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Environmental Assessment

Packwood Administrative Site Conveyance

**Cowlitz Valley Ranger District, Gifford Pinchot National Forest
Lewis County, Washington**

T 13 N, R 9 E South ½ Section 15, Willamette Meridian

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1.0 SUMMARY

The Gifford Pinchot National Forest is proposing to offer the Packwood Administrative Site, formerly known as the Packwood Ranger Station, and adjacent facilities for sale during fiscal year 2008. The Packwood Administrative Site is located in the south half of Section 15, T. 13 N., R. 9 E., Willamette Meridian, Lewis County, Washington.

The purpose of this proposed action is to offer for sale the Packwood Ranger District Office, associated facilities and adjacent Forest Service property. The action is needed to comply with National direction and meet goals of decommissioning underutilized facilities to reduce fixed maintenance costs of the Forest Service.

The Packwood Ranger Station was the district office from 1928 to 1996, and operated as a satellite work station until 2003. The approximately 20.5 acre property is located on U.S Highway 12 (White Pass Highway) in eastern Lewis County, in the unincorporated town of Packwood, Washington. There are 23 buildings on the property, including an office, shop, warehouse, and several residences. All but one of the buildings has been vacant since the fall of 2003; one residence was reopened during fall 2006 and is currently rented to a Forest Service employee.

National direction requires all National Forests to reduce 30% of existing support facilities within the next three years. To address this issue, a Facilities Master Plan for the Gifford Pinchot National Forest was completed in August 2003. Recommendations summarized in the plan call for decommissioning of the entire Packwood Administrative Site. The property was determined excess to administrative needs, and listed as a potential candidate for sale or exchange. The disposal of the Packwood Administrative Site would be through sale or exchange under the provisions of the Forest Service Facility Realignment and Enhancement Act of 2005 (Public Law 109-54). The Packwood Administrative site is one of 60 Forest Service properties in the Pacific Northwest Region that are being considered for disposal.

Two alternatives are considered within this environmental assessment: No Action, and The proposed action, which includes the sale or exchange of the entire property. The potential sale or conveyance of the Packwood Administrative Site to another entity, whether individual, corporation or agency may result in additional development of the site, within the context of existing Lewis County Code and development regulations, and other State and Federal environmental laws. The indirect effects of sale and potential development of the site are considered in this analysis.

Scoping identified the following issues associated with the potential sale of the property, which are primarily raised due to concerns regarding reduced federal protection: cultural and heritage resources, aquatic and riparian resources, the presence of threatened fish species and sensitive and survey and manage species

2.0 INTRODUCTION

2.1 Document Structure ---

The Forest Service has prepared this Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This Environmental Assessment discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four parts:

- *Introduction:* The section includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded.
- *Comparison of Alternatives, including the Proposed Action:* This section provides a more detailed description of the agency's proposed action as well as alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion also includes possible mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- *Environmental Consequences:* This section describes the environmental effects of implementing the proposed action and other alternatives. This analysis is organized by resource area, significant issues and environmental component. Additional detailed analysis is provided in specialist reports contained in the analysis file. Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation and comparison of the other alternatives that follow.
- *Agencies and Persons Consulted:* This section provides a list of preparers and agencies consulted during the development of the environmental assessment.
- *Appendices:* The appendices provide more detailed information to support the analyses presented in the environmental assessment.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Cowlitz Valley Ranger District Office in Randle, Washington.

2.2 Background ---

The Region has embarked upon an administrative facility sale program as a component of implementing its Facility Master Planning (FMP) process. The Region's goal is to decommission facilities that are underutilized and thereby save scarce funds for maintenance costs. In addition, funds received from sales will be used to pay for maintenance on facilities being retained, purchasing needed replacement facilities, and pay for some of the costs of processing the sales.

The sales are being made under the authority of the Forest Service Facilities Realignment and Enhancement Act of 2005 (FSFREA) which was enacted on August 3, 2005 as Title V of the FY 2006 Interior and Related Agencies Appropriations Act (P.L. 109-54). In addition, a few remaining sales are being completed under Special Acts, such as the Bend Pine Nursery Conveyance Act of 2000 (P.L. 106-526) and the Pilot Conveyance Program which was initiated in 2002 Interior and Related Agency Appropriations Act (Sec. 329(a) of P.L. 107-63) and have continued to be authorized in the 2002, 2004, and 2005 Appropriations Acts. The Region has identified approximately 60 administrative facility sales to be initiated by September 30, 2010. The Packwood Ranger Station, also referred to as the Packwood Administrative Site, is one of those identified for disposal.

The Washington Office has provided general sale policy and interim guidance in draft FSH 5509.11, Chapter 20 – Part 26. Additional policy guidance related to facility planning, facility management, quarter's tenant occupancy, and other related issues is found in the Facility Engineering and Acquisition Management manuals and handbooks.

General Forest Service Policy Regarding Sales of Facilities

Forest Service Handbook (FSH) 5509.11, Chapter 20, Part 26 provides the following:

26.03.3 - Competitive procedures are preferred for all special act sales and are required when:

- a.) the Regional Appraiser determines that the property is unique within the market with little or no comparable sale data available, and that competitive sale may result in a more reliable value estimate, and
- b.) Lands are within a developing, urbanized, transitional, or other area where land values are rapidly changing due to their location or desirability in the competitive market.

26.03.4 - A non-competitive sale may be made only to an Indian Tribe, Federal, State, or local governmental entity, unless approved by the Washington Office Director of Lands.

26.03.5 - Direct sales shall be discouraged as a normal sale procedure since they do not allow equal opportunity to obtain property, broad exposure to the market and may not result in the Federal Government receiving the highest return for its property.

26.03.8 – At a minimum, secure and protect developed properties scheduled for sale and, whenever practicable, improve their condition to increase their marketability.

The Packwood Ranger Station

The Packwood Ranger Station is located within unincorporated town of Packwood, which lies adjacent to the Cowlitz River. The district office and associated facilities are on National Forest System lands, surrounded entirely by private lands and bordered by the State Highway 12 right-of-way, located along the western boundary of the property (see Vicinity Map, Figure 1).

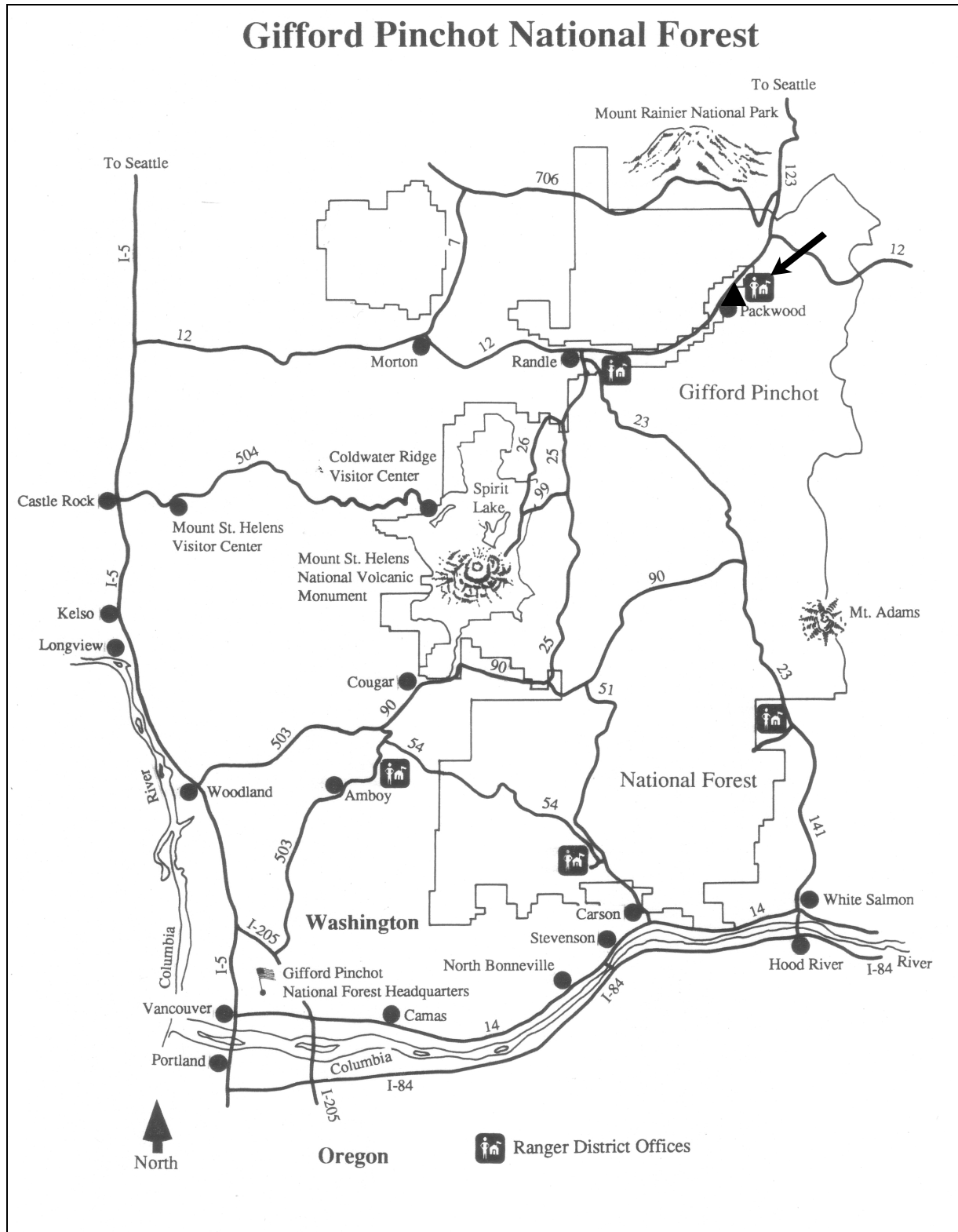


Figure 1. Packwood Administrative Site vicinity map.

