



# Habitat Conservation Plan for State Trust Lands 2005 Annual Report

*December 2005*





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*December 2005*

HCP Science Section  
Land Management Division

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WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**  
Doug Sutherland - Commissioner of Public Lands

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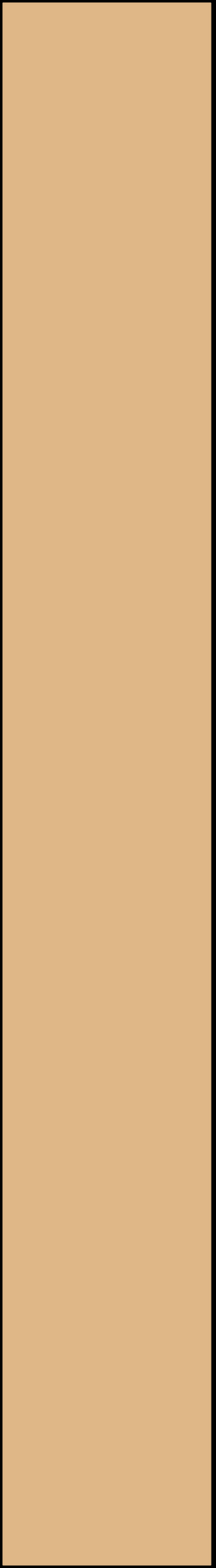
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# 1. INTRODUCTION





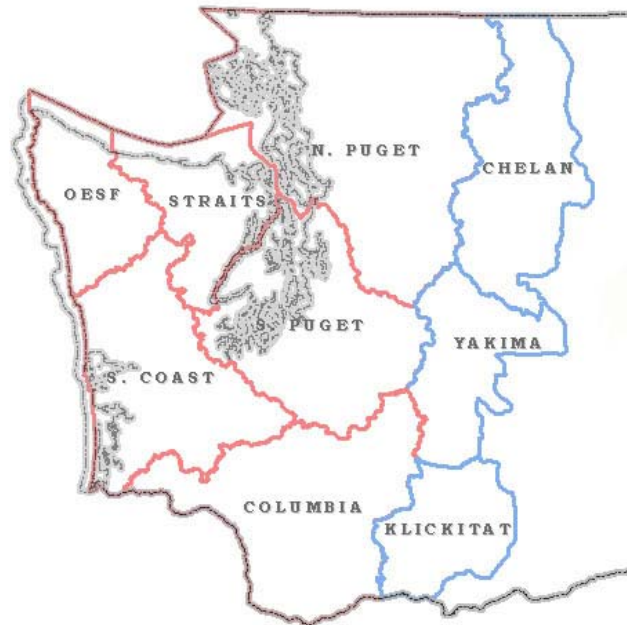
## INTRODUCTION

The Washington State Department of Natural Resources (DNR) manages roughly 2.1 million acres of forested state trust lands statewide. DNR's Habitat Conservation Plan (HCP) is a forest management plan that applies to approximately 1.6 million acres of forested state trust lands within the range of the northern spotted owl (*Strix occidentalis caurina*). Authorized under the Endangered Species Act (ESA), the HCP is a partnership between DNR and the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (now known as NOAA Fisheries Service) (collectively, the Services). The HCP was signed in January 1997.

In general, the HCP guides DNR's management of forested state trust lands west of the crest of the Cascade Mountains and those on the eastern slopes of the Cascades, from the Canadian border to the Columbia River. To manage this habitat more efficiently and effectively, HCP lands have been broken into nine planning units based primarily on large watersheds. The HCP enables DNR to comply with ESA requirements by providing conservation objectives and strategies that provide habitat for listed and unlisted species while providing certainty, flexibility, and stability in meeting its trust responsibilities.

As new scientific data become available and an increased understanding of forest ecosystems is gained, DNR will continue to work with the Services to use adaptive management in adjusting strategies to better accomplish HCP habitat goals.

## PLANNING UNITS



**Figure 1.1.** HCP planning units.

Westside HCP planning units: Columbia, North Puget, Olympic Experimental State Forest (OESF), South Coast, South Puget and Straits

Eastside HCP planning units: Chelan, Klickitat and Yakima

The trust land Habitat Conservation Plan includes habitat management strategies for both ESA-listed species and unique habitats. Some of the major provisions of the HCP are described below.

## **CONSERVATION PLANNING STRATEGIES**

### **ESA-Listed Species Habitats Protected**

HCP management strategies focus primarily on habitat conservation and enhancement for species listed under the ESA. DNR's habitat management plan identifies specific conservation strategies for the northern spotted owl, marbled murrelet (*Brachyramphus marmoratus*), and riparian dependent species such as bull trout and salmon. These objectives and strategies are designed to conserve and enhance habitats that are ecologically appropriate for the support of multiple species, including those listed under the federal Endangered Species Act.

### **Multiple Species Protected**

In addition to habitat for ESA listed species, the conservation strategies developed for the HCP were designed to provide appropriate habitat protection for many other species that are not currently listed or protected under the ESA. The HCP also provides specific habitat protection appropriate for numerous state-listed species of concern. The department approached land management in this manner in order to avoid future disruptions in management planning due to new ESA listings.

### **Unique Habitats Protected**

Protection of specific habitats includes identifying critical habitat types such as caves, talus slopes, wetlands, and nesting sites for many species.

### **Adaptive Management**

Ongoing research and monitoring may identify needed changes to management practices to address specific species and habitat needs; therefore, the HCP is also a dynamic, scientifically based adaptive management tool.

## **HIGHLIGHTS OF THE PAST YEAR**

### **Riparian Forest Restoration Strategy**

The HCP saw a new adaptive management success with the adoption of the Riparian Forest Restoration Strategy (RFRS). The riparian restoration strategy was jointly created with, and was subsequently approved by, the Services. The RFRS underwent extensive review from technical experts and interested parties, including state fish and wildlife representatives and tribal biologists; their insights contributed to its strength and viability.

This strategy specifies the restoration goals and approaches for DNR-managed riparian management zones on streams wider than two feet in Westside trust land forests outside of the Olympic Experimental State Forest (OESF). The OESF has an existing mandate to experimentally restore the function of riparian forests for fisheries and other habitat. Through research in the OESF, DNR has gained a better understanding of management in riparian areas and can apply many of the findings regarding the operational feasibility of, and forest stand response to, thinning in riparian areas. This knowledge, along with findings from the literature on riparian stand development and restoration, was used in the creation of the RFRS.

A weeklong lecture and field-based training was held in May of 2005 to familiarize key foresters from each region with the principles and practices of the riparian restoration strategy implementation. Nationally recognized fisheries and riparian ecologists Peter Bisson and Phil Peterson participated in the training along with 15 other instructors from DNR and other agencies.

Monitoring of experimental thinning in the OESF riparian areas has been conducted for several years. In 2005, active monitoring also was established in the South Puget and North Puget Planning Units. Active adaptive management designed to test the assumptions of the RFRS and explore future options to improve the effectiveness will be incorporated into DNR's research program. Region-based specialists will work with HCP Science section staff to create pilot projects, monitor, test, and implement the riparian restoration strategy.

### **Wetland Training**

During calendar years 2004 and 2005, training was provided to each district in the Westside regions in support of implementation of the HCP riparian strategy as it applies to wetlands. Training objectives were to increase foresters' knowledge, skill level, confidence and independence in implementing the HCP in wetland areas. The training covered wetland definition; functions and values; wetland identification including identification of wetland soils and plants, as well as wetland hydrology interpretation; types of wetlands; management objectives and options, including HCP interpretation and wetland mitigation; and resources for wetland identification and management. Participants included foresters, district managers, forest engineers and region biologists, in groups of 15 to 20. Training included an in-office presentation with a hands-on component and site visits to look at wetland features and management. Training of this type will be repeated periodically for incoming groups of foresters.

### **Old Growth Forest Definition – Western Washington**

In their 2004 session, the Washington State Legislature directed DNR to identify and map 'old growth forests' on DNR-managed state lands, as defined by a panel of experts in Pacific Northwest forest stand development and ecology. This panel included Drs. Jerry Franklin and Bob Van Pelt of the University of Washington and Dr. Tom Spies of the USDA Forest Service. A screening tool for identifying old growth forests was developed and tested during the winter and spring of 2005. The screening tool, called the Weighted Old Growth Habitat Index (Index), uses data from DNR's Forest Resource Inventory System (FRIS) to identify areas that have a high probability of being old growth.

The committee decided that old growth could not be accurately identified using only a specific stand or tree age. Instead, they determined that a more accurate assessment of old growth on DNR lands would be based on four stand components: large live trees, snags, down dead trees, and diameter diversity. Stand age was not included as a component of the Index, because FRIS age data may not reflect the age of the oldest trees in the stand. Information generated using the Index has been field tested in the Klickitat area and DNR's Olympic, Pacific Cascade, and Northwest Regions, where it gave excellent results. An index score of 60 or above indicates a stand that has a high probability of being old growth; a score of 50 to 60 identifies a stand that has a lower likelihood of being old growth, and requires a secondary screening process to confirm the stand condition. All stands identified by the Index are considered potential old growth until their status is confirmed by a site visit. The index has identified 52,666 acres within the

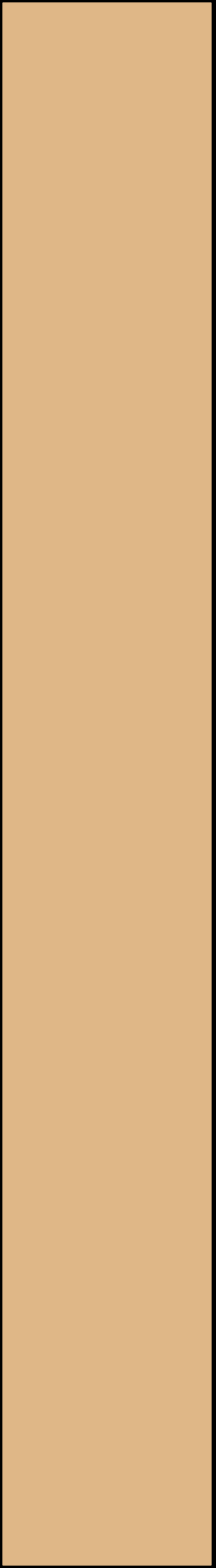
forestland covered by the HCP that have a high likelihood of being old growth, and another 35,769 acres that have a lower likelihood of being old growth.

Adequate data on stand conditions did not exist to enable a definition of old growth to be developed for Eastern Washington. Such data will be collected in the next couple of years, so that an Eastside definition can be developed.

The report is available at:

[http://www.dnr.wa.gov/htdocs/lm/oldgrowth/072105old\\_growth\\_rpt.pdf](http://www.dnr.wa.gov/htdocs/lm/oldgrowth/072105old_growth_rpt.pdf)

## **2. NRF AND DISPERSAL/DFC MANAGEMENT**



## **NESTING ROOSTING FORAGING AND DISPERSAL/DESIRED FUTURE CONDITION MANAGEMENT**

DNR is committed to providing habitat to help maintain nesting areas and facilitate movement of the northern spotted owl population through the landscape. To aid in this goal, Nesting, Roosting, and Foraging (NRF) and dispersal management areas have been designated. Through ongoing research, DNR is trying to develop a better understanding of what comprises functional owl habitat and to learn what silvicultural techniques create suitable owl habitat.

When the HCP was written, DNR-managed lands were assessed for their potential role in spotted owl conservation. Those lands identified as likely to provide demographic support and contribute to maintaining species distribution were designated as NRF management areas. NRF habitat is primarily high quality roosting and foraging habitat with enough nesting structure interspersed that the whole area can be utilized by reproducing owls. Lands identified as important for facilitating owl dispersal were designated as dispersal management areas. The conservation strategy calls for maintaining at least 50 percent (Westside by Watershed Administrative Unit (WAU); Eastside by WAU for NRF and quarter-township for dispersal) of both designated NRF and dispersal management areas in suitable habitat at any given time. Acceptable management activities depend on the amount of habitat in the WAU or quarter-township and the habitat type present in the potential harvest area, but generally harvest activities must retain a specified level of nesting structure and not increase the amount of time required to achieve habitat goals. To ensure that procedures are being followed and goals met, the types and amounts of silvicultural activities in both designated NRF and designated dispersal management areas are tracked.

In the Klickitat Planning Unit, forest health issues associated with overstocked stands of species more susceptible to drought and disease are degrading forests and some originally designated NRF lands are not capable of sustaining NRF habitat. This makes the original habitat goals difficult, if not impossible, to achieve. In April 2004, an amended spotted owl conservation strategy (HCP Amendment No. 1) was established to address the issues in the Klickitat Planning Unit. Field assessments, forest inventory data, and spotted owl demography data were used to create new habitat targets for the area. Four sub-landscapes within the planning unit were created, with habitat targets based on those sub-landscapes (rather than WAUs or quarter-townships). In addition, dispersal management areas in the Klickitat Planning Unit have been renamed Desired Future Condition (DFC) management areas. DFC lands have the same habitat commitments as dispersal lands, but are managed by vegetative series, with the goal of maintaining 50 percent of each vegetative series (by sub-landscape) in mature (60+ years old) DFC. The Ponderosa Pine vegetative series is managed as Ponderosa Pine Desired Future Conditions (PPDFC), which is expected to meet all DFC requirements except for canopy closure. PPDFC is not included in acreage calculations for DFC, since it cannot meet all requirements of DFC. However, DNR's goal is to maintain 50 percent of the ponderosa pine vegetative series in PPDFC by sub-landscape. Areas incapable of growing and sustaining habitat, and those better suited for a different habitat classification, have been reclassified. The results of these assessments and reclassifications are reflected in Table 2.1.

The Klickitat amendment also changed the boundaries of the Klickitat and Yakima Planning Units to include the portion north of the Yakama Nation's lands in the Yakima Planning Unit. Through this change, approximately 23,000 acres of dispersal management area were transferred to the Yakima planning unit (reflected in Table 2.1).

The 1997 acreages in Table 2.1 were determined when the HCP was written. To obtain the 1999 figures, DNR added or subtracted land acquisitions or disposals that had occurred between January 1997 and June 1999. In addition, ground-truthing of the designated habitat happened during this period, and any acres that were non-forested and not designated to provide habitat for spotted owls were subtracted from the 1997 figures. Beginning in June 2000, the acreage figures were determined by taking the figures from the prior fiscal year and adding or subtracting any land acquired or disposed in a given habitat type and planning unit. For instance, in fiscal year 2000, 31 acres of NRF habitat were acquired in the Klickitat planning unit.

DNR recently determined that this system of tracking NRF and dispersal/DFC acreages is not entirely accurate. The transactions reported do not account for non-forested lands within a parcel that also contains designated NRF or dispersal/DFC. For instance, if DNR acquires 620 acres in a NRF landscape, but 20 acres are non-forested and not designated to provide habitat for spotted owls, the transaction would be incorrectly reported as 620 acres of acquired NRF, instead of the 600 acres of NRF actually acquired.

DNR is working to remedy this problem by reconciling information in the transactions database with spatial data in DNR's corporate GIS data layer "owlmgmt". The GIS data layer accounts for acquisitions, disposals, retained parcels (trust land transfers), and lands not designated to play a role for spotted owls. It is expected that the reconciliation will occur in the next year and corrected numbers will be reported in the fiscal year 2006 HCP Annual Report.



**Table 2.1.** Comparison of acreage in designated NRF and dispersal/DFC management areas by planning unit.

<b>Designated Management Areas</b>	<b>Chelan</b>	<b>Columbia</b>	<b>Klickitat<sup>1</sup></b>	<b>North Puget</b>	<b>South Puget</b>	<b>Yakima<sup>1</sup></b>	<b>Total Acres</b>
<b>NRF: Jan 1997</b>	5,647	54,157	20,096	109,409	2,648	13,567	<b>205,524</b>
<b>NRF: June 1999</b>	5,848	53,192	20,943	111,203	2,648	13,567	<b>207,401</b>
<b>NRF: June 2000</b>	5,848	53,192	20,974	111,203	2,648	13,567	<b>207,432</b>
<b>NRF: June 2001</b>	5,851	53,192	20,974	111,363	2,648	13,567	<b>207,595</b>
<b>NRF: June 2002</b>	5,851	53,252	20,974	111,363	2,648	13,567	<b>207,655</b>
<b>NRF: June 2003</b>	5,851	53,252	21,089	111,195	2,453	13,567	<b>207,407</b>
<b>NRF: June 2004</b>	5,851	53,252	21,098	111,359	2,648	13,567	<b>207,775</b>
<b>NRF: June 2005</b>	5,851	53,252	40,427	111,359	2,648	13,567	<b>227,104</b>
<b>Dispersal: Jan 1997</b>	0	38,645	79,095	16,068	71,492	8,332	<b>213,632</b>
<b>Dispersal: June 1999</b>	0	35,234	79,095	15,344	75,302	8,332	<b>213,307</b>
<b>Dispersal: June 2000</b>	0	35,234	79,095	15,344	75,302	8,332	<b>213,307</b>
<b>Dispersal: June 2001</b>	0	35,234	79,095	15,344	75,302	8,332	<b>213,307</b>
<b>Dispersal: June 2002</b>	0	31,890	79,095	15,344	78,179	8,332	<b>212,840</b>
<b>Dispersal: June 2003</b>	0	31,890	79,095	15,344	78,179	8,332	<b>212,840</b>
<b>Dispersal: June 2004</b>	0	31,890	79,327	15,344	78,179	8,332	<b>213,072</b>
<b>Dispersal/DFC: June 2005<sup>2</sup></b>	0	31,890	19,066	15,344	78,179	30,819	<b>175,298</b>

<sup>1</sup>NRF and dispersal/DFC acreages in the Klickitat and Yakima Planning Units were affected by HCP Amendment No. 1, as well as land transactions.

<sup>2</sup>In the Klickitat Planning Unit, dispersal habitat has been redesignated as Desired Future Conditions (DFC).

There are no designated NRF or dispersal management areas in the OESF, Straits, or South Coast HCP Planning Units.

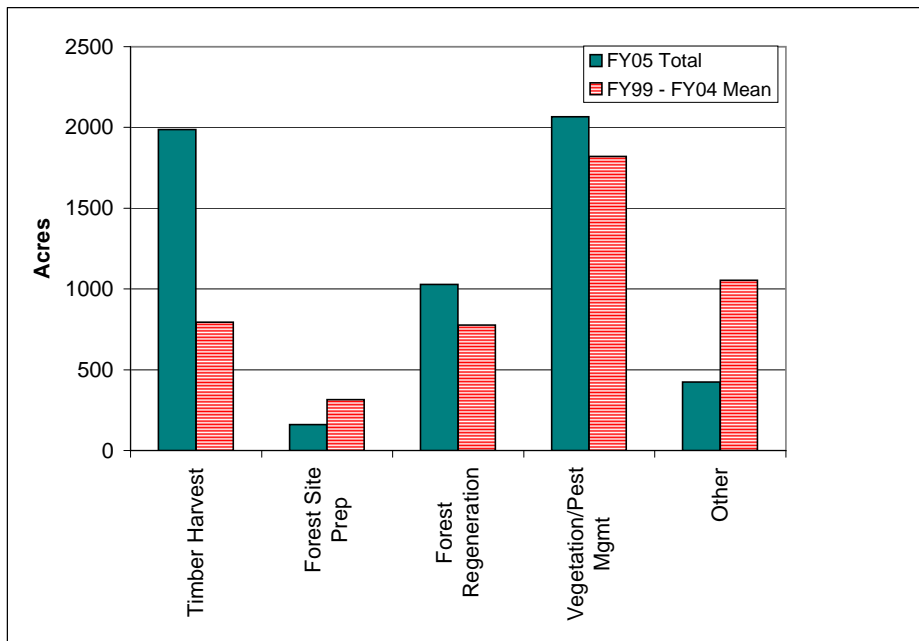
Acreage measurements are rounded, so some numbers may not add up correctly.

**Table 2.2.** Silvicultural activities in designated Nesting, Roosting, and Foraging (NRF) management areas by planning unit.

