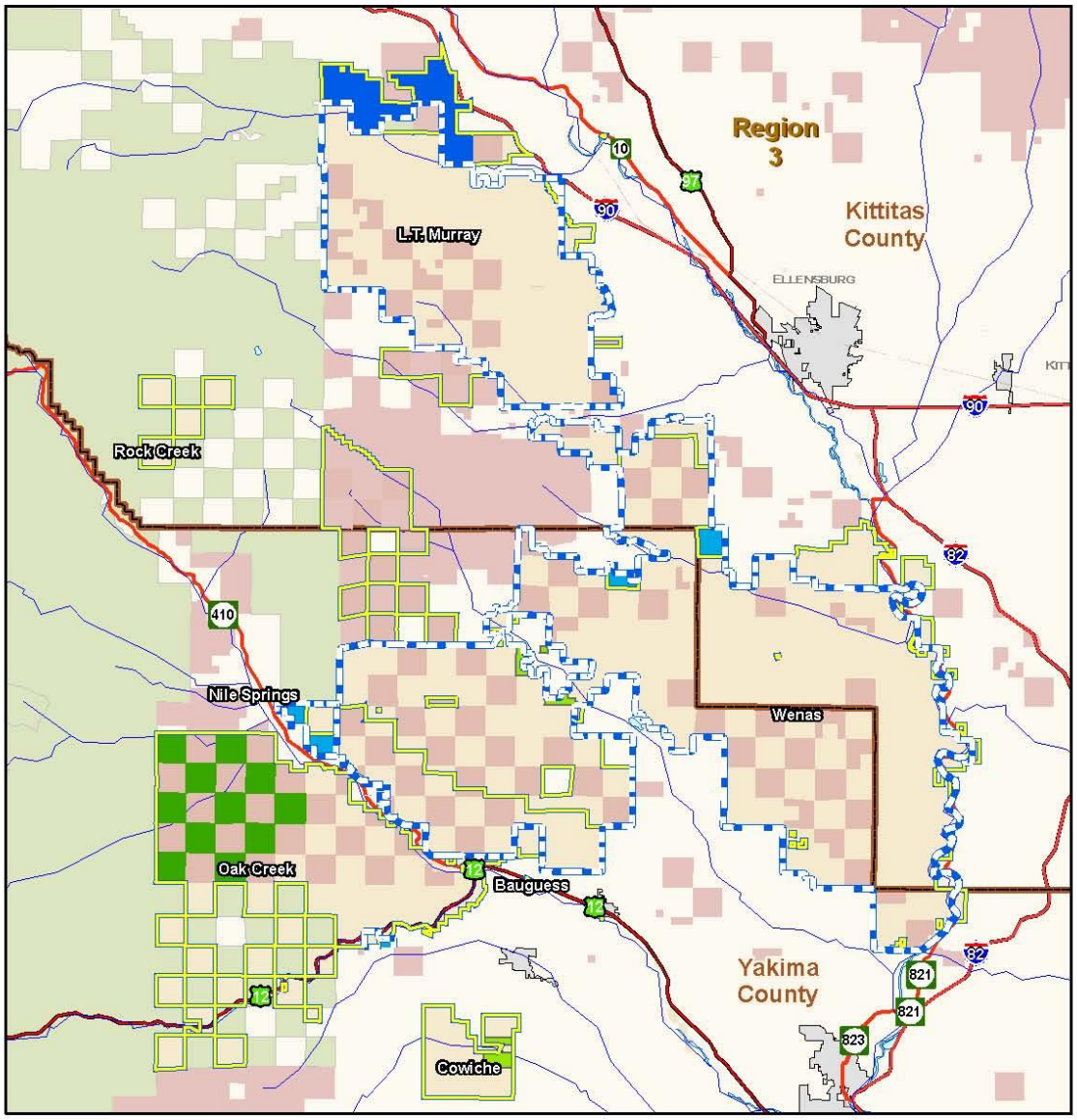
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Post-Phase 2
Conversion and Replacement Maps

Map 8



Legend

- Post-exchange NPS 6F Boundary
- LWCF Conversion
- LWCF Replacement
- PR Conversion
- PR Replacement

Ownership and Administrative Boundary

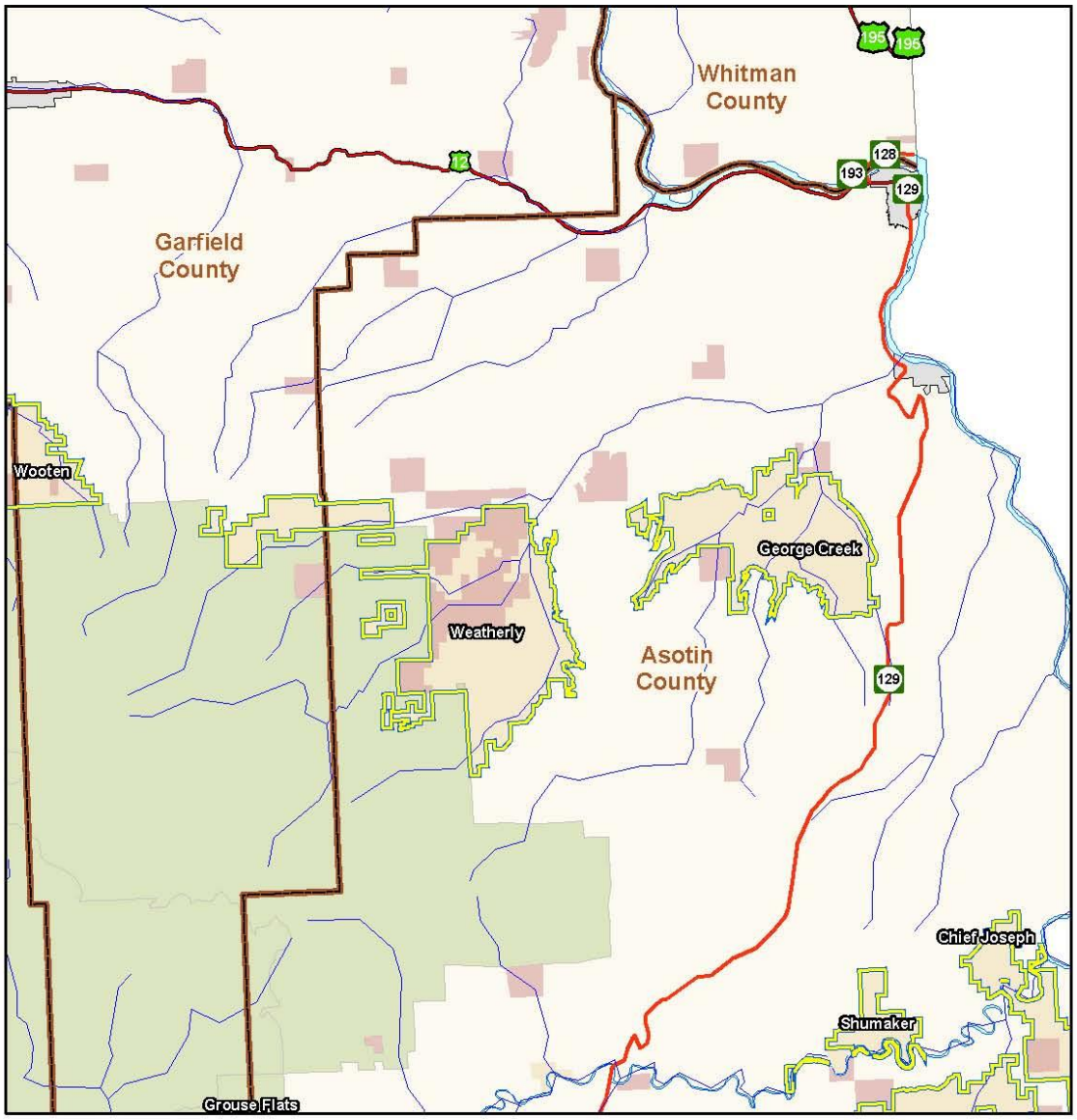
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Pre-Phase 2
Conversion and Replacement Maps

Map 11



Legend

Pre-exchange NPS 6F Boundary (none on this map)

Ownership and Administrative Boundary

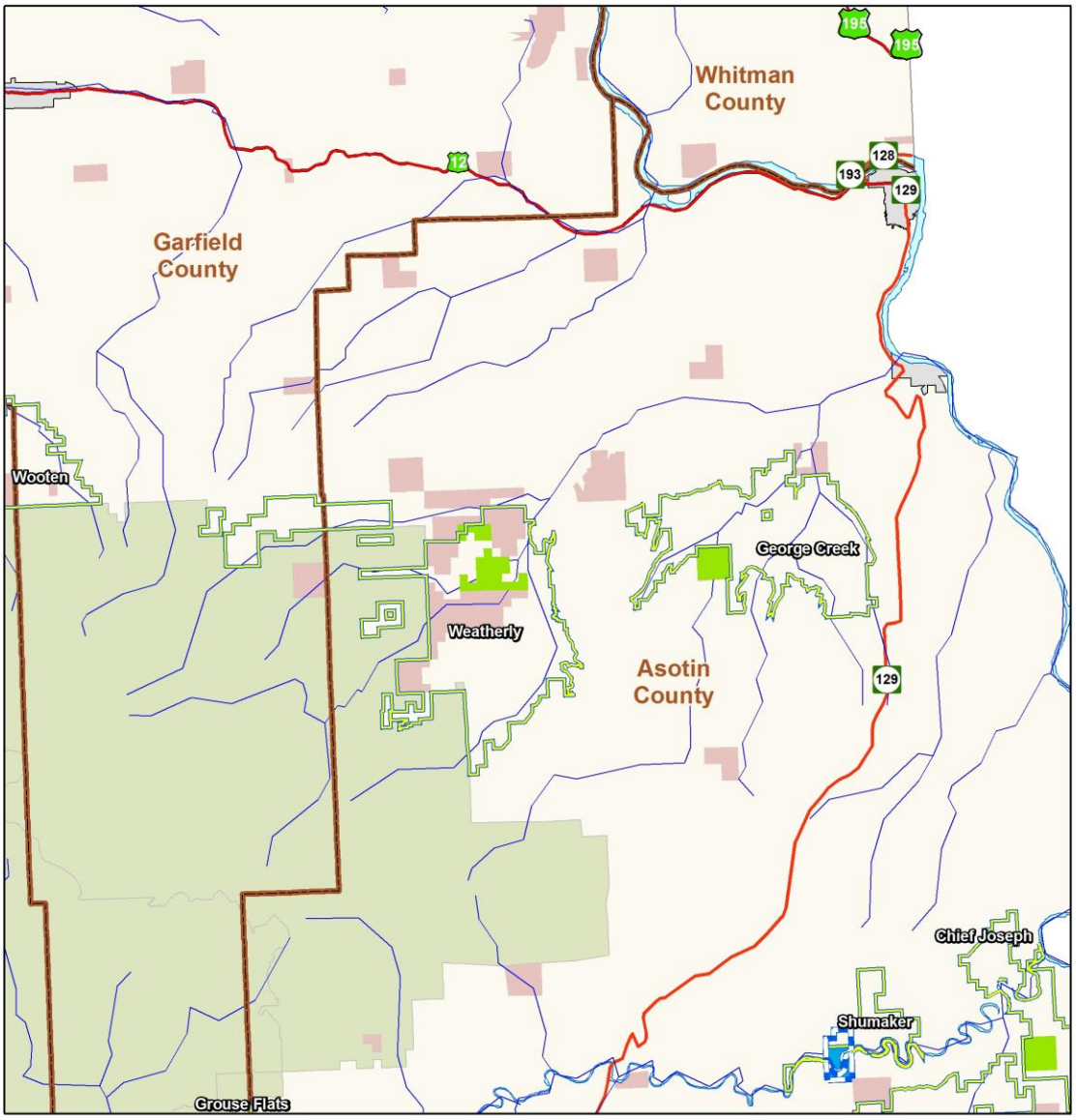
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