Forest Service administrative use of the Packwood property began in 1928, when the Forest Service secured a lease, which contained an option to buy, from the Menasha Wooden Ware Company of Wisconsin. In 1930 the facility became known as the Packwood Ranger Station, after the community changed its name from Lewis. Twelve buildings were built between 1929 and 1936, when the site was finally purchased from Menasha. The adjacent forest land was leased in 1935 or 1936 and eventually purchased in 1948 from the Easter family. The property may have been logged by the Easter family, but was also swept by wildfire in 1948. Fire-killed trees were logged from the site during 1950-1951.

Packwood Administrative Site conveyance area is located in the Upper Cowlitz River Watershed, and the Hall Creek sub-watershed (Hydrologic Unit Code No. 170800040204). Hall Creek (a.k.a. Beach Creek) flows through the property. A portion of the Packwood site including site facilities is located within the Cowlitz River 100-year floodplain. The elevation of the site ranges from less than 1050 feet near the district office to 1110 feet in the northwest corner of the property. Hall Creek, a perennial fish-bearing stream flows north to south parallel to the east boundary of the property, another anadromous fish bearing stream flows through the property and generally sheets toward the south and into a buried culvert and ditch line that drains into a field south of Snyder road and toward Hall Creek. Nearly three acres of the property lies within a wetland associated with Hall Creek. Approximately one quarter to one third of that wetland was previously developed and contains structures.

Soils within the property are classified as Liler silt loam. Tephra deposits have been identified on the property as Mount St. Helens pumice deposited in AD 1480. Most of the property is forested including uplands and portions of wetlands, and dominated by Douglas-fir (*Pseudotsuga menziesii*), with bigleaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), and western red cedar (*Thuja plicata*). Understory vegetation includes salal (*Gaultheria shallon*), dwarf Oregon grape (*Berberis nervosa*), red huckleberry (*Vaccinium parvifolium*), vine maple (*Acer circinatum*), and bracken fern (*Pteridium aquilinum*). Historic records indicate the property was logged about 1951 to harvest trees damaged by a 1948 fire. Some selective logging may have also occurred in the 1920s, before the land was purchased by the Forest Service. The vegetation is typical of those found at similar elevations and age in the *Tsuga heterophylla* zone.

2.3 Purpose and Need for Action ---

The need for this project includes:

- There is a need to eliminate the annual maintenance costs for an administrative site that is no longer needed by the Forest.
- There is a need for revenue that can be used for repair and maintenance of other facilities which are needed by the Forest.
- There is a need to comply with National direction to reduce support facilities by 25 percent by September 30, 2010.

Management Direction

The proposed action must meet the goals and objectives documented in Forest Service Handbook (FSH) 5509.11, Chapter 20, subpart 26. The *Gifford Pinchot National Forest Facilities Master Plan* (August 2003) recommended the decommissioning of the entire Packwood Administrative Site, which was determined excess to administrative needs, and listed as a potential candidate for sale or exchange. The *Gifford Pinchot National Forest Land and Resource Management Plan (LRMP, USDA 1990)*, as amended by the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (Northwest Forest Plan, USDA and USDI 1994, as amended)*. The LRMP was amended in response to the NFP in a document referred to as *Amendment 11* (USDA 1995), which applies the NFP Record of Decision to the local conditions of the Gifford Pinchot National Forest.

This assessment is tiered to the following Environmental Impact Statements and plans, which are incorporated by reference:

- The Gifford Pinchot National Forest Land and Resource Management Plan and Environmental Impact Statement, as amended (LRMP, USDA 1990).
- The Northwest Forest Plan and Record of Decision and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl (USDA, USDI 1994) (hereafter referred to as the Northwest Forest Plan or NFP).
- The Gifford Pinchot National Forest Land and Resource Management Plan Amendment 11 (USDA 1995).
- The Forest Plan as amended by the 2001 Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines (USDA and USDI, 2001).
- The Environmental Impact Statement and Record of Decision for Preventing and Managing Invasive Plants (USDA 2005).

The Gifford Pinchot National Forest LRMP and Amendment 11 provide management direction through the designation of specific management areas, and standards and guidelines specific to these designations. The Packwood Ranger Station and surrounding property is considered an Administrative Site, Management Area Category 3 (Amendment 11) and Management Area 3W (LRMP), where the goal is to provide for facilities required to accomplish the administration of the National Forest in an efficient manner.

The desired future condition for administrative sites is stated as follows: “Buildings, roads, and other structures are quite evident; most have required the creation of openings. Since most of the activities are ongoing, structures are generally permanent. They are well kept, neat, and orderly in appearance. Vegetation varies widely from ornamental trees and shrubs to stands of old-growth timber” (Amendment 11, p. 4-3).

Standards and Guidelines for Administrative Sites include the inventorying of cultural, biological and other features of interest. Ordinary timber salvage is not permitted (Amendment 11, p. 4-4, 4-5).

Riparian Reserves, where riparian dependent resources receive primary emphasis and special standards and guidelines apply (see Amendment 11, pages 2-4 to 2-10). Riparian Reserves are applied along all streams, wetlands, ponds, lakes and unstable and potentially unstable areas, and are a key component of the Aquatic Conservation Strategy provided in the NFP. Much of the Packwood Administrative Site property lies within Riparian Reserve adjacent to a Class I stream (NFP) and associated wetland. Under the existing management policy this Riparian Reserve is essentially protected from further development.

The *Upper Cowlitz River Watershed Analysis* (1997) is incorporated by reference. These watershed analyses represent one of the key components of the Aquatic Conservation Strategy as described in the Northwest Forest Plan. Each analysis provides a detailed reference to historical and existing conditions within the watershed.

2.4 Proposed Action

The Gifford Pinchot National Forest is proposing to convey the Packwood Administrative Site, formerly the location of the Packwood Ranger Station, to other ownership to reduce fixed maintenance costs of the U.S. Forest Service. The Packwood Ranger Station was the district office from 1928 to 1996, and operated as a satellite work station until 2003. The approximately 20.5 acre property is located on U.S Highway 12 (White Pass Highway) in eastern Lewis County, Washington, the south half of Section 15, T. 13 N., R. 9 E., Willamette Meridian. There are 23 buildings on the property, including an office, shop, warehouse, and several residences. All but one of the buildings has been vacant since the fall of 2003; one residence was reopened in fall 2006 and is currently rented to a Forest Service employee.

National direction requires all National Forests to reduce 30% of existing support facilities within the next three years. To address this issue, a Facilities Master Plan for the Gifford Pinchot National Forest was completed in August 2003. Recommendations summarized in the plan call for decommissioning of the entire Packwood Administrative Site. The property was determined excess to administrative needs, and listed as a potential candidate for sale or exchange. The disposal of the Packwood Administrative Site would be through sale or exchange under the provisions of the Forest Service Facility Realignment and Enhancement Act of 2005 (Public Law 109-54). The Packwood Administrative site is one of 14 Forest Service properties in the Pacific Northwest Region that are being considered for disposal.

Project work would include the sale or exchange of the entire property. It is difficult to predict whether sale or some form of conveyance to another entity, whether individual, corporation or agency would result in certain levels of development. Therefore this analysis considers the potential that the property may be converted to development consistent with existing county codes and zoning laws. Two preliminary alternatives are proposed: No Action and the Proposed Action, which would include the sale of the entire property. The potential effects of development have been considered to identify losses that may occur as an indirect effect of a sale transaction. The entire parcel is located in Packwood, Washington and zoned Small Town Mixed Use (STMU), which allows up to four houses to be constructed on each acre. In addition to the existing developed area, approximately seven acres would be available for new

home or business construction. The proposed action is expected to be advertised and implemented during fiscal year 2008.

The Packwood Administrative Site totals approximately 20.5 acres, including 23 buildings and is located in T. 13 N., R. 9 E., south half of Section 15, and the NE ¼ of the NW ¼ of Section 22, Lewis County, Willamette Meridian (Survey #942426, Book 7, page 33, Lewis County Auditor's Office). Table 1 lists Packwood Administrative Site Buildings.

Lewis County Land Use Regulations

Land use is regulated by Lewis County development regulations, county-wide policies, and the Lewis County Comprehensive Plan (see the Lewis County planning website at <http://www.co.lewis.wa.us/CommunityDevelopment/Planning/Planning.html>).

Packwood property is zoned "SMTU", or "small town mixed use". Within that designation, the property contains mapped "hydric soils" and a mapped FEMA flood zone that is part of the Cowlitz River floodplain. The property also contains wetlands and a fish-bearing Class I anadromous fish-bearing stream (Washington State Type 3).

Development standards for areas zoned STMU allow commercial and residential activities (Lewis County Code (LCC) 17.42.030). In summary, Residential single family homes, 4 units per acre, or Residential duplexes, multifamily and 6 units per acre are allowed. Commercial developments are allowed up to 10,000 sq. ft. per facility. The unincorporated town of Packwood is not within an urban growth area; therefore, any development must assure that "urban growth" (RCW 36.70A.030(17)) as prohibited outside urban growth areas by RCW 36.70A.110, does not occur as a result of the development in question, nor does the project create a need or demand for urban levels of public facilities or services (LCC 17.45.080).

It is difficult to predict the level of development that may occur at the old Packwood Ranger Station and property if sold. Properties zoned STMU may be subdivided into residential parcels, each one-quarter acre in size. All plots must be "buildable" – in other words, property must have space outside of buffers sufficient to support a residence and associated features. Wetlands and streams would have buffers that are 50 feet wide on either side, and individual sites must be able to support a septic system. Developers may "cluster develop"; concentrating homes in one area and provide large areas of green space, which would be more protective of streams.

Figure 2 displays various land "types" or "features" found within the Packwood property that are important in determining the potential development of the site. Streams and wetlands have been identified along with 50-foot buffers (both sides of stream, starting at ordinary high water mark, or OHWM as defined in Washington Administrative Code). Other features identified include existing developed areas such as the office building, various outbuildings, warehouse, parking areas, bunkhouse, residences and the septic mound location. Table 2 displays existing land use conditions or "types".

Table 1. Packwood Administrative Site structures.