	Planning Unit						FY2005 Total	6 Year Mean
	Chelan	Columbia	Klickitat	North Puget	South Puget	Yakima		
<b>Total Designated NRF Acres</b>	5,851	53,252	40,427	111,359	2,648	13,567	<b>227,104</b>	207,544
<b>% of Total Designated NRF Acreage</b>	2.6%	23.4%	17.8%	49.0%	1.2%	6.0%	<b>100.0%</b>	100.0%
<b>Timber Harvest</b>								
Clear cut		15	350				365	451
Seed tree intermediate cut		8					8	25
Phase patch regeneration cut							0	1
Temporary retention first cut			74				74	0
Salvage cut			248				248	0
Smallwood thinning		256	40	91			387	34
Late rotation thinning				181			181	109
Variable density thinning		602		122			724	65
Selective product logging							0	28
Shelterwood removal cut							0	5
Two-aged management							0	1
Uneven-aged management							0	77
<b>Timber Harvest Totals</b>	<b>0</b>	<b>881</b>	<b>712</b>	<b>394</b>	<b>0</b>	<b>0</b>	<b>1987</b>	795
<b>Forest Site Preparation</b>								
Aerial herbicide				14			14	231
Ground herbicide							0	27
Ground mechanical			147				147	56
<b>Forest Site Preparation Totals</b>	<b>0</b>	<b>0</b>	<b>147</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>161</b>	314
<b>Forest Regeneration</b>								
Hand planting		8	993	22			1023	774
Natural regeneration		6					6	3
<b>Forest Regeneration Totals</b>	<b>0</b>	<b>14</b>	<b>993</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>1029</b>	777
<b>Vegetation/Pest Management</b>								
Aerial herbicide		484					484	417
Aerial insecticide							0	487
Ground herbicide			996	108			1104	289
Hand cutting (slashing)				478			478	626
<b>Vegetation/Pest Mgmt. Totals</b>	<b>0</b>	<b>484</b>	<b>996</b>	<b>586</b>	<b>0</b>	<b>0</b>	<b>2066</b>	1,820
<b>Other</b>								
Pre-commercial thinning			69	116		239	424	914
Forest fertilization							0	140
<b>Other Totals</b>	<b>0</b>	<b>0</b>	<b>69</b>	<b>116</b>	<b>0</b>	<b>239</b>	<b>424</b>	1,053
<b>Grand Totals</b>	<b>0</b>	<b>1379</b>	<b>2917</b>	<b>1132</b>	<b>0</b>	<b>239</b>	<b>5667</b>	<b>4,758</b>

\*These values are mean data for Fiscal Years 1999 through 2004

Source: Planning & Tracking Database



**Figure 2.1.** Silvicultural activities in NRF management areas: FY05 totals vs. FY99 - FY 04 means.

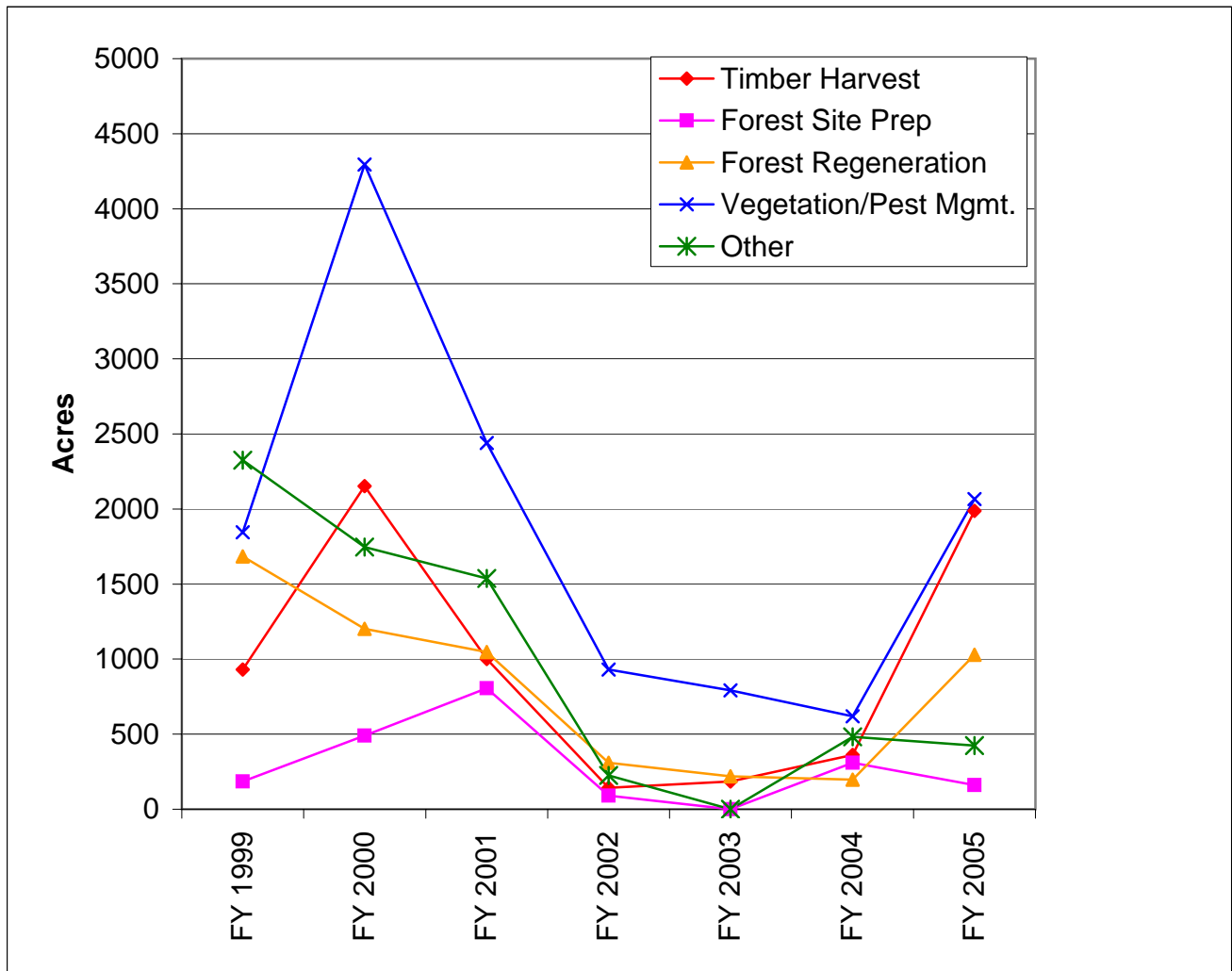


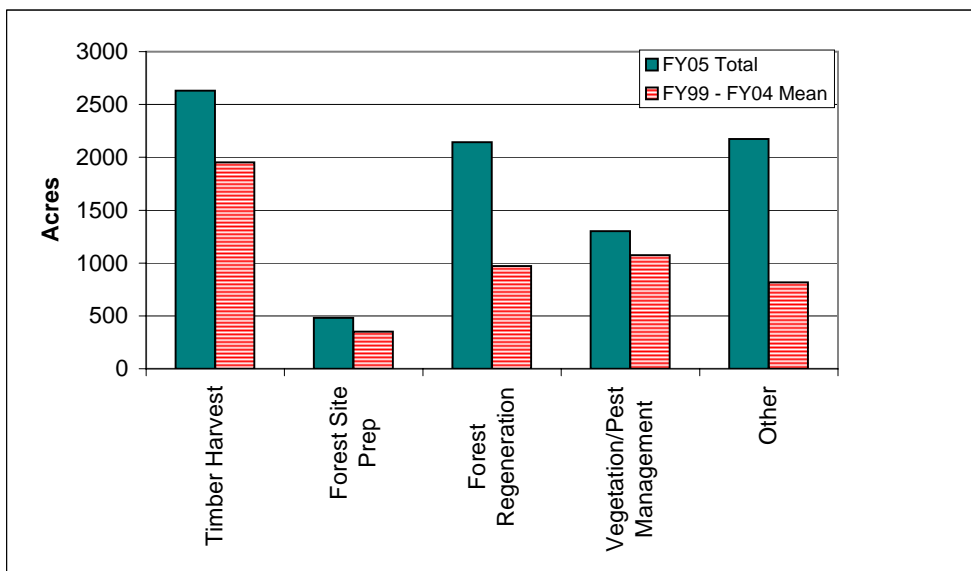
Figure 2.2. Silvicultural activities in designated NRF management areas: FY99 through FY05.

**Table 2.3.** Silvicultural activities in designated dispersal/DFC management areas by planning unit.

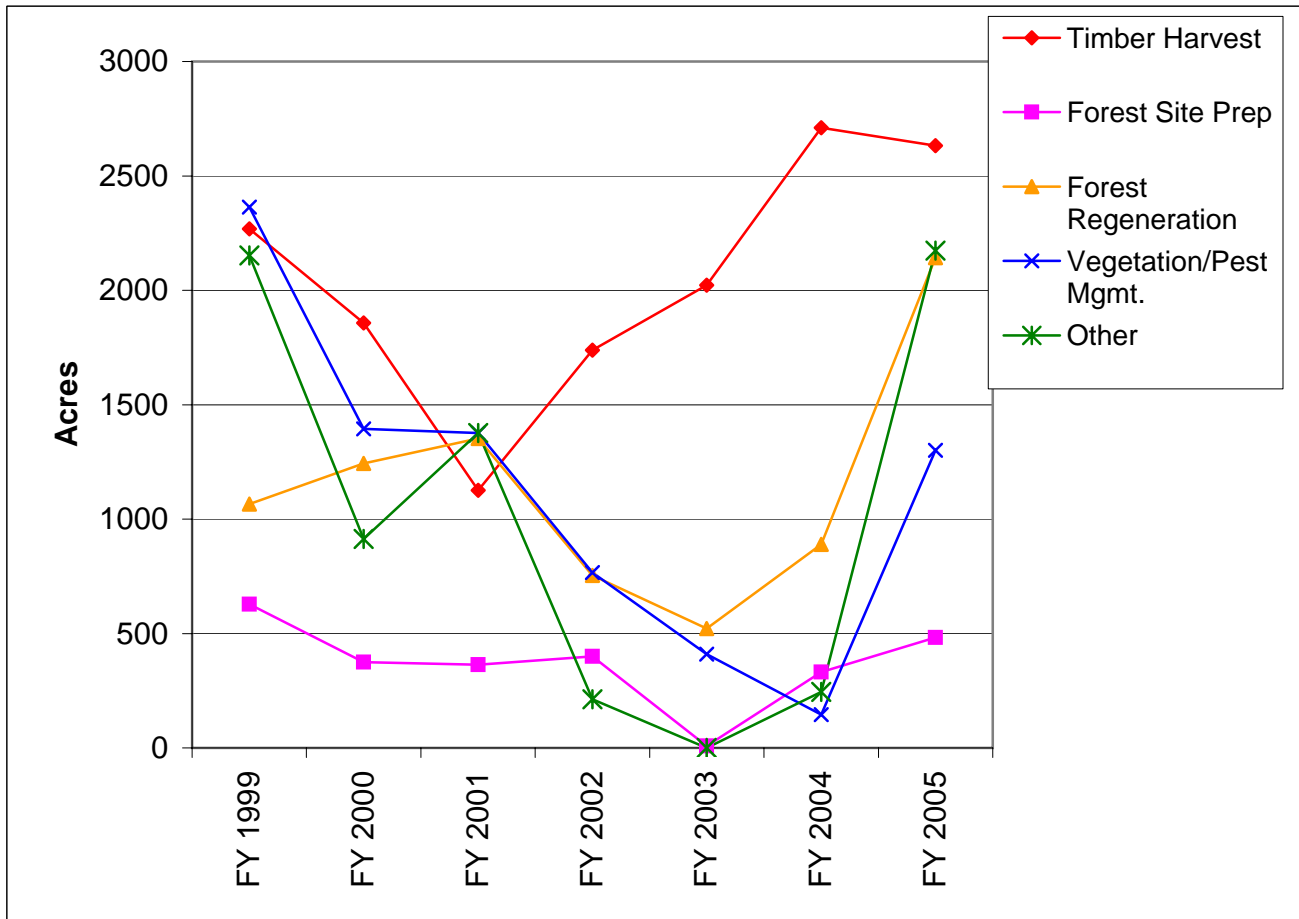
	Planning Unit					FY2005 Total	6 Year MEAN
	Columbia	Klickitat	North Puget	South Puget	Yakima		
<b>Total Designated Dispersal/DFC Acres</b>	31,890	19,066	15,344	78,179	30,819	<b>175,298</b>	213,112
<b>% of Total Designated Dispersal/DFC Acreage</b>	18.2%	10.9%	8.8%	44.6%	17.6%	<b>100.0%</b>	100.0%
	<b>Acres</b>						
<b>Timber Harvest</b>							
Clear cut		90	100	516		706	610
Shelterwood intermediate cut						0	63
Temporary retention 1st cut		14				14	0
Salvage cut					451	451	115
Smallwood thinning		78				78	310
Late rotation thinning						0	302
Variable density thinning				721		721	27
Selective product logging						0	51
Shelterwood removal cut						0	56
Uneven-aged management					662	662	420
<b>Timber Harvest Totals</b>	0	182	100	1,237	1,113	<b>2,632</b>	1,954
<b>Forest Site Preparation</b>							
Aerial herbicide						0	111
Ground herbicide						0	82
Ground mechanical					482	482	97
Hand cutting (slashing)						0	40
Pile and burn						0	22
<b>Forest Site Preparation Totals</b>	0	0	0	0	482	<b>482</b>	351
<b>Forest Regeneration</b>							
Hand planting		256		713	677	1,646	971
Natural regeneration					496	496	0
<b>Forest Regeneration Totals</b>	0	256	0	713	1,173	<b>2,142</b>	971
<b>Vegetation/Pest Management</b>							
Aerial herbicide	150		24			174	272
Aerial insecticide						0	78
Ground herbicide		229				229	260
Hand cutting (slashing)	19		225	654		898	468
<b>Vegetation/Pest Mgmt. Totals</b>	169	229	249	654	0	<b>1,301</b>	1,076
<b>Other</b>							
Pre-commercial thinning		698		1,152	324	2,174	816
Forest fertilization						0	1
<b>Other Totals</b>	0	698	0	1,152	324	<b>2,174</b>	817
<b>Grand Totals</b>	<b>169</b>	<b>1,365</b>	<b>349</b>	<b>3,756</b>	<b>3,092</b>	<b>8,731</b>	<b>5,169</b>

\*These values are mean data for Fiscal Years 1999 through 2003

Source: Planning & Tracking Database



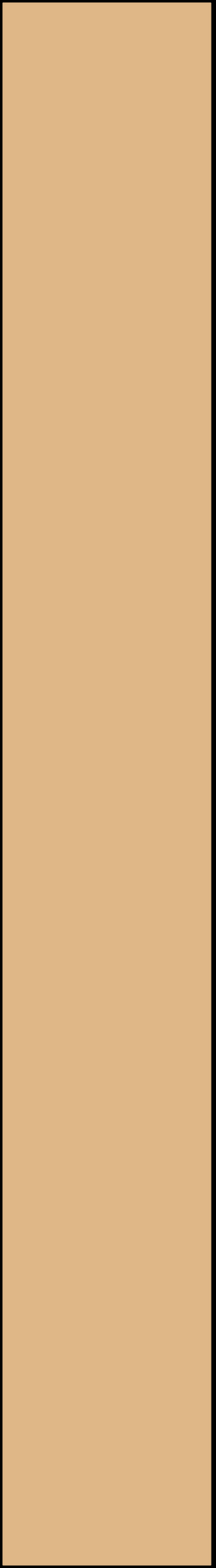
**Figure 2.3.** Silviculture activities in designated dispersal/DFC management areas: FY05 totals vs. FY99 - FY04 means.



**Figure 2.4.** Silvicultural activities in designated dispersal/DFC management areas: FY99 through FY05.



### **3. SILVICULTURAL MANAGEMENT ACTIVITIES**





## **SILVICULTURAL MANAGEMENT ACTIVITIES**

Silviculture can be defined as the art and science of cultivating forests to deliberately attain desired conditions. The silvicultural data for this report comes from DNR's Forest Management Planning and Tracking (P&T) database, which is a program to input and track forest management activity data. This includes information on timber harvests, forest site preparation, forest (seedling) regeneration, vegetation management, pest management, and other activities. These data can be queried by date, HCP planning unit, habitat type, or other criteria to garner information for this and other reports. Each year, the HCP Annual Report includes data for all activities reported as complete in P&T in a given fiscal year.

### **TRENDS**

Trends in silvicultural data may be difficult to interpret for a variety of reasons. Proper management regimes vary with site conditions, but economic factors also dictate what can be done. Ecological constraints, including such things as unstable slopes and critical habitat, may dictate which activities are practiced in a given location. In addition, budget allocations and constraints as well as market conditions influence the timing and amount of silvicultural activities that can be carried out. Timber stands may be sold in one year, but not harvested until as much as five years later. Since this report covers only completed activities, there may be a lag time between changing economic or environmental conditions and changes in reported activities.

Purchasers' timber removals are driven by two main factors: contract length and market conditions. Contract length may be as long as five years, but the average length has been shortened from about 36 months in 1991 to approximately 18 months today. The shortening of contract lengths is due to a strengthening market, which reduces the need to allow purchasers a longer contract period to account for market uncertainty. The impact due to market conditions can best be characterized by DNR's 2005 economic and revenue forecast<sup>1</sup>, which offers some explanation for FY 2005's timber harvest numbers: "Timber removals over the past fiscal year were very strong due to a combination of healthy markets and favorable weather conditions. Harvesters took advantage of high prices by accelerating removals, resulting in FY 2005 removals of 696 MMbf, the highest level since FY 1990." (p. 7). In fact, comparing timber harvest numbers from FY 2005 to previous fiscal years shows that harvests were at their highest level (since tracking began) in almost every harvest category (Fig 3.2). Similar trends exist for forest site preparation and forest regeneration (Fig 3.2). This could be related to the increase in timber harvest, as DNR has requirements to replant harvested stands. This regeneration is completed as soon as possible following harvest to achieve the highest long-term potential revenue for the trusts.

### **DEFINITIONS**

#### **Commercial Timber Harvest Types**

DNR has a number of different types of timber harvests that may be employed on state trust lands, depending on environmental and economic factors; many of these harvest types have been employed on state forested trust lands since HCP annual reporting

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<sup>1</sup> Department of Natural Resources. 2005. September 2005 Economic and Revenue Forecast: Fiscal Year 2006 – First Quarter. Author, Olympia, WA. 29pp.

began (Tables 2.2, 2.3, and 3.1). Some can be used frequently across landscapes, while others are appropriate only in limited locations given a certain set of conditions. The following definitions describe, in general terms, harvest types that may occur in both HCP and non-HCP landscapes. In addition to trees required for retention as part of the harvest type, state Forest Practices Rules (WAC 222), HCP commitments and other department policies may require additional trees be retained to protect other important landscape features or habitats such as riparian management zones, large, structurally unique trees, and unstable slopes.

The harvest type definitions are grouped according to two general classifications: (1) regeneration harvest types where there is an objective to regenerate a significant even-aged cohort (e.g., clearcuts, seed tree and shelterwood cuts), and (2) individual tree selection harvest types that describe a spectrum of harvest activities (e.g., traditional commercial thinnings, variable density thinnings, and perpetual thinning where there is never a regeneration harvest).

Cohort is a term used to describe forest stand components that are statistically distinct. Generally, cohorts are identified when Forest Management Unit (FMU) objectives require them to be managed separately from other stand cohorts. For example, cohorts such as live wildlife reserve trees, snags, and large woody debris (LWD) are statistically distinct because statutes, regulations, and DNR's trust land HCP require their management and retention beyond a single rotation.

### **Regeneration Harvest Types (with planting or natural regeneration)**

#### *Clear cut (Variable Retention Harvest)*

A timber harvest that removes the stand of trees while retaining or reserving live trees, snags and down wood for habitat and other values. These reserve trees may be in small scattered clumps or dispersed individually throughout portions or all of the stand.

#### *Seed Tree Intermediate Cut*

The first timber harvest in a sequence conducted as part of the even-aged seed tree silvicultural system. The purpose is to provide a desirable seed source to establish seedlings. Up to 10 trees per acre may be left following this harvest.

#### *Shelterwood Intermediate Cut*

The first timber harvest in a sequence conducted as part of the even-age shelterwood system. The purpose is to provide shelter (typically shade) and possibly a seed source for the seedlings that are regenerating the stand. Up to 20 trees per acre may be left following this harvest, generally disbursed across the stand.

#### *Phased Patch Regeneration Cut*

An even-age timber harvest method using small patch cuts (1 to 5 acres) to progressively harvest and regenerate a single stand over a period of up to 15 years. Several separate patches are harvested at a single point in time within a forest management unit (FMU). After an adequate green-up period (5-10 years), additional patches are harvested and the process repeated until the FMU is entirely harvested.

#### *Temporary Retention First Cut*

A partial cut timber harvest where selected overstory trees are left for a portion of the next rotation. Shelterwood and seed tree harvests are traditional examples with

relatively short retention periods. Habitat objectives increase the length of retention periods up to the time of pre-commercial or smallwood thinnings. The purpose of this harvest method is to retain overstory trees without diminishing establishment of a new stand. Two-aged stands can be an outcome when some level of overstory is left through the entire rotation.

*Salvage Cut (may or may not be a Regeneration Harvest)*

Logging of trees that are dead, dying or deteriorating due to fire, insect damage, wind, disease or injuries.

### **Individual Tree Selection Harvest Types**

*Smallwood Thinning*

A partial cut timber harvest in young stands (typically less than 40 years of age). Smallwood thinning maintains or enhances the stand's growth potential, and improves the quality of the residual stand.

*Late Rotation Thinning (Older Stand Thinning)*

A partial cut timber harvest that extends the rotation age of a stand to more than 80 years of age, or achieves a visual or habitat objective that requires larger trees. Stands eligible for "late" thinning are typically ages 45-70 years and have expressed diverse size classes.

*Variable Density Thinning*

Thinning to create a mosaic of different stand densities on a scale of approximately 1/4 to 1 acre that capitalizes on landforms and stand features. Variable density thinnings encourage development of structural diversity in areas where owl habitat is needed or to meet other objectives defined in individual forest management unit silvicultural prescriptions.

*Selective Product Logging*

A timber harvest that removes only certain species above a certain size which are of high value. This is typically a pole/cabin log sale or an individual high value tree removal.

*Shelterwood Removal Cut*

The second or final harvest in a series conducted as part of the even-aged shelterwood system. The purpose is to remove overstory trees that create shade levels that are too high for the new understory to thrive under.

*Two Age Management – Westside*

An even-age harvest method that is essentially the same as a temporary retention except that the overstory trees are not planned for removal until the time of the planned rotation for the younger component of the stand.

*Uneven-Aged Management – Ponderosa Pine Selection System*

A timber harvest conducted as one step in a silvicultural system with the objective to create or maintain a forest stand in a condition with three or more age cohorts. Cohorts are typically 20 years or more apart in age. Uneven-age management is normally achievable only on dry Ponderosa pine sites.

### **Site Preparation**

Site preparation is defined as hand or mechanized manipulation of a site, most often following logging, which is designed to enhance the success of regeneration by creating microsite conditions conducive to the establishment and growth of desired species. The following are definitions for the types of site preparation used on DNR lands.

#### *Aerial Herbicide*

Helicopter application of herbicides to achieve site preparation objectives.

#### *Ground Herbicide*

Ground-based application of herbicides to achieve site preparation objectives.

#### *Ground Mechanical*

Use of mechanized equipment to achieve site preparation objectives.

#### *Hand-cutting*

Use of hand equipment to cut stems of existing vegetation to achieve site preparation objectives.

#### *Pile and Burn*

Piling of logging slash, generally using mechanized equipment, followed by burning of these piles. This is often done as part of a logging operation.

#### *Broadcast Burn*

Prescribed fire allowed to burn over a designated area to achieve site preparation objectives.

### **Regeneration**

The act of renewing tree cover by establishing young trees naturally or artificially is called regeneration. DNR uses two techniques to regenerate stands.