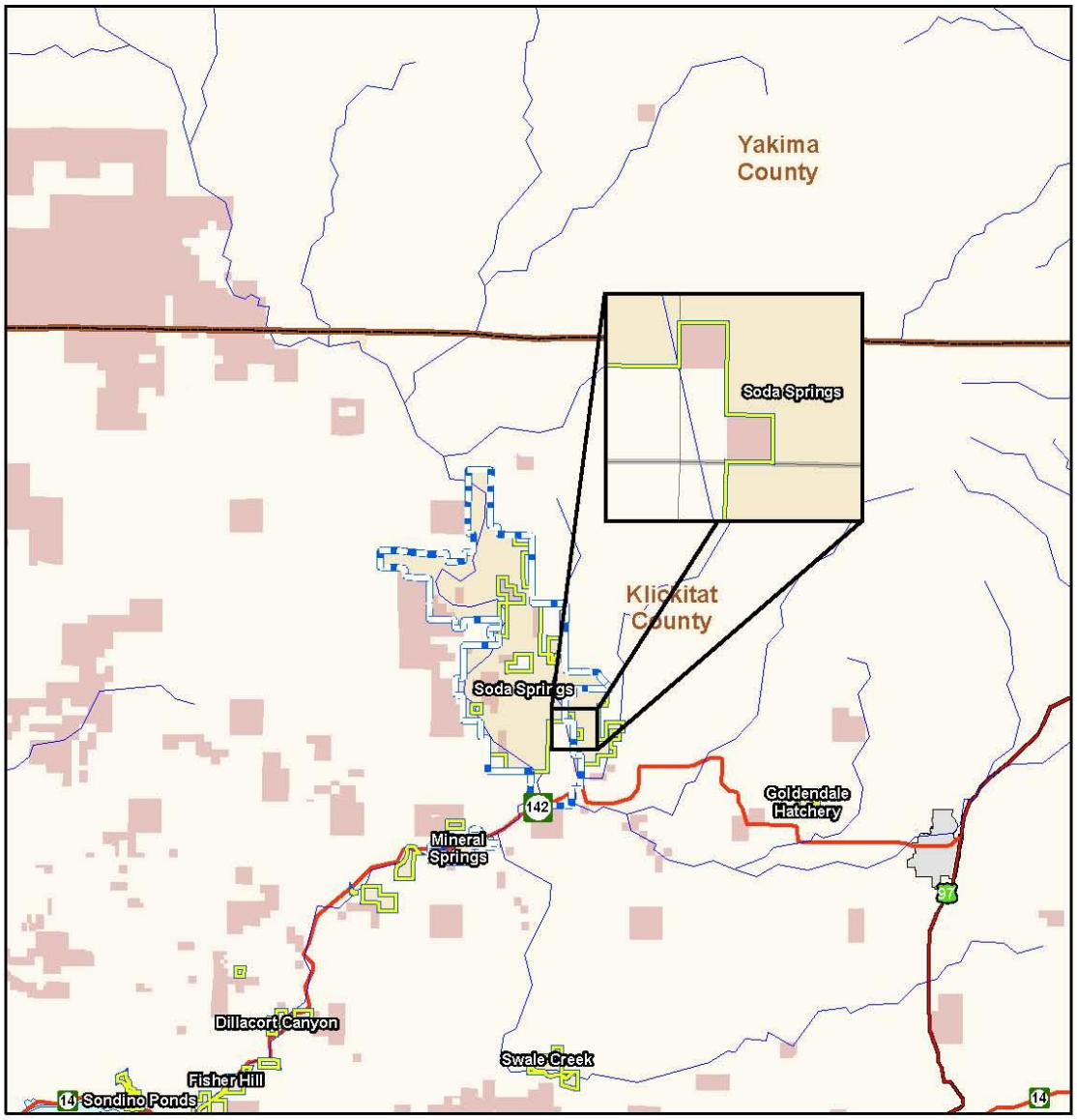
WDFW Proposed Land Exchange - Post-Phase 2 Conversion and Replacement Maps

Map 11



WDFW Proposed Land Exchange - Pre-Phase 2
Conversion and Replacement Maps

Map 14



Legend

Pre-exchange NPS 6F Boundary

Ownership and Administrative Boundary

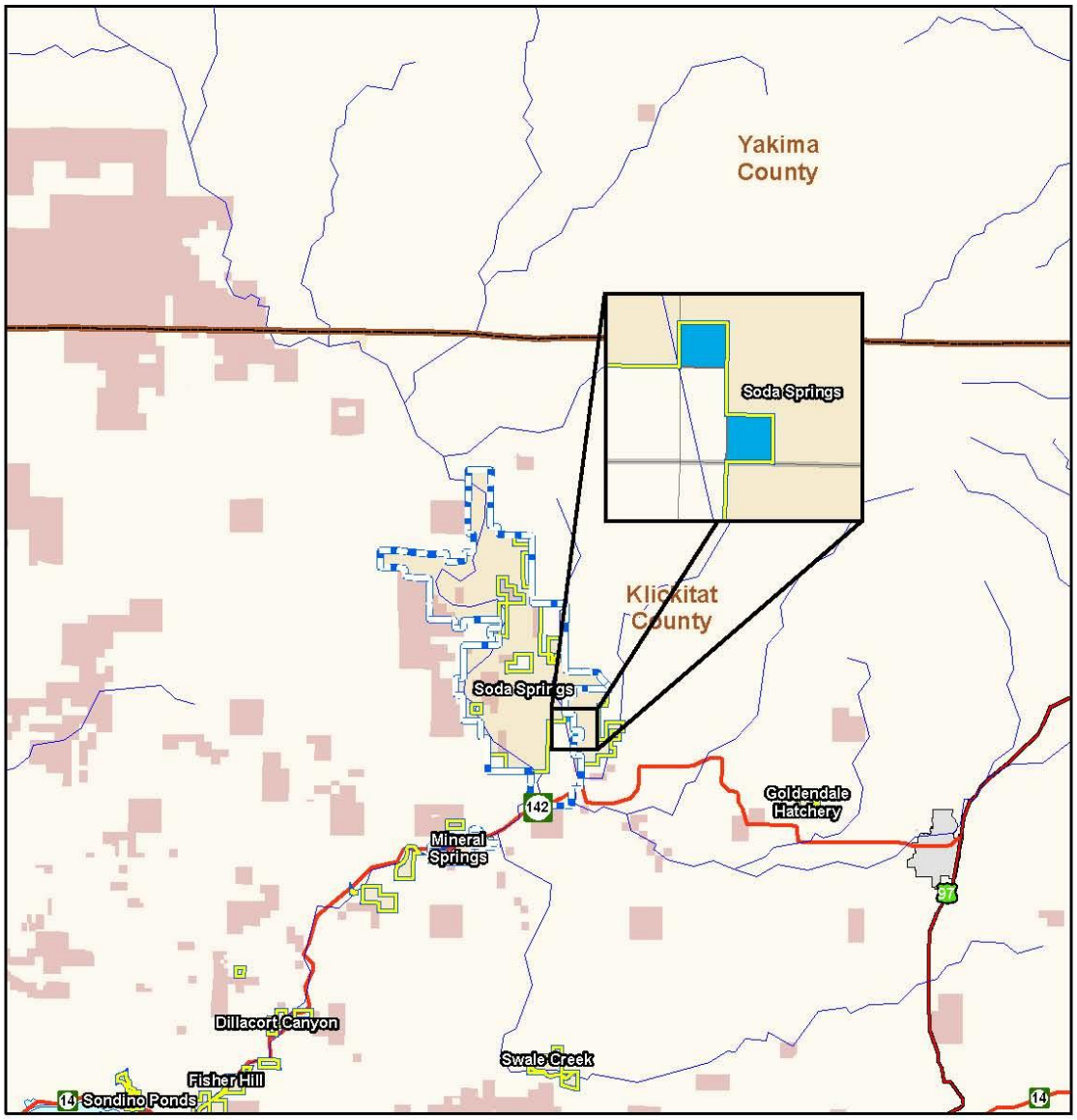
- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

WDFW Proposed Land Exchange - Post-Phase 2
Conversion and Replacement Maps

Map 14



Legend

- Post-exchange NPS 6F Boundary
- LWCF Replacement

Ownership and Administrative Boundary

- Wildlife Area Units
- US Forest Service
- WA Dept of Natural Resources
- WDFW Owned Lands

0 1 2 3 4 5 Miles

October 30, 2009

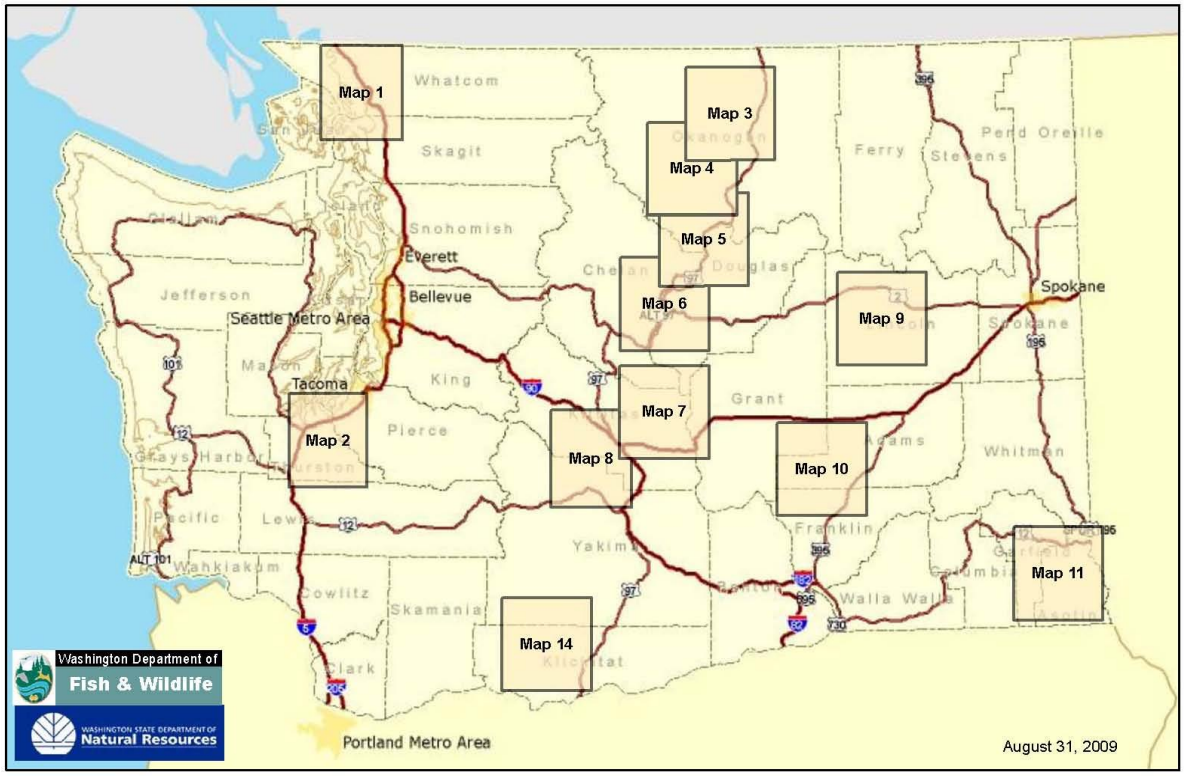
Appendix D: Overarching Exchange Goal Pre and Post Ownership Maps

The following map series illustrates the overall, general goals for exchanging lands between WDFW and WDNR by showing what land ownership patterns would be before and after a series of desired land exchanges occur. Three or more exchanges may be required to complete the full exchange if it is ever completed in full. The Proposed Action Alternative (Phase 2 Land Exchange) in this EA represents about 25% of the overall exchange land goal.

Note: This map series was prepared prior to the development and finalization of the Phase 2 land exchange during which some of the details regarding parcels and 6f boundaries were revised. Accordingly, this map series should only be used as a general reference for putting the Phase 2 land exchange in context with the scope and scale of overarching exchange goals.