FS DISTRICT	BUILD_ID	BUILD_NAME	CATEGORY	GROSS SQFT	REMARKS	YR CONST
COWLITZ VALLEY	1160	PAC WC RESIDENCE	HOUSING	1438	RESIDENCE	1931
COWLITZ VALLEY	1161	PAC WC RESIDENCE	HOUSING	1028	RESIDENCE	1931
COWLITZ VALLEY	1168	PAC RESIDENCE (ACROSS STREET)	HOUSING	1680	RESIDENCE Utilities & septic connect to compound	1956
COWLITZ VALLEY	1168W	WOODSHED AT RES 1168	STORAGE	420	SHED	
COWLITZ VALLEY	1360	PACKWOOD BUNKHOUSE	HOUSING	2976	CREW	1954
COWLITZ VALLEY	1560	GARAGE AT RES 1160	STORAGE	296	GARAGE	1932
COWLITZ VALLEY	1561	STORAGE BLDG AT RES 1161	STORAGE	234		1932
COWLITZ VALLEY	1660	STORAGE BLDG AT RES 1160	STORAGE	420		1931
COWLITZ VALLEY	1660W	WOODSHED AT RES 1160	STORAGE	240	SHED	
COWLITZ VALLEY	1661	STORAGE BLDG AT RES 1161	STORAGE	392		1935
COWLITZ VALLEY	1661W	WOODSHED AT RES 1161	STORAGE	246	SHED	
COWLITZ VALLEY	1662	PAC STORAGE SHED	STORAGE	196		
COWLITZ VALLEY	1760	PAC HOSE HOUSE	STORAGE	150	FIRE CACHE (portable bldg)	1977
COWLITZ VALLEY	1761	PAC FLAM STORAGE	STORAGE	539	FLAMMABLE	1976
COWLITZ VALLEY	2061	PAC MAIN OFFICE	OFFICE	3024	OFFICE	1960
COWLITZ VALLEY	2062	ANNEX - PAC	OFFICE	1898	OFFICE	1963
COWLITZ VALLEY	2260	WAREHOUSE PACKWOOD	STORAGE	4296		1935
COWLITZ VALLEY	2314	WOOD STORAGE	STORAGE	780		1978
COWLITZ VALLEY	2361	PAC CARPENTER SHOP	SERVICE	3460	SHOP	1964
COWLITZ VALLEY	2364	PAC LARGE SNOW SHED	STORAGE	800		1988
COWLITZ VALLEY	2368	PAC PIPE STORAGE	STORAGE	95	OTHER	
COWLITZ VALLEY	2370	FACILITIES MAINT. STORAGE	STORAGE	148	OTHER portable	
COWLITZ VALLEY	2561	PACKWOOD GAS HOUSE	STORAGE	218	Gas/Oil	1963

Table 2. Area within existing land uses or types at the Packwood facility.

Current and Potential Land Use/Type	Area (acres)
Compound (facilities, lawn, arboretum), including developed portion of wetland and property south of Snyder Road	6.8
Developed wetland (part of developed compound)	2.0
Streams and 50' buffer	3.5
Undeveloped wetlands and 50' buffer (excluding overlapping stream and buffer)	3.7
Protected uplands including septic mound	1.9
Uplands, excluding buffers	4.7
Approximate existing impervious surface (37% of 6.8 acres)	2.5
Approximate total area (sum of bold italics)	20.5

2.5 Decision Framework

It is important to be clear that the actual conveyance of this property will have “no effect” to resources, but discussion of potential future effects from development are included to assure informed decision making on the part of the Decision Maker, and disclosure to the public. In addition, regardless of the type and level of development, resource protection will be provided consistent with state and county laws and regulations, as is done on other privately owned lands.

Given the purpose and need for the Packwood Administrative Site conveyance, and the issues identified by the interdisciplinary team and the public, agencies and tribes, the deciding official (Forest Supervisor) will review the proposed action and the other alternatives in order to make the following decisions:

- Select one of the alternatives for implementation, or
- Defer action at this time, or
- Conclude that significant impacts would result from the proposed action which would warrant the preparation of an Environmental Impact Statement.

2.6 Public Involvement

Scoping letters describing the proposed action and issues identified by the interdisciplinary team were sent to the public on June 14, 2006 to solicit comments. Public comment on the proposed action was also solicited through the Gifford Pinchot’s quarterly Schedule of Proposed Action (SOPA) website.

Several responses were received during the scoping period for the proposed Packwood Administrative Site Disposal, and throughout the period of time preceding and following the scoping period. Comments were received from the Gifford Pinchot Task Force, Conservation Northwest, members of the community of Packwood, the Cowlitz Indian Tribe, the Yakama Indian Nation and the Squaxin Island Tribe. Comments within the scope of the Project and not covered by previous environmental review or existing regulations were reviewed for substantive content related to the Project Proposal. The interdisciplinary team identified issues, which are considered in detail in this analysis.

A local community based non-profit group, Destination Packwood Association created a non-profit group named the “Packwood Cultural Council” in part, to prepare for availability of the Packwood Administrative Site. The community is very interested in the potential outcome of a sale of the property. Some members of the Packwood community are opposed to the sale of the property and believe that it should be protected and maintained in Government ownership, others are excited about business opportunities.

There has been interest expressed by several parties to use and/or acquire portions of the site, including the Cowlitz Tribe for an interpretation/cultural center, by the Yakama Tribe for a workstation for fishery projects, the Squaxin Island Tribe and a few individuals.

The Gifford Pinchot Taskforce has recommended that the Forest Service find a way to protect the streams and wetlands on the property, and the outcome of surveys for Threatened, Endangered and Sensitive (TES) and survey and manage species.

2.7 Issues

Issues are separated into two groups: significant and non-significant issues. Significant issues were defined as those directly or indirectly caused by implementing the proposed action. Non-significant issues are identified as those: 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The following issues raised during the scoping process were considered significant because the outcome is affected by implementation of the proposed action, and potential effects may vary between alternatives.

Significant Issues

As for significant issues, the Forest Service identified the following topics raised during scoping.

Loss of protection for heritage resources resulting from transfer of ownership

Historic properties are located on the Packwood Ranger Station Compound, including historic structures. Sale of the properties does not ensure their protection, and may result in the permanent loss of heritage resources.

Potential effects to federally listed anadromous salmonids

Potential land development at the Packwood Administrative Site may impact Coho salmon in the upper Cowlitz watershed within the analysis area. Land development modifications have the potential to impact, substrate size, water depth, flow and timing characteristics and large wood recruitment potential. Recovery of threatened Coho salmon in the upper Cowlitz watershed may be reduced by loss of habitat currently found in the Packwood Administrative Site conveyance project area.

Potential loss of riparian habitat

Potential land development at the Packwood Administrative Site may result in modification to the form and function of the riparian reserves. Potential removal of riparian and streamside vegetation, development of roads, dwellings and septic systems may change the physical and biological process of riparian reserves.

Water Quality

Potential land development of homes, road and sewer infrastructure at the existing Packwood Administrative Site may reduce water quality through the delivery of fine sediment and wastewater contaminants.

Other Issues

The following issues are considered non-significant because they are either fully mitigated through project standards and guidelines, project design criteria, or mitigation measures, or they did not contribute to the formulation of an alternative or were not alternative-driving.

Potential impacts to Survey and Manage and Sensitive species

There are “survey and manage” and Region 6 “sensitive” plant and animal species that are known or suspected to occur within the project site. These species may be impacted if development occurs, and would not have the same protections as they do on federal lands. Some species would be protected within riparian buffers. The complete Wildlife and Botany Biological Evaluations are provided in the project file.

Terrestrial species

Based on the habitat isolation of the PAS, the presence of a nearby population of *Cryptomastix devia*, and the fact that it is relatively common in the Upper Cowlitz Watershed, the “worst case scenario” loss of the three *C. devia* locations under the implementation of alternative 2 would result in a determination of **“may impact individuals or habitat, but will not likely contribute to a trend towards federal listing, or cause a loss of viability to the population or species”**. There will be **“no impact”** to the Malone jumping-slug or the blue-gray tail-dropper from alternative 2, as there are no known sites in the project area, based on protocol field surveys and historic sighting and distribution records.

If presence of the Cope’s giant salamander is assumed based on the 2006 stream survey giant salamander observation, effects from alternative 2 would also be related to the decrease in the existing riparian zone width and increased stream temperatures and flow, per the aquatic specialist report. Upper Hall Creek appears, however, to contain very marginal habitat for either Pacific or Cope’s giant salamanders, confined to the one cascading rock chute where the above sighting occurred, and overall effects to the species would be small in a “worst case scenario” situation of local extirpation. Other Cope’s giant salamander sites occur within the Upper Cowlitz Watershed in the Skate Creek drainage, and additional sites are likely although relatively little survey activity has occurred for this species. The determination is that alternative 2 **“may impact individuals or habitat, but will not likely contribute to a trend towards federal listing, or cause a loss of viability to the population or species”**.

There is the small potential that the rare Townsend's big-eared bat occurs at the Packwood Administrative Site, despite the negative survey results. The loss of existing structures on the property that may provide habitat for individual big-eared bats may cause direct mortality, or cause bats to leave the site for suitable habitat elsewhere. It is also possible that bats may roost in riparian woodland along upper Hall Creek, or other trees on the property that may be removed during development. Due to the small potential that individual Townsend's big-eared bats may be adversely impacted from the development of the PAS, the determination is that alternative 2 **“may impact individuals or habitat, but will not likely contribute to a trend towards federal listing, or cause a loss of viability to the population or species”**.

Botanical species

Botanical surveys performed within the project area located *Collema nigrescens*, a Sensitive species. The *Collema nigrescens* occurs on the trunk of a large bigleaf maple, located within the developed portion of the compound, adjacent to a home and Snyder Road. This population would be at risk if the tree became identified as a hazard or a potential landowner removed it for other unforeseeable reasons. There are three other known sites on the Gifford Pinchot National Forest in the Cispus River drainage reported in the forest database, and the species currently has six documented populations in the state of Washington. There is relatively little known about the species because it is difficult to identify. *Collema nigrescens* is considered secure on a global and national level, and apparently has good reproductive and dispersal ability, producing abundant apothecia (spore-producing bodies). Because of this, the proposed action **“may impact *Collema nigrescens* individuals, but will not likely lead to a trend towards federal listing or a loss of viability to the species”**.