#### *Hand Planting*

Planting seedlings of various species (or species mixes) by hand.

#### *Natural Regeneration*

Allowing naturally produced seedlings to regenerate a site; accomplishment of this objective is generally assessed by a thorough regeneration survey of the stand.

### **Vegetation Management**

Vegetation management consists of Intermediate management treatments or entries following regeneration in a stand. These treatments are designed to encourage the success of certain species by reducing competition from less desirable species. DNR undertakes several vegetation management treatments on state trust lands.

#### *Aerial Herbicide*

Helicopter application of herbicides to achieve vegetation management objectives.

#### *Ground Herbicide*

Ground-based application of herbicides to achieve vegetation management objectives.

*Hand-cutting*

Use of hand equipment to cut stems of existing vegetation to achieve vegetation management objectives.

*Broadcast Burn*

Prescribed fire allowed to burn over a designated area to achieve vegetation management objectives.

*Seeding Grass*

Broadcast seeding of annual grass species to occupy newly prepared sites in place of noxious weeds. Generally used east of the Cascade crest.

**Pest Management**

Pest management treatments are aimed at maintaining pest populations within acceptable levels of risk of damage to forest stands. DNR has used several pest management techniques, though most are not commonly utilized.

*Animal Repellant*

Chemicals or other products applied to discourage animals from damaging seedlings in a plantation.

*Animal Trapping*

Trapping animals to remove them from the area they are damaging.

*Shielding or Fencing*

Use of a physical barrier to prevent animal damage.

*Aerial Pesticide*

Aerial application of an insecticide, herbicide or other chemical pesticide, such as using BT to treat spruce budworm infestations.

**Other**

DNR also employs several silvicultural management techniques that do not fit in any of the above categories. These techniques are defined below.

*Pre-commercial Thinning*

Removal of some trees in a stand, not for immediate financial gain, but rather to reduce stocking to concentrate growth on more desirable trees.

*Forest Fertilization*

Ground or aerial-based fertilization of forest stands using chemical fertilizers or bio-solids to enhance growth.

*Tree Pruning*

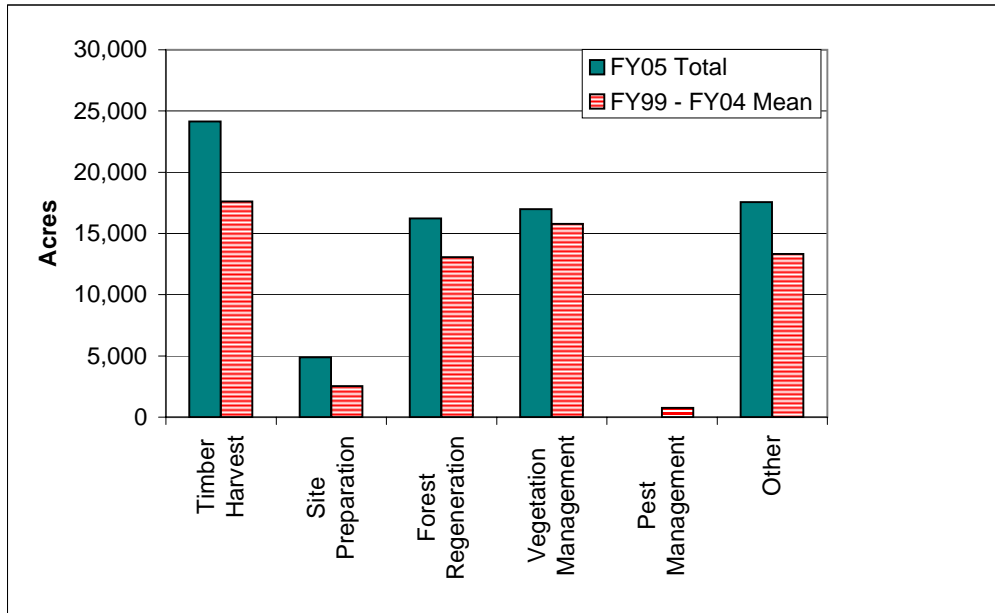
Removal of branches to enhance the wood quality in an existing tree's stem. The branches may also be removed as a separate forest product of value.

**Table 3.1.** Silvicultural management activities on state forested trust lands by planning unit.

	Acres of Management Activity									FY05 Total	6 Year MEAN*
	Chelan	Columbia	Klickitat	North Puget	OESF	South Coast	South Puget	Straits	Yakima		
<b>Timber Harvest Type</b>											
Clear cut		1,578	659	4,866	10	3,257	1,576	1,654		13,600	9,959
Seed tree intermediate cut		8							174	182	129
Shelterwood intermediate cut				40		93	36		246	415	334
Phased patch regeneration cut						13	58			71	7
Temporary retention first cut			88							88	62
Salvage cut			273	155		65	30		937	1,460	309
Smallwood thinning		769	118	91	67	974				2,019	2,607
Late rotation thinning		935		495	160	680	392		563	3,225	1,720
Variable density thinning		603		122		61	756			1,542	93
Selective product logging		272				201	73			546	791
Shelterwood removal										0	13
Two-aged management										0	105
Uneven-aged management			4						1,000	1,004	1,483
<b>Timber Harvest Totals</b>	0	4,165	1,142	5,769	237	5,344	2,921	1,654	2,920	24,152	17,612
<b>Forest Site Preparation</b>											
Aerial herbicide		915		1,949		163	48			3,075	1,492
Ground herbicide		72		90		183		86		431	360
Ground mechanical		25	148						873	1,046	429
Hand cutting										0	40
Pile and burn/broadcast burn		64				242		18		324	222
<b>Site Prep. Totals</b>	0	1,076	148	2,039	0	588	48	104	873	4,876	2,542
<b>Forest Regeneration</b>											
Hand planting		1,864	1,262	3,547	409	3,679	1,465	1,909	1,150	15,285	12,940
Natural regeneration		112		66			128	89	542	937	131
<b>Forest Regeneration Totals</b>	0	1,976	1,262	3,613	409	3,679	1,593	1,998	1,692	16,222	13,071
<b>Vegetation Management</b>											
Aerial herbicide		1,466		629		523				2,618	2,897
Ground herbicide		576	1,400	1,346	99	1,070	331	1,006		5,828	3,475
Hand cutting		1,568		3,278		2,206	1,218	281		8,551	9,330
Seeding grass										0	65
Underburn										0	7
<b>Vegetation Mgmt. Totals</b>	0	3,610	1,400	5,253	99	3,799	1,549	1,287	0	16,997	15,774
<b>Pest Management</b>											
Animal repellent										0	19
Animal trapping										0	40
Shielding or fencing										0	130
Aerial pesticide										0	603
<b>Pest Mgmt. Totals</b>	0	0	0	0	0	0	0	0	0	0	760
<b>Other</b>											
Pre-commercial thinning		3,186	767	589	5,652	1,465	1,508	2,173	2,233	17,573	11,072
Forest fertilization										0	2,206
Tree pruning					1					1	37
<b>Other Totals</b>	0	3,186	767	589	5,653	1,465	1,508	2,173	2,233	17,574	13,315
<b>Grand Totals</b>	0	14,013	4,719	17,263	6,398	14,875	7,619	7,216	7,718	79,821	63,074

\*These values are mean data for fiscal years 1999 through 2004.

Source: Planning & Tracking Database



**Figure 3.1.** Silvicultural activities in HCP planning units: FY05 totals vs. FY99 - FY04 means.

Timber Harvest includes clear cut, thinning, uneven-aged management, salvage cut and others.

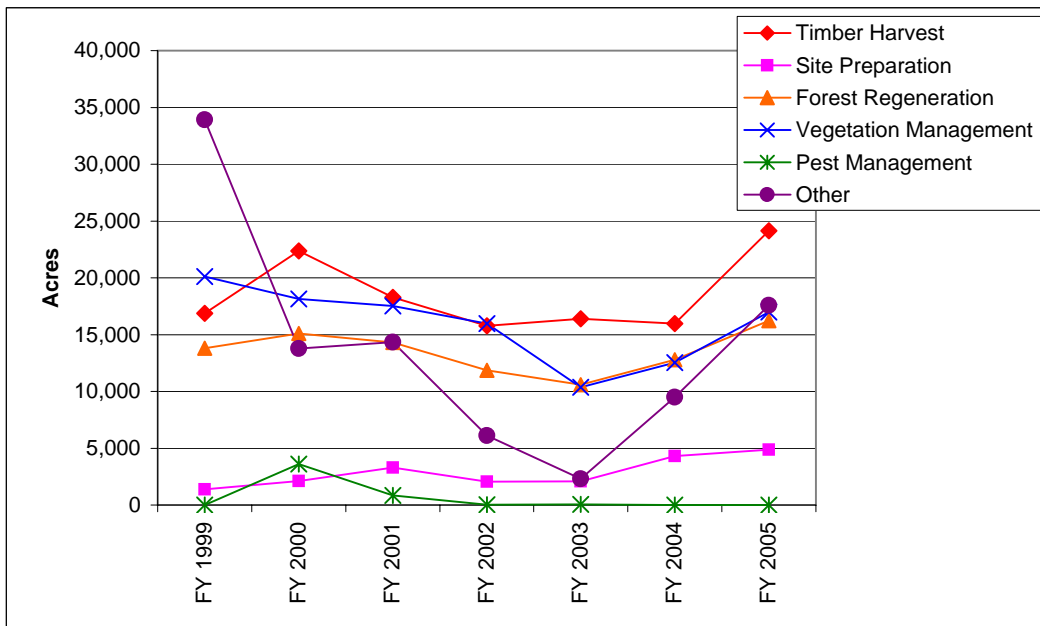
Site Preparation includes herbicide application, ground mechanical, hand cutting and pile and burn.

Forest Regeneration includes hand planting and natural regeneration.

Vegetation Management includes herbicide application, hand cutting, seeding grass, and underburn.

Pest Management includes animal repellants, pesticide application, trapping and fencing.

Other includes pre-commercial thinning, fertilization and pruning.

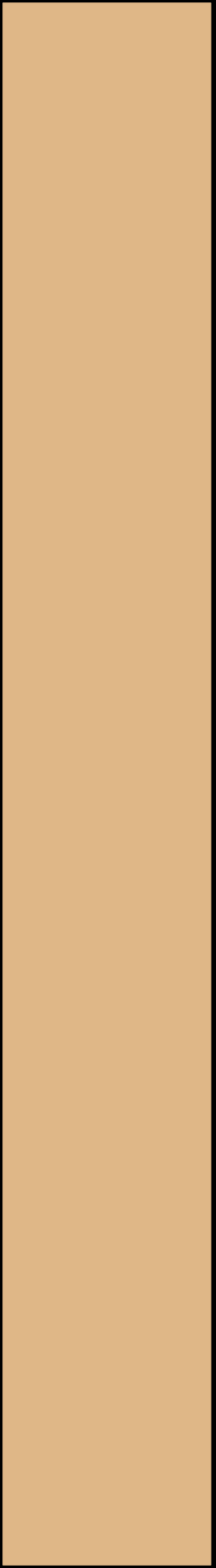


**Figure 3.2.** Silvicultural activities in HCP planning units: FY99 through FY05.





## **4. NON-TIMBER MANAGEMENT ACTIVITIES**



## NON-TIMBER ACTIVITIES

Numerous non-timber management activities take place on DNR-managed forested state trust lands. The following graphs and tables show levels of the activities (numbers of sites/permits/leases and acres impacted) that DNR agreed to report on when the HCP was signed with the Services.

The HCP describes levels or amounts of non-timber activities that existed on HCP lands during the 1996 base year. At these 1996 levels, no or *de minimis* (insignificant) take (impacts to covered species) occurred. Any new or renewed contracts, permits, or leases for such activities cannot increase the level of take beyond this *de minimis* level; DNR must monitor the level of such activities and report them to the Services annually. However, some of the baseline non-timber numbers cited in the HCP are incorrect, as they included activities on all state lands, rather than just areas covered by the HCP. To derive accurate 1996 baseline figures, the numbers reported in the HCP were revised to include only activities that occurred on HCP lands. This revision was made and the corrected numbers were reported in DNR's first HCP Annual Report<sup>1</sup>.

DNR is continually working to improve its methods of tracking and reporting on non-timber activities. As DNR's systems improve, and we are able to collect more accurate data, there may be changes in reporting methods or corrections to our data. This year, as in past years, numbers for activities (e.g. number of permits to gather Christmas greens; acres of oil leases) were determined by printing reports from DNR's Asset Performance System (APS). APS reports were run using the categories of agreement types (grazing, communication site, etc.). The reports detailed the number of acres and leases or permits in a given county. Numbers from counties covered by the HCP were then added up to determine totals for the fiscal year. Utility rights-of-way were calculated somewhat differently than other activities, in that only new easements for FY 2005 (not the total number active in that period) were reported.

The following are details for the categories of non-timber activities covered in this report, with explanations for trends or noticeable differences in the numbers where possible. In some cases, such differences may be due to improvements in DNR's methods for identifying and tracking the data.

### Utility Rights-of-Way

Right-of-way easements are granted to private individuals or entities for roads, powerlines, and pipelines. These easements can be granted when they will enhance trust assets and any detrimental effects can be offset or minimized.

Unlike other categories of non-timber activities, utility rights-of-way are not reported on a cumulative basis. The annual report shows only the new permits issued during a given fiscal year, not all easements that are active during that reporting period. DNR has not had a system to tally total utility rights-of-way, primarily because many were granted in the early 1900's and hand-entered on records now in archives. DNR is currently working on a new system that would incorporate all existing data and give us an accurate total. Completion of the system's basic structure is anticipated by mid-2006.

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<sup>1</sup> Washington State Department of Natural Resources. 1998. Habitat Conservation Plan Annual Report with Data & Documentation: January 30, 1997 – June 30, 1998. Author, Olympia, WA.

Right-of-way easements are detailed in two tables. Table 4.1 reports on the total number of new easements, but the acreage and mileage figures are only for easements that create a new “footprint”, indicating that timber was cut and/or a new right-of-way was created. Table 4.2 reports on the acreage and mileage of all utility easements granted in the reporting period, whether they created a new footprint or not.

### **Special Forest Products**

Special forest products are items such as Christmas greens, medicinal plants, and western greens (typically used by florists). DNR policy is to promote the sale of special forest products where doing so will benefit the trusts and not cause significant damage to the environment. Permits are selectively granted to prevent habitat degradation.

### **Valuable Materials Sales**

Rock, sand and gravel (valuable material) sales are handled under special sale contracts. Most active commercial pits are not in forested areas. Generally, the few commercial contracts on forested trust lands are small sales from pits that are primarily used by DNR for road management.

The number of silvicultural pits and inactive commercial pits was not tracked until fiscal year (FY) 2003, when DNR began attempting to inventory all such pits. A revitalized initiative to complete the pit inventory is underway with an anticipated completion by the end of 2006.

Early on in the implementation of the HCP, DNR had a substantial number of rock, sand, and gravel sales, but currently there are none. This is primarily due to three factors: (1) the lengthy contract development process; (2) requirements for large sales to be approved by the Board of Natural Resources; and (3) periodic charges to keep contracts alive regardless of whether or not there are removals. Most rock, sand, and gravel sales are now going to private pits, which have fewer time and procedural restraints. This year, there was only one rock, sand, and gravel sale, which was handled as a direct sale. Direct sales are one-time agreements that remove only small amounts of the resource (a maximum of \$20,000 in value). Other (non-direct) sales are active for longer periods of time and/or have larger maximum removal value limits.

### **Oil and Gas Leases**

Oil and gas exploration leases simply allow a leaseholder to explore for underground deposits. The lessee has the sole and exclusive right to explore for, drill, extract, or remove oil and gas. Any proposed on-the-ground activities must undergo the SEPA review process and have an approved Plan of Operations. If the lessees want to actively drill or thump (measuring seismological tremors caused by the dropping of large weights or detonation of explosives), they must obtain an active lease. Regulations exist to protect water and air quality during active leases, and any exploration holes must be plugged following use. There has been only one active oil and gas lease on HCP lands (in 1996), and the well has since been abandoned and plugged.

The large increase in the number of exploration leases in this reporting period relates to the fact that DNR recently auctioned off the right to explore for oil and gas on 600 parcels of state trust lands. A small fraction (23) of these were within the area covered by the HCP.

### **Prospecting Leases and Mining Contracts**

Like oil and gas leases, prospecting and mining leases are simply exploration agreements that allow searching for mineral deposits. A lease is converted to a contract if the lessee wants to commence active mining operations that could alter habitat, even if they do not result in extraction. There were no active mining operations (meaning activities that actually extract minerals) on HCP lands in 1996 and there were still none in FY 2005.

The number (and acreage) of these activities increased this reporting period, primarily because the Attorney General's office signed an updated version of the Mineral Prospecting Lease and the Mining Contract. This allowed DNR to issue leases that had been delayed until the new lease was approved. Once approval was acquired, DNR issued the leases that had been backlogged.

### **Grazing Permits/Leases**

Most grazing on DNR-managed lands takes place on non-forested state trust lands. However, grazing is selectively allowed in forests guided by the HCP. In the past, grazing permits and leases have been reported for all trust lands – including, e.g., open grasslands - within the range of the HCP. However, grazing taking place on forested trust lands is the primary area of concern. For this reason, Westside grazing permits and acreage have been further broken down into forested grazing and non-forested grazing. The Westside forested acres have not been grazed since well before the HCP was implemented. However, forested grazing is listed as the authorized use for these acres in their leases.

### **Communication Site Leases**

Communication site leases allow private and public entities to attach communication equipment to towers (e.g. cell phone towers). These sites are typically on non-forested mountaintops or along second-growth highway corridors. These sites are typically less than an acre in size and have minimal impacts on wildlife. The road system used to access them is the same one used to access forest management activities, and subject to the same management practices.

### **Recreation Sites**

These sites allow public recreation on state forested trust lands as long as it is compatible with state laws and the objectives of the Forest Resource Plan and HCP. A variety of sanctioned recreational activity takes place on DNR land – mostly disbursed across the landscape - including hiking, biking, horseback riding, off-road vehicle use, and camping. The number of sites and acreage reported are only for DNR-sanctioned trails, camping, and picnicking areas.

### **Special Use Leases**

Special use leases are issued for a wide variety of commercial and other uses primarily on rural trust lands, although they can be on resource or urban lands. "Miscellaneous" is often the best descriptor of these leases. Some examples of uses include: golf courses, small commercial businesses/buildings, commercial recreation facilities, colleges, take off or landing sites for paragliding, governmental and/or public use facilities, and stockpile sites. Special use leases do not cover major urban commercial uses, aquatic land uses, or any of the other categories reported in the following tables and described

above. Often, but not always, these leases are for “interim uses,” and, as such, contain language that allows for termination should the department wish to take advantage of a “higher and better use” for the land.

Table 4.1. Evaluation of potential non-timber impacts vs. 1996 baseline levels.

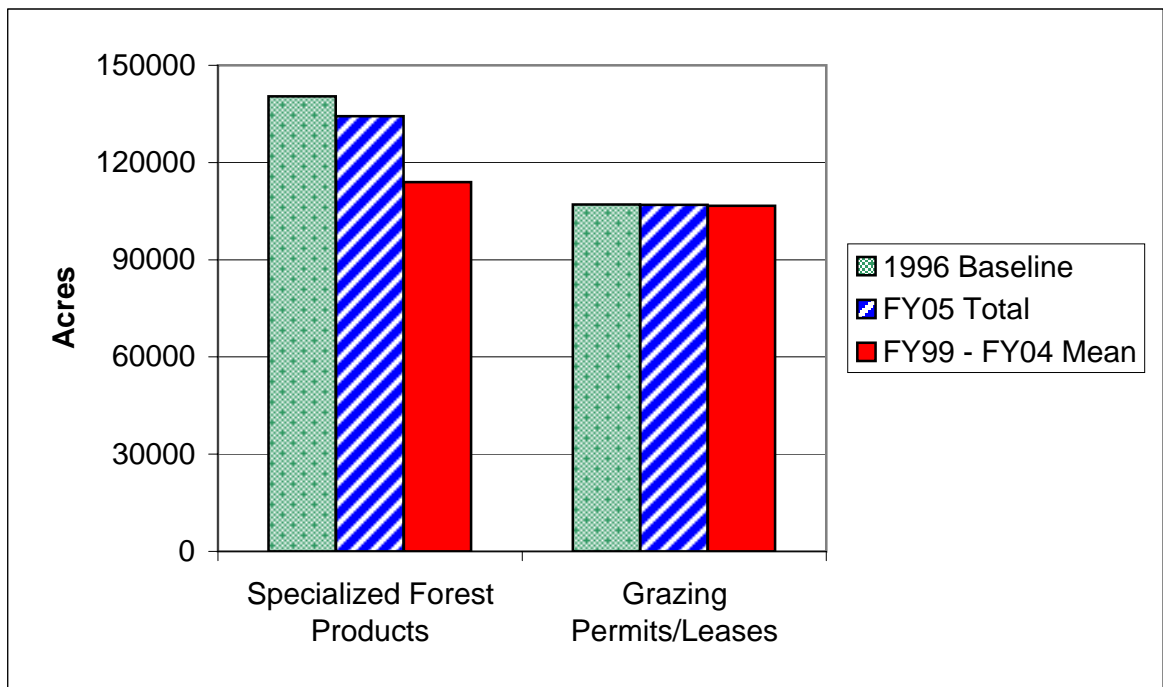
	1996 Base Year		FY 2005 Total		6 Year MEAN*	
	Number of Leases/Permits/Rights of Way/Sites	Acres	Number of Leases/Permits/Rights of Way/Sites	Acres	Number of Leases/Permits/Rights of Way/Sites	Acres
<b>The following represents the number and acres of new rights-of-way issued during the reporting period (not all those active during the reporting period)</b>						
Utility Rights-of-Way	9	4 ac. (3.3 miles)	5	11.52 ac (.47 miles)	4.8	18.17 ac
<b>The following represent the total number and acres of activity in force during the reporting period</b>						
<b>Special Forest Products</b>						
Western Greens	360	135,000	380	128,000	327	107,888
Christmas Greens	14	5,000	6	6,000	21	6,900
Christmas Trees	8	409	8	300	8	365
Misc. (Medicinal, cone and transplant)	20		12		13	
<b>Specialized Forest Products Totals</b>	<b>402</b>	<b>140,409</b>	<b>406</b>	<b>134,300</b>	<b>367</b>	<b>113,947</b>
<b>Valuable Materials</b>						
<b>Silvicultural Pits</b>						
Active Silvicultural Pits	N/A	N/A	165	317	165**	317**
Inactive Silvicultural Pits	N/A	N/A	230	216	230**	216**
Abandoned Silvicultural Pits	N/A	N/A	55	56	55**	56**
<b>Total Silvicultural Rock, Sand &amp; Gravel Pits (No Commercial Sales)</b>	<b>332</b>	<b>487</b>	<b>450</b>	<b>589</b>	<b>450**</b>	<b>589**</b>
<b>Commercial Pits</b>						
Active Commercial Pits	N/A	N/A	7	101	10	138
Inactive Commercial Pits	N/A	N/A	2	66	2**	66**
<b>Total Commercial Rock, Sand &amp; Gravel Pits</b>	<b>28</b>	<b>281</b>	<b>9</b>	<b>167</b>	<b>9**</b>	<b>167**</b>
<b>Sand &amp; Gravel Pits Totals</b>	<b>360</b>	<b>768</b>	<b>459</b>	<b>756</b>	<b>459**</b>	<b>756**</b>
Rock, Sand, Gravel Sales	17	222	0	0	5	66
Rock, Sand, Gravel Direct Sales	25	50	1	0	8	13
<b>Valuable Materials Sales Totals</b>	<b>42</b>	<b>272</b>	<b>1</b>	<b>0</b>	<b>13</b>	<b>79</b>
<b>Prospecting Leases/Mining Contracts</b>						
Leases	4	360	7	540	1	162
Contracts	15	3,650	9	1,945	8	1,502
<b>Prospecting Leases/Mining Contracts Totals</b>	<b>19</b>	<b>4,010</b>	<b>16</b>	<b>2,485</b>	<b>10</b>	<b>1,663</b>
<b>Oil and Gas Leases</b>						
Exploration Leases	43	13,196	174	109,709	107	47,008
Active Leases	1		0	0	0	0
<b>Active Oil and Gas Leases Totals</b>	<b>1</b>		<b>0</b>		<b>0</b>	
<b>Grazing Permits/Leases</b>						
Eastside	25	105,980	25	105,980	25	105,980
Westside - Forested***	N/A	N/A	3	25	N/A	N/A
Westside - Non-forested***	N/A	N/A	15	927	N/A	N/A
Westside - Total***	15	1,074	18	952	11	640
<b>Grazing Permits/Leases Totals</b>	<b>40</b>	<b>107,054</b>	<b>43</b>	<b>106,932</b>	<b>36</b>	<b>106,620</b>
<b>Communications Site Leases</b>						
Number Sites	56		62		61	
Number Leases	288		315		304	
<b>Recreation Sites Totals</b>	<b>119</b>	<b>2,456</b>	<b>126</b>	<b>2,252</b>	<b>126</b>	<b>2,199</b>
<b>Special Use Leases Totals</b>	<b>90</b>	<b>5,792</b>	<b>92</b>	<b>5,834</b>	<b>92</b>	<b>5,865</b>

\*These values are mean data from Fiscal Years 1999 through 2004.