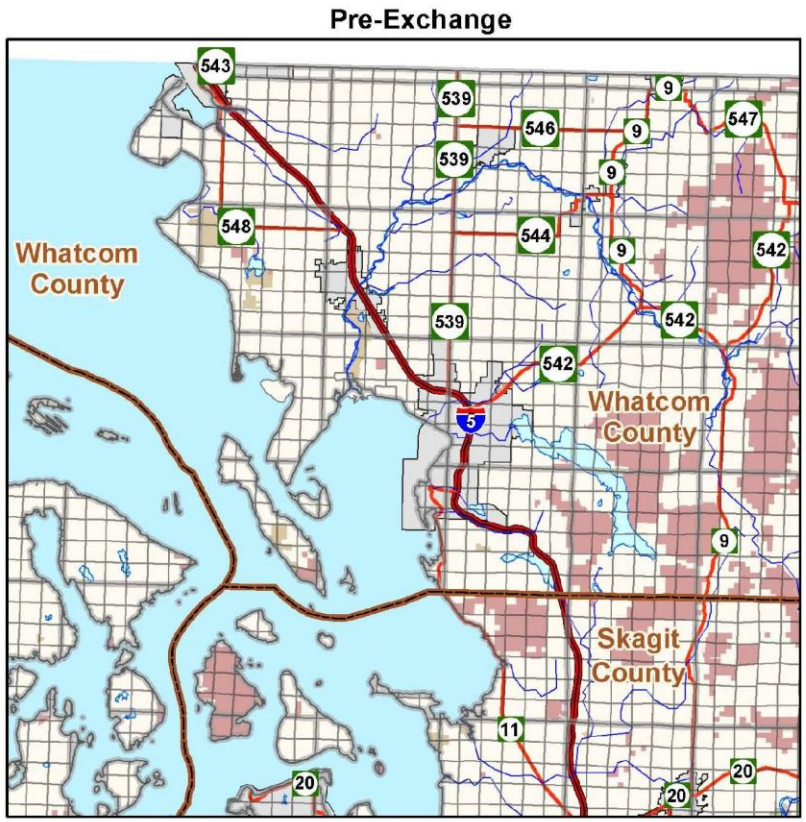
Washington Department of Fish & Wildlife

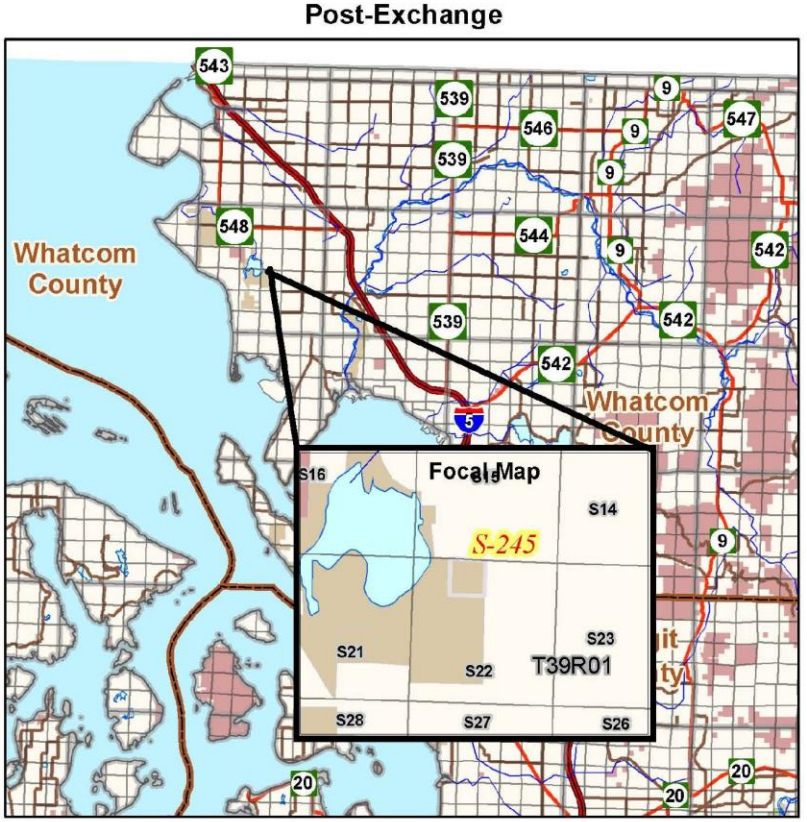
Map Index of the WDFW Proposed Land Exchange



WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 1 Draft Map - Subject to Change





Ownership

- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- Interstate Highway
- State Route

N

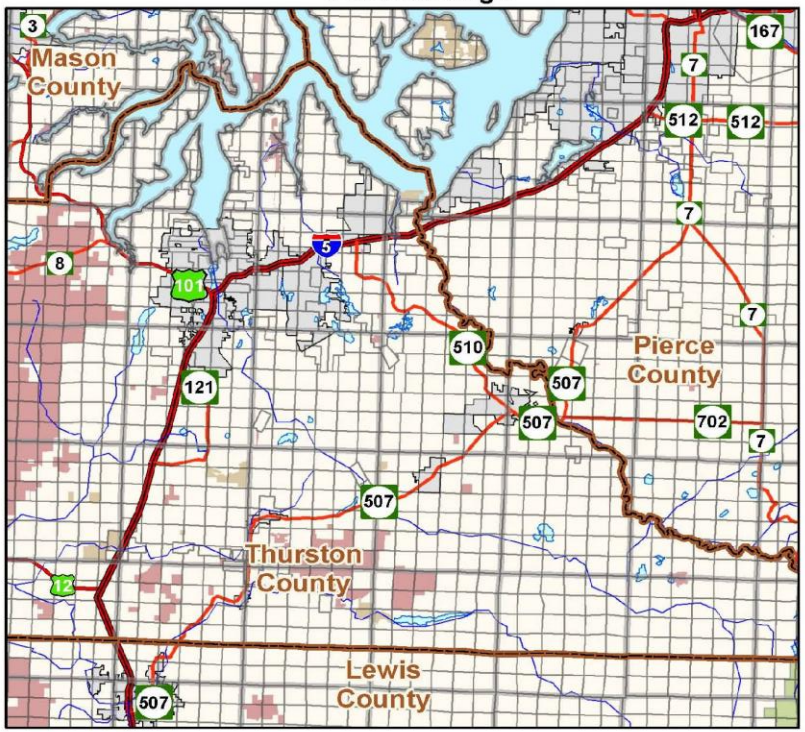
0 1 2 3 4 5 Miles

May 18,2009

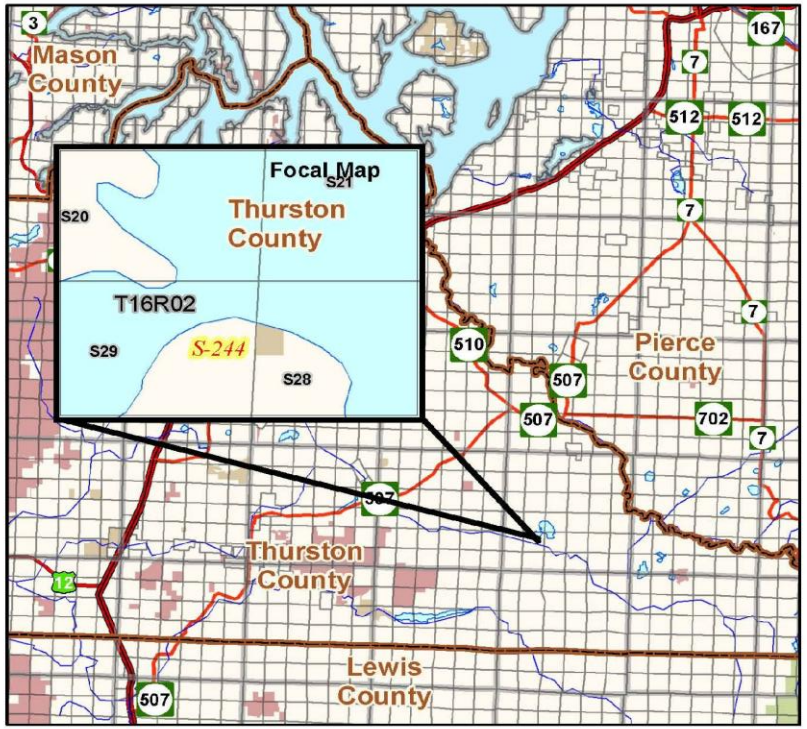
WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 2 **Draft Map - Subject to Change**

Pre-Exchange



Post-Exchange



Ownership

- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- Interstate Highway
- US Highway
- State Route

N

0 1 2 3 4 5 Miles

May 18, 2009

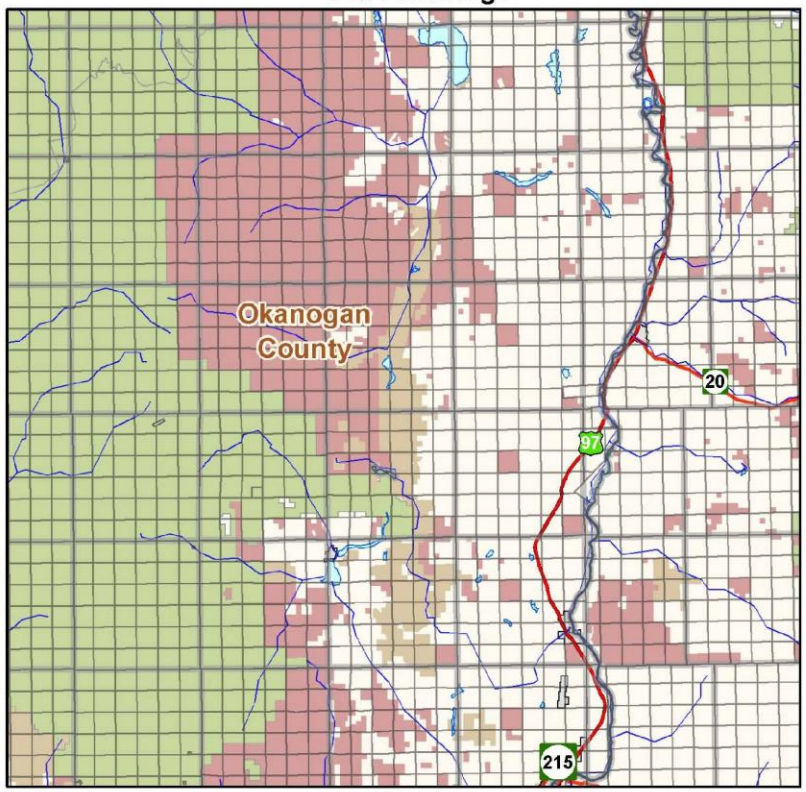
WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 3 Draft Map - Subject to Change

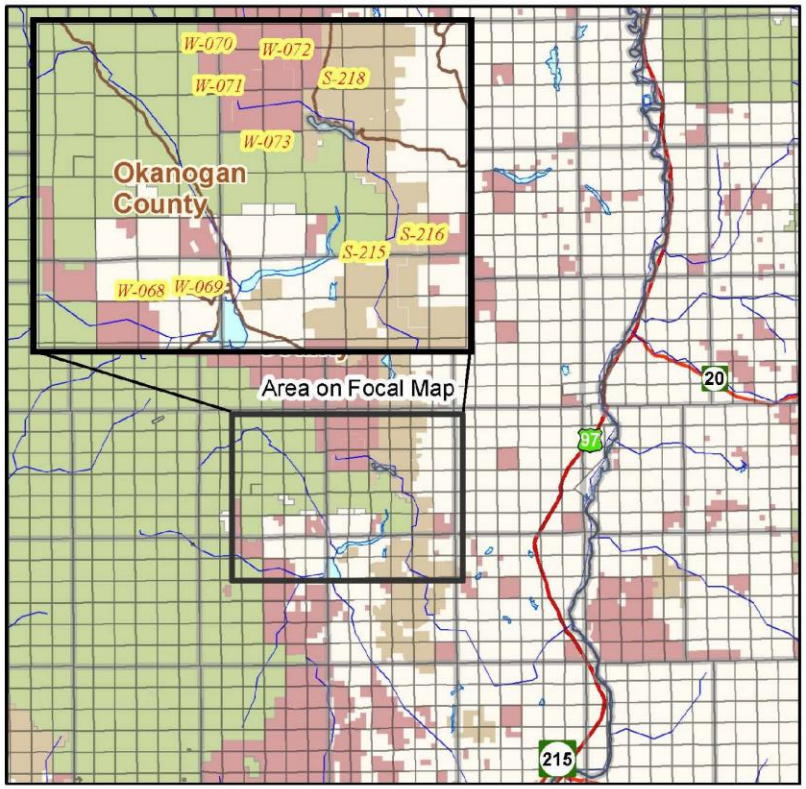
Washington State Department of Natural Resources

Washington State Department of Fish and Wildlife

Pre-Exchange



Post-Exchange



Ownership

- NPS 6F Boundary
- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- Interstate Highway
- US Highway
- State Route

N

0 1 2 3 4 5 Miles

May 27, 2009

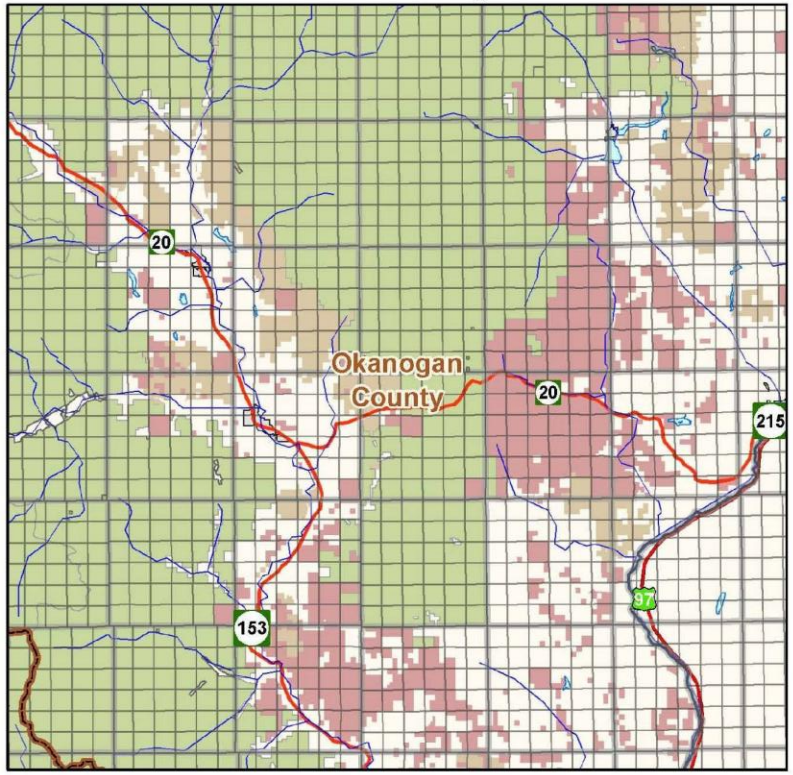
WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 4 **Draft Map - Subject to Change**