Five plant species and eight lichens were not observed during surveys, but potential habitat exists on the Packwood Administrative Site property. If the property is developed following sale, the proposed action **“may impact individuals, but will not likely lead to a trend towards federal listing or a loss of viability to the species”**, because probability of presence is low, and area of suitable habitat removed, about 15 acres, is a negligible part of the habitat available on the surrounding Gifford Pinchot National Forest.

Within the forested area of the Packwood Administrative compound there is potential habitat for a number of Sensitive species, including 13 fungi species and 1 lichen species that were not specifically targeted during surveys because they are considered “non-surveyable”. These species are primarily associated with older forests. They depend on large down wood and/or mature trees as mycorrhizal partners with a thick, uncompacted duff layer. These elements are largely missing from the forested area of the Packwood administrative unit. In addition, the site is a small fragment of forest surrounded by private land. Therefore probability of occurrence of these species is considered low. Under a maximum development scenario, all the forest area except for the 50 ft. buffers on the wetlands could be converted to hardened surfaces or cultivation, eliminating habitat for these species. Determination: **“May impact individuals, but will not likely lead to a trend towards federal listing or a loss of viability to the species”**, because probability of presence is low, and area of suitable habitat removed, about 15 acres, is a negligible part of the habitat available on the surrounding Gifford Pinchot National Forest.

3.0 ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This chapter describes and compares the alternatives considered for the proposed Packwood Administrative Site conveyance. It includes a description and map of the properties, and areas potentially impacted. This section also presents the alternatives in comparative form, defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public. Section 3.2 contains a listing of project mitigation measures.

3.1 Alternatives

In summary, project work would include: Sale or exchange of the entire property. One alternative was considered but eliminated from further study, and two alternatives were fully analyzed: No Action (Alternative 1) and the Proposed Action (Alternative 2), which would include the sale of the entire property. In an effort to determine the potential effects of the sale of the property, we have considered a level of development that might occur within the context of existing Lewis County, Washington State and Federal laws. The entire parcel is located in Packwood, Washington and zoned Small Town Mixed Use (STMU) (Lewis County Code).

Alternative Considered But Eliminated From Detailed Study

One alternative was considered but eliminated from detailed study that would have put deed covenants on the sale for conservation of species and habitats, and for protection of historic sites. This alternative was eliminated from detailed study because there would be no assurance that long-term funding from the Forest Service would be available to enforce any covenants once conveyance of the property was completed. In addition, once the property becomes privately owned the county and state would be responsible to ensure laws are followed, not the Forest Service. Therefore, there would be no mechanism to enforce the covenants.

Alternative 1 – No Action

Under the No-action alternative, current management plans would continue to guide management of the Packwood site. Sale of the property would not occur. The project would continue to be maintained to the degree that it is currently. The main office building would continue to be heated, windows of structures would remain to be boarded up, and approximately \$7,000 per year would continue to be used to minimally maintain structures and utilities and continue monitor and repair vandalism-related damages, which occasionally occur.

Historic structures and historic and prehistoric properties would remain in the possession of the Forest Service, and Riparian Reserves, stream courses and wetlands would be maintained. Management of natural resources on the property has not occurred in recent history, and is not expected to occur within the foreseeable future.

Because funding is not and has not been sufficient to maintain facilities to prevent deterioration, all buildings, including historic structures would likely continue to decline in condition.

Alternative 2 – The Proposed Action

Gifford Pinchot National Forest is proposing to convey the Packwood Administrative Site, formerly the location of the Packwood Ranger Station, to other ownership to reduce fixed maintenance costs of the U.S. Forest Service. The Packwood Ranger Station was the district office from 1928 to 1996, and operated as a satellite work station until 2003. The approximately 20 acre property is located on U.S Highway 12 (White Pass Highway) in eastern Lewis County, Washington, the south half of Section 15, T. 13 N., R. 9 E., Willamette Meridian. There are 23 buildings on the property, including an office, shop, warehouse, and several residences. All but one of the buildings has been vacant since the fall of 2003; one residence was reopened in fall 2006 and is currently rented to a Forest Service employee.

National direction requires all National Forests to reduce 25% of existing support facilities by September 30, 2010. To address this issue, a Facilities Master Plan for the Gifford Pinchot National Forest was completed in August 2003. Recommendations summarized in the plan call for decommissioning of the entire Packwood Administrative Site. The facility has been vacant for several years. The property was determined excess to administrative needs, and listed as a potential candidate for sale or exchange. The disposal of the Packwood Administrative Site would be through sale or exchange under the provisions of the Forest Service Facility Realignment and Enhancement Act of 2005 (Public Law 109-54). The Packwood Administrative site is one of 14 Forest Service properties in the Pacific Northwest Region that are being considered for disposal.

It is difficult to predict whether sale or some form of conveyance to another entity, whether individual, corporation or agency would result in certain levels of development. Considering that the property may be converted to development consistent with existing county codes and zoning laws, which allows up to four houses to be constructed on each acre, it has been determined that excluding riparian buffer zones, wetlands, existing developed area and a septic mound system, approximately seven acres of undeveloped land would be available for new home or business construction.

As stated above, the Packwood property is zoned “SMTU”, or “small town mixed use”. Within that designation, the property contains mapped “hydric soils” and FEMA flood zones. The property also contains wetlands and a Type 3 stream (also Forest Service Class II). Wetland area is estimated and not mapped or recorded on county zoning maps.

Development standards for areas zoned STMU allows commercial and residential activities (Lewis County Code (LCC) 17.42.030). In summary, Residential single family homes, 4 units per acre, or Residential duplexes, multifamily and 6 units per acre are allowed. Commercial developments are allowed up to 10,000 sq. ft. per facility. The unincorporated town of Packwood is not within an urban growth area, therefore, any development must assure that “urban growth” (RCW 36.70A.030(17)) and as prohibited outside urban growth areas by RCW 36.70A.110, does not occur as a result of the development in question, nor does the project create a need or demand for urban levels of public facilities or services (LCC 17.45.080).

To predict and define potential development, it is assumed that the property may be subdivided into residential parcels, each one-quarter acre in size. All plots must be “buildable” – in other words, property must have space outside of buffers sufficient to support a residence and

associated features. It is important to note that one-quarter acre lots may contain wetlands, buffers and streams, which would convert to private ownership under this scenario. “Buildable” area within a lot would include space for a home, driveways and septic system, and are assumed to be outside of wetland or stream buffers. 50-foot buffers are used in this analysis to allow a more conservative, “worst-case” scenario to be considered.

Figure 2 displays various land “types” or “features” found within the Packwood property that are important in determining the potential development of the site. Streams and wetlands have been identified along with 50-foot buffers (both sides of stream, starting at ordinary high water mark, or OHWM as defined in WAC). Other features identified include currently developed areas including the office building, outbuildings, parking areas, residences and the septic mound area. It is assumed that the currently developed area (the facilities listed above) would remain developed in this analysis; however, future land owners who may develop in other parts of the property would have opportunities to restore wetlands and/or decrease impermeable surfaces within the existing developed areas - a common mitigation measure and encouraged under state and county regulations to reduce impacts to wetlands and aquatic resources. It is also assumed in this analysis that the portion of the property that has already been developed and converted to uses other than forest, riparian or aquatic habitat would remain developed, and represents a minimum in terms of total developed area or potentially developed area.

Three areas have been identified as having potential for development (area is approximate): An upland area in the north part of the Packwood property (3 acres), an area east of Hall Creek and north of a tributary that originates toward the southeast of the property (3 acres), and an area immediately south of the tributary and east of Hall Creek in the eastern corner of the property (1 acre). Approximately 0.4 acre, 2.3 acres and 0.4 acre of the above areas are located within buffer or wetland. See Figure 2.

Applying a formula of four residences per acre and including buffers that may be within subdivided properties, 30 individual homes may fit onto the undeveloped portion of the Packwood property. Developers can also create “clusters”, concentrating homes on uplands while identifying green belts, or areas within the development that would be protected. While it is difficult to determine the average area of impermeable surface created in the construction of a single-family residence, runoff coefficients are used routinely to determine the effects of the addition of impermeable surface to previously undisturbed lands. The area of impermeable surface includes rooftops (house, garage, outbuildings), driveways (whether gravel or paved), decks, patios and access roads. Capiella and Brown (2001) utilized a coefficient of 0.278 for 0.25 acre residential lots, Jennings et. al (2004) used a range of coefficients from 0.1820 to 0.6920 depending on the intensity of developments ranging from single family to townhouses and high-rises. The Center for Watershed Protection (1998) uses a factor of 0.25 for 4 dwellings per acre (“medium density residential”). The runoff coefficient, multiplied by total available area is used to estimate new impermeable surface that may be produced if the property is converted to residential lots. A value of 0.27 is assumed in this analysis.

Table 2 is presented again, and Table 3 compares quantities of different land types and what the site might look like if the area available for development was converted to residences (4 units per acre as per LCC).

Table 2. Area within existing land uses or types at the Packwood facility.

Current and Potential Land Use/Type	Area (acres)
Compound (facilities, lawn, arboretum), including developed portion of wetland and property south of Snyder Road	<i>6.8</i>
Developed wetland (part of developed compound)	2.0
Streams and 50' buffer	<i>3.5</i>
Undeveloped wetlands and 50' buffer (excluding overlapping stream and buffer)	<i>3.7</i>
Protected uplands including septic mound	<i>1.9</i>
Uplands, excluding buffers	<i>4.7</i>
Approximate existing impervious surface (37% of 6.8 acres)	2.5
Approximate total area (sum of <i>bold italics</i>)	<i>20.5</i>

Table 3. Area within existing land uses or types at the Packwood facility. *Area available for development includes undeveloped and unprotected uplands, and stream and wetland buffers. If subdivided, lots would potentially included buffers, but actual development would occur on uplands (unless lots did not have any other option for building, in which case a special authorization would be pursued to build within a buffer or on a protected area).