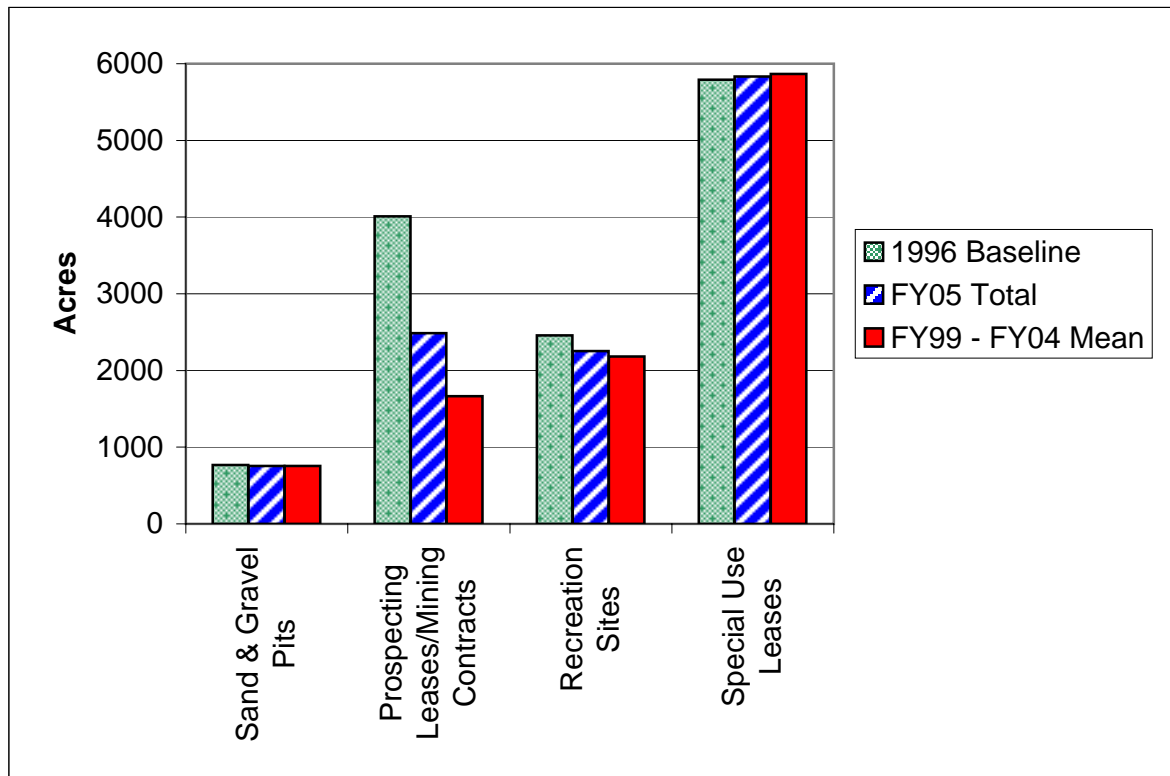
\*\*These values are totals from FY03-FY04, not means, because data were not available in previous fiscal years.

\*\*\* This is the first year of tracking Westside forested grazing separately from non-forested grazing (the distinction cannot be made in E WA). Since this was not done in previous years, no such data is available for prior reporting periods.

The level of activity for non-timber activities that was present in 1996 (1996 Base Year) is considered to be a *de minimis* level of activity, meaning no take or insignificant take is occurring.

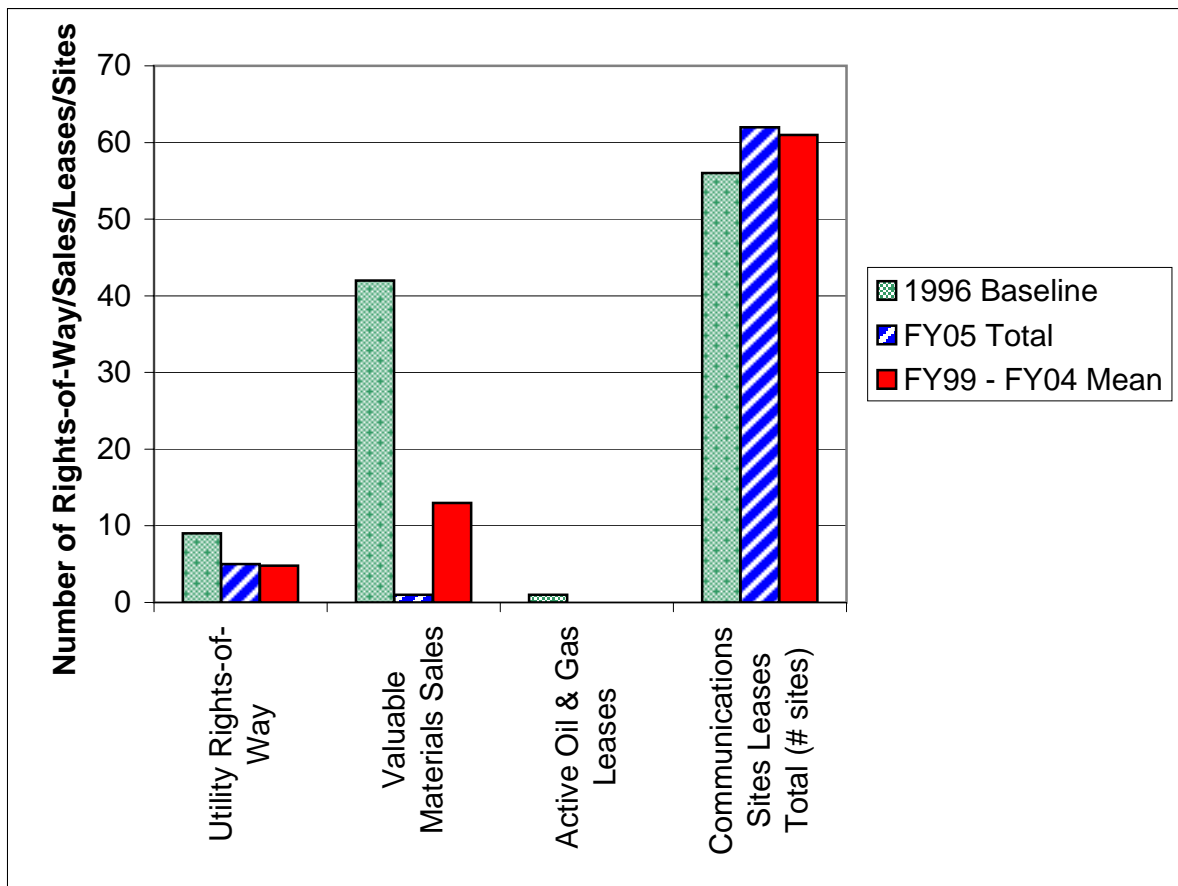


**Figure 4.1.** Acreage comparison for specialized forest products and grazing permits/leases: 1996 baseline vs. FY05 totals vs. FY99 - FY04 means.



**Figure 4.2.** Acreage comparison for sand & gravel pits; prospecting leases/mining contracts; recreational sites; and special use leases: 1996 baseline vs. FY05 totals vs. FY99 - FY04 means.





**Figure 4.3.** Comparison of numbers of utility rights-of-way; valuable material sales; active oil & gas leases; and communication sites: 1996 baseline vs. FY05 totals vs. FY99 - FY04 means.

**Table 4.2.** New utility right-of-way easements granted in FY 2005.

<b>Planning Unit</b>	<b>Length of Easement Area (Miles)</b>	<b>Area of Easement (Acres)</b>	<b>Total Number of Utility Easements Granted</b>
<b>Chelan*</b>	0.47	11.52	1
<b>North Puget</b>	1.76	3.20	1
<b>OESF</b>	0.83	1	1
<b>South Coast</b>	0.11	0.04	1
<b>South Puget</b>	1.06	1.93	1
<b>TOTALS:</b>	<b>4.23</b>	<b>17.69</b>	<b>5</b>

\*This activity created a new "footprint"

No easements were granted in FY 2005 in the Columbia, Klickitat, Yakima, or Straits Planning Units.

## **RECREATION/PUBLIC USE ACTIVITIES**

In 2004, DNR's Public Use section began implementing Region Public Use Inventory and Assessments (RIAs), which are used to inventory developed and dispersed recreation and public use (both sanctioned and unsanctioned). The process also identifies planning and management priorities and options for those areas. These plans will be updated each biennium as part of the budget process. Unlike most Annual Report topics, RIAs are completed for DNR regions, rather than by HCP planning units; data for any recreation areas outside of the HCP are not included in this report. Drafts of the initial RIAs for Northwest, Olympic, Pacific Cascade, and South Puget Sound Regions were available in 2004; the Southeast Region draft was created in 2005. No draft exists for Northeast Region.

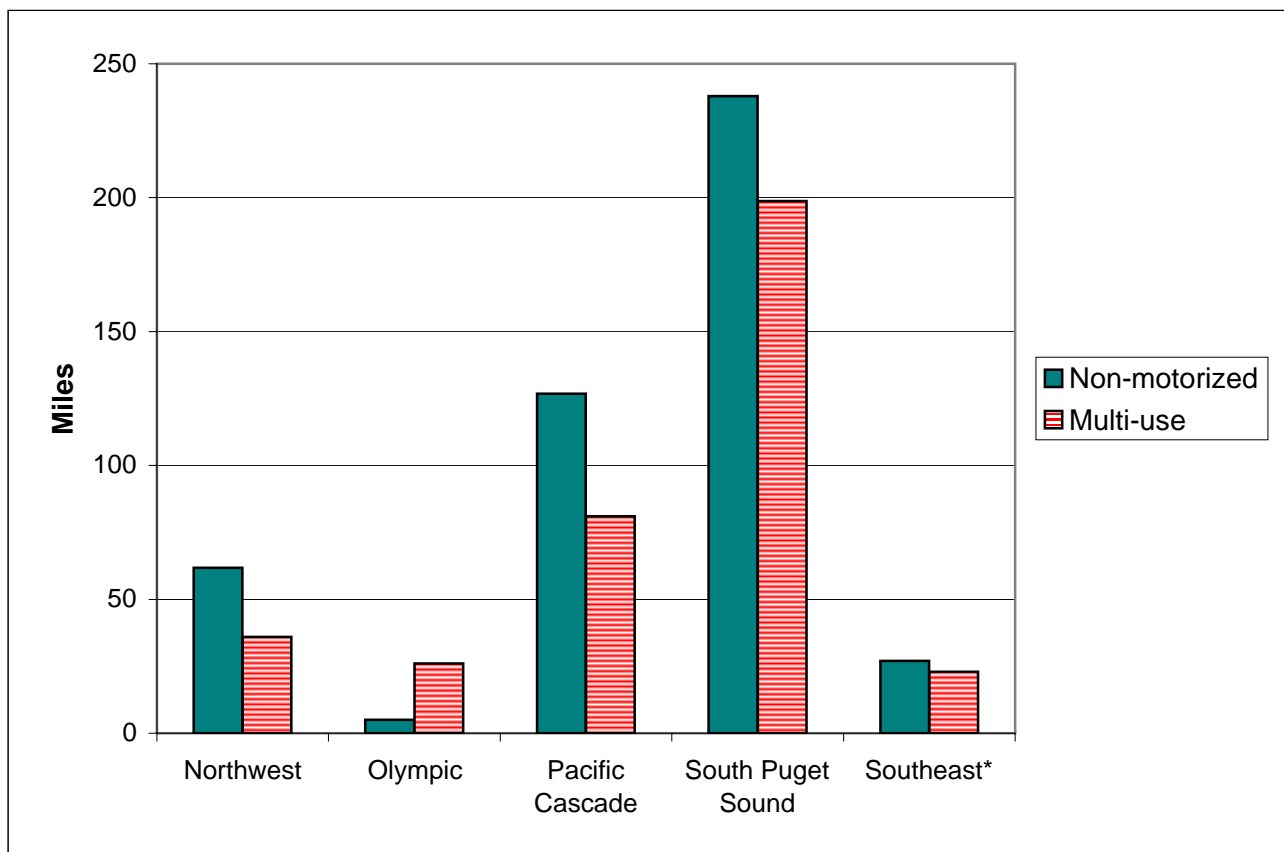
The RIAs provide baseline information and support for recreation program management strategies, planning decisions, and funding requests. They also will help DNR to implement our Public Use Policy and establish consistent planning for statewide recreation. Each assessment provides an opportunity to discuss pressing issues and possible changes with a variety of interest groups, increasing public involvement in the process. Finally, they will provide information to assist in the design of management plans that advocate for natural environments and protect state trust lands and natural areas consistent with established mandates.

This report covers two aspects of public use reporting: trails (Table 4.3/Fig. 4.4) and picnic/camp sites (Table 4.4/Fig. 4.5). Sanctioned trails are reported on according to the type or types of authorized use. Sanctioned campsites are broken out by type (general use, host, or Americans with Disabilities Act (ADA) compliant). As the assessments get updated, this information will also be updated.

**Table 4.3.** Sanctioned recreation trails on forested state trust lands in fiscal year 2005.

Type of Use	Region Totals (Miles)					Statewide Totals
	Northwest	Olympic	Pacific Cascade	South Puget Sound	Southeast*	
<i>Non-motorized</i>						
Horse/hike/bike	3	0	116.5	16.75	26	162.25
Horse/hike	0	0	1	66	0	67
Hike/bike	0	3	0	0	0	3
Hike	58.75	2	9.25	51	1	122
ADA	0	0	0	4.2	0	4.2
Ski Trails (on existing forest management roads)	0	0	0	100	0	100
<b>Non-motorized Totals (miles)</b>	<b>61.75</b>	<b>5</b>	<b>126.75</b>	<b>237.95</b>	<b>27</b>	<b>458.45</b>
<i>Multi-use: motorized/non-motorized</i>						
Multiple use (no 4x4)	0	26	63	164.75	23	276.75
4x4 and multiple use	36	0	18	34	0	88
<b>Multi-use Totals (miles)</b>	<b>36</b>	<b>26</b>	<b>81</b>	<b>198.75</b>	<b>23</b>	<b>364.75</b>
<b>Trail Totals (miles)</b>	<b>97.75</b>	<b>31</b>	<b>207.75</b>	<b>436.7</b>	<b>50</b>	<b>823.2</b>

\*Southeast Region data is only for areas covered by the HCP

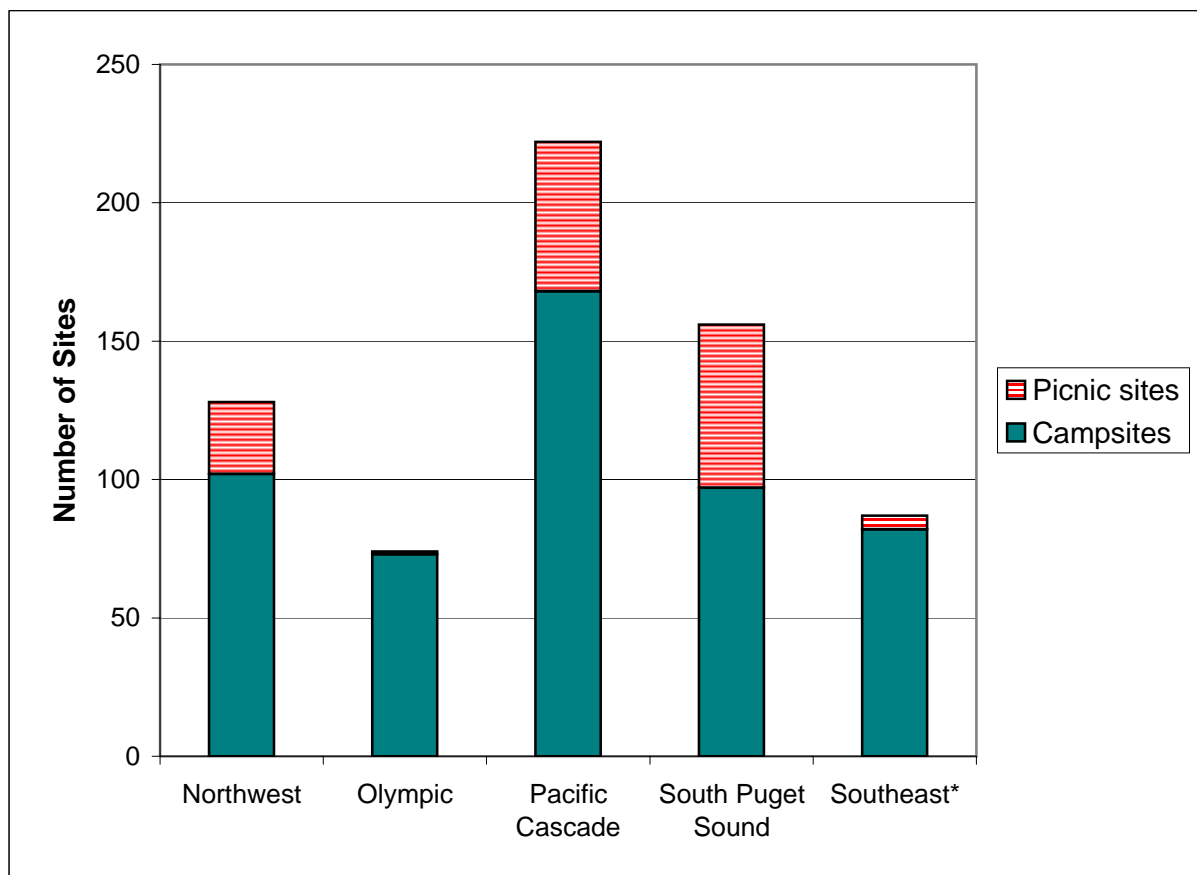


**Figure 4.4.** Total sanctioned non-motorized and multi-use trail miles by region.

**Table 4.4.** Sanctioned camp and picnic sites on forested state trust lands in fiscal year 2005.

Type of Site	Region Totals					Statewide Totals
	Northwest	Olympic	Pacific Cascade	South Puget Sound	Southeast*	
Campsites	99	68	136	96	80	479
Host campsites	0	1	6	0	1	8
ADA campsites	3	4	26	1	1	35
<b>Campsite Totals</b>	<b>102</b>	<b>73</b>	<b>168</b>	<b>97</b>	<b>82</b>	<b>522</b>
Picnic sites	26	1	54	59	5	145
<b>Statewide Camp and Picnic Site Totals</b>	<b>128</b>	<b>74</b>	<b>222</b>	<b>156</b>	<b>87</b>	<b>667</b>

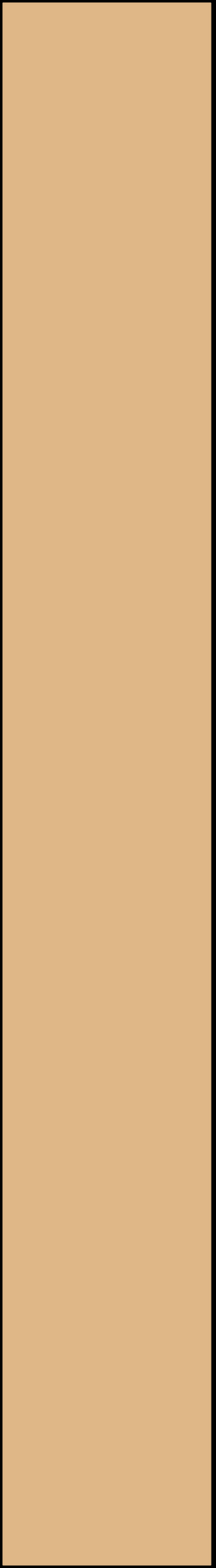
\*Southeast Region data is only for areas covered by the HCP



**Figure 4.5.** Total sanctioned camp and picnic sites by region.



## **5. ROAD MANAGEMENT ACTIVITIES**





## ROAD MANAGEMENT ACTIVITIES

Roads can impact habitat in a number of ways. Improperly constructed or maintained roads can increase rates of slope failure, contribute sediment to streams, and create fish blockages, potentially harming salmonids and other aquatic and riparian obligate species.