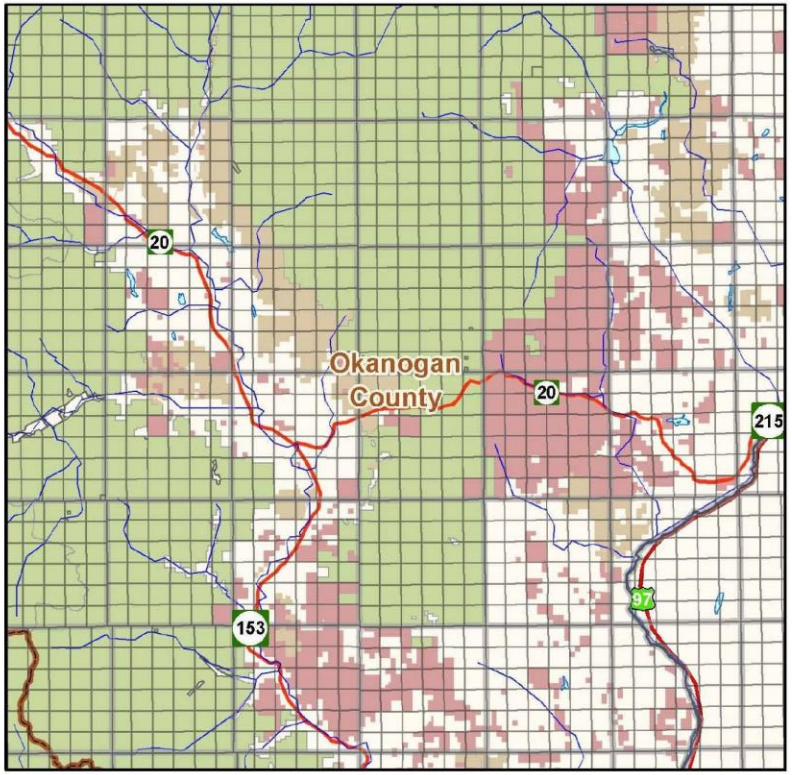
Washington State Department of Natural Resources

Washington State Department of Fish and Wildlife

Pre-Exchange



Post-Exchange



Ownership

- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- US Highway
- State Route

N

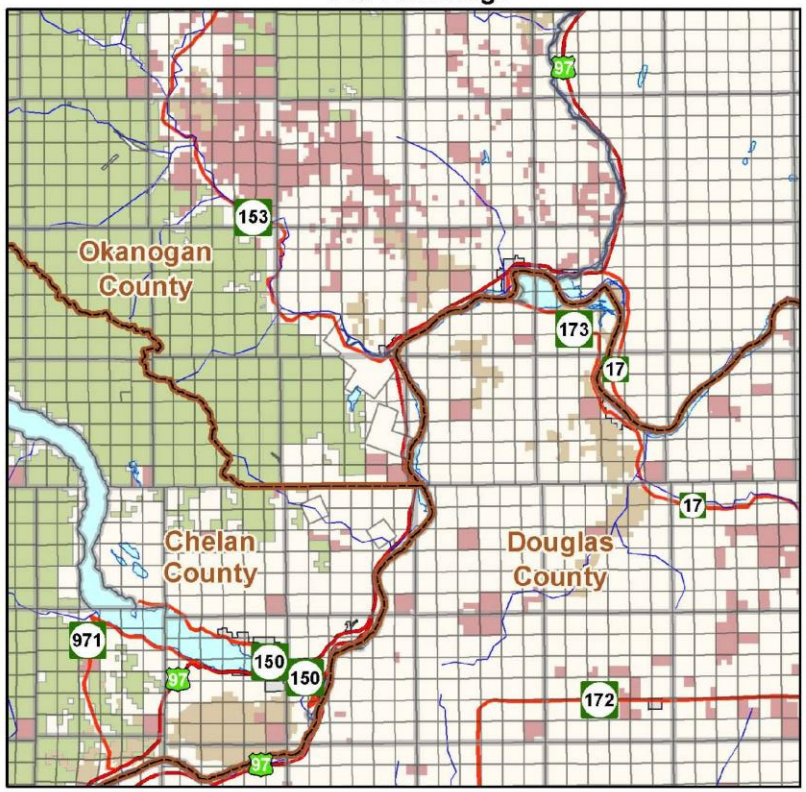
0 1 2 3 4 5 Miles

May 18, 2009

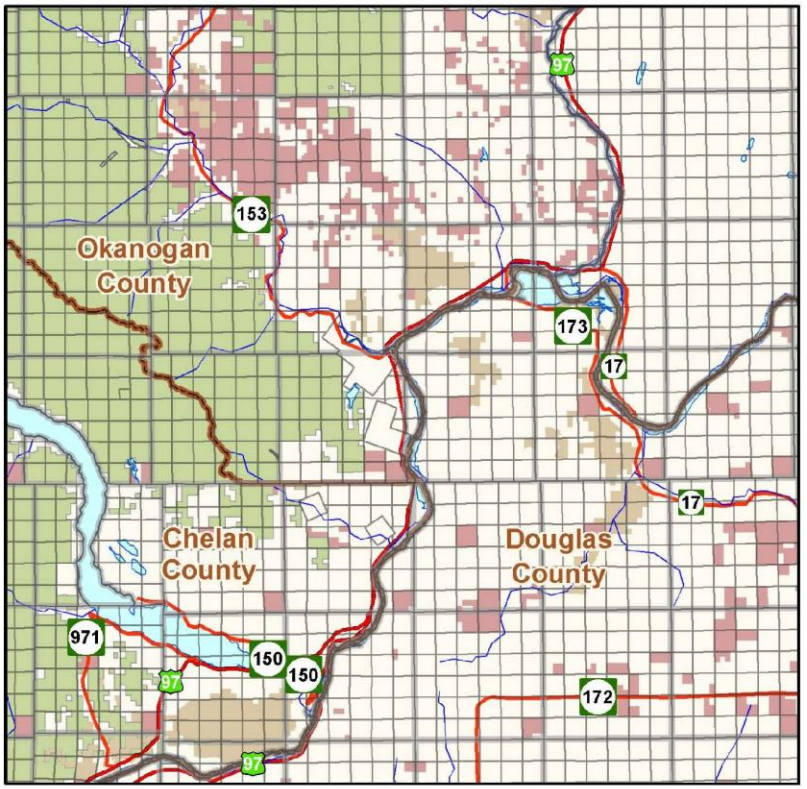
WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 5 Draft Map - Subject to Change

Pre-Exchange



Post-Exchange



Ownership

- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- US Highway
- State Route

N

0 1 2 3 4 5 Miles

May 18, 2009

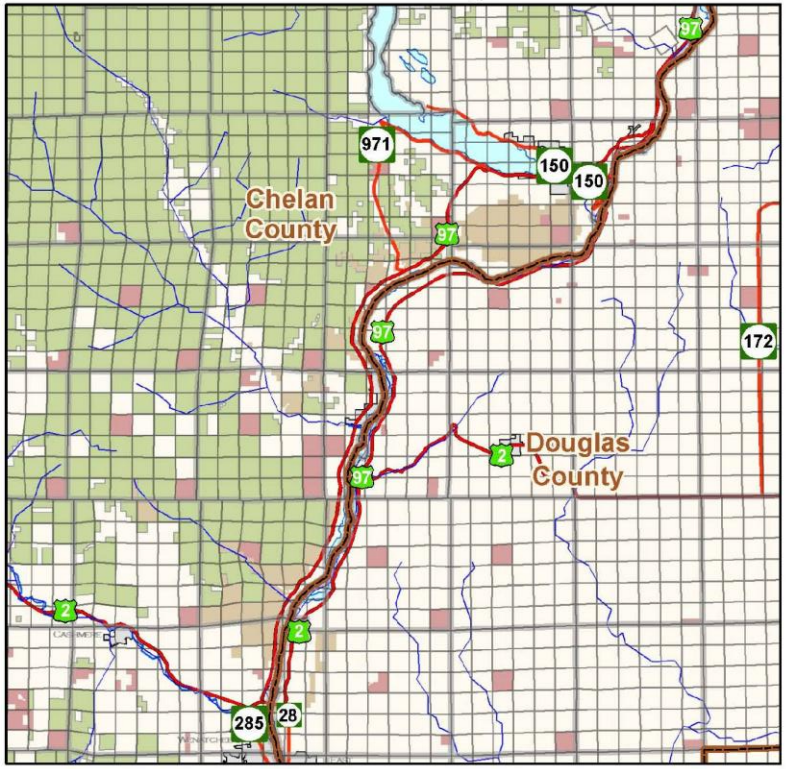
WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 6 **Draft Map - Subject to Change**

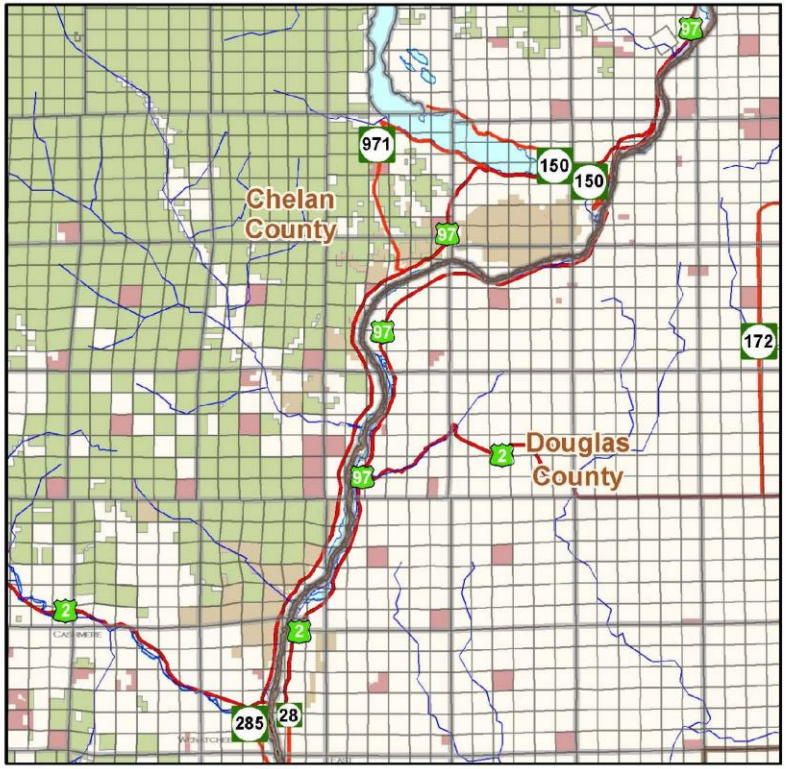
Washington State Department of Natural Resources

Washington State Department of Fish and Wildlife

Pre-Exchange



Post-Exchange



Ownership

- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- US Highway
- State Route

N

0 1 2 3 4 5 Miles

May 18, 2009

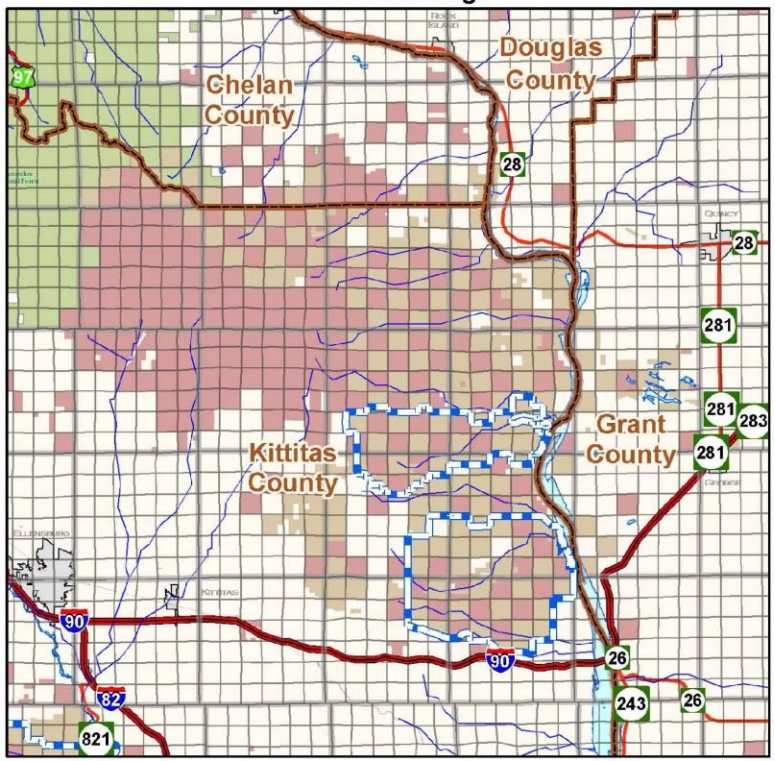
WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 7 **Draft Map - Subject to Change**