Current and Potential Land Use/Type	Area (acres)
Compound (facilities, lawn, arboretum), including developed wetland and property south of Snyder Road	6.8
Wetland (part of developed compound)	2.0
Streams and 50' buffer	3.5
Undeveloped wetlands and 50' buffer (excluding overlapping stream and buffer)	3.7
Uplands available for development, excluding buffers	4.7
Total acres available for development or subdivision, including uplands and stream and wetland buffers*	7.4
Protected uplands including septic mound and heritage site	1.9
Approximate existing impervious surface (37% of 6.8 acres)	2.5
Approximate total area (sum of bold italics)	20.5

Table 4. Approximate quantification of the potential conversion of suitable or available portions of the Packwood property to residential development (30 houses at 4 per acre). In this scenario, the property is developed to its fullest potential, excluding any mitigation measures that might restore wetland habitat or reduce the area of impervious surface.

Land Use/Type	Existing condition (acres)	Potential future condition (acres)	Percent change
Forested upland (excluding 50' buffers, but including 250' of existing additional Riparian Reserve and 1.9 acre septic mound). Note: Approximately 60% of this area is currently Riparian Reserve.	6.6	1.9	<71%>
NFP Riparian Reserve excluding septic mound and including 50 ft buffers (all undeveloped)	5.7	3.3	<42%>
Forested 50-foot buffers used in calculation of total developable area (excludes developed buffers)	3.3	3.3	0%
Undeveloped wetlands, streams and 50' buffers	7.2	7.2	0%
Developed wetlands and buffers (assumes no in kind mitigation)	2.0	2.0	0%
Impervious surface (assumes the conversion of 27% of 7.4 acres of forest and buffers)	2.5	4.5	+43%
Lawn and landscaping (assumes remaining unprotected forested land converted to lawn or landscaping)	4.0	6.7	+60%

**Wetland Delineation
Packwood Work Station**

Cowlitz Valley Ranger District
Gifford Pinchot National Forest
April 26, 2007

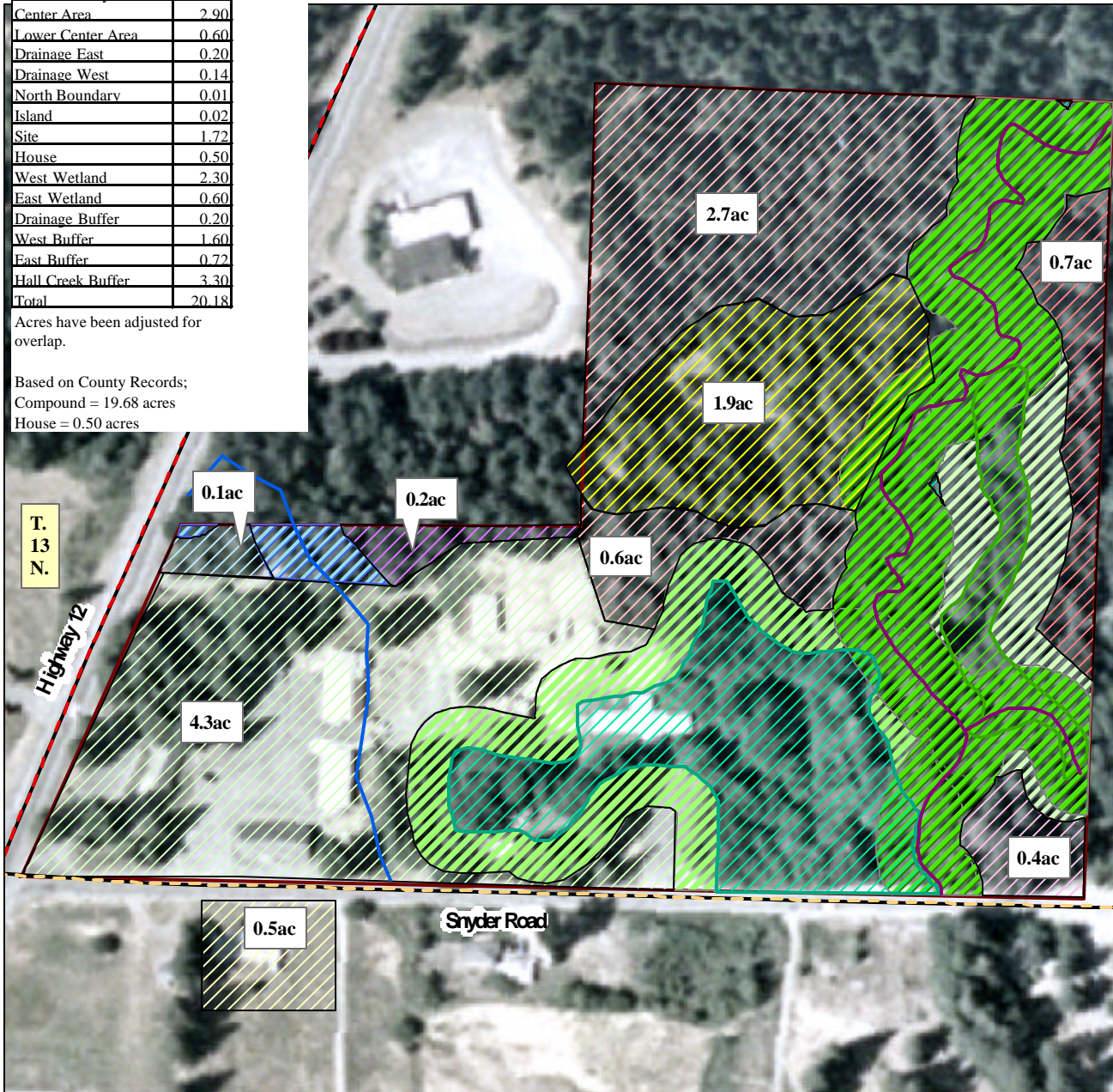


Packwood Work Station & House

Location Name	Acres
Compound	4.34
Southeast Corner	0.35
East Boundary	0.68
Center Area	2.90
Lower Center Area	0.60
Drainage East	0.20
Drainage West	0.14
North Boundary	0.01
Island	0.02
Site	1.72
House	0.50
West Wetland	2.30
East Wetland	0.60
Drainage Buffer	0.20
West Buffer	1.60
East Buffer	0.72
Hall Creek Buffer	3.30
Total	20.18

Acres have been adjusted for overlap.

Based on County Records;
Compound = 19.68 acres
House = 0.50 acres



- Wetland West, 2.3 ac
- Compound Drainage Buffer, 0.2 ac
- Wetland East, 0.6 ac
- Wetland West Buffer, 1.6 ac
- Hall Creek & Tributary
- Wetland East Buffer, 0.72 ac
- Compound Drain Line
- Hall Creek Buffer, 3.3 ac

0 100 200 400 Feet

**Property lines are approximate
Wetland delineation is approximate**

Map By: rtl 04/26/2007

Figure 2. Packwood Ranger Station and facilities, and land types.

3.2 Mitigation Measures

Heritage Resources

Pursuant to 36 CFR 800.6, the agency will develop mitigation measures to resolve adverse effects to historic properties. Mitigation measures will be developed in consultation with the SHPO, Cowlitz Indian Tribe, and the Confederated Tribes and Bands of the Yakama Nation. A Memorandum of Agreement regarding terms of mitigation will be executed among the consulting parties, and the Advisory Council on Historic Preservation will be afforded the opportunity to comment on the undertaking.

A Memorandum of Agreement will be prepared to address the resolution of adverse effects to historic buildings. Consultation with the SHPO is ongoing. Proposed mitigation measures include, at a minimum, detailed recordation of individual National Register-eligible historic buildings using the *Level II Mitigation Documentation Standards* developed by the Washington Department of Archaeology and Historic Preservation. As a second mitigation measure, SHPO has proposed that the agency develop a Historic Property Management Plan for remaining historic administrative facilities within the Cowlitz Valley Ranger District.

Aquatic Resources

Because the proposed action would result in the transfer of ownership, Lewis County development regulations and critical area ordinances would become the new standards and guidelines for activities and proposed development of the properties. Development standards would be consistent with statewide Best Management Practices, and activities would be permitted through the state and county, consistent with Washington Administrative Code (WAC) and Lewis County Code (LCC).

There are opportunities to mitigate for additional development on the property, including the restoration of currently developed wetlands, and removal of existing impermeable surfaces.

3.3 Comparison of Alternatives

This section provides a summary of the effects of implementing alternatives. Information in Table 3.3.1 is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives. Table 3.3.1 provides a comparison of the analysis indicators for the significant issues (Section 2.7).

Table 3.3.1. Comparison of alternatives including a quantitative summary of activities or project elements.

Issues	Alternative 1 (No Action)	Alternative 2 (Proposed Action)
Return to treasury	Annual maintenance cost (\$7000-\$60,000)	Reduced deferred maintenance, exact amount not yet determined (not disclosed)
Heritage resources	Maintenance of heritage resources including structures	Restoration, degradation or loss of heritage resources
Threatened Salmon and their Habitat	Maintain quality	Potential indirect effects of development may degrade habitat
Riparian Resources	Retention of Riparian Reserves (assumed protection)	Reduction of Riparian Reserves to 50 ft buffer
Water Quality	Maintain quality; some degradation via adjacent property development	Potential indirect effects of development may degrade water quality

4.0 ENVIRONMENTAL CONSEQUENCES

This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the alternatives. It also presents the scientific and analytical basis for comparison of alternatives presented in the chart above. This analysis is organized by resource area.

4.1 Background

The Packwood Administrative Site is located within unincorporated town of Packwood, which lies adjacent to the Cowlitz River. The district office and associated facilities are on National Forest System lands, surrounded entirely by private lands and bordered by the State Highway 12 right-of-way, located along the western boundary of the property (see Vicinity Map, Figure 1).

The Packwood Ranger Station is located in the Upper Cowlitz River Watershed, and the Hall Creek sub-watershed (Hydrologic Unit Code No. 170800040204). Hall Creek (a.k.a. Beach Creek) flows through the property. Hall Creek is a perennial fish-bearing stream that flows north to south and parallel to the east boundary of the property. A portion of the Packwood site including site facilities is located within the Cowlitz River 100-year floodplain. A wetland associated with Hall Creek lies within the property boundary, a portion of which is developed and contains structures. The elevation of the site ranges from less than 1050 feet near the district office to 1110 feet in the northwest corner of the property.