In 2001, state Forest and Fish legislation (implemented through Washington State Forest Practices rules) required that by December 31, 2005 all forest landowners have Road Maintenance and Abandonment Plans (RMAPs) for their land. This includes all roads constructed or used for timber harvest and other forest practices since 1974 (WAC 222-24-051). In addition, all forest roads must be improved and maintained to the standards established in WAC 222-24 by the year 2016. DNR will have completed RMAP assessments for all state trust lands by the end of December 2005 and DNR intends to be fully compliant with RMAP standards by 2016.

Under the HCP, DNR committed to developing and instituting a comprehensive landscape-based road network management process. The major components of this process include:

- “the minimization of active road density;
- a site-specific assessment of alternatives to new road construction (e.g., yarding systems) and the use of such alternatives where practicable and consistent with conservation objectives;
- a base-line inventory of all roads and stream crossings;
- prioritization of roads for decommissioning, upgrading, and maintenance; and
- identification of fish blockages caused by stream crossings and a prioritization of their retrofitting or removal.” (DNR 1997<sup>1</sup>, p. IV.62)

With the exception of the first two components, DNR’s comprehensive road management process will be addressed under RMAP requirements. The initial RMAP plans will be completed by the end of December 2005, and yearly reassessments will evaluate the work completed during the last year and prioritize the work to be completed during the upcoming year. The department intends to implement the first two components (minimization of active road densities and site-specific assessments of alternatives to new road construction) through forest land planning or another landscape planning process.

As part of the HCP Annual Report requirements, DNR tracks and reports on the number of road miles constructed (newly built roads), reconstructed (existing roads brought back to driveable conditions), decommissioned (roads made impassible to vehicular traffic), or abandoned (roads stabilized and abandoned to Forest Practices standards); fish barriers removed; active Forest Practices road miles; and percent of road miles under RMAP (Table 5.1). Beginning with the calendar year 2005 road management activities (FY 2006 HCP Annual Report), DNR also will report the miles of recreation roads (roads that

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<sup>1</sup> Washington State Department of Natural Resources. 1997. Final Habitat Conservation Plan. Author, Olympia, WA.

only lead to a recreation site) and roads that are contained in Natural Area Preserves (NAPs) and Natural Resource Conservation Areas (NRCAs) as separate categories.

Unlike other activities, road management activities are reported on a calendar (rather than fiscal) year basis. This reflects the requirements by Forest Practices for road management activities and maintenance schedules to be reported on a calendar year basis.

To obtain the base numbers of road miles, DNR used photo interpretation augmented with Global Positioning System (GPS). This became the basis of the mapped corporate transportation data layer in the DNR GIS system. Since then, department employees have been verifying the presence or absence of these mapped road arcs as they complete RMAPs. As the percentage of roads covered by RMAP assessments increases, DNR's confidence in actual active forest road miles also increases.

### **Road Use Permits and Easements**

In the past, road-related activities associated with easements and road use permits were not reported to DNR's engineers to be included in the HCP Annual Report. These "footprints", which were granted by DNR to private entities in order to allow the private entities to gain access to their lands, were tracked and reported for the first time this year (Table 5.2).

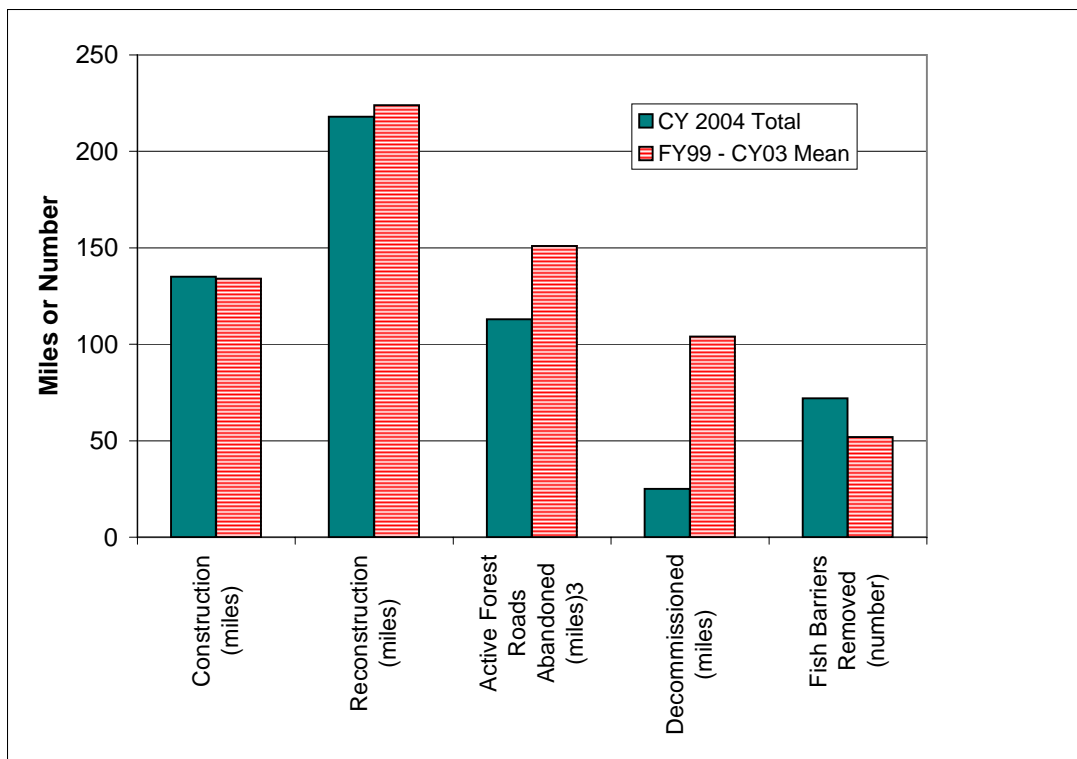
**Table 5.1.** Road management activities on forested state trust lands in calendar year 2004.

Activity	Planning Units									CY 2004 Total <sup>1</sup>	6-Year MEAN <sup>2</sup>
	Chelan	Columbia	Klickitat	North Puget	OESF	South Coast	South Puget	Straits	Yakima		
<b>Total Road Miles</b>	90	1,353	661	1,534	1,710	1,496	944	584	505	<b>8,877</b>	8,857
<b>Construction (miles)</b>	0	27	9	51	4	25	10	7	2	<b>135</b>	134
<b>Reconstruction (miles)</b>	0	27	26	134	2	11	4	7	8	<b>218</b>	224
<b>Active Forest Roads Abandoned (miles)</b>	0	24	2	68	3	5	2	0	7	<b>113</b>	151 <sup>3</sup>
<b>Decommissioned (miles)</b>	0	1	1	0	8	2	1	9	3	<b>25</b>	104
<b>Fish Barriers Removed (number)</b>	0	5	3	18	23	8	5	1	9	<b>72</b>	52
<b>Percent Of RMAP Responsibility Assessed</b>	66%	97%	82%	79%	92%	86%	72%	49%	91%	<b>83%</b>	44% <sup>3</sup>

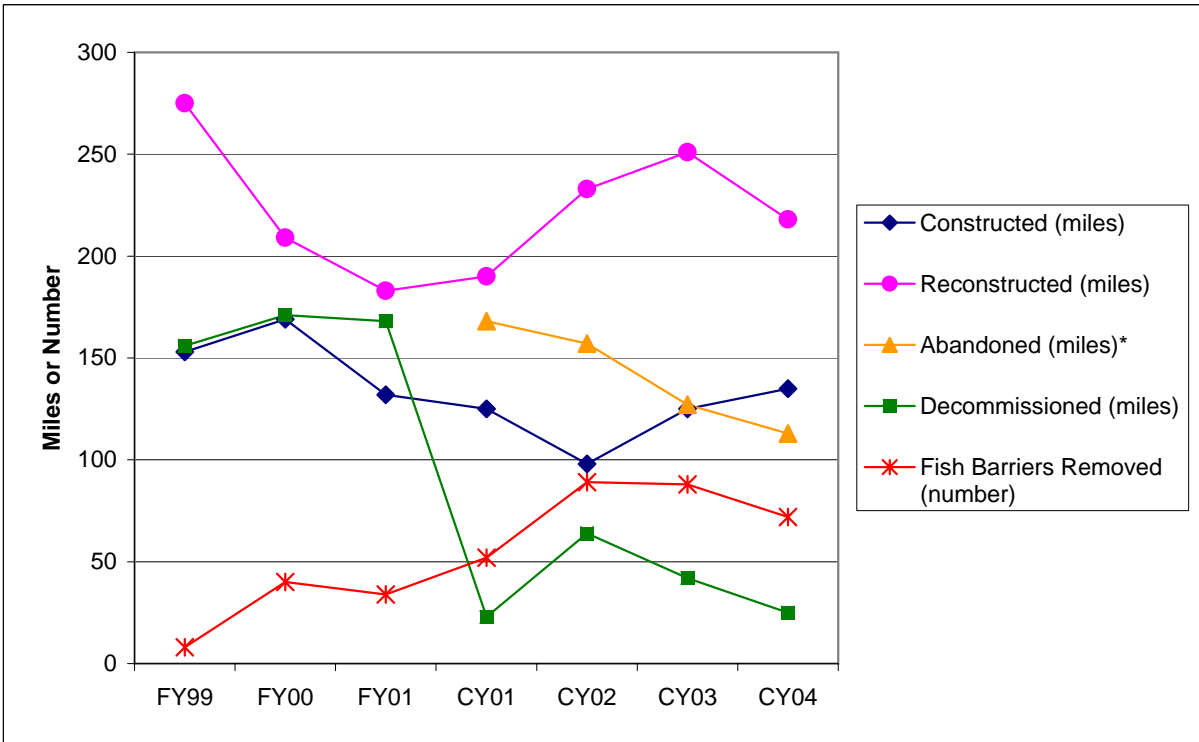
<sup>1</sup>For CY 2004, Total Road Miles means Total Active Roads on HCP lands and is determined from RMAP assessments.

<sup>2</sup>Due to a change in reporting methods, 6 year mean data comes from Fiscal Years 1999 through 2001 and Calendar Years 2001 through 2003. Calendar Year 2001 included data from the last 6 months of FY 2001.

<sup>3</sup>This data is only for CY 2001 - CY 2003; data was not available in previous years.

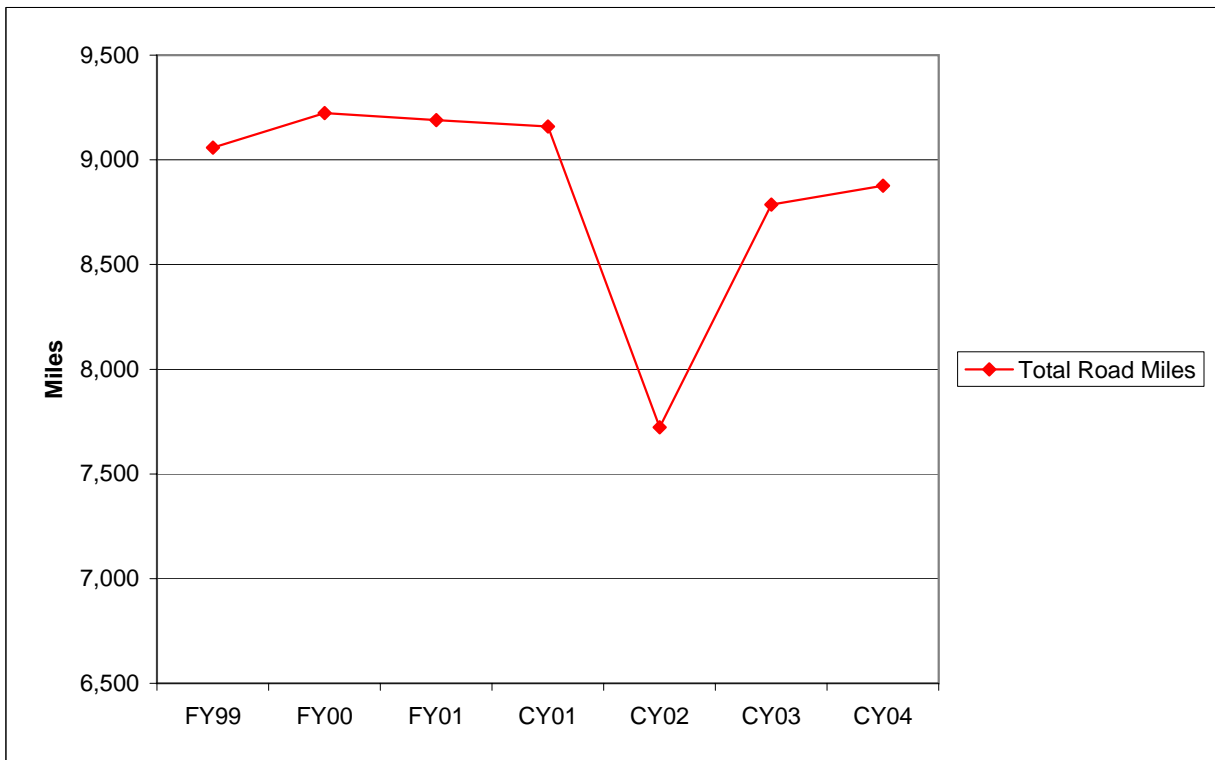


**Figure 5.1.** Road management activities: CY05 totals vs. FY99 - CY03 means.



**Figure 5.2.** Road management activities in HCP planning units: FY99 through CY04.

\*No data were available on miles of road abandoned prior to Calendar Year 2001.



**Figure 5.3.** Total road miles in HCP planning units: FY99 through CY04.

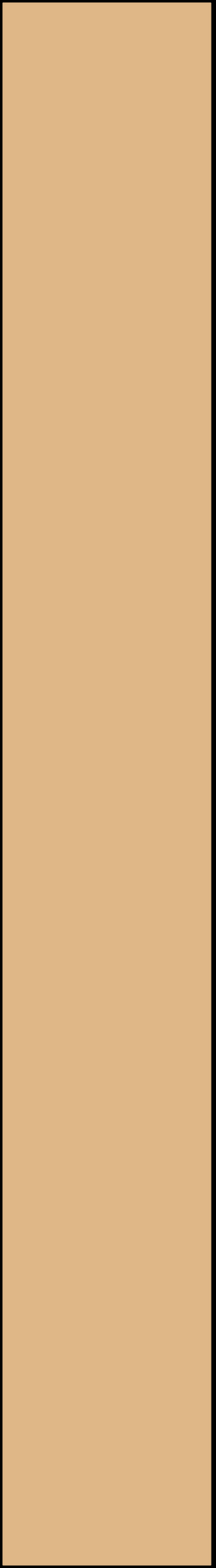
**Table 5.2.** Road easements and road use permits granted in calendar year 2004.

Planning Unit	Length of New Road Construction (Miles)	Area of New Road Construction (Acres)	Length of Reconstruction (Miles)	Area of Reconstruction (Acres)	Length of Abandonment (Miles)	Area of Abandonment (Acres)
Columbia	1.46	10.58	0	0	0	0
North Puget	1.78	10.3	0	0	1.05	3.69
OESF	0.49	2.8	0.11	0.69	0.07	0.11
South Coast	0.23	1.67	0	0	0	0
<b>TOTALS:</b>	<b>3.96</b>	<b>25.35</b>	<b>0.11</b>	<b>0.69</b>	<b>1.12</b>	<b>3.8</b>

These are easements or RUPs that created a new "footprint" on HCP lands. They are not included in Table 5.1.



## **6. LAND TRANSACTIONS**





## LAND TRANSACTIONS

DNR has a transactions program designed to reposition trust lands for better long-term management and increased revenue for each of the state trusts. Through this program, DNR looks for opportunities to divest the trusts of lands not appropriate for revenue production; such lands are often better suited to other public benefits, such as parks or habitat for rare native species. DNR also looks to consolidate its forest landscapes, which allows for more cost-effective management and offers opportunities to maximize trust revenue while maintaining habitat and allowing public recreation as appropriate.

Land transactions affect the amount of habitat or potential habitat on DNR-managed forested state lands. Transactions may be carried out to consolidate forested state ownership in certain areas, often by trading with owners of adjacent lands for scattered DNR-managed parcels elsewhere. State trust lands also may be transferred out of trust ownership into protected status as Natural Area Preserves (NAPs) or Natural Resource Conservation Areas (NRCAs). DNR-managed NAPs and NRCAs are selected to protect high-quality examples of native ecosystems and rare species as well as important natural features. Another option is for trust lands to be transferred to other government agencies to be used as parks or open space or for public facilities. When this happens, the trust is compensated at fair market value, and replacement properties are acquired to maintain trust assets over time.

During this reporting period, the department conducted transactions in eight of the nine HCP planning units. A total of 1,579 acres were added to state trust lands and 4,486 acres were disposed. Table 6.1 details the fiscal year 2005 transactions, including their effects on various types of habitat, streams, and forests. Cumulative changes from 1997 through FY 2004 are detailed in Table 6.2.

Briefly, the transactions for FY 2005 can be described as follows:

### **Chelan Planning Unit**

*Acquired:* None

*Disposed:* One section (640 acres) was traded to a private party. This parcel of non-forested grazing land was designated “no role” for spotted owl habitat.

### **Columbia Planning Unit**

*Acquired:* 376 acres of forestland designated no role. Of that, 20 acres is included in a NAP.

*Disposed:* 240 acres designated no role were transferred to State Parks. One parcel of less than one acre, also no role, was transferred to a private party to resolve a trespass.

### **North Puget Planning Unit**

*Acquired:* 527 acres of forestland designated no role.

*Disposed:* 590 acres designated no role, including 40 acres sold to a private party, 441 acres to State Parks, and 109 acres sold to San Juan County for parks and open space. About 59 acres of the San Juan property is eagle habitat.

Other activity in this unit involved transferring 1,002 acres of property to WDFW, including 953 acres of designated NRF lands. These properties were transferred with a deed restriction and will continue to be managed as permit lands.

**South Coast Planning Unit**

*Acquired:* 636 acres of no role property for addition to a NRCA.

*Disposed:* None.

**South Puget Planning Unit**

*Acquired:* 28 acres of NRCA property and 12 acres of NAP property, all no role.

*Disposed:* 237 acres to King County for parks and open space, and 391 acres to the S'Klallam tribe, all no role.

**Straits Planning Unit**

*Acquired:* None.

*Disposed:* 84 acres of no role property to the City of Tacoma for parks and open space.

*The following planning units were involved in a major land exchange.*

**Klickitat Planning Unit**

*Acquired:* None.

*Disposed:* 1,189 acres of forestland designated Desired Future Condition (DFC)/no role management area. These properties are included in the HCP Amendment No. 1, and are located in west Klickitat County. They consist of seven scattered parcels, and all but one are 160 acres or less. Most of the land, about 943 acres, contains mature timber. Under the amendment, properties in this category are managed as DFC, but are not included in the DFC acreage commitment.

**Yakima Planning Unit**

*Acquired:* In the exchange, 10,767 acres were acquired from Plum Creek Timber Co. in an effort to consolidate ownership in the Ahtanum block. Of these acres, 2,260 are considered capable of meeting spotted owl dispersal habitat targets and will be added to the permit lands in approximately 2045, when the timber matures. The remainder of the acres will not be added to the permit lands at this time, although if an amendment to the spotted owl strategy in the Yakima Planning Unit is proposed, it is likely that habitat designations in the Ahtanum block will be re-examined.

*Disposed:* 1,115 acres of forestland were traded to Plum Creek. These are two parcels located in the I-90 corridor and separated from other DNR-managed state ownership. About 1,084 acres are designated spotted owl dispersal management areas and 31 acres are no role. One parcel has about 410 acres of suitable dispersal habitat; the other contains about 434 acres.

**Table 6.1.** Effects of transactions on permit lands - July 2004 through June 2005.

Information subject to corrections and additions over time.  
Some numbers may not add up due to rounding.