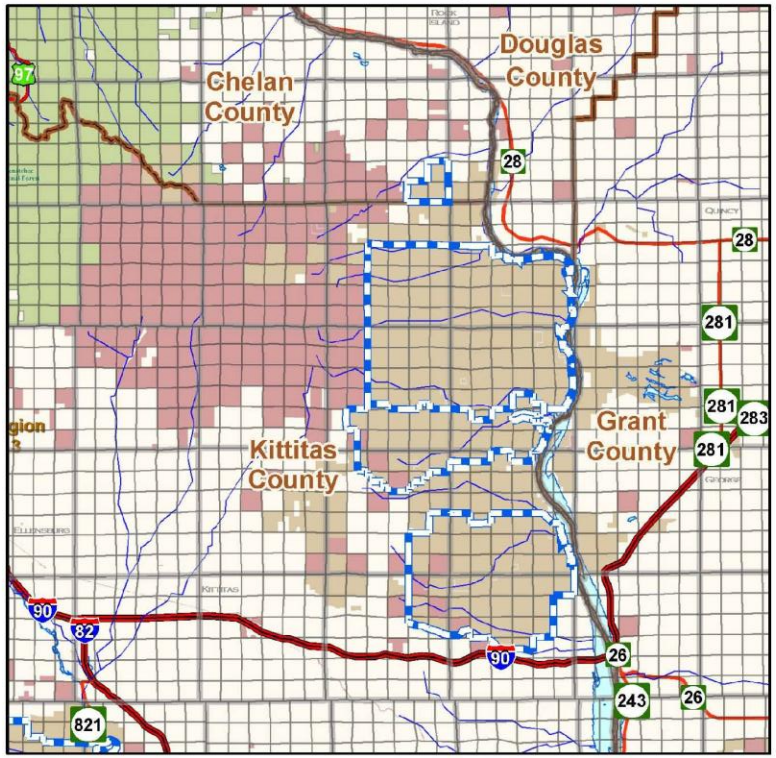
Washington State Department of Natural Resources

Washington State Department of Fish and Wildlife

Pre-Exchange



Post-Exchange



Ownership

- NPS 6F Boundary
- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- Interstate Highway
- US Highway
- State Route

N

0 1 2 3 4 5 Miles

NPS 6F areas include only WDFW-owned lands within the 6F Boundary.

May 27, 2009

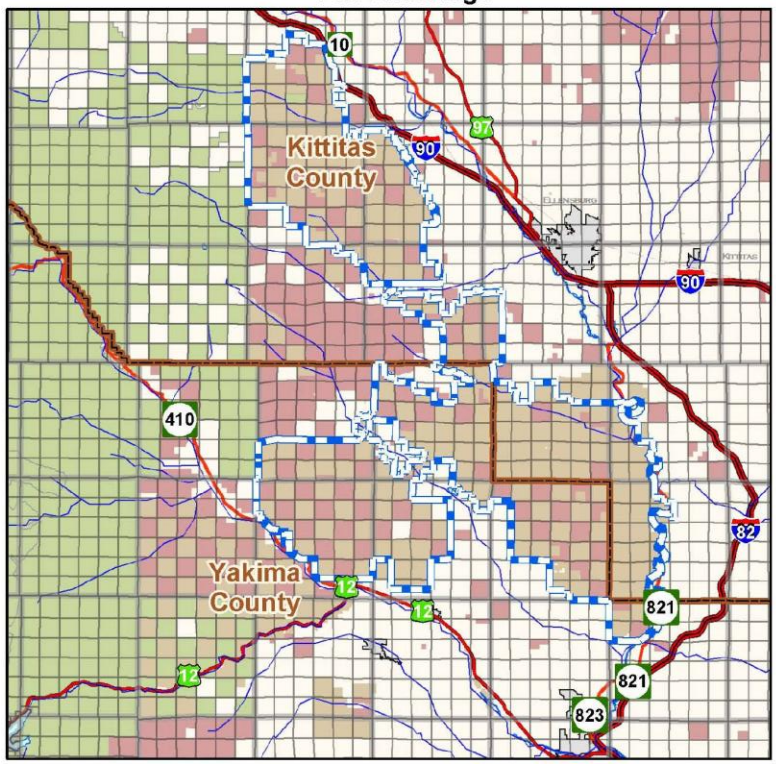
WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 8 **Draft Map - Subject to Change**

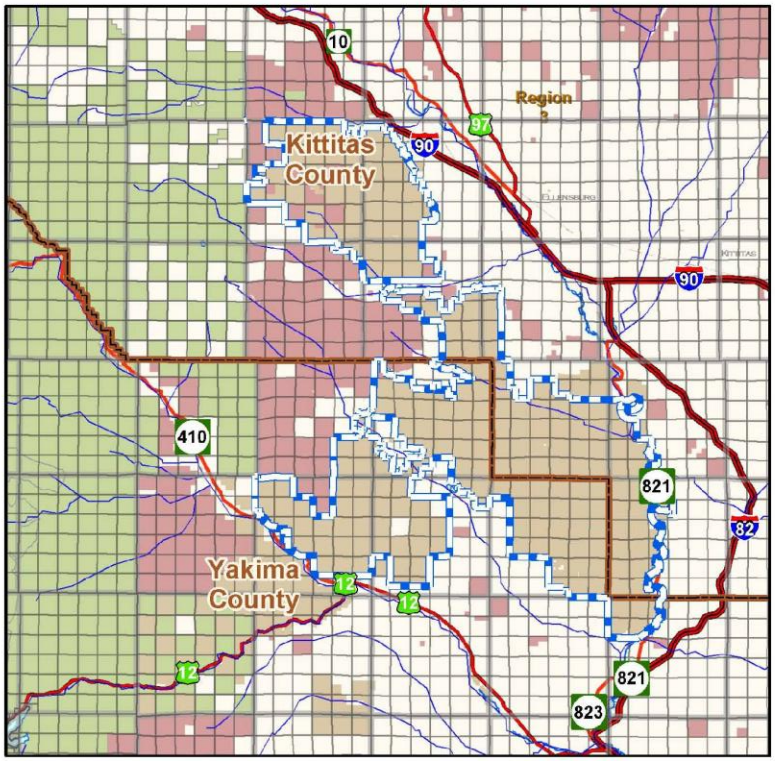
Washington State Department of Natural Resources

Washington State Department of Fish and Wildlife

Pre-Exchange



Post-Exchange



Ownership

- NPS 6F Boundary
- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- Interstate Highway
- US Highway
- State Route

N

0 1 2 3 4 5 Miles

NPS 6F areas include only WDFW-owned lands within the 6F Boundary.

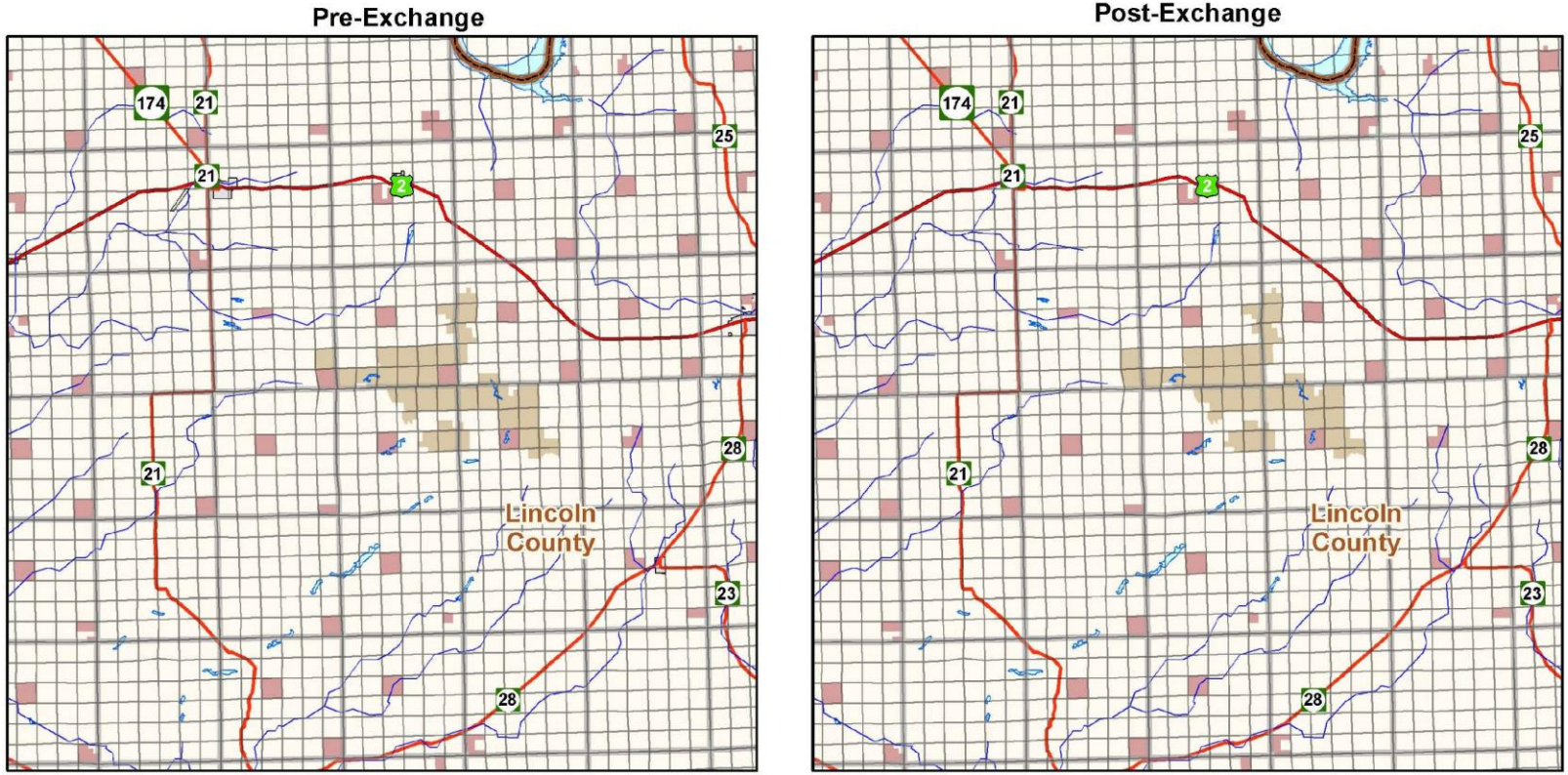
May 18, 2009

WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 9 **Draft Map - Subject to Change**