The upper watershed has a history of wildfire, and was in a contiguous forest of grass/pole and small trees prior to the 1880's. Fire suppression began to shape the watershed during the 1930's and 1940's, and regeneration harvest during the 1950's. Clearcut harvesting continued through the 1960's and 1970's. Most of the private lands within the watershed were harvested during the 1970's, and some stands have been entered and harvested a second time during the past decade.

As previously stated, the undeveloped portion of the property is forested. Historic records indicate the property was logged about 1951 to harvest trees damaged by a 1948 fire. Some selective logging may have also occurred in the 1920s, before the land was purchased by the Forest Service. The vegetation is typical of those found at similar elevations and age in the *Tsuga heterophylla* zone.

Volcanic and seismic activities represent the dominant geological processes in the upper Cowlitz River sub-basin. Historic eruptions of Mount St. Helens deposited significant amounts of ash and tephra across the Upper and Middle Cowlitz watersheds. Soils within the property are classified as Liler silt loam. Tephra deposits have been identified on the property as Mount St. Helens pumice deposited in AD 1480. Additional biological and physical information regarding the area can be found in the *Upper Cowlitz Watershed Analysis* (Upper Cowlitz Watershed Analysis, USFS 1997).

4.2 Issue 1: Heritage Resources

Affected Environment

Prehistoric Native American use of the local area has been documented through a number of archaeological investigations, and demonstrates use of the Packwood vicinity as early as 5,000 to 7,000 years ago. Early occupants of the Cowlitz River valley were highly mobile foraging people who did not make extensive use of food preservation or storage and did not build permanent shelters or settlements. Between about 4,000 years ago and 2,500 years ago adaptations shifted toward greater reliance on mass harvest and storage of key resources, particularly anadromous fish. At the same time, there was an increase in the use of more sedentary residences and the establishment of village settlements. Historical research and traditional knowledge indicate that the general area was home to a band of Taidnapam, or Upper Cowlitz people during the middle to late 19th century. Several sources indicate that a small settlement, known as *cawacas*, existed near the mouth of Skate Creek about a mile west of the subject property circa 1860-1870. Taidnapam descendants are today members of both the Cowlitz Indian Tribe and the Confederated Tribes and Bands of the Yakama Nation. Representatives of both groups have expressed a strong interest in the protection archaeological resources.

The subject property was within the federal lands that became part of the Mt. Rainier Forest Reserve in 1897. Settlement pressures led to homesteading within the reserve, particularly along the Cowlitz River valley bottom. Walter Combs, a native of Missouri, made application for 160 acres under the Forest Homestead Act in 1907, including the subject property. His claim included lands now comprising much of the community of Packwood. That portion of the Combs homestead corresponding to the subject property was cleared for use as a family garden around 1908. There is no indication that the Combs family erected any structures or buildings on this portion of their property. Most of the original homestead property was divided and sold after Walter Combs' death in 1917. Menasha Woodenware Company purchased some of the property, including the present Packwood Work Center site.

Forest Service administrative use of the property began officially on October 1, 1928, the effective date of a lease agreement between the Menasha Woodenware Company and the U.S. Government. For an annual rental fee of \$75.00, the Forest Service obtained use of the tract for the exclusive purpose of establishing a ranger station. The lease included an option to purchase the property. Funds were allocated in 1928 for initial construction of facilities on the property. A warehouse (#2260), completed in 1929, was the first building erected on the property, and is the oldest remaining on the site today. A new ranger station office was also built in 1929, and ultimately became the administrative headquarters for the Packwood Ranger District.

Initially part of the Rainier National Forest, the Packwood District was added to the Columbia National Forest in 1933 (renamed Gifford Pinchot National Forest in 1949). During the early 1930s, District Ranger Bill Sethe oversaw the continuing expansion of facilities and improvements at the ranger station, including construction of a ranger's residence, a two-room telephone operator's cabin, and barn in 1931; a crew house, woodshed, and garage in 1932; a three-car garage and a woodshed/laundry building in 1933; and a four-room guard residence and woodshed/laundry building in 1935. By 1935, the complex consisted of 14 buildings, and in 1936 the site was finally purchased from the Menasha Company.

The administrative site was expanded in 1948 through purchase of an additional 12.5 acres, adjacent to the east. The district anticipated the need for additional housing and developed a preliminary plan for construction of new residences on the tract, but the plan was never implemented. The “Timber Staff Officer” dwelling, a four-room residence, was added to the compound in 1949. Staffing needs increased during the post-war period and the growing workforce led to another expansion of facilities. In 1954 a new bunkhouse was constructed and in 1958 the Forest Service purchased a small lot with a three-bedroom house on Snyder Road, directly opposite the warehouse. A new site plan for the Packwood Ranger Station was developed in 1959. The plan involved construction of a new, modern office building to replace the original, built thirty years earlier. The new office, designed by a Forest Service architect, was completed in 1960, and included private offices for the district ranger and fire dispatcher, a reception room, and two timber and engineering rooms. The original office and the gas and oil house were removed to provide for parking and access roads. Several additional buildings were constructed in later years.

The 23 buildings at the Packwood Work Center site include a variety of functional types spanning the period from 1929 to 1988. Until 1954, the compound retained the composition of its CCC-era building group. As new facilities were added during the following decade, older buildings were removed, including the original office, mess hall, a residence, gas and oil house, and two garages. The existing facilities are dominated by buildings constructed during the past 50 years. For this reason, the administrative site does not qualify as a significant building group or a historic district.

Buildings existing on the administrative site essentially represent two distinct phases of agency history. The earliest buildings (1929-1935) are associated with local administration of the national forest during the Great Depression, World War II, and the initial post-war period, often characterized as a period of “custodial” management of forest resources. Later buildings (1954-1964) are associated with the post-war shift toward intensive forest management and large-scale extraction of timber resources. They reflect the expansion of a workforce oriented toward the increasing federal timber sale program and, to a certain extent, changes wrought after 1960 with implementation of the Multiple Resources and Sustainability Act. At the local and regional level, the ranger station buildings are associated with significant Forest Service contributions to conservation of natural resources, outdoor recreation, and the development of the timber industry.

Eight of the historic buildings qualify for listing in the National Register of Historic Places. These include the Ranger’s Residence (#1160), with associated woodshed/laundry building (#1160W) and garage (#1560); the Protective Assistant’s Residence (#1161), with associated woodshed/laundry building (#1160W), and garage (#1561); the Bunkhouse (#2100); and the Warehouse (#2260).

Environmental Consequences

It is important to understand that the effects discussed below are not the result of the federal action, but are potential effects depending on the type and level of subsequent development. There would be no effects as a result of the federal action.

Heritage Resources

The assessment of project effects was based on the process outlined within Section 106 of the National Historic Preservation Act and the implementing regulations under 36 CFR 800 (“Protection of Historic Properties”). The regulations require federal agencies to determine if proposed activities have the potential to cause effects on historic properties. As defined in 36 CFR 800.16, historic properties are any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places. Historic properties within the project area (Area of Potential Effects) include the Ranger’s Residence (#1160), with associated woodshed/laundry building (#1160W) and garage (#1560); the Protective Assistant’s Residence (#1161), with associated woodshed/laundry building (#1160W), and garage (#1561); the Bunkhouse (#2100); and the Warehouse (#2260).

In consultation with the State Historic Preservation Officer (SHPO), the Cowlitz Indian Tribe, and the Confederated Tribes and Bands of the Yakama Nation, potential effects to the historic properties were assessed through application of the criteria of adverse effect under 36 CFR 800.5. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that may qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, feeling, or association.

Alternative 1 – No Action

Direct and Indirect Effects

Retention of the subject property without further action would result in a finding of “no historic properties affected” (36 CFR 800.4(d)(1)) provided that maintenance of historic facilities was sufficient to prevent physical deterioration. The “No Action” alternative assumes that the facilities would remain vacant for an indefinite period of time and would be appropriately “mothballed.” National guidelines for mothballing historic buildings include:

- a) Securing the building and its component features to reduce vandalism or break-ins.
- b) Providing adequate ventilation to the interior.
- c) Securing or modifying utilities and mechanical systems.
- d) Developing and implementing a maintenance and monitoring plan for protection.

Cumulative Effects

Alternative 1, the no action alternative, would not directly contribute to cumulative effects provided that funds are allocated to properly “mothball” the facilities.

Alternative 2 – Proposed Action

Direct and Indirect Effects

As defined in the criteria under 36 CFR 800.5(1), transfer, lease, or sale of property out of Federal ownership or control constitutes an adverse effect on historic properties if such conveyance occurs without “adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historic significance.” Such restrictions or conditions would include deed covenants, particularly where county or local government regulations and/or ordinances existed to enforce protection of heritage resources. Agency policy regarding conveyances under the Forest Service Facilities Realignment Act discourages the use of deed covenants where responsibility for resource protection cannot be enforced by local authorities. Currently, there are no provisions within the Lewis County ordinances for the protection of archaeological or historic resources.

Without benefit of protection of historic properties by local government, conveyance of the Packwood Work Center property out of Federal ownership would result in a finding of adverse effect by the Agency Official. Pursuant to 36 CFR 800.6, adverse effects are resolved through further consultation with the SHPO and Cowlitz Indian Tribe, and the Confederated Tribes and Bands of the Yakama Nation.

A Memorandum of Agreement will be prepared to address the resolution of adverse effects to historic buildings. Consultation with the SHPO is ongoing. Proposed mitigation measures include, at a minimum, detailed recordation of individual National Register-eligible historic buildings using the *Level II Mitigation Documentation Standards* developed by the Washington Department of Archaeology and Historic Preservation. As a second mitigation measure, SHPO has proposed that the agency develop a Historic Property Management Plan for remaining historic administrative facilities within the Cowlitz Valley Ranger District. The Advisory Council on Historic Preservation will be afforded the opportunity to comment on the undertaking.

Cumulative Effects

There are no other proposed property conveyances on the Cowlitz Valley Ranger District; however the Gifford Pinchot National Forest has proposed to decommission other facilities. As previously mentioned, 60 properties are proposed for conveyance within the Region. The potential transfer of federal ownership to other entities that may be less protective may represent a cumulative effect Region wide. This potential loss has been noted by the SHPO.