Activity		Planning Unit								Totals
		Chelan	Columbia	Klickitat	N Puget	S Coast	S Puget	Straits	Yakima	
	<b>Total Acres Acquired</b>	-	376.00	-	526.50	635.67	40.35	-	-	1,578.52
	<b>Total Acres Disposed</b>	(640.00)	(240.57)	(1,188.67)	(590.27)	-	(628.00)	(83.61)	(1,114.84)	(4,485.96)
	<b>Net Change</b>	-	<b>135.43</b>	<b>(1,188.67)</b>	<b>(63.77)</b>	<b>635.67</b>	<b>(587.65)</b>	<b>(83.61)</b>	<b>(1,114.84)</b>	<b>(2,907.44)</b>
<b>Owl Habitat Acquired</b>	Designated Dispersal	-	-	-	-	-	-	-	-	-
	Existing Dispersal (41+)	-	-	-	-	-	-	-	-	-
	Designated NRF	-	-	-	-	-	-	-	-	-
	Existing NRF (71+)	-	-	-	-	-	-	-	-	-
	OESF	-	-	-	-	-	-	-	-	-
	No Role	-	376.00	-	526.50	635.67	40.35	-	-	-
										<b>1,578.52</b>
<b>Owl Habitat Disposed</b>	Designated Dispersal	-	-	-	-	-	-	-	(1,084.35)	(1,084.35)
	Existing Dispersal (41+)	-	-	-	-	-	-	-	(844.07)	(844.07)
	Designated NRF	-	-	-	-	-	-	-	-	-
	Existing NRF (71+)	-	-	-	-	-	-	-	-	-
	OESF	-	-	-	-	-	-	-	-	-
	No Role	(640.00)	(240.57)	(1,188.67)	(590.27)	-	(628.00)	(83.61)	(30.49)	(3,401.61)
										<b>(4,485.96)</b>
<b>Other Habitats Acquired</b>	Murrelet	-	-	-	-	-	-	-	-	-
	Oregon silverspot butterfly	-	-	-	-	-	-	-	-	-
	Aleutian Canadian goose	-	-	-	-	-	-	-	-	-
	Bald eagle	-	-	-	-	-	-	-	-	-
	Peregrine falcon	-	-	-	-	-	-	-	-	-
	Gray wolf	-	-	-	-	-	-	-	-	-
	Grizzly bear	-	-	-	-	-	-	-	-	-
	Columbia white-tailed deer	-	-	-	-	-	-	-	-	-
	Talus and cliffs	-	-	-	-	-	-	-	-	-
	Meadows	-	-	-	-	-	-	-	-	-
<b>Other Habitats Disposed</b>	Murrelet	-	-	-	-	-	-	-	-	-
	Oregon silverspot butterfly	-	-	-	-	-	-	-	-	-
	Aleutian Canadian goose	-	-	-	-	-	-	-	-	-
	Bald eagle	-	-	-	(59.00)	-	-	-	-	(59.00)
	Peregrine falcon	-	-	-	-	-	-	-	-	-
	Gray wolf	-	-	-	-	-	-	-	-	-
	Grizzly bear	-	-	-	-	-	-	-	-	-
	Columbia white-tailed deer	-	-	-	-	-	-	-	-	-
	Talus and cliffs	-	-	-	-	-	-	-	-	-
	Meadows	-	-	-	-	-	-	-	-	-
<b>Riparian: Stream Miles Acquired</b>	Stream type 1	-	-	-	-	-	-	-	-	-
	Stream type 2	-	-	-	-	-	-	-	-	-
	Stream type 3	-	-	-	-	0.87	-	-	-	-
	Stream type 4	-	0.20	-	1.55	0.97	-	-	-	-
	Stream type 5	-	2.86	-	0.77	2.71	-	-	-	-
	Stream type 9	-	0.46	-	0.34	3.73	-	-	-	-
	<b>Total Miles</b>	-	<b>3.52</b>	-	<b>2.66</b>	<b>8.28</b>	-	-	-	-
<b>ROS/Slopes Acquired</b>	Rain on Snow	-	-	-	99.11	-	-	-	-	-
	Unstable Slopes	-	4.24	-	55.46	110.29	-	-	-	-
<b>Riparian: Stream Miles Disposed</b>	Stream type 1	-	(0.08)	-	-	-	-	-	(0.35)	-
	Stream type 2	-	-	-	-	-	-	-	-	-
	Stream type 3	-	-	-	(0.77)	-	(2.27)	-	-	-
	Stream type 4	(0.08)	-	(0.27)	-	-	(1.13)	-	(0.36)	(1.40)
	Stream type 5	(5.44)	(0.38)	(2.24)	(0.08)	-	(0.97)	(0.06)	(2.43)	-
	Stream type 9	(7.60)	-	(3.61)	(0.30)	-	(0.18)	(0.24)	(4.87)	(4.33)
	<b>Total Miles</b>	<b>(13.12)</b>	<b>(0.46)</b>	<b>(6.12)</b>	<b>(1.15)</b>	-	<b>(4.55)</b>	<b>(0.30)</b>	<b>(7.66)</b>	<b>(12.58)</b>
<b>ROS/Slopes Disposed</b>	Rain on Snow	(497.03)	-	(796.06)	-	-	-	-	(767.81)	-
	Unstable Slopes	-	(8.19)	-	-	-	-	-	-	-

Activity		Planning Unit							Totals	
		Chelan	Columbia	Klickitat	N Puget	S Coast	S Puget	Straits		Yakima
Zones Acquired	Puget Sound Douglas Fir	-	-	-	3.50	-	40.35	-	-	43.85
	Silver Fir	-	-	-	160.00	-	-	-	-	160.00
	Sitka Spruce	-	-	-	-	635.67	-	-	-	635.67
	Western Hemlock	-	374.00	-	363.00	-	-	-	-	737.00
	Willamette Valley	-	2.00	-	-	-	-	-	-	2.00
	<b>Total Acres</b>	-	<b>376.00</b>	-	<b>526.50</b>	<b>635.67</b>	<b>40.35</b>	-	-	<b>1,578.52</b>
Zones Disposed	Woodland/Prairie Mosaic	-	-	-	(69.62)	-	-	-	-	(69.62)
	Western Hemlock	-	(240.57)	-	(441.00)	-	-	(83.61)	-	(765.18)
	Central Arid Steppe	(615.00)	-	-	-	-	-	-	-	(615.00)
	Ponderosa Pine	(25.00)	-	-	-	-	-	-	-	(25.00)
	Interior Douglas Fir	-	-	(312.53)	-	-	-	-	-	(312.53)
	Oak	-	-	(876.14)	-	-	-	-	-	(876.14)
	Puget Sound Douglas Fir	-	-	-	(79.65)	-	(628.00)	-	-	(707.65)
	Grand Fir	-	-	-	-	-	-	-	(634.84)	(634.84)
	Interior Western Hemlock	-	-	-	-	-	-	-	(480.00)	(480.00)
<b>Total Acres</b>	<b>(640.00)</b>	<b>(240.57)</b>	<b>(1,188.67)</b>	<b>(590.27)</b>	-	<b>(628.00)</b>	<b>(83.61)</b>	<b>(1,114.84)</b>	<b>(4,485.96)</b>	
Age class Acquired	Open 0-10	-	-	-	379.00	-	-	-	-	379.00
	Regeneration 11-20	-	-	-	117.00	26.60	-	-	-	143.60
	Pole 21-40	-	320.00	-	-	73.30	21.42	-	-	414.72
	Closed 41-70	-	14.00	-	-	131.50	18.93	-	-	164.43
	Complex 71-100	-	17.20	-	-	265.60	-	-	-	282.80
	Complex 101-150	-	-	-	-	91.00	-	-	-	91.00
	Functional 150+	-	-	-	-	2.00	-	-	-	2.00
	Non-Forest Land	-	24.80	-	30.50	45.67	-	-	-	100.97
<b>Total Acres</b>	-	<b>376.00</b>	-	<b>526.50</b>	<b>635.67</b>	<b>40.35</b>	-	-	<b>1,578.52</b>	
Age class Disposed	Open 0-10	-	-	(57.85)	-	-	-	-	-	(57.85)
	Regeneration 11-20	-	-	-	-	-	(187.40)	-	(177.38)	(364.78)
	Pole 21-40	-	-	(143.85)	-	-	(82.20)	-	(63.49)	(289.54)
	Closed 41-70	-	-	(479.31)	(208.00)	-	(201.60)	(14.80)	(454.61)	(1,358.32)
	Complex 71-100	-	(120.00)	(447.65)	(39.30)	-	(68.00)	(36.40)	(237.65)	(949.00)
	Complex 101-150	-	(59.00)	(22.64)	(17.50)	-	-	(16.30)	(151.81)	(267.25)
	Functional 150+	-	-	(3.95)	(30.62)	-	-	-	-	(34.57)
	Non-Forest Land	(640.00)	(61.57)	(33.42)	(294.85)	-	(88.80)	(16.11)	(29.90)	(1,164.65)
<b>Total Acres</b>	<b>(640.00)</b>	<b>(240.57)</b>	<b>(1,188.67)</b>	<b>(590.27)</b>	-	<b>(628.00)</b>	<b>(83.61)</b>	<b>(1,114.84)</b>	<b>(4,485.96)</b>	
Age class by Zone Acquired	<b>Open 0-10</b>									
	Western Hemlock	-	-	-	219.00	-	-	-	-	219.00
	Silver Fir	-	-	-	160.00	-	-	-	-	160.00
	<b>Regeneration 11-20</b>									
	Western Hemlock	-	-	-	117.00	-	-	-	-	117.00
	Sitka Spruce	-	-	-	-	26.60	-	-	-	26.60
	<b>Pole 21-40</b>									
	Western Hemlock	-	320.00	-	-	-	-	-	-	320.00
	Sitka Spruce	-	-	-	-	73.30	-	-	-	73.30
	Puget Sound Doug Fir	-	-	-	-	-	21.42	-	-	21.42
	<b>Closed 41-70</b>									
	Western Hemlock	-	14.00	-	-	-	-	-	-	14.00
	Sitka Spruce	-	-	-	-	131.50	-	-	-	131.50
	Puget Sound Doug Fir	-	-	-	-	-	18.93	-	-	18.93
	<b>Complex 71-100</b>									
	Western Hemlock	-	15.50	-	-	-	-	-	-	15.50
	Willamette Valley	-	1.80	-	-	-	-	-	-	1.80
	Sitka Spruce	-	-	-	-	265.60	-	-	-	265.60
	<b>Complex 101-150</b>									
	Sitka Spruce	-	-	-	-	91.00	-	-	-	91.00
<b>Functional 150</b>										
Sitka Spruce	-	-	-	-	2.00	-	-	-	2.00	
<b>Non-Forest Land</b>										
Western Hemlock	-	24.50	-	27.00	-	-	-	-	51.50	
Sitka Spruce	-	-	-	-	45.67	-	-	-	45.67	
Willamette Valley	-	0.20	-	-	-	-	-	-	0.20	
Puget Sound Doug Fir	-	-	-	3.50	-	-	-	-	3.50	
<b>Total Acres</b>	-	<b>376.00</b>	-	<b>526.50</b>	<b>635.67</b>	<b>40.35</b>	-	-	<b>1,578.52</b>	

Activity	Planning Unit							Totals	
	Chelan	Columbia	Klickitat	N Puget	S Coast	S Puget	Straits		Yakima
Age class by Zone	<b>Open 0-10</b>								
Disposed	Oak	-	-	(57.85)	-	-	-	-	(57.85)
	<b>Regeneration 11-20</b>								
	Puget Sound Doug Fir	-	-	-	-	(187.40)	-	-	(187.40)
	Grand Fir	-	-	-	-	-	-	(177.38)	(177.38)
	<b>Pole 21-40</b>								
	Interior Doug Fir	-	-	(37.69)	-	-	-	-	(37.69)
	Oak	-	-	(106.15)	-	-	-	-	(106.15)
	Puget Sound Doug Fir	-	-	-	-	(82.20)	-	-	(82.20)
	Int Western Hemlock	-	-	-	-	-	-	(63.49)	(63.49)
	<b>Closed 41-70</b>								
	Western Hemlock	-	-	-	(208.00)	-	-	(14.80)	(222.80)
	Interior Doug Fir	-	-	(148.57)	-	-	-	-	(148.57)
	Oak	-	-	(330.74)	-	-	-	-	(330.74)
	Puget Sound Doug Fir	-	-	-	-	(201.60)	-	-	(201.60)
	Grand Fir	-	-	-	-	-	-	(272.55)	(272.55)
	Int Western Hemlock	-	-	-	-	-	-	(182.06)	(182.06)
	<b>Complex 71-100</b>								
	Western Hemlock	-	(120.00)	-	-	-	(36.40)	-	(156.40)
	Woodland/Pr. Mosaic	-	-	-	(20.00)	-	-	-	(20.00)
	Oak	-	-	(321.38)	-	-	-	-	(321.38)
	Puget Sound Doug Fir	-	-	-	(19.30)	(68.00)	-	-	(87.30)
	Grand Fir	-	-	-	-	-	-	(9.40)	(9.40)
	Int Western Hemlock	-	-	-	-	-	-	(228.25)	(228.25)
	Interior Doug Fir	-	-	(126.27)	-	-	-	-	(126.27)
	<b>Complex 101-150</b>								
	Western Hemlock	-	(59.00)	-	-	-	(16.30)	-	(75.30)
	Oak	-	-	(22.65)	-	-	-	-	(22.65)
	Puget Sound Doug Fir	-	-	-	(17.50)	-	-	-	(17.50)
	Grand Fir	-	-	-	-	-	-	(151.81)	(151.81)
	<b>Functional 150</b>								
	Oak	-	-	(3.95)	-	-	-	-	(3.95)
	Woodland/Pr. Mosaic	-	-	-	(30.62)	-	-	-	(30.62)
	<b>Non-Forest Land</b>								
	Western Hemlock	-	(61.57)	-	(233.00)	-	(16.11)	-	(310.68)
	Grand Fir	-	-	-	-	-	-	(23.70)	(23.70)
	Central Arid Steppe	(615.00)	-	-	-	-	-	-	(615.00)
	Ponderosa Pine	(25.00)	-	-	-	-	-	-	(25.00)
	Oak	-	-	(33.42)	-	-	-	-	(33.42)
	Woodland/Pr. Mosaic	-	-	-	(19.00)	-	-	-	(19.00)
	Puget Sound Doug Fir	-	-	-	(42.85)	(88.80)	-	-	(131.65)
	Int Western Hemlock	-	-	-	-	-	-	(6.20)	(6.20)
	<b>Total Acres</b>	<b>(640.00)</b>	<b>(240.57)</b>	<b>(1,188.67)</b>	<b>(590.27)</b>	<b>-</b>	<b>(628.00)</b>	<b>(83.61)</b>	<b>(1,114.84)</b>

**Table 6.2.** Effects of transactions of permit lands - January 1997 through June 2005.

Information subject to corrections and additions over time.  
Some numbers may not add up due to rounding.

Activity	Planning Unit									Totals
	Chelan	Columbia	Klickitat	N Puget	OESF	S Coast	S Puget	Straits	Yakima	
<b>Total Acres Acquired</b>	403.57	5,998.50	1,234.65	12,603.82	3,180.59	4,733.58	10,482.85	1,222.72	39.15	39,899.43
<b>Total Acres Disposed</b>	(640.00)	(10,511.98)	(1,188.67)	(5,054.50)	(838.24)	(2,605.91)	(6,277.41)	(206.45)	(1,114.84)	(28,438.00)
<b>Net Change - Acres</b>	<b>(236.43)</b>	<b>(4,513.48)</b>	<b>45.98</b>	<b>7,549.32</b>	<b>2,342.35</b>	<b>2,127.67</b>	<b>4,205.44</b>	<b>1,016.27</b>	<b>(1,075.69)</b>	<b>11,461.43</b>
<b>Owl Habitat Acquired</b>										
Designated Dispersal	-	-	232.20	10.00	-	-	7,346.73	-	-	7,588.93
Existing Dispersal (41+)	-	-	230.00	10.00	-	-	3,279.46	-	-	3,519.46
Designated NRF	203.57	380.00	1,002.45	2,076.24	-	-	-	-	-	3,662.26
Existing NRF (71+)	-	17.39	146.00	-	-	-	-	-	-	163.39
OESF	-	-	-	-	3,180.59	-	-	-	-	3,180.59
No Role	200.00	5,618.50	-	10,517.58	-	4,733.58	3,136.12	1,222.72	39.15	25,467.65
										<b>39,899.43</b>
<b>Owl Habitat Disposed</b>										
Designated Dispersal	-	(6,754.57)	-	(734.36)	-	-	(660.00)	-	(1,084.35)	(9,233.28)
Existing Dispersal (41+)	-	(2,325.82)	-	(109.00)	-	-	(131.90)	-	(844.07)	(3,410.79)
Designated NRF	-	(1,284.53)	-	(126.55)	-	-	-	-	-	(1,411.08)
Existing NRF (71+)	-	(389.49)	-	-	-	-	-	-	-	(389.49)
OESF	-	-	-	-	(838.24)	-	-	-	-	(838.24)
No Role	(640.00)	(2,472.88)	(1,188.67)	(4,193.59)	-	(2,605.91)	(5,617.41)	(206.45)	(30.49)	(16,955.40)
										<b>(28,438.00)</b>
<b>Other Habitats Acquired</b>										
Murrelet	-	-	-	-	-	-	-	-	-	-
Oregon silverspot butterfly	-	-	-	-	-	-	-	-	-	-
Aleutian Canadian goose	-	-	-	-	-	-	-	-	-	-
Bald eagle	-	-	-	20.00	-	-	-	-	-	20.00
Peregrine falcon	-	-	-	-	-	-	-	-	-	-
Gray wolf	-	-	-	-	-	-	-	-	-	-
Grizzly bear	-	-	-	-	-	-	-	-	-	-
Columbia white-tailed deer	-	-	-	-	-	-	-	-	-	-
Talus and cliffs	-	-	-	325.00	-	-	-	-	-	325.00
Meadows	102.50	-	70.45	-	-	-	-	-	-	172.95
<b>Other Habitats Disposed</b>										
Murrelet	-	(567.61)	-	-	-	-	(279.91)	-	-	(847.52)
Oregon silverspot butterfly	-	-	-	-	-	-	-	-	-	-
Aleutian Canadian goose	-	-	-	-	-	-	-	-	-	-
Bald eagle	-	(40.00)	-	(64.00)	(49.42)	-	-	-	-	(153.42)
Peregrine falcon	-	-	-	-	-	-	-	-	-	-
Gray wolf	-	-	-	-	-	-	-	-	-	-
Grizzly bear	-	-	-	-	-	-	-	-	-	-
Columbia white-tailed deer	-	-	-	-	-	-	-	-	-	-
Talus and cliffs	-	(87.00)	-	(20.00)	-	-	-	-	-	(107.00)
Meadows	-	(82.00)	-	-	-	-	-	-	-	(82.00)
<b>Riparian: Stream Miles Acquired</b>										
Stream type 1	-	2.41	3.70	16.42	0.32	9.23	3.05	-	-	35.13
Stream type 2	-	-	1.12	1.81	1.02	0.91	0.36	-	-	5.22
Stream type 3	-	8.65	1.01	11.79	7.24	7.89	9.09	-	-	45.67
Stream type 4	0.96	10.35	-	15.98	2.25	6.72	10.70	0.31	-	47.27
Stream type 5	2.47	39.16	0.82	30.03	8.99	13.14	36.14	4.41	-	135.16
Stream type 9	4.47	40.28	3.42	26.61	4.85	24.77	12.71	2.83	0.25	120.19
<b>Total Miles</b>	<b>7.90</b>	<b>100.85</b>	<b>10.07</b>	<b>102.64</b>	<b>24.67</b>	<b>62.66</b>	<b>72.05</b>	<b>7.55</b>	<b>0.25</b>	<b>388.64</b>
<b>ROS/Slopes Acquired</b>										
Rain on Snow	-	1,070.74	999.04	2,502.21	4.47	-	3,165.84	925.75	3.43	8,671.48
Unstable Slopes	23.10	840.40	-	1,054.61	1,137.10	288.67	104.84	923.77	-	4,372.49
<b>Riparian: Stream Miles Disposed</b>										
Stream type 1	-	(1.40)	-	(3.20)	(0.30)	(0.14)	(0.69)	-	-	(5.73)
Stream type 2	-	-	-	(0.33)	-	(1.97)	(0.32)	-	(0.35)	(2.97)
Stream type 3 <sup>1</sup>	-	(15.78)	-	(12.22)	(2.18)	(2.64)	(5.18)	(0.59)	-	(38.59)
Stream type 4	(0.08)	(10.01)	(0.27)	(0.47)	(1.71)	(1.65)	(5.96)	(0.17)	(0.36)	(20.68)
Stream type 5	(5.44)	(49.80)	(2.24)	(3.78)	(5.15)	(9.43)	(7.03)	(0.09)	(2.43)	(85.39)
Stream type 9	(7.60)	(31.16)	(3.61)	(1.82)	-	(11.18)	(11.17)	(0.24)	(4.87)	(71.65)
<b>Total Miles</b>	<b>(13.12)</b>	<b>(108.15)</b>	<b>(6.12)</b>	<b>(21.82)</b>	<b>(9.34)</b>	<b>(27.01)</b>	<b>(30.35)</b>	<b>(1.09)</b>	<b>(7.66)</b>	<b>(224.66)</b>
<b>ROS/Slopes Disposed</b>										
Rain on Snow	(497.03)	(3,611.18)	(796.06)	(536.98)	(78.46)	-	(182.12)	-	(767.81)	(6,469.64)
Unstable Slopes	-	(1,135.79)	-	(378.10)	(14.09)	(1.65)	(114.97)	-	-	(1,644.60)
<b>Zones: Acquired</b>										
Interior Douglas Fir	203.57	-	360.70	-	-	-	-	-	-	564.27
Olympic Douglas Fir	-	-	-	-	-	-	-	161.45	-	161.45
Puget Sound Douglas Fir	-	-	-	202.17	-	-	1,810.41	0.75	-	2,013.33
Silver Fir	-	-	-	1,263.29	-	-	39.32	-	-	1,302.61
Sitka Spruce	-	-	-	-	389.08	1,988.16	-	-	-	2,377.24
Western Hemlock	-	5,996.50	-	8,423.15	2,791.82	2,520.90	8,633.12	1,060.52	-	29,426.01
Mt. Hemlock	-	-	-	2,597.04	-	-	-	-	-	2,597.04
Oak	-	-	873.95	-	-	-	-	-	-	873.95
Three-tip Sage	40.00	-	-	-	-	-	-	-	-	40.00
Central Arid Steppe	120.00	-	-	-	-	-	-	-	-	120.00
Ponderosa Pine	40.00	-	-	-	-	-	-	-	26.15	66.15
Williamette Valley	-	2.00	-	-	-	-	-	-	-	2.00
Woodland/Prairie Mosaic	-	-	-	118.17	-	224.52	-	-	13.00	355.69
<b>Total Acres</b>	<b>403.57</b>	<b>5,998.50</b>	<b>1,234.65</b>	<b>12,603.82</b>	<b>3,180.90</b>	<b>4,733.58</b>	<b>10,482.85</b>	<b>1,222.72</b>	<b>39.15</b>	<b>39,899.74</b>