Washington State Department of Natural Resources

Washington State Department of Fish and Wildlife



Ownership

- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- US Highway
- State Route

N

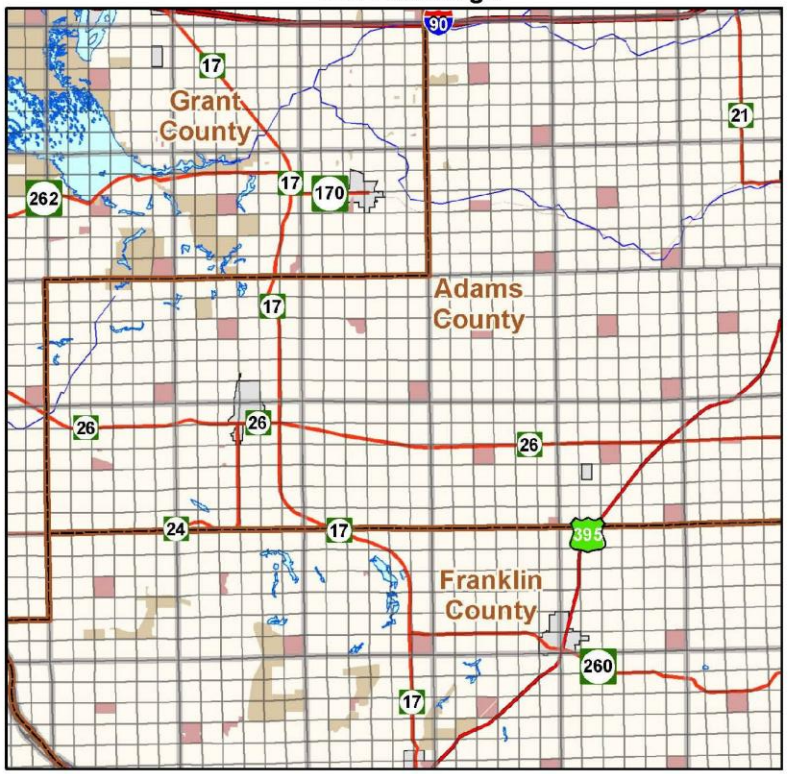
0 1 2 3 4 5 Miles

May 18, 2009

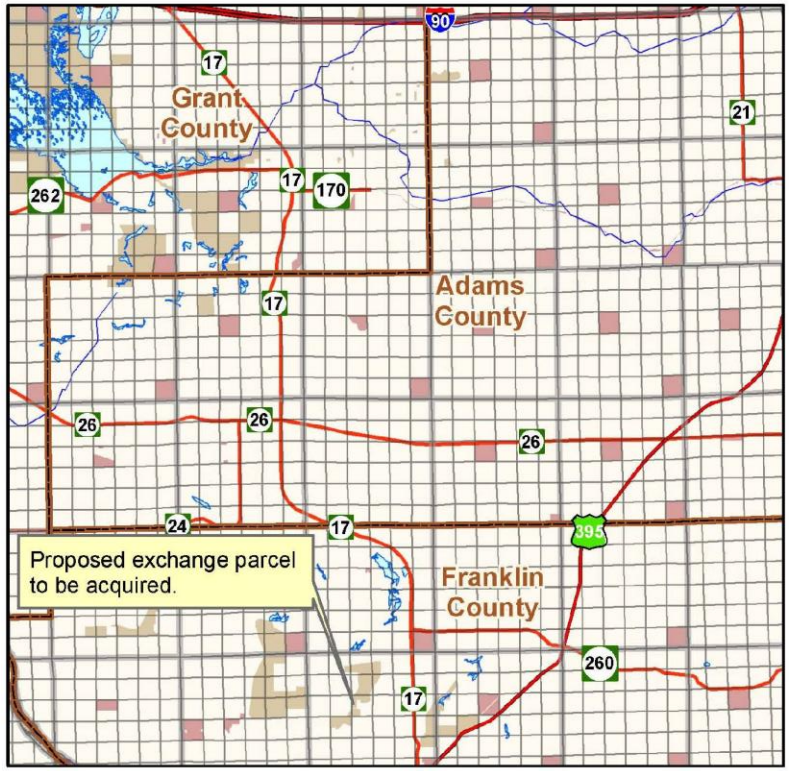
WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 10 Draft Map - Subject to Change

Pre-Exchange



Post-Exchange



Ownership

- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

Transportation

- Interstate Highway
- US Highway
- State Route

N

0 1 2 3 4 5 Miles

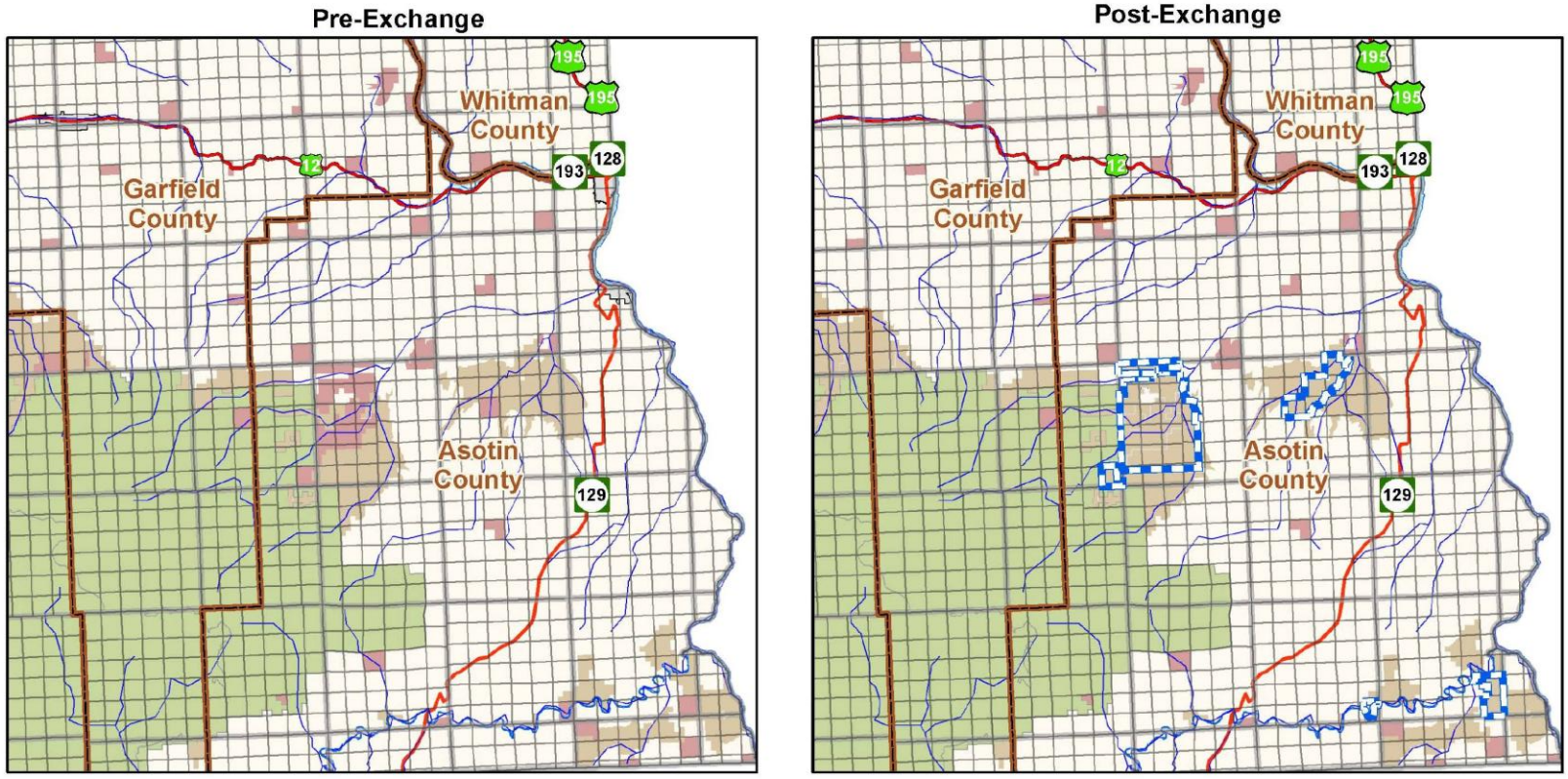
May 18, 2009

WDFW Proposed Land Exchange
Pre and Post Land Exchange Ownership

Map 11 **Draft Map - Subject to Change**

Washington State Department of Natural Resources

Washington State Department of Fish and Wildlife



Ownership

- NPS 6F Boundary
- WDFW Owned Lands
- WA Dept of Natural Resources
- US Forest Service

NPS 6F areas include only WDFW-owned lands within the 6F Boundary.

Transportation

- Interstate Highway
- US Highway
- State Route

N

0 1 2 3 4 5 Miles

May 27, 2009

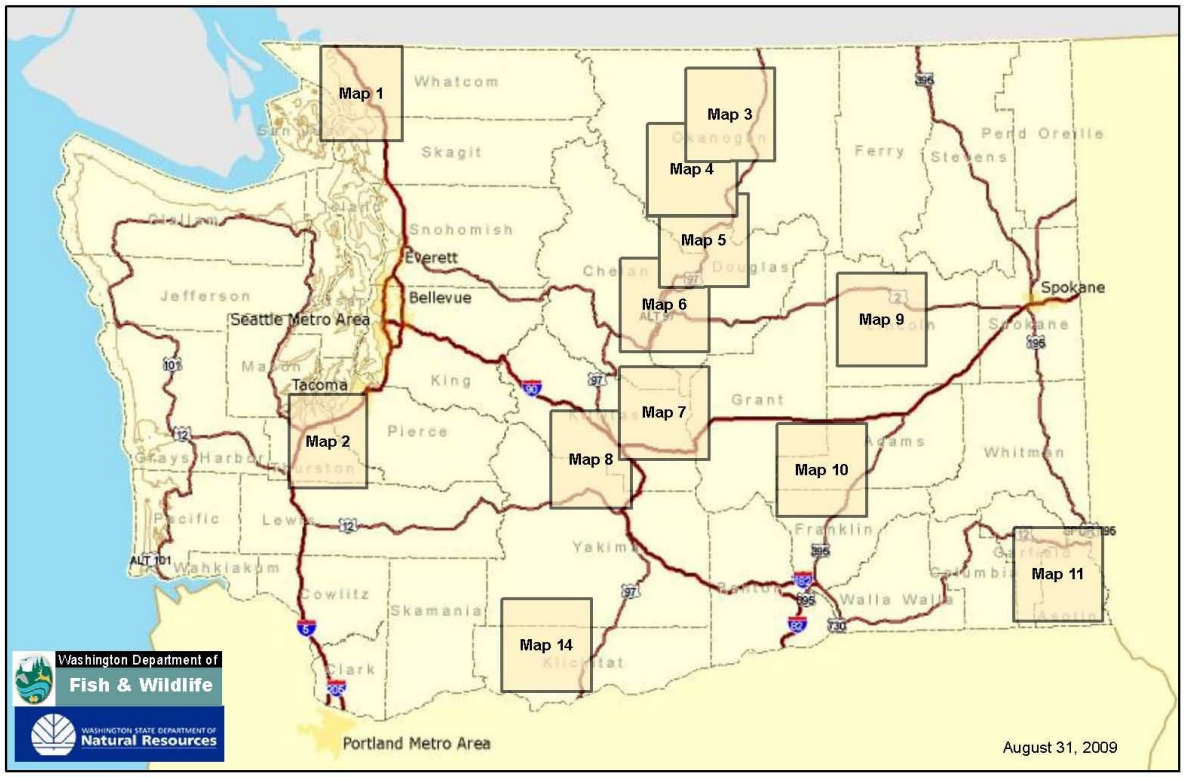
Appendix E: Phase 1 Pre and Post Land Exchange Ownership Maps

The following maps illustrate which lands will be exchanged between agencies as part of the Phase 1 Land Exchange and how those changes will affect land ownership patterns,

Note: The following maps for the Phase 1 Land Exchange are numbered 2, 3, 7, and 8. The incomplete numbering series represents a complete set of maps for the Phase 1 Land Exchange. The map numbering system was used keep map numbers consistent among all land exchange phases which involves more maps that the Phase 1. The map numbering system was based on the below map index which includes all areas where exchanges would need to occur to meet overall exchange goals. Numbering consistency was maintained to prevent confusion.

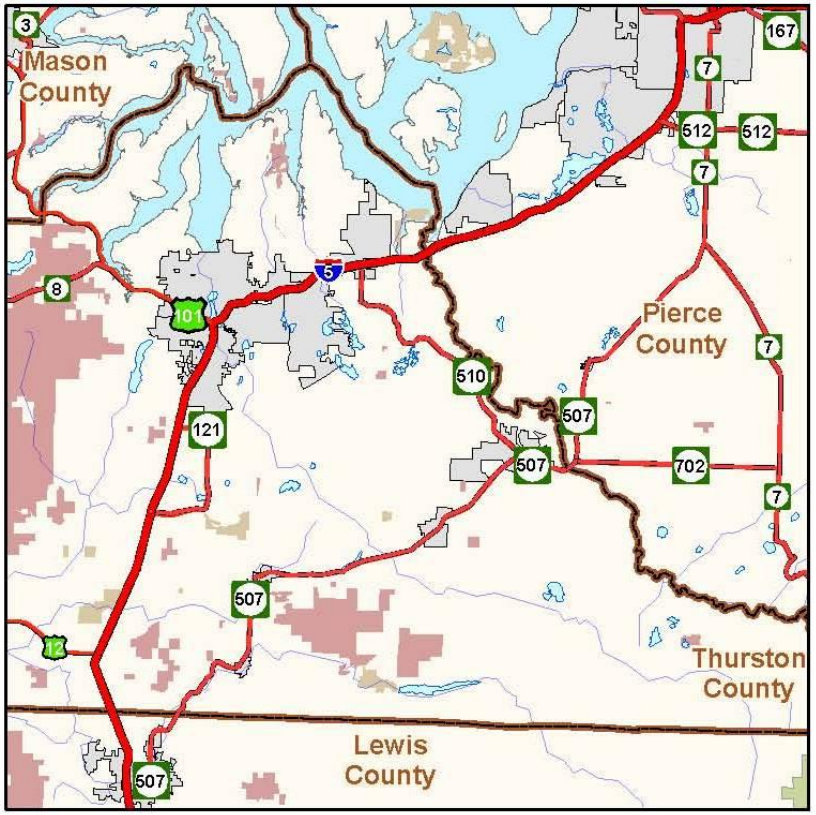
Washington Department of Fish & Wildlife