4.3 Issues 2, 3 and 4: Aquatic and Riparian Resources _____

Affected Environment

The Hall Creek subwatershed has a drainage area of 12,663 acres (19.8 square miles). Elevation of Hall Creek is 1,000 feet at the confluence of the Cowlitz River at river mile (RM) 0.0 and terminates at an elevation of 1,200 feet at RM 4.3. The drainage area is bound on the southwest by Skyo Mountain, elevation 3,200 ft., and on the east by mountain ridges with elevations ranging up to 5,000 ft.

Hall Creek flows to the southwest approximately 4.3 miles and empties into the upper Cowlitz River at approximately RM 122.5. Approximately 0.5 RM of Hall Creek drainage is contained within the Gifford Pinchot National Forest boundary, an unsurveyed segment exists upstream

of a road crossing on private lands to the north of NF. A bedrock chute fish barrier is located on National Forest at RM 3.4; the stream crosses the Forest boundary just upstream. The lower 3.4 river miles downstream of NF are contained within private lands.

Stream flow was measured at 8.75 cubic feet/second (cfs) at the mouth (USDA 1994). Temperatures measured during the 1994 Level II stream survey from 7/28/94 to 8/9/94 ranged from 41 °F to 63 °F with an average temperature of 52.5 °F. Temperatures measured on 9/7/2006 averaged 59 °F. Long term stream temperature data is not available. Stream temperature in Hall Creek appears to be influenced by springs and ground water from the Cowlitz River as evident by the relatively cool temperatures in spite of open grass forb riparian vegetation (USDA 1994).

The overall channel gradient of Hall Creek is relatively low, averaging about 1% from its confluence with the Cowlitz River to the Packwood administrative site. Segment gradients from river mile 3.4 to 3.7 range from 2 – 4%.

Channel characteristics vary by reach. Collectively, the lower two reaches (1 and 2) tend to be low gradient (0.3-.0.4 %) highly sinuous with wider channel width and wetland complexes. Quality pool development tends to be lacking with an average of 11.9 pools/mi. Deficiencies in large wood in the lower 3.5 miles detract from pool development and retention of quality spawning substrate.

The upper two reaches (3 and 4) are somewhat higher gradient (2-4 percent) with a reduced bankfull width ranging from 6.6-12.0 feet. Overall Hall Creek physical channel characteristics within the planning area are good for spawning and rearing life stages of Coho salmon. Qualities contributing to the good rating include; low to moderate channel slope, and fitting bankfull width / depth ratios.

Riparian vegetative development varies by reach within the analysis area with sapling pole / small trees dominating the private section (RM 0.0-3.4). There is an abrupt transition to on National Forest where a forest canopy dominates the riparian reserve. Large cottonwood (*Populus trichocarpa*), western red cedar (*Thuja plicata*) and Douglas-fir (*Pseudotsuga menziesii*) dominated the overstory. The understory is primarily big leaf maple (*Acer circinatum*) and vine maple (*Acer circinatum*). Abundant wet site indicators are also abundant within and adjacent to wetlands.

An approximate wetland delineation was conducted during spring 2007 described wetlands associated with Hall Creek, one on the west side (2.3 acres) and one on the east (0.6 acres). The combined total acreage of wetland and their respective riparian reserve buffer is approximately 5.2 acres.

Channel substrate in Hall Creek is composed primarily of fine to medium gravel and sand. Data collection on substrate is from the 1994 Level II stream survey, field observations and a 2006 Wolman pebble counts analysis. Factors influencing the sediment balance in the Hall Creek reach include; flood deposition and beaver activity in the reaches downstream from the Packwood site. Local wetlands serve to trap fine sediment and moderate high flows.

Evidence of fine sediment delivery may result from housing development and transportation systems that are located adjacent to the Packwood property. A few home sites exist to the north and east of the Packwood Administrative site, where property has been subdivided and

posted for sale. Gravel roads parallel the north and east property boundaries. The private road along the north traps sediment and gravel above the lower reaches of Hall Creek.

Housing development and associated roads decrease infiltration rates, which cause streams to become flashy during rain events. Unpaved road crossings (FR 4800000, and County Roads 110269 and 110115), which cross Hall Creek downstream of the project area also contribute sediment into the creek. Within the Packwood Administrative Site, heavy bedload may have resulted from repeated road failures immediately above the administrative site.

Accumulation of large woody debris (LW) is estimated to be 78 pieces per mile within the project area (USFS 2006). Downstream from the project area, wood content in reach 1 is 0 pieces per mile and within reach 2, 2.5 pieces per mile (USFS 1994). Reach 1 and 2 surveyed poor for accumulation of LW which may be attributed to poor source areas and poor channel transport due to barriers. Reach 2 and the reaches within the project area are rated as good (USFS 1994, 2006). The road system may adversely impact the transport function of the aquatic ecosystem by either retaining LW in the stream or modifying the frequency and duration of peak flows necessary to move instream LW.

Occupied anadromous fish habitat is confirmed throughout the Hall Creek reaches that lie within the Packwood Administrative Site (USFS 1994 and 2006). Hall Creek anadromous distribution extends from the mouth to river mile 3.7 at the northern extent of Forest ownership where the first natural permanent fish migration barrier (35ft chute) is expected to preclude passage (USDA, 2006). Additionally, an unnamed Hall Creek tributary (identified as Compound Drain Line – Figure 1) is a fish bearing stream. Coho currently inhabit this waterway which has been significantly modified to flow through an underground conduit system.

Anadromous species documented as present in Hall Creek include Chinook salmon (*Onchorhynchus tshawytscha*), Coho salmon (*O. kisutch*), steelhead trout (*O. mykiss*) and sea run cutthroat trout (*O. mykiss*). Of these fish, the National Oceanic and Atmospheric Administration - Fisheries (NOAAF) has listed Evolutionary Significant Units (ESUs) including: Lower Columbia River steelhead trout, Lower Columbia River Chinook salmon and Lower Columbia River Coho salmon as threatened under the Endangered Species Act. Chum salmon (*O. keta*) populations have never been documented in the upper Cowlitz River watershed, and are not expected to be included in salmon reintroduction efforts above the mainstem Cowlitz River dams. Steelhead trout, Chinook and Coho salmon are transported (trucked) around the three dams on the Cowlitz River making the upper Cowlitz River and its tributaries accessible to these species.

Recent adult spawning surveys (EES 2005-2006) support that the upper Hall Creek (MP 3.5-3.7) area within the planning area is a very productive section of the subwatershed. In the winter of 2005-06 and estimated 35 Coho escaped to the upper Hall Creek subwatershed to spawn on 10 redds. This is among the highest density spawning sites recorded in the Upper Cowlitz watershed.

Smolt production estimates are relatively high for Hall Creek as modeled using the Smolt Habitat Capability (SHC) (USFS 1994 and USFS 1995). Habitat conditions reflect an above average estimate of over 17,000 Chinook, Coho and winter steelhead smolt produced from Hall Creek. Coho spawning is largely dependent on habitat found in the upper reaches within the Packwood Administrative Site Disposal project area.

Resident salmonids present in Hall Creek include cutthroat trout (*Oncorhynchus clarki*) and rainbow trout (*O. mykiss*) (USDA 2001). There are no known reports of listed resident fish in the planning area (USDI, 2001). There are no known bull trout in the upper Cowlitz watershed. (Perez-Rose, D person. comm. 2003). The Regional Forester's list of sensitive fish includes Redband trout (*O. mykiss spp.*) which, by definition, are only found east of the Cascades (Benke 1995) and pygmy whitefish (*Prosopium coulteri*) which are limited to nine known locations in the Washington State all outside of Lewis County (WDFW 1998).

Alternative 1 – No Action

There would be no anticipated change to habitat, except as surrounding properties, in particular to the north and east of the property potentially become increasingly developed. Indirect effects related to the conversion of forested land to residential subdivisions would be expected to further degrade downstream habitat in the long term.

Alternative 2 – Proposed Action

It is important to understand that the effects discussed below for Issues 1, 2 and 3 are not the result of federal action, but are potential effects depending on the level and type of subsequent development. There would be no effects as a result of the federal action.

Issue 1. Effects to threatened species and their critical habitat.

Threatened species and their critical habitat may be impacted by project elements including the following: 1) clearing large trees 2) permanent road construction 3) home construction maintenance and operations and 4) septic construction maintenance and operation.

The proposed action may have the direct impact of further fragment the Hall Creek stream habitat which native salmonid are dependent upon. The upper two reaches contained in the project area represent a significant proportion (> 50%) of the available spawning habitat for Coho in particular. The reduction or elimination of the limited remaining intact forest and expected changes in water quality and quantity may indirectly reduce Hall Creek Coho spawning capability.

It appears that most of quality Hall Creek Coho spawning habitat is within the project area, which represents less than 10% of the total stream length. Potential development without mitigations along this stream length may result in a reduction of 70-80% of quality Coho spawning habitat in the sub-watershed, with the potential indirect consequence of a proportional loss of 70% adult Coho escapement in the Hall Creek sub-watershed. However, mitigation measures incorporated through State level planning efforts including Section 10 ESA consultation has the potential to limit impacts to the Coho population.

Issue 2: Loss of Riparian Habitat

The function and process of riparian reserves may be impacted by project elements including the following: 1) clearing large trees 2) permanent road construction 3) home construction and 4) septic construction and operation.

The proposed shift of management direction from the Gifford Pinchot Land Management Plan Aquatic Conservation Strategy (ACS) to the Lewis County zoning laws may result in a net reduction of 42% of existing riparian protection along Hall Creek and connected wetlands.

The potential modification of riparian vegetation would further simplify natural aquatic physical features such as large wood, channel roughness, channel shade and cover components necessary for rearing life history. Removal of riparian vegetation and housing developments may degrade the spatial connection between the Hall Creek flood channel and its flood plain and up slope areas.

Removing riparian vegetation and permanent road construction may alter the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows may be compromised by the reduction of riparian and upland vegetation.

Issue 3: Water Quality

Water quality may be impacted by project elements including the following: 1) clearing riparian vegetation, 2) permanent road construction, 3) home construction maintenance and operation, and 4) septic construction maintenance and operation.