Activity	Planning Unit									Totals	
	Chelan	Columbia	Klickitat	N Puget	OESF	S Coast	S Puget	Straits	Yakima		
<b>Zones:</b>											
<b>Disposed</b>	Interior Douglas Fir	-	-	(312.53)	-	-	-	-	-	(312.53)	
	Mountain Hemlock	-	-	-	(402.00)	-	-	-	-	(402.00)	
	Puget Sound Douglas Fir	-	-	-	(1,085.95)	-	(148.71)	(3,378.66)	(80.00)	(4,693.32)	
	Olympic Douglas Fir	-	-	-	-	-	-	(0.22)	-	(0.22)	
	Silver Fir	-	(1,250.23)	-	(550.00)	-	-	(488.00)	-	(2,288.23)	
	Sitka Spruce	-	-	-	-	(54.21)	(1,120.00)	-	-	(1,174.21)	
	Western Hemlock	-	(8,979.75)	-	(2,946.93)	(784.03)	(926.77)	(1,849.75)	(85.61)	(15,572.84)	
	Woodland/Prairie	-	-	-	(69.62)	-	-	(561.00)	(40.62)	(671.24)	
	Williamette Valley	-	(242.00)	-	-	-	-	-	-	(242.00)	
	Cowlitz River	-	(40.00)	-	-	-	(410.43)	-	-	(450.43)	
	Central Arid Steppe	(615.00)	-	-	-	-	-	-	-	(615.00)	
	Ponderosa Pine	(25.00)	-	-	-	-	-	-	-	(25.00)	
	Oak	-	-	(876.14)	-	-	-	-	-	(876.14)	
	Interior Western Hemlock	-	-	-	-	-	-	-	(480.00)	(480.00)	
	Grand Fir	-	-	-	-	-	-	-	(634.84)	(634.84)	
	<b>Total Acres</b>	<b>(640.00)</b>	<b>(10,511.98)</b>	<b>(1,188.67)</b>	<b>(5,054.50)</b>	<b>(838.24)</b>	<b>(2,605.91)</b>	<b>(6,277.41)</b>	<b>(206.45)</b>	<b>(1,114.84)</b>	
<b>Age class</b>											
<b>Acquired</b>	Open 0-10	97.50	3,821.50	184.65	2,861.60	216.28	1,762.10	2,710.00	273.45	-	11,927.08
	Regeneration 11-20	-	2.00	14.90	2,524.57	509.64	568.61	1,224.41	-	-	4,844.13
	Pole 21-40	0.50	675.00	-	831.40	1,541.00	245.30	1,981.12	-	-	5,274.32
	Closed 41-70	2.57	1,378.30	89.10	4,599.90	633.50	1,072.37	3,327.23	903.72	-	12,006.69
	Complex 71-100	-	43.59	324.00	353.57	113.30	265.60	597.49	-	-	1,697.55
	Complex 101-150	-	-	10.00	-	-	91.00	97.50	-	12.15	210.65
	Functional 150+	-	-	42.00	7.00	-	2.00	-	-	-	51.00
	Non-Forest Land	303.00	78.07	570.00	1,425.84	166.80	726.55	545.29	45.55	27.00	3,888.10
	<b>Total Acres</b>	<b>403.57</b>	<b>5,998.46</b>	<b>1,234.65</b>	<b>12,603.88</b>	<b>3,180.52</b>	<b>4,733.53</b>	<b>10,483.04</b>	<b>1,222.72</b>	<b>39.15</b>	<b>39,899.52</b>
<b>Age class</b>											
<b>Disposed</b>	Open 0-10	-	(2,048.90)	(57.85)	(560.01)	(42.21)	(655.25)	(608.24)	(2.00)	-	(3,974.46)
	Regeneration 11-20	-	(1,307.22)	-	(514.02)	-	(679.67)	(330.61)	-	(177.38)	(3,008.90)
	Pole 21-40	-	(2,027.50)	(143.85)	(511.10)	(207.35)	(304.60)	(357.50)	-	(63.49)	(3,615.39)
	Closed 41-70	-	(2,810.10)	(479.31)	(2,133.90)	(414.03)	(813.63)	(2,108.00)	(135.42)	(454.61)	(9,349.00)
	Complex 71-100	-	(563.20)	(447.65)	(707.66)	(140.95)	(33.00)	(1,451.06)	(36.40)	(237.65)	(3,617.57)
	Complex 101-150	-	(748.71)	(22.64)	(22.50)	-	-	(357.12)	(16.30)	(151.81)	(1,319.08)
	Functional 150+	-	(168.99)	(3.95)	(89.62)	-	-	(588.00)	-	-	(850.56)
	Non-Forest Land	(640.00)	(837.34)	(33.42)	(515.73)	(33.70)	(119.19)	(476.85)	(16.33)	(29.90)	(2,702.46)
	<b>Total Acres</b>	<b>(640.00)</b>	<b>(10,511.96)</b>	<b>(1,188.67)</b>	<b>(5,054.54)</b>	<b>(838.24)</b>	<b>(2,605.34)</b>	<b>(6,277.38)</b>	<b>(206.45)</b>	<b>(1,114.84)</b>	<b>(28,437.42)</b>
<b>Age class</b>											
<b>by Zone:</b>											
<b>Acquired</b>	<b>Open 0-10</b>										
	Mt Hemlock	-	-	-	450.70	-	-	-	-	-	450.70
	PS Douglas Fir	-	-	-	-	-	-	256.30	-	-	256.30
	Interior Doug Fir	97.50	-	3.90	-	-	-	-	-	-	101.40
	Olympic Doug Fir	-	-	-	-	-	-	-	161.45	-	161.45
	Silver Fir	-	-	-	600.27	-	-	-	-	-	600.27
	Sitka Spruce	-	-	-	-	77.69	290.20	-	-	-	367.89
	Western Hemlock	-	3,821.50	-	1,817.58	138.92	1,423.46	2,453.77	128.00	-	9,783.23
	Oak	-	-	180.75	-	-	-	-	-	-	180.75
	Woodlnd Prairie Mosaic	-	-	-	-	-	48.52	-	-	-	48.52
	<b>Regeneration 11-20</b>										
	PS Douglas Fir	-	-	-	-	-	-	296.49	-	-	296.49
	Interior Doug Fir	-	-	3.40	-	-	-	-	-	-	3.40
	Silver Fir	-	-	-	10.50	-	-	39.32	-	-	49.82
	Sitka Spruce	-	-	-	-	60.96	279.31	-	-	-	340.27
	Western Hemlock	-	2.00	-	2,210.57	448.71	182.30	888.60	-	-	3,732.18
	Mt Hemlock	-	-	-	320.50	-	-	-	-	-	320.50
	Oak	-	-	11.50	-	-	-	-	-	-	11.50
	Woodlnd Prairie Mosaic	-	-	-	-	-	107.00	-	-	-	107.00
	<b>Pole 21-40</b>										
	PS Douglas Fir	-	-	-	-	-	-	606.07	-	-	606.07
	Interior Doug Fir	0.50	-	-	-	-	-	-	-	-	0.50
	Silver Fir	-	-	-	103.71	-	-	-	-	-	103.71
	Sitka Spruce	-	-	-	-	142.66	161.32	-	-	-	303.98
	Western Hemlock	-	675.00	-	589.65	1,251.70	20.00	1,375.00	-	-	3,911.35
	Mt Hemlock	-	-	-	138.00	-	-	-	-	-	138.00
	Woodlnd Prairie Mosaic	-	-	-	-	-	64.00	-	-	-	64.00
	<b>Closed 41-70</b>										
	Mt Hemlock	-	-	-	1,052.40	-	-	-	-	-	1,052.40
	PS Douglas Fir	-	-	-	117.97	-	-	258.25	-	-	376.22
	Interior Doug Fir	2.57	-	4.00	-	-	-	-	-	-	6.57
	Silver Fir	-	-	-	428.16	-	-	-	-	-	428.16
	Sitka Spruce	-	-	-	-	52.54	729.37	-	-	-	781.91
	Western Hemlock	-	1,378.34	-	2,872.63	729.40	338.00	3,068.99	907.72	-	9,295.08
	Oak	-	-	85.10	-	-	-	-	-	-	85.10
	Woodlnd Prairie Mosaic	-	-	-	104.77	-	5.00	-	-	-	109.77
	<b>Complex 71-100</b>										
	Silver Fir	-	-	-	47.97	-	-	-	-	-	47.97
	PS Douglas Fir	-	-	-	58.00	-	-	63.93	-	-	121.93
	Interior Doug Fir	-	-	212.20	-	-	-	-	-	-	212.20
	Sitka Spruce	-	-	-	-	49.97	265.60	-	-	-	315.57
	Western Hemlock	-	41.89	-	117.60	61.47	-	533.56	-	-	754.52
	Mt Hemlock	-	-	-	130.00	-	-	-	-	-	130.00
	Oak	-	-	111.80	-	-	-	-	-	-	111.80
	Williamette Valley	-	1.80	-	-	-	-	-	-	-	-
	<b>Complex 101-150</b>										
	Western Hemlock	-	-	-	-	-	-	97.50	-	-	97.50

	Activity	Planning Unit								Totals	
		Chelan	Columbia	Klickitat	N Puget	OESF	S Coast	S Puget	Straits		
Age Class by Zone: Acquired (Continued)	Oak	-	-	10.00	-	-	-	-	-	10.00	
	Central Arid Steppe	-	-	-	-	-	-	-	8.15	8.15	
	Ponderosa Pine	-	-	-	-	-	-	-	4.00	4.00	
	Sitka Spruce	-	-	-	-	-	91.00	-	-	-	
	<b>Functional 150+</b>										
	Interior Douglas Fir	-	-	42.00	-	-	-	-	-	42.00	
	Western Hemlock	-	-	-	7.00	-	-	-	-	7.00	
	Sitka Spruce	-	-	-	-	-	2.00	-	-	-	
	<b>Non-Forest Land</b>										
	Mt Hemlock	-	-	-	505.44	-	-	-	-	505.44	
	PS Douglas Fir	-	-	-	26.20	-	-	329.59	0.75	356.54	
	Interior Doug Fir	103.00	-	95.20	-	-	-	-	-	198.20	
	Silver Fir	-	-	-	72.68	-	-	-	-	72.68	
	Sitka Spruce	-	-	-	-	5.26	169.41	-	-	174.67	
	Western Hemlock	-	77.77	-	808.12	161.62	557.14	215.70	24.80	1,845.15	
	Oak	-	-	474.80	-	-	-	-	-	474.80	
	Three-tip Sage	40.00	-	-	-	-	-	-	-	40.00	
	Central Arid Steppe	120.00	-	-	-	-	-	-	18.00	138.00	
	Ponderosa Pine	40.00	-	-	-	-	-	-	9.00	49.00	
	Woodland Prairie Mos.	-	-	-	13.40	-	-	-	-	13.40	
	Williamette Valley	-	0.20	-	-	-	-	-	-	0.20	
	<b>Total Acres</b>	<b>403.57</b>	<b>5,998.50</b>	<b>1,234.65</b>	<b>12,603.82</b>	<b>3,180.90</b>	<b>4,733.63</b>	<b>10,483.07</b>	<b>1,222.72</b>	<b>39.15</b>	<b>39,900.01</b>
	Age class by Zone: Disposed	<b>Open 0-10</b>									
PS Douglas Fir		-	-	-	(103.84)	-	(39.15)	(222.29)	(2.70)	(367.98)	
Silver Fir		-	(169.90)	-	-	(42.21)	-	(191.70)	-	(403.81)	
Western Hemlock		-	(1,878.95)	-	(521.07)	-	(438.10)	(33.55)	(2.00)	(2,873.67)	
Mt Hemlock		-	-	-	(56.00)	-	-	-	-	(56.00)	
Cowlitz River		-	-	-	-	-	(178.00)	-	-	(178.00)	
Woodland Prairie Mos.		-	-	-	-	-	-	(160.70)	-	(160.70)	
Oak		-	-	(57.85)	-	-	-	-	-	(57.85)	
<b>Regeneration 11-20</b>											
PS Douglas Fir		-	-	-	(65.00)	-	-	(189.40)	(2.70)	(257.10)	
Silver Fir		-	(239.50)	-	(11.88)	-	-	(115.70)	-	(367.08)	
Sitka Spruce		-	-	-	-	-	(339.00)	-	-	(339.00)	
Western Hemlock		-	(1,067.72)	-	(128.14)	-	(340.67)	(25.51)	-	(1,562.04)	
Mt Hemlock		-	-	-	(56.00)	-	-	-	-	(56.00)	
Grand Fir		-	-	-	-	-	-	-	(177.38)	(177.38)	
<b>Pole 21-40</b>											
PS Douglas Fir		-	-	-	(93.46)	-	-	(303.20)	(2.60)	(399.26)	
Silver Fir		-	(277.62)	-	(59.11)	-	-	(12.10)	-	(348.83)	
Sitka Spruce		-	-	-	-	-	(169.20)	-	-	(169.20)	
Western Hemlock		-	(1,741.93)	-	(423.60)	(207.35)	(65.41)	(33.20)	-	(2,471.49)	
Mt Hemlock		-	-	-	(57.00)	-	-	-	-	(57.00)	
Cowlitz River		-	(8.00)	-	-	-	(70.00)	-	-	(78.00)	
Woodland Prairie Mosaic		-	-	-	-	-	-	(9.00)	-	(9.00)	
Interior Douglas Fir		-	-	(37.69)	-	-	-	-	-	(37.69)	
Oak		-	-	(106.15)	-	-	-	-	-	(106.15)	
Int Western Hemlock		-	-	-	-	-	-	-	(63.49)	(63.49)	
<b>Closed 41-70</b>											
Mt Hemlock		-	-	-	(230.00)	-	-	-	-	(230.00)	
PS Douglas Fir		-	-	-	(83.43)	-	(83.00)	(1,101.49)	(72.00)	(1,339.92)	
Silver Fir		-	(47.82)	-	(450.00)	-	-	(33.70)	-	(531.52)	
Sitka Spruce		-	-	-	-	-	(596.30)	-	-	(596.30)	
Western Hemlock		-	(2,762.30)	-	(1,382.46)	(414.03)	(20.00)	(620.30)	(14.80)	(5,213.89)	
Woodland Prairie Mosaic		-	-	-	-	-	-	(352.80)	(40.62)	(393.42)	
Cowlitz River		-	-	-	-	-	(114.33)	-	-	(114.33)	
Interior Douglas Fir		-	-	(148.57)	-	-	-	-	-	(148.57)	
Oak		-	-	(330.74)	-	-	-	-	-	(330.74)	
Grand Fir		-	-	-	-	-	-	-	(272.55)	(272.55)	
Int Western Hemlock		-	-	-	-	-	-	-	(182.06)	(182.06)	
<b>Complex 71-100</b>											
PS Douglas Fir		-	-	-	(366.16)	-	-	(623.28)	-	(989.44)	
Silver Fir		-	-	-	(1.70)	-	-	-	-	(1.70)	
Western Hemlock		-	(537.70)	-	(133.30)	(140.95)	(33.00)	(826.92)	(36.40)	(1,708.27)	
Cowlitz River		-	(25.50)	-	-	-	-	-	-	(25.50)	
Oak		-	-	(321.38)	-	-	-	-	-	(321.38)	
Interior Douglas Fir		-	-	(126.27)	-	-	-	-	-	(126.27)	
Woodland Prairie Mosaic		-	-	-	(20.00)	-	-	-	-	(20.00)	
Grand Fir		-	-	-	-	-	-	-	(9.40)	(9.40)	
Int Western Hemlock		-	-	-	-	-	-	-	(228.25)	(228.25)	
<b>Complex 101-150</b>											
PS Douglas Fir		-	-	-	(218.00)	-	-	(46.10)	-	(264.10)	
Silver Fir		-	(345.50)	-	(1.70)	-	-	(123.70)	-	(470.90)	
Western Hemlock		-	(403.21)	-	(3.30)	-	-	(187.15)	(16.30)	(609.96)	
Oak		-	-	(22.65)	-	-	-	-	-	(22.65)	
Grand Fir		-	-	-	-	-	-	-	(151.81)	(151.81)	
<b>Functional 150+</b>											
PS Douglas Fir		-	-	-	-	-	-	(588.00)	-	(588.00)	
Silver Fir		-	(131.49)	-	(1.00)	-	-	-	-	(132.49)	
Western Hemlock		-	(37.50)	-	(58.00)	-	-	-	-	(95.50)	
Oak		-	-	(3.95)	-	-	-	-	-	(3.95)	
Woodland Prairie Mosaic		-	-	-	(30.62)	-	-	-	-	(30.62)	

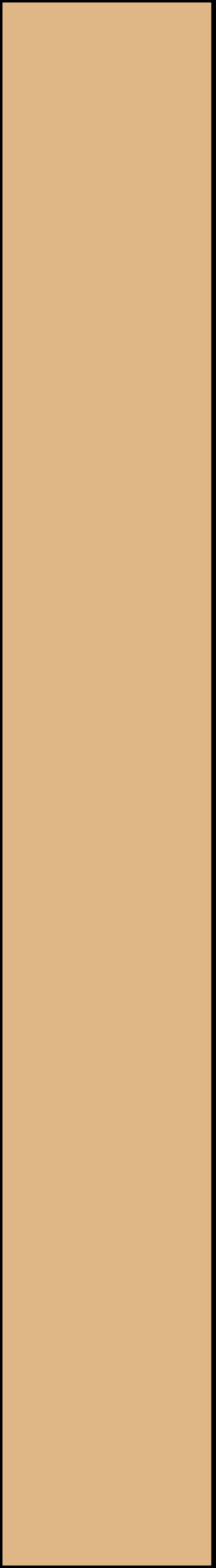


Activity	Planning Unit									Totals
	Chelan	Columbia	Klickitat	N Puget	OESF	S Coast	S Puget	Straits		
<b>Age Class</b>	<b>Non-Forest Land</b>									
<i>by Zone:</i>	-	-	-	(3.00)	-	-	-	-	-	(3.00)
<i>Disposed</i>	-	-	-	(156.06)	-	(26.00)	(364.90)	-	-	(546.96)
<i>(Continued)</i>	-	(38.40)	-	(19.52)	-	-	(11.10)	-	-	(69.02)
Sitka Spruce	-	-	-	-	(12.00)	(15.50)	-	-	-	(27.50)
Western Hemlock	-	(550.44)	-	(302.15)	(21.70)	(30.15)	(63.12)	(16.11)	-	(983.67)
Woodlnd Prairie Mosaic	-	-	-	(19.00)	-	-	(38.50)	-	-	(57.50)
Cowlitz River	-	(6.50)	-	-	-	(48.10)	-	-	-	(54.60)
Willamette Valley	-	(242.00)	-	-	-	-	-	-	-	(242.00)
Olympic Doug Fir	-	-	-	-	-	-	-	(0.22)	-	(0.22)
Central Arid Steppe	(615.00)	-	-	-	-	-	-	-	-	(615.00)
Ponderosa Pine	(25.00)	-	-	-	-	-	-	-	-	(25.00)
Oak	-	-	(33.42)	-	-	-	-	-	-	(33.42)
Grand Fir	-	-	-	-	-	-	-	-	(23.70)	(23.70)
Int Western Hemlock	-	-	-	-	-	-	-	-	(6.20)	(6.20)
<b>Total Acres</b>	<b>(640.00)</b>	<b>(10,511.98)</b>	<b>(1,188.67)</b>	<b>(5,054.50)</b>	<b>(838.24)</b>	<b>(2,605.91)</b>	<b>(6,277.41)</b>	<b>(206.45)</b>	<b>(1,114.84)</b>	<b>(28,438.00)</b>

Notes: <sup>1</sup> An error in "stream miles disposed" has been corrected. In 2004, the type 3 miles under South Puget were listed as 200.16. The correct figure was 2.91 miles.



## **7. MONITORING AND RESEARCH**



## MONITORING AND RESEARCH

Monitoring is the feedback loop providing information for decisions in the adaptive management process. The department focuses on research and monitoring to identify and eliminate the information barriers to full HCP implementation and improve the ability to meet management goals through adaptive management.

DNR's HCP Science Section provides both a centralized approach to research and monitoring and a systematic, consistent process for reporting research and monitoring results. Sound application of silvicultural and ecological knowledge, creative ideas, and reliable data are needed to develop innovative forest management practices capable of achieving the financial and ecological objectives of the state trust lands HCP. Since the HCP was adopted, there have been advances in terms of understanding the biology of spotted owls, marbled murrelets, and other listed and unlisted species. However, much remains to be learned, and new systems and techniques continue to be developed and tested. Additional reliable information that is applicable to management decisions can be obtained only through well planned and well executed monitoring and research. Balancing the need to make good statistical inferences with the need to gather and assess information on 1.6 million acres of HCP landscapes is an enormous challenge.

A system consisting of three types of monitoring – implementation, effectiveness, and validation – has become a common organizational framework for monitoring programs in forest management.

- **Implementation monitoring**, also known as compliance monitoring, determines whether or not a management plan (e.g., a HCP) is implemented properly on the ground.
- **Effectiveness monitoring** determines whether or not the management plan is producing the desired habitat conditions.
- **Validation monitoring** determines whether or not certain species respond to the desired habitat conditions as anticipated. Research supports the completion of conservation strategies, tests promising alternatives to current practices, and contributes to the ecological foundation of management practices.

### IMPLEMENTATION MONITORING

In 2005, compliance monitoring reviews were conducted in all Westside planning units and the Klickitat Planning Unit. DNR's implementation monitoring protocol calls for review of different conservation strategies or components each year. In 2005, two elements of the HCP were selected for review: hydrologic maturity in the rain on snow zone (rain on snow) and the northern spotted owl (both the existing strategy and the amended strategy, which is applicable only in the Klickitat Planning Unit). Compliance with the rain on snow and the spotted owl strategy outside of the Klickitat was determined through an office review using information in the timber sale jackets, Planning and Tracking (P&T) database, and DNR's GIS system. In the Klickitat Planning Unit, the northern spotted owl strategy was field reviewed. The data from this review is provided in a separate report.