Map Index of the WDFW Proposed Land Exchange

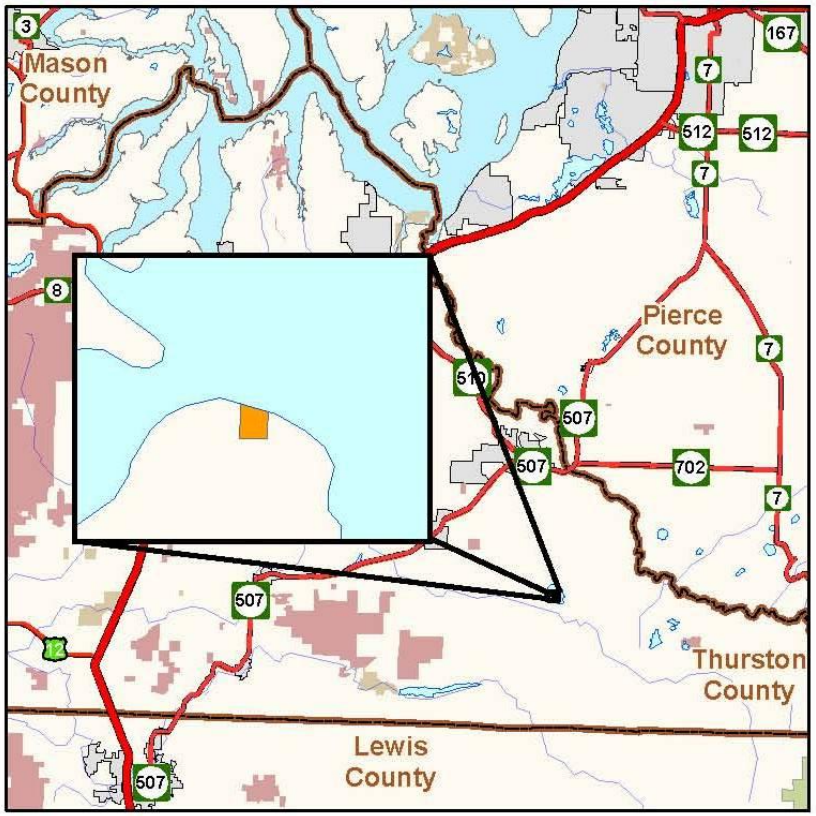


Potential Phase I Exchange Parcels

Map Series 2



Current Ownership



Post Exchange Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

N

0 1 2 3 4 5 Miles

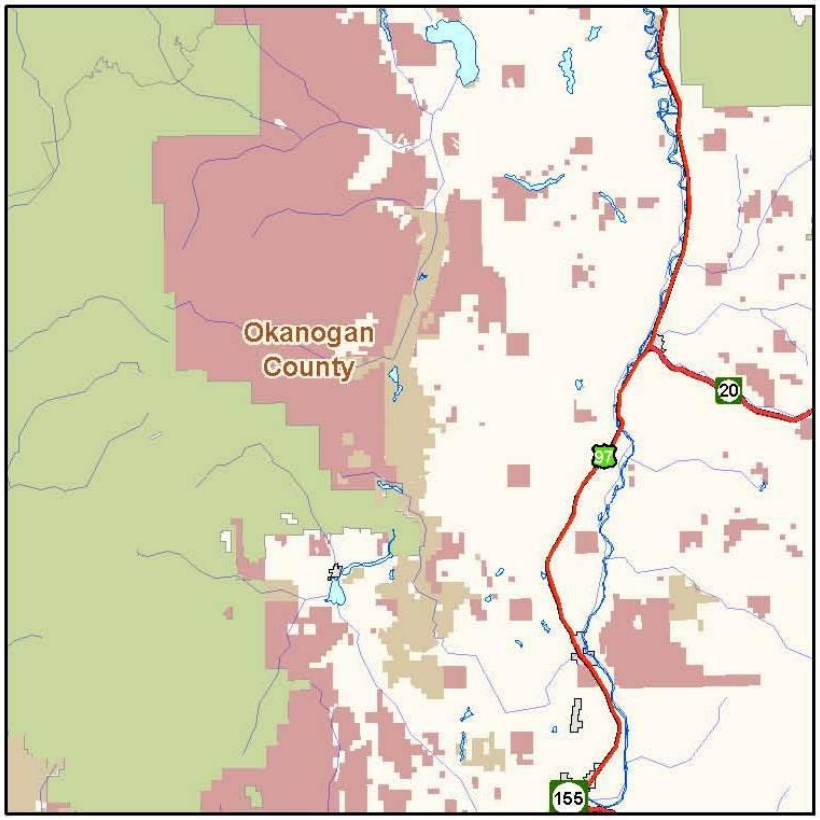
Ownership

- Parcels new to WA Dept of Natural Resources (none on this map)
- Parcels new to WA Dept of Fish and Wildlife

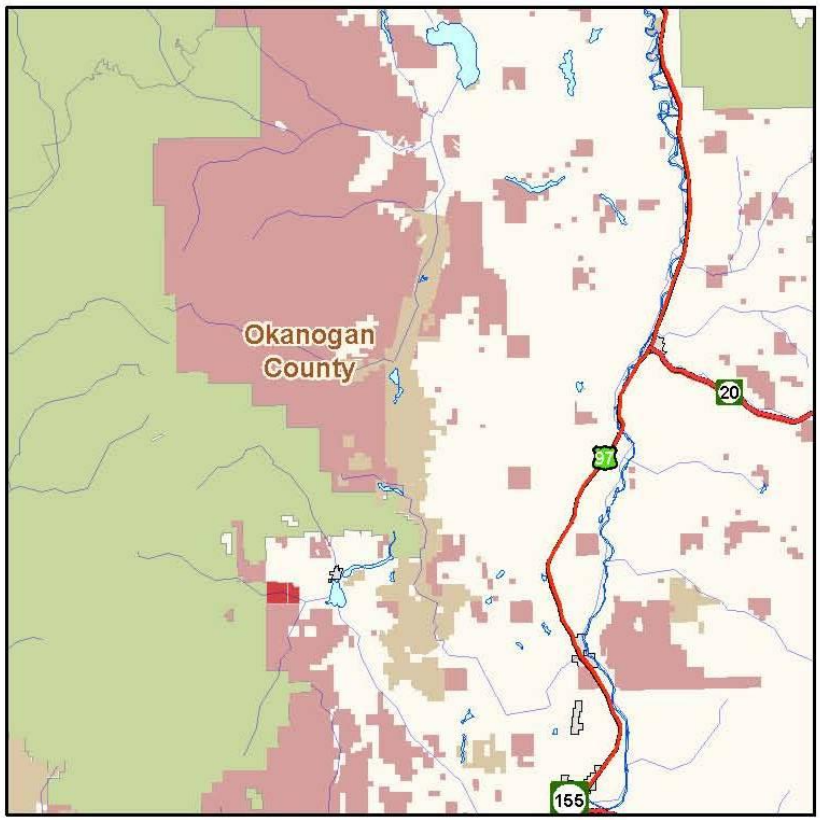
Draft Map - Subject to Change
Date of Map: July 31, 2009

Potential Phase I Exchange Parcels

Map Series 3



Current Ownership



Post Exchange Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

N

0 1 2 3 4 5 Miles

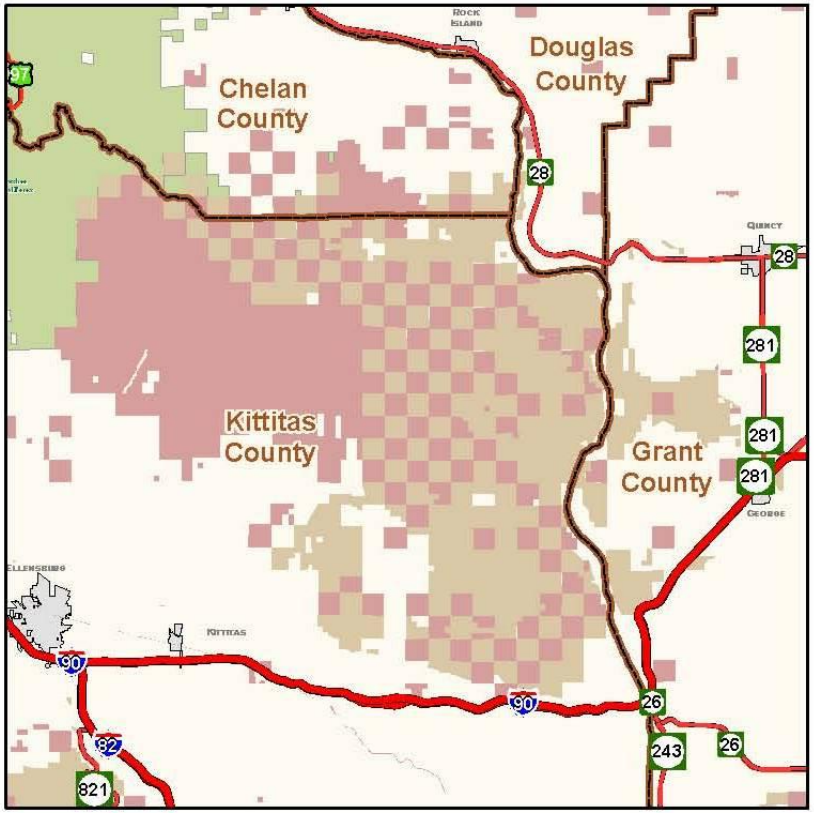
Ownership

- Parcels new to WA Dept of Natural Resources
- Parcels new to WA Dept of Fish and Wildlife (none on this map)

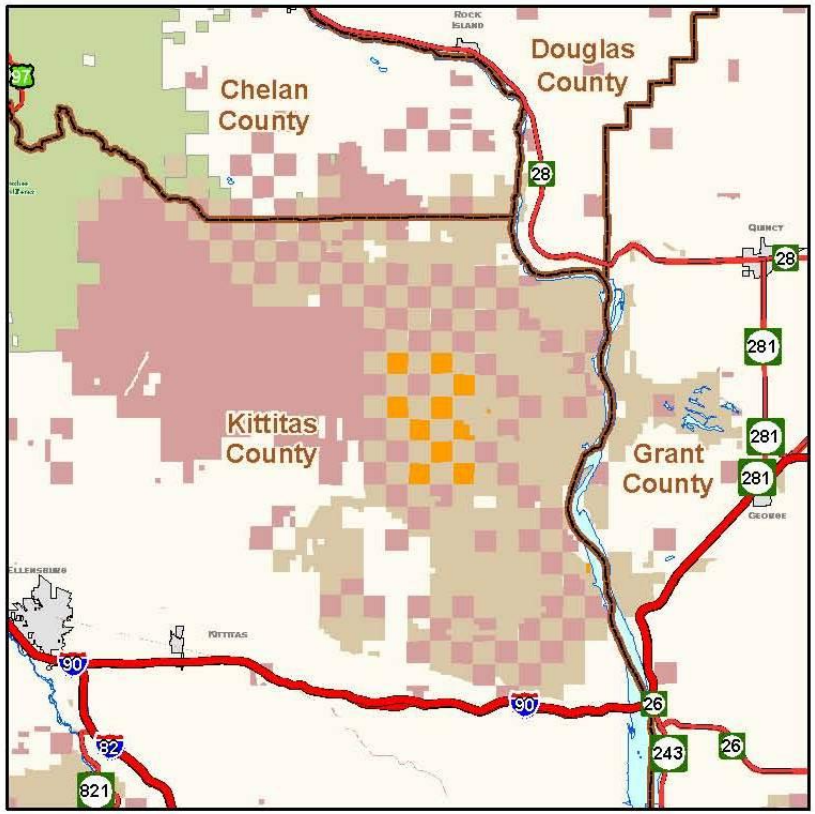
Draft Map - Subject to Change
Date of Map: July 31, 2009

Potential Phase I Exchange Parcels

Map Series 7



Current Ownership



Post Exchange Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

N

0 1 2 3 4 5 Miles

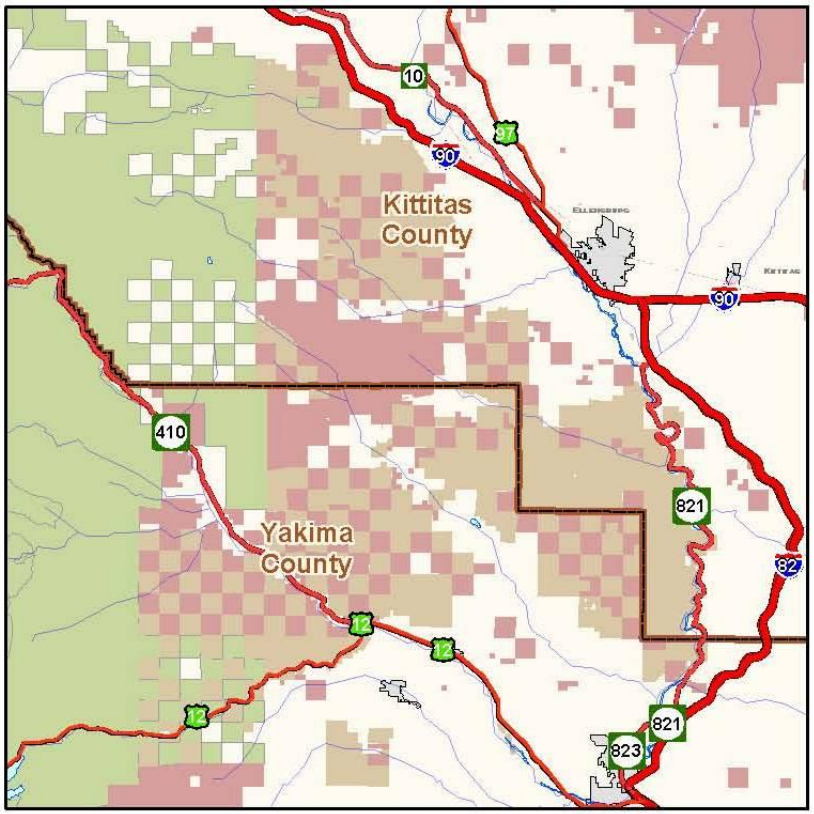
Ownership

- Parcels new to WA Dept of Natural Resources (none on this map)
- Parcels new to WA Dept of Fish and Wildlife