Operation of septic systems would potentially have long term direct effects on water quality and indirect effect on aquatic organisms including threatened salmon if not constructed and maintained to proper design standards and permit requirements. Effects result in the potential for increased salts (phosphates and nitrates) and inorganic chemicals found in common household products. The effects from this proposal are expected to be relatively low in magnitude. The limited amount of use is expected to limit the total volume and duration of contamination.

Septic drain fields may be mostly inundated during periods of intense flooding (100 yr. flood) at the Packwood Administrative site (Map D1). There is an estimated 2.0 feet of vertical separation between the bottom of the drain field trench to the flood prone elevation (50-yr. flood). Under extreme floods there would be very little or no treatment of waste in the drain field. This may result in a short duration, high intensity pulses of effluent released directly into Hall Creek. The highest risk of instantaneous contamination is during a high return interval flood episode which is most likely to occur in the early winter or early spring months.

Redd surveys in the Upper Cowlitz indicate that Coho and steelhead are actively spawning or in the pre-emergence stage of development during the flood prone high risk periods. Therefore, these two threatened species would be most susceptible to flood induced contaminants.

The timing of Chinook spawning is concurrent with the low flow periods in late summer when potential effluent (treated) concentrations are at their highest. The temporal distribution of Chinook spawning activities and potential effluent emissions from the Packwood property would put this threatened species at an increased risk depending on the effectiveness of the treatment and functioning of septic systems.

Aquatic Conservation Strategy Consistency Findings

The transfer of land ownership through conveyance or land exchanges is not a ground disturbing activity in and of itself. The Forest Service has chosen not to have any discretion

following conveyance or land exchange of the Packwood Administrative site; therefore the conveyance or exchange will not prevent attainment of the aquatic conservation strategy objectives on National Forest System lands.

Effects Determination for Proposed, Threatened and Sensitive Fish Species

No Section 7 ESA consultation is required for the Packwood Administrative Site Conveyance because there are no Forest Service associated ground disturbing activities following conveyance or land exchange, and any future development of the Packwood Administrative Site would need to complete Section 10 ESA consultation, which would fall under the responsibility of the new landowner.

Table 4.3.1. Summary of effects determination for listed fish species in the Packwood Administrative Site Conveyance planning area, for the conveyance or land exchange only (does not include land development). Lewis County, Washington.

Species	Distinct Population Segment	Status	Effects Determination	
			Individuals ¹	Critical Habitat ¹
Steelhead trout (Onchorynchus mykiss)	Lower Columbia River Southwest Washington	Threatened	No Effect	No Effect
Spring Chinook (Oncorhynchus tshawytscha)	Lower Columbia River	Threatened	No Effect	No Effect
Coho (Oncorhynchus kisutch)	Columbia River	Threatened	No Effect	No Effect
Chum (Onchorynchus keta)	Lower Columbia River Southwest Washington	Threatened	No Effect	No Effect
Bull trout (Salvelinus confluentus)	Lower Columbia River Bull Trout	Threatened	No Effect	NA
Interior Redband Trout (Regional Forester sensitive fish species)		No Impact		
Pygmy Whitefish (Regional Forester sensitive fish species)		No Impact		
¹ NLAA – May affect – not likely to adversely affect, LAA = Likely to adversely affect				

4.4 Economics and Benefits _____

A market analysis was conducted to determine the eligibility of the Packwood Administrative Site for inclusion in the Region 6 list of property conveyances. Chapter 3.3 displays a comparison of alternatives, which provides an indication of value. The benefits to the Forest Service are quantified as follows:

- Elimination of undetermined amount of deferred maintenance.
- Reduction of \$7,000 to \$60,000 of annual maintenance savings to the agency.
- Meeting national policy to reduce administrative sites and overhead costs.
- Selling the site and retaining the funds to use for maintenance at other existing administrative sites.
- Working with the community to assist in the establishment of economic viability.
- Utilization of the site and/or specific facilities to benefit society.

4.5 Other Environmental Consequences _____

This section addresses those effects for which disclosure is required by National Environmental Policy Act regulations, Forest Service policy or regulation, various Executive Orders, or other laws and direction covering environmental analysis and documentation. In some cases, the information found here is also located elsewhere in this document.

Irreversible and Irretrievable Commitment of Resources

Irreversible Commitments

Irreversible impacts result from the use or modification of resources that are replaceable only over a long period of time.

Soil Productivity

Soil productivity would not be lost through the conveyance process.

Rock Resource

Rock resources would not be affected by the sale of the Packwood Administrative Site.

Old Growth

No late-successional (>170 years old) or old growth stands or trees would be affected in the sale of the Packwood Administrative Site; mature western red cedar would be protected within riparian buffers if further development occurs on the property.

Irretrievable Commitments

Irretrievable commitments are opportunities for resource uses that are foregone because of decisions to use that land in another way. For example:

Timber Production

The Packwood Ranger Station including associated facilities and property is considered an administrative site, and not included in the land base to be considered for Timber production.

Relationship between Short-term Uses and Long-term Productivity

Long-term impacts to site productivity from soil disturbance are discussed above in Irreversible Commitments of Resources.

Relationship to Other Agencies and Jurisdictions

The Washington State Department of Ecology (DOE) is responsible for enforcing the Clean Water Act of 1972. A Memorandum of Agreement (2003) prepared and agreed to by the Forest Service and DOE states that Best Management Practices, used by the Forest Service to control or prevent non-point sources of water pollution, would meet or exceed State water quality standards and other requirements, as outlined in Washington State Forest Practices Rules. The Packwood Administrative Site property conveyance would not violate this agreement or the Clean Water Act. New property owners would be subject to the Clean Water Act and other state and county laws, which are administered by Washington State DOE and Lewis County.

The Washington State DOE is also responsible for enforcing the Clean Air Act of 1977. The State Smoke Implementation Plan provides guidelines for compliance, which are intended to meet the requirements of the Clean Air Act. There are no plans for burning activities associated with this project. New property owners would be subject to the Clean Air Act, and Washington State DOE would continue to enforce compliance.

The Washington State Department of Fish and Wildlife and the Forest Service entered into an agreement in the form of a Memorandum of Understanding (USFS, WDFW 2005). The MOU provides standard provisions and serves as a Hydraulic Project Approval (HPA) for instream work. There are no planned instream activities associated with this project. New property owners would need to secure an individual HPA from the WDFW if instream work is planned in the future.

The United States Department of Interior Fish and Wildlife Service (USFWS) is responsible for the protection and recovery of threatened and endangered species. The effects determination for northern spotted owl and other listed terrestrial animal species is "no effect".

The United States Department of Commerce National Marine Fisheries Service (NMFS) is responsible for the protection and recovery of Threatened and Endangered fish species. The effects determination for Lower Columbia River steelhead, Lower Columbia River Chinook, Coho and Designated Critical Habitat is "no effect" for the property conveyance itself.

Subsequent property development may occur, which may have an effect on salmon habitat. Potential effects to listed salmonids and their habitat are discussed in Chapter 4.3.

All steps in the cultural resource process are coordinated with the Washington State Historic Preservation Office (USDA, 1990). Cultural Resource Site Reports are filed and approved by the Washington State Historic Preservation Officer. Potential effects to historic and prehistoric features are addressed in Chapter 4.2.

Prime Farm Land, Range Land, and Forest Land

There are no prime farm lands or prime range lands within the Packwood Administrative Site. Prime forest land is a term used only for non-public lands and does not apply to any land within the planning area. If converted to private ownership, the property would be converted to “Small Town Mixed Use” or STMU.

Environmental Justice

Executive Order 12898 (February 11, 1994) directs federal agencies to focus attention on the human health and environmental condition in minority communities and low-income communities. The purpose of the Executive Order is to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

Environmental Justice is simple: people should not suffer disproportionately because of their ethnicity or income level. While the sale of National Forest lands would contribute funds to the national treasury, none of the alternatives is expected to have a disproportionately high and adverse human health or environmental effect on minority populations and low-income populations.

Wetlands and Floodplains

There would be no direct adverse effects to wetlands or floodplains due to the conveyance of the property. Based on Lewis County Code and critical areas ordinances, wetlands on the site would be protected with a 50 foot wide buffer and not directly impacted if the property is sold and land is developed. Activities subsequent to sale may result in an indirect degradation of wetland habitat due to the conversion of forested uplands and riparian reserve to residential sites. A portion of the developed compound lies within the 100-year flood plain of the Cowlitz River. Future development proposals would not likely exceed existing development-related disturbances because the portion of the property that lies within the floodplain is already developed (parking areas, structures). See Chapter 4.3 for discussion of potential effects to aquatic and riparian resources.

5.0 CONSULTATION AND COORDINATION

In addition to internal scoping and analysis conducted by the Interdisciplinary Team, the Forest Service consulted 47 individuals, Federal, State, and local agencies, tribes and non-Forest Service persons during the development of this environmental assessment:

Interdisciplinary Team Members

Karen Thompson, North Zone Planning Team Leader
Tom Kogut, North Zone Wildlife Biologist
Ken Wieman, North Zone Fisheries Biologist
Marie Tompkins, Hydrology Technician
Terry Lawson, Fisheries Technician
Rick McClure, Forest Archaeologist
Cheryl Mack, Forest Archaeologist
Linda Swartz, North Zone Botanist
Burt Thomas, Botanist (detail)
Danna Hadley, North Zone Engineer

Federal, State, and Local Agencies

The following officials were contacted by phone:

Vince Harke, U.S. Fish and Wildlife Service Level 1 Team
Tami Black, NOAA Fisheries Level 1 Team
Andre Stone, Lewis County Planner

Tribes

The following Tribal representatives were contacted during the scoping process:

John Barnett, Chairman, Cowlitz Indian Tribe
Lee Carlson, Yakama Indian Nation
Dave Lopeman, Chairman, Squaxin Island Tribe
Karen Lucei, Env. Rev. Coord., Yakama Indian Nation
Joan Ortez, Chair, Steilacoom Tribe
Carrol Palmer, Dir. Natural Resources, Yakama Indian Nation
Dorian Sanchez, Chairman, Nisqually Indian Community Council
Bill Sterod, Chairman, Puyallup Tribal Council

Others

The project mailing list is available in the Project File.

6.0 REFERENCES

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