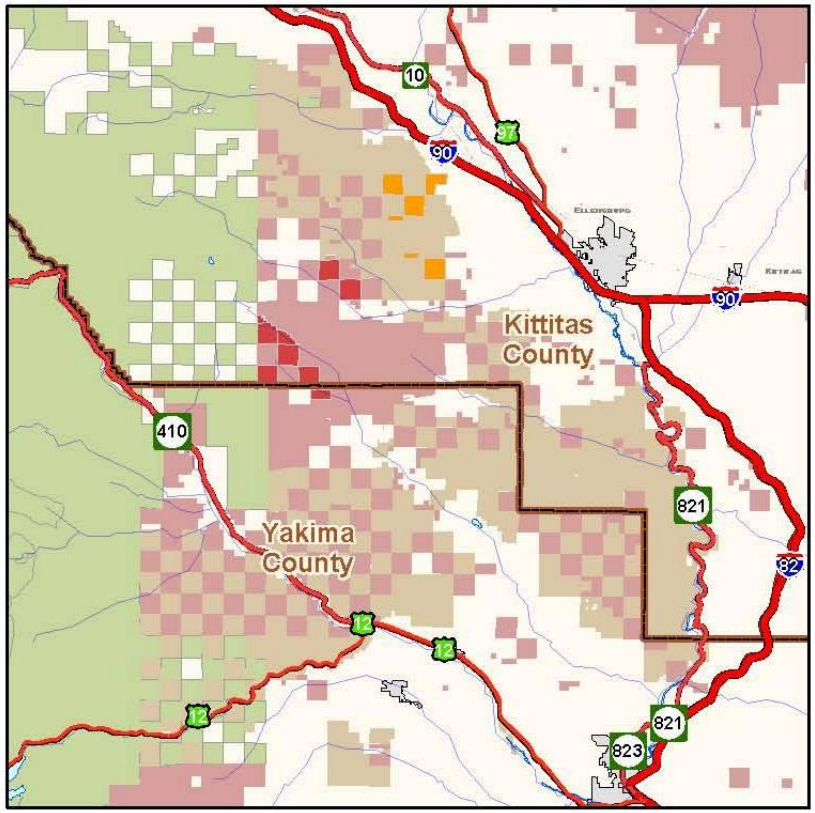
Draft Map - Subject to Change
Date of Map: July 31, 2009

Potential Phase I Exchange Parcels

Map Series 8



Current Ownership



Post Exchange Ownership

Ownership

- WA Dept of Natural Resources
- WA Dept of Fish and Wildlife
- US Forest Service

Transportation

- Interstate
- State Route
- US Route
- Major Roads

N

0 1 2 3 4 5 Miles

Ownership

- Parcels new to WA Dept of Natural Resources
- Parcels new to WA Dept of Fish and Wildlife

Draft Map - Subject to Change
Date of Map: July 31, 2009

Appendix F: Phase 2 Land Exchange Water Rights

Parcel ID*	WDOE File #	Stat	Purpose	Qi	UOM	Qa	TRS	County	Source
W-76	S3+00393CWRIS	A	DS,IR,ST	0.01	CFS	1.0	15.0N 15.0E 07	Yakima	Spring
W-76	S3+00668CWRIS	A	DM	0.03	CFS	2.0	15.0N 15.0E 07	Yakima	Spring
S-05	S3-067484CL	A	ST, WL	0.01	CFS	0.5	07.0N 46.0E 36	Asotin	Pond
S-05	S3-067485CL	A	ST, WL	0.004	CFS	0.5	07.0N 46.0E 36	Asotin	Creek
S-05	S3-067486CL	A	ST, WL	0.004	CFS	0.5	07.0N 46.0E 36	Asotin	Creek
S-05	S3-067487CL	A	ST, WL	0.02	CFS	1.0	11.0N 46.0E 16	Whitman	River
S-15	S3-063645CL	A	ST, WL, RE	0.022	CFS	1.0	09.0N 44.0E 17	Asotin	Creek
S-18	S3-063643CL	A	ST, WL, RE	0.022	CFS	1.0	09.0N 44.0E 16	Asotin	Creek
S-18	S3-063644CL	A	ST, WL, RE	0.022	CFS	1.0	09.0N 44.0E 16	Asotin	Creek
S-21	S3-039761CL	A	ST, WL	0.02	CFS	1.0	09.0N 45.0E 16	Asotin	Creek
S-21	24422CWRIS	A	ST	0.01	CFS	0.3	09.0N 45.0E 16	Asotin	Creek
S-70	S4-025302CL	A	ST, WL	0.01	CFS	1.0	16.0N 18.0E 06	Yakima	Spring
S-72	S4-025303CL	A	ST, WL	0.01	CFS	1.0	16.0N 18.0E 16	Yakima	Spring
S-72	S4-011216CL	A	ST	0.01	CFS	1.0	16.0N 18.0E 16	Kittitas	Creek
S-125	S4-024625CL	A	ST, WL	0.01	CFS	1.0	18.0N 22.0E 16	Kittitas	Creek
S-132	S4-024626CL	A	ST, WL	0.01	CFS	1.0	18.0N 22.0E 18	Kittitas	Spring
S-135	S4-025348CL	A	ST, WL	0.01	CFS	1.0	19.0N 21.0E 02	Kittitas	Creek
S-136	S4-025349CL	A	ST, WL	0.01	CFS	1.0	19.0N 21.0E 10	Kittitas	Creek
S-144	S4-024100CL	A	ST, WL	0.01	CFS	1.0	19.0N 21.0E 28	Kittitas	Creek
S-156	S4-024628CL A	A	ST, WL	0.01	CFS	1.0	19.0N 22.0E 30	Kittitas	Creek
S-159	S4-024627CL	A	ST, WL	0.01	CFS	1.0	19.0N 22.0E 16	Kittitas	Creek
S-161	S4-025354CL	A	ST, WL	0.01	CFS	1.0	19.0N 22.0E 06	Kittitas	Creek
S-166	024622CL	A	ST, WL	0.01	CFS	1.0	21.0N 20.0E 34	Kittitas	Creek
S-166	024623CL	A	ST, WL	0.01	CFS	1.0	21.0N 20.0E 34	Kittitas	Creek
S-168	024618CL	A	ST, WL	0.01	CFS	1.0	21.0N 20.0E 28	Kittitas	Creek
S-168	024619CL	A	ST, WL	0.01	CFS	1.0	21.0N 20.0E 28	Kittitas	Creek
S-169	S4-024616CL	A	WL	0.01	CFS	1.0	20.0N 21.0E 26	Kittitas	Creek
S-169	S4-024617CL	A	WL	0.01	CFS	1.0	20.0N 21.0E 26	Kittitas	Creek
S-170	S4-024614CL	A	ST, WL	0.01	CFS	1.0	20.0N 21.0E 24	Kittitas	Creek
S-170	S4-024615CL	A	WL	0.01	CFS	1.0	20.0N 21.0E 24	Kittitas	Creek
S-171	S4-024613CL	A	ST, WL	0.01	CFS	1.0	20.0N 21.0E 22	Kittitas	Creek
S-174	S4-024606CL	A	ST, WL	0.01	CFS	1.0	20.0N 21.0E 16	Kittitas	Creek
S-174	S4-024607CL	A	ST, WL	0.01	CFS	1.0	20.0N 21.0E 16	Kittitas	Creek
S-175	S4-024603CL	A	ST, WL	0.01	CFS	1.0	20.0N 21.0E 14	Kittitas	Creek
S-175	S4-024604CL	A	ST, WL	0.01	CFS	1.0	20.0N 21.0E 14	Kittitas	Creek
S-175	S4-024605CL	A	ST, WL	0.01	CFS	1.0	20.0N 21.0E 14	Kittitas	Creek
S-181	S4-025357CL	A	ST, WL	0.01	CFS	1.0	20.0N 22.0E 30	Kittitas	Creek
S-182	S4-025356CL	A	ST, WL	0.01	CFS	1.0	20.0N 22.0E 20	Kittitas	Creek
S-183	S4-025355CL	A	ST, WL	0.01	CFS	1.0	20.0N 22.0E 18	Kittitas	Creek
S-184	S4-024629CL	A	ST, WL	0.01	CFS	1.0	20.0N 22.0E 34	Kittitas	Creek
S-186	S4-024630CL	A	ST, WL	0.01	CFS	1.0	20.0N 22.0E 36	Kittitas	Creek
S-246	S4-067040CL	A	ST, WL	0.02	CFS	1.0	14.0N 16.0E 36	Yakima	Stream
S-246	S4-067041CL	A	ST, WL	0.01	CFS	1.0	14.0N 16.0E 36	Yakima	Pond
S-257	S4-018947CL	A	ST, RE	0.01	CFS	1.0	15.0N 16.0E 08	Yakima	Spring
S-309	S4-067477CL	A	ST, WL	0.022	CFS	1.0	07.0N 45.0E 36	Asotin	River
S-309	S4-039831CL	A	ST, WL	0.022	CFS	¼	07.0N 45.0E 36	Asotin	Spring

***Parcel numbers beginning with W are lands transferred from WDFW to WDNR. Parcel numbers beginning with S are lands transferred from WDNR to WDFW.**

Abbreviations: WDOE – Washington Department of Ecology; **Stat** – status: **A**=Active, **I**=Inactive and therefore conveys no right to divert water; **Purpose**: **SR** - Storage; **ST** - Stock; **WL** – Wildlife; **IR** –Irrigation; **DG** - General Domestic - defined as "use of water for all domestic uses not specifically defined in the water right record or not defined by the other specific domestic use categories. Includes sewage treatment, farm supply and laboratory use."; **RE** – Recreation and Beautification; **DS** – Single Domestic; **DM** – Domestic Multiple; **No ID** – No purpose identified; **Qi** – Allowed Instantaneous Quantity in GPM (ground water) or CFS (surface water); **UOM** – Unit of measure: **GPM** – gallons per minute, **CFS** – cubic feet per

Appendix G: List of Acronyms

ACHP:	Advisory Council on Historic Preservation
AUM:	Animal Unit Month
BMP:	Best Management Practices
CAG:	Citizen Advisory Group
CFR:	Code of Federal Regulations
CRM:	Coordinated Resource Management
DAHP:	Department of Archeology and Historic Preservation
DNS:	Determination of Non-Significance
EA:	Environmental Assessment
Ecology:	Washington Department of Ecology
EIS:	Environmental Impact Statement
EO:	Executive Order
EPA:	Environmental Protection Act
ESA:	Endangered Species Act
ESAC:	Ecosystem Standards Advisory Council
FONSI:	Finding of No Significant Impact
FC:	Federal Candidate
FE:	Federal Endangered
FEMA:	Federal Emergency Management Agency
FT:	Federal Threatened
HCP:	Habitat Conservation Plan
HB:	House Bill
LWCF:	Land Water and Conservation Fund
NEPA:	National Environmental Policy Act
NHPA:	National Historic Preservation Act
NPS:	National Parks Services (U.S.)
PA:	Programmatic Agreement
PTR:	Perpetual Timber Rights
PHS:	Priority Habitats and Species
PILT:	Payment In-Lieu of Taxes
RCO:	Washington Recreation and Conservation Office
RCRA:	Resource Conservation and Recovery Act
RCW:	Revised Code of Washington
SC:	State Candidate
SE:	State Endangered
SS:	State Sensitive
ST:	State Threatened
SCORP:	Statewide Comprehensive Outdoor Recreation Plan
SEPA:	State Environmental Policy Act
SOC:	Species of Concern
TEC:	Threatened, Endangered and Candidate
USFWS:	United States Fish and Wildlife Services
WA:	Wildlife Area
WAC:	Washington Administrative Code
WDFW:	Washington Department of Fish and Wildlife
WDNR:	Washington Department of Natural Resources
WRP:	Wildlife Restoration Program
WWRP:	Washington Wildlife and Recreation Program