## **EFFECTIVENESS MONITORING, VALIDATION MONITORING, AND RESEARCH**

The following briefly summarizes current DNR efforts in effectiveness monitoring, validation monitoring, and research. Only those projects that had significant developments in the reporting period are discussed. Other ongoing projects that receive annual maintenance or measurement include: Windthrow in Riparian Areas; Type 5 Stream Literature Review; the Functional Role of Down Woody Debris and Long-term Ecosystem Productivity; Modeling of the Long-term Risk of Northern Spotted Owl Habitat Loss on the Eastside; Baseline Spotted Owl Validation Monitoring in the OESF; Variation In Marbled Murrelet Activity Using Old-Growth Stands on The OESF; Riparian Silviculture Modeling; and Managing Young Stand Composition and Structure for Forest Productivity and Biodiversity.

### **Riparian Conservation Strategy**

The objectives of riparian monitoring and research are to:

- increase confidence in DNR's ability to integrate biodiversity type thinning in management of riparian areas;
- help promote acceleration of the development of older stand conditions in riparian areas;
- help develop new guidelines for assessing wind throw risk and determining the need for wind buffers; and
- support the development of the Type 5 stream conservation strategy.

In addition, this work supports the adaptive management goals of the riparian conservation strategy, such as reexamination of watershed condition and changes in aquatic habitat quality. Information from this monitoring will increase DNR's ability to understand the influence of land management on aquatic habitat conditions and effectively implement the conservation strategies to reach the goals of the HCP.

Significant progress was made on three research components that will supply information for the development of the pending Type 5 stream long-term conservation strategy, as well as several other projects.

#### **1. Small Stream Buffer Experimentation**

Since 1999, DNR, in cooperation with the USFS Pacific Northwest Forestry Sciences Laboratory, Washington's Department of Ecology, and the University of Washington, has conducted a research project to determine the possible influence of different buffer configurations on first order streams in Western Washington. That research is now yielding results about the heterogeneity of stream conditions, trophic connections with downstream systems and landscape influences. This year, additional cooperators from the Evergreen State College in Washington and The University of California at Davis were included.

The study design imposes a range of buffer configurations around headwater streams. See <http://www.dnr.wa.gov/hcp/type5/overview.html>. The results of this study have been prepared for presentation at scientific meetings in 2005, and will help support the development of a long-term conservation strategy for Type 5 streams on DNR-managed state lands in Western Washington.

*Project Activities:*

- Treatments have been completed at nine locations in DNR's Pacific Cascade Region.
- One-year post treatment measurement is complete.
- Preliminary results were presented at eight scientific meetings throughout the Pacific Northwest.
- A manuscript and six poster abstracts have been presented at meetings in 2005.
- Approximately 113 staff months were expended on the project this year between the five major cooperators.
- A master's thesis was completed addressing the export of nutrients in stream flows from headwater streams monitored on state lands.

**2. Updating of the DNR Type 5 Literature Review**

In support of the long-term conservation strategy, a literature review for Type 5 streams was previously posted. In 2004, the literature review was updated and its accompanying website redesigned. This literature review focuses on the effect Type 5 streams have on wildlife habitat and downstream system trophic relationships, their interactions with the upland environment, and their functions. Special emphasis is given to management options and protection.

*Project Activities:*

- The updated and redesigned site is available at <http://www.dnr.wa.gov/hcp/type5/default.html>

**3. Retrospective Analysis of Interim Protection of Type 5 Streams**

In 2004, DNR initiated a study designed to quantify how the interim Type 5 stream protection measures have been interpreted in the field. Using GIS analysis linked with existing department databases, DNR determined the population of forest stands that were clear cut harvested since Jan 1, 1999 on lands covered by the HCP. That population was stratified by EPA Ecozone, and linear stream distance was determined for streams by class for each harvest unit. Where LIDAR data exists, expected headwater streams were also modeled. Finally, DNR developed in-house capability to map riparian buffer areas using existing aerial photographs.

*Project Activities:*

- Field testing of protocols to validate stream reach classification by assessing gradient and length of each reach was conducted in 2004.
- Field measurements will be conducted beginning in late 2005.

**4. Pacific Northwest Forested Wetland Literature Survey Synthesis Paper**

The HCP directs the Type 5 stream conservation strategy to also address wetlands that are under one quarter acre in size. This review and synthesis contains scientific information relevant to forested wetland functions in the Pacific Northwest with emphasis on the interaction of forest management activities and forest wetland functions. DNR limited its coverage of riparian areas, as that information will be addressed by the Forest and Fish Cooperative Monitoring, Evaluation and Research (CMER) committee, Riparian Science Advisory Group (RSAG). A companion annotated bibliography has been produced that includes references utilized in this paper and related supporting documents.

*Project Activities:*

- This report is complete and available at <http://www.dnr.wa.gov/hcp/research/index.html>

**5. Effectiveness Monitoring of the Riparian Forest Restoration Strategy**

Implementation of active monitoring of silviculture treatment alternatives for riparian areas continued in FY 2005. Two active adaptive management installations were completed in the OESF (H1320 and Salmon PC) and two more were initiated in the Cascades. The new sites replicate the RD (relative density) 40 and RD 50 treatments used in the OESF in new forest stand types. Harvest of these two new sites is anticipated in the spring of 2006.

**6. Effectiveness Monitoring of the Riparian Instream Conditions and Trends**

As part of the ongoing cooperative stream condition monitoring, a report titled “Summer Stream Temperatures in the Olympic Experimental State Forest, Washington” was completed in 2004. Most of the monitored streams were in the Olympic Experimental State Forest Planning Unit. Because a major HCP riparian conservation goal is to return streams to a natural condition, some natural streams within the adjacent Olympic National Park also were monitored in order to compare them with OESF streams.

The report summarizes the last two years of monitoring and provides insight into the rate of change of stream temperatures affected by past clear cutting and other site factors that confound the interpretation of stream temperature data. Basin characteristics most strongly correlated with increases in the average daily maximum stream temperature (ADMX) were the percentage of the forest in the basin that had been harvested, the percentage of riparian forest harvested, and the size of the basin. Riparian forest harvest was the single best predictor of variations in the ADMX (followed closely by total basin harvest), while riparian forest harvest and basin size together explain 53 percent of the variation in ADMX.

*Project Activities:*

- Summer stream temperatures were monitored in 49 forested watersheds on the western Olympic Peninsula.
- The full report can be found on the HCP research website at <http://www.dnr.wa.gov/hcp/research/index.html>

**7. Water Quality Monitoring on Mill and Abernathy Creeks**

A phased riparian effectiveness monitoring pilot project was initiated in early 2005, with Washington’s Department of Ecology as a partner. Two water quality stations were installed in WRIA No. 25. The Abernathy Creek station is located near the south section line of Section 9, T9NR4W; the Mill Creek station is located near the end of road E-2902 in Section 32 T9NR4W.

Estimation of stream flow requires that measurements across a wide range of flows be taken and then correlated with stage-height. It generally takes a year to collect enough stream flow data, especially at higher flows, to build the statistical model used to estimate a continuous flow record. When this model is complete, stream flow data will be available at <https://fortress.wa.gov/ecy/wrx/wrx/flows/station.asp?sta=25E100>



*Project Activities:*

- Phase I of the Scope of Work - water quality sampling - began in January 2005. Data are considered preliminary until published in the annual water year report available at [http://www.ecy.wa.gov/apps/watersheds/riv/station.asp?theyear=&tab=prelim\\_data&scrolly=0&wria=25&sta=25E100](http://www.ecy.wa.gov/apps/watersheds/riv/station.asp?theyear=&tab=prelim_data&scrolly=0&wria=25&sta=25E100)
- Phase II, Flow and Water Quality (continuous turbidity measurements), began in April 2005 with the installation of the stage-height recorders. Installation of the continuous turbidity sensors was delayed while several models were evaluated. The flow database that houses the turbidity data was also modified during this time. Installation of the turbidity sensors will be completed in fall 2005.

## **Northern Spotted Owl Conservation Strategy**

The objective of this monitoring and research is to increase confidence in the department's ability to integrate biodiversity type thinning into the timber sales program and help understand its role in meeting habitat goals. In addition, this work supports the adaptive management goals of the HCP northern spotted owl conservation strategy, such as examination of the ecology of down wood levels targeted for different types of habitat.

### **1. Owl Surveys in Columbia and South Coast Planning Units**

*Duration of the project:*

March 2005-February 2007

*Project goals:*

1. Collect recent data on northern spotted owl occupancy and site status in Nesting, Roosting and Foraging (NRF) management areas on DNR-managed land in the Columbia Planning Unit, and all known Status 1-3 spotted owl sites centers in the Western Washington lowlands (west of the I-5 corridor and south of Highway 12/8).
2. Delineate areas for long-term NSO validation monitoring as part of the HCP northern spotted owl conservation strategy.

*Survey area (Fig.7.1):*

1. Siouxon NRF management area

Area of the NRF designated block – approximately 46 square miles

Number of known NSO sites Status 1 through 4: **11** (WDFW 2005)

2. Columbia NRF management area

Area of the NRF designated block – approximately 33 square miles

Number of known NSO sites Status 1 through 4: **10** (WDFW 2005)

3. Western Washington lowlands

Only DNR-managed land within the 2.7-mile buffers around the site centers will be surveyed. Total number of NSO sites Status 1 through 3 that have their site centers on DNR-managed land or contain a considerable amount of DNR land: **8** (WDFW 2005).

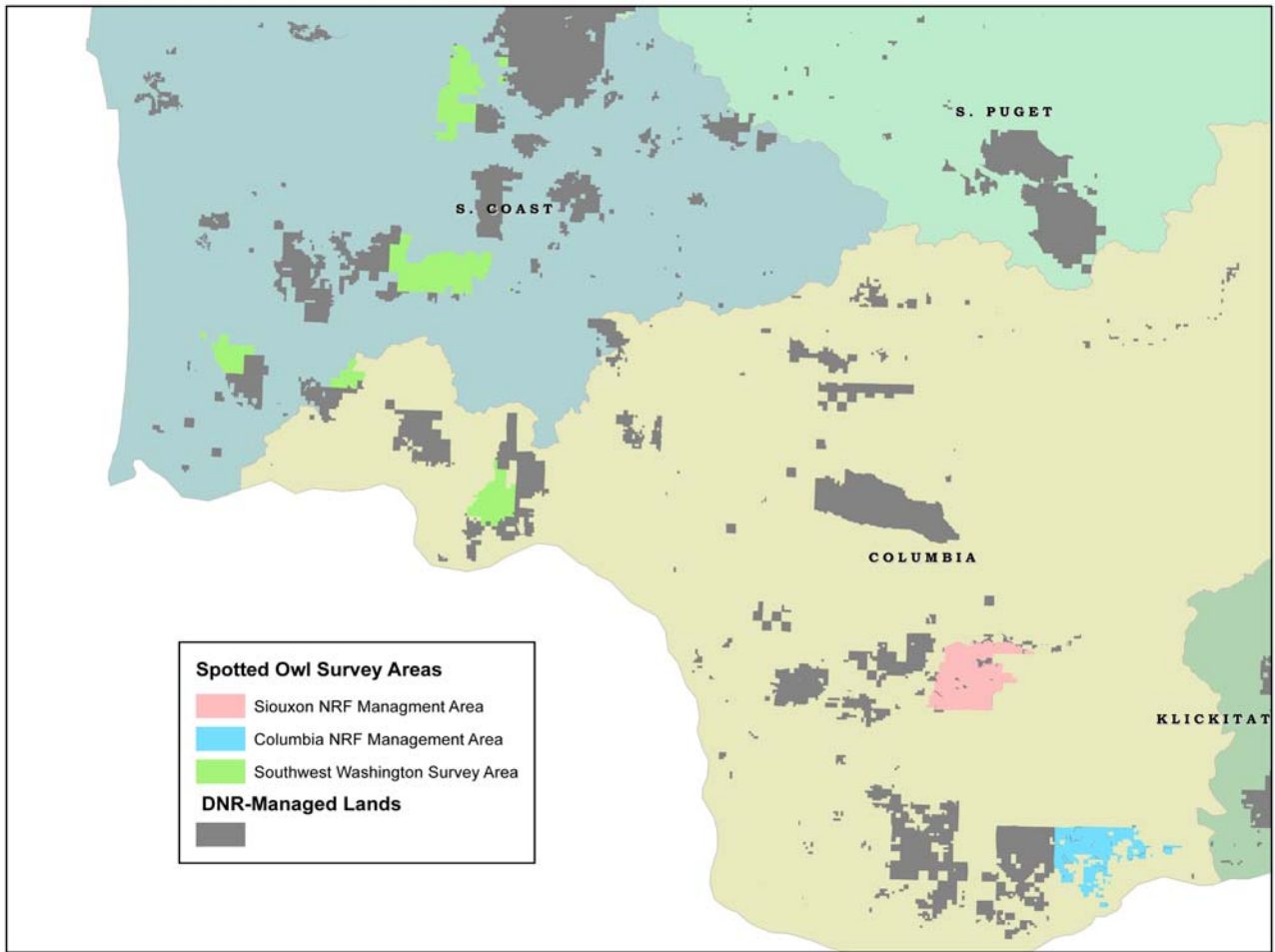
*Survey methods:*

A total of **29** NSO site centers will be surveyed for two years (2005 and 2006) following the federal protocol (Lint et al 1999). The Siouxon and Columbia NRF management areas are subject to complete survey coverage. In Western Washington lowlands, only the DNR-managed land within 2.7-mile buffers of the known site centers Status 1 to 3 will be surveyed.

National Council for Air and Stream Improvement (NCASI) was contracted to conduct the surveys.

*Project Activities in 2005:*

- The field surveys started in late April 2005 instead of March due to the rainy weather and logistical problems. The 2005 surveys ended on September 30, 2005. Due to the late start of the surveys, the coverage of Siouxon and Columbia NRF management areas was limited to 1.5 miles around the center of the known sites.
- Spotted owl presence was confirmed in three sites - Mount Mitchell (site #1196) and Huffman Peak (site #792) in Siouxon, and Blue Mountain (site #645) in southwest Washington. All three sites have pairs. No reproduction was detected at any of the sites in the 2005 season.
- The Blue Mountain site was confirmed to be separate from the Pioneer Creek site on Weyerhaeuser land.
- Barred owls were detected at 70 different locations in the three landscapes. Some of these are probably detections of the same bird within one site. The contractor is currently cleaning up the duplications. The full report of the 2005 field season and all the field forms will be available by December 2005.



**Figure 7.1.** Northern spotted owl survey areas in South Coast and Columbia Planning Units.

## 2. Baseline Spotted Owl Validation Monitoring in Southeast Region

In 2001, DNR contracted with NCASI to monitor northern spotted owl occupancy at 20 owl sites in the Klickitat and Yakima Planning Units. The protocol requires six visits of each site between March and September.

### Project Activities:

- 2004 and 2005 field surveys of all owl site centers were conducted by NCASI and the data were filed in DNR’s database. Results for all years of data collection are presented in Figure 7.2.

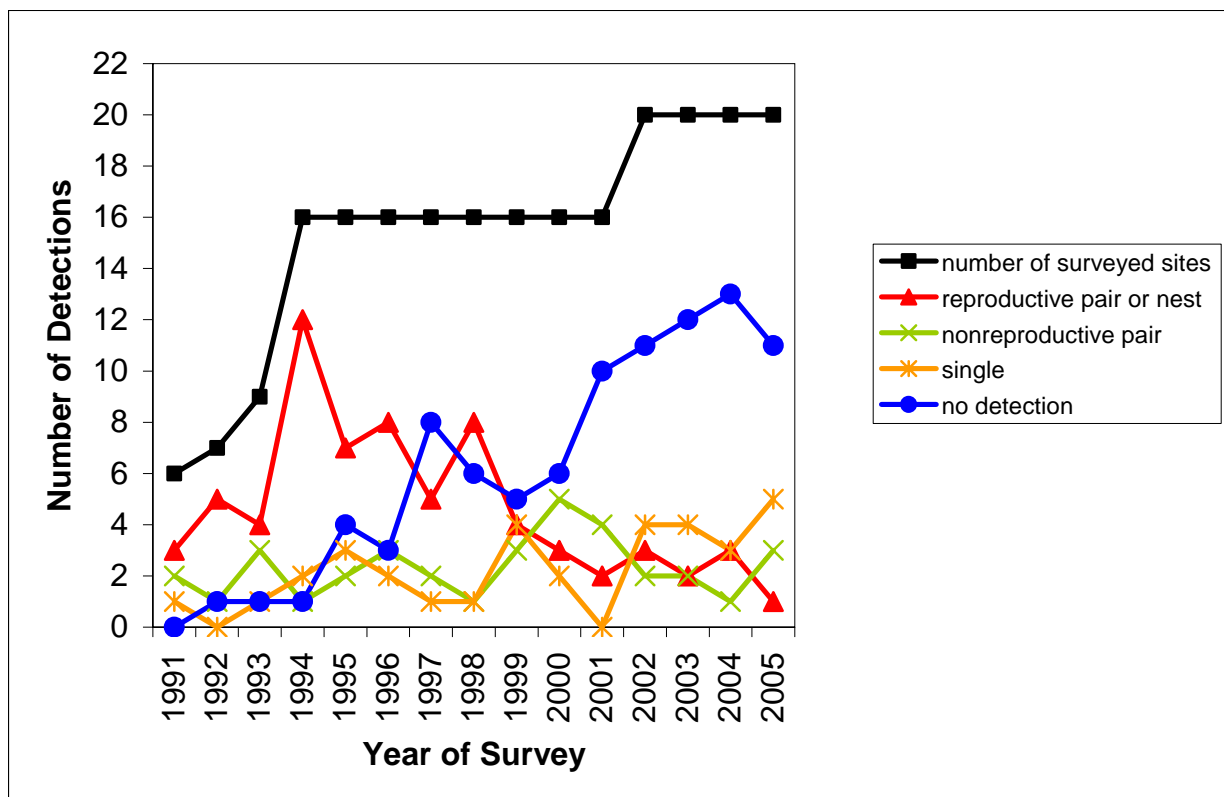


Figure 7.2. Results of spotted owl monitoring in Klickitat and Yakima Planning Units from 1991-2005.

## 3. Effectiveness Monitoring of Northern Spotted Owl Habitat at Stand Level - Cougarilla Timber Sale, South Puget Planning Unit

The goal of this project is to determine whether implementation of specific silvicultural activities results in habitat conditions anticipated by the HCP. The monitored silvicultural prescription is variable density thinning in spotted owl dispersal habitat. The target habitat condition is sub-mature NRF habitat. The realization that the existing HCP definition of dispersal habitat (DNR 1997, p.IV.12) does not meet the ecological requirements of the species during dispersal prompted DNR to target more complex habitat conditions i.e. sub-mature NRF. The Cougarilla timber sale is DNR’s first attempt to apply this approach in stands that meet the current definition of dispersal habitat.

This project involves passive monitoring based on a comparison of the stand characteristics before and after treatment, and of subsequent habitat development (field protocol developed by Wilhere and Bigley 2001).

*Project Activities in 2005:*

- Pre-harvest measurements in all sampling areas (three treatment areas and a control) were conducted June-October 2005.
- Post-harvest measurements are scheduled for the summer of 2006.

#### **4. Update and Maintenance of DNR Corporate GIS Layers Containing Northern Spotted Owl Data**

Nine DNR GIS data layers that contain information on the northern spotted owl are currently stewarded by the HCP/Science section. These layers are used to plan management and monitoring activities within NRF and Dispersal Management Areas and the owl circles as well as to provide information and/or data upon requests from DNR staff or outside parties. The work on the update and standardization of these layers began in June 2004.

*Project Activities:*

- Six of the nine data layers have been updated and brought up to standard for DNR corporate data. They are currently available in DNR's corporate database.
- The remaining three layers are in the process of being updated.

### **Marbled Murrelet Conservation Strategy**

The objective of this research is to support the development of the marbled murrelet long-term conservation strategy and future monitoring. The primary focus of funding in FY 2005 has been to document murrelet flight activity over inland forests (stand surveys). A portion of the available funding was used to research site selection and confirmed breeding of murrelets in the OESF.

#### **1. Population Ecology of Marbled Murrelets**

While extensive inland surveys have been conducted to document marbled murrelet activity (occupancy status) of forest stands, very little work has been done on murrelet demography. Information on specific nest sites and the way murrelets utilize the forested landscape will be invaluable in implementing and monitoring the department's long-term murrelet conservation strategy. This project also will reduce the reliance on demographic data from the central British Columbia coast, where habitats are considerably different. This project uses radiotelemetry to locate active murrelet nests and conduct detailed research on the survival, nest success, flight behavior, and genetic makeup of murrelets found in Washington marine waters. Success continues to build from the first full year of implementation in 2004, when 28 birds were captured in 32 nights.

*Project Activities:*

- In 2005, crews were on the water for 21 nights (April 28-June 10) searching for marbled murrelets in Hood Canal and the Strait of Juan de Fuca. Forty-one birds were captured, measured, banded, and had blood drawn for genetic testing.
- Radio transmitters were placed on 40 marbled murrelets. Birds were tracked via radiotelemetry from April 29 to Sept 4. Daily locations were obtained for most birds, using fixed-wing aircraft (86 days of flight totaling approximately 448 hours).

- Results showed widespread movement during the breeding season: i.e., birds captured on the outer coast flew to the San Juan Islands and back. Many of the birds foraged along the southern coast of Vancouver Island. Daily one-way flights from nest to foraging areas ranged up to 60 miles.
- Broadcast from transmitters lasted an average of 57 days.
- DNR confirmed eight nests in 2005: four in Olympic National Park, two in Olympic National Forest, and two on Vancouver Island. In 2004, we had only three nests, all in Olympic National Park.
- Of the eight nests, seven failed (four in the egg stage; three in the chick stage) and one successfully fledged.
- Results will be presented at the next Pacific Sea Bird Conference.

## **MARbled MURRELET LONG-TERM CONSERVATION STRATEGY UPDATE**

### **Long-term Conservation Strategy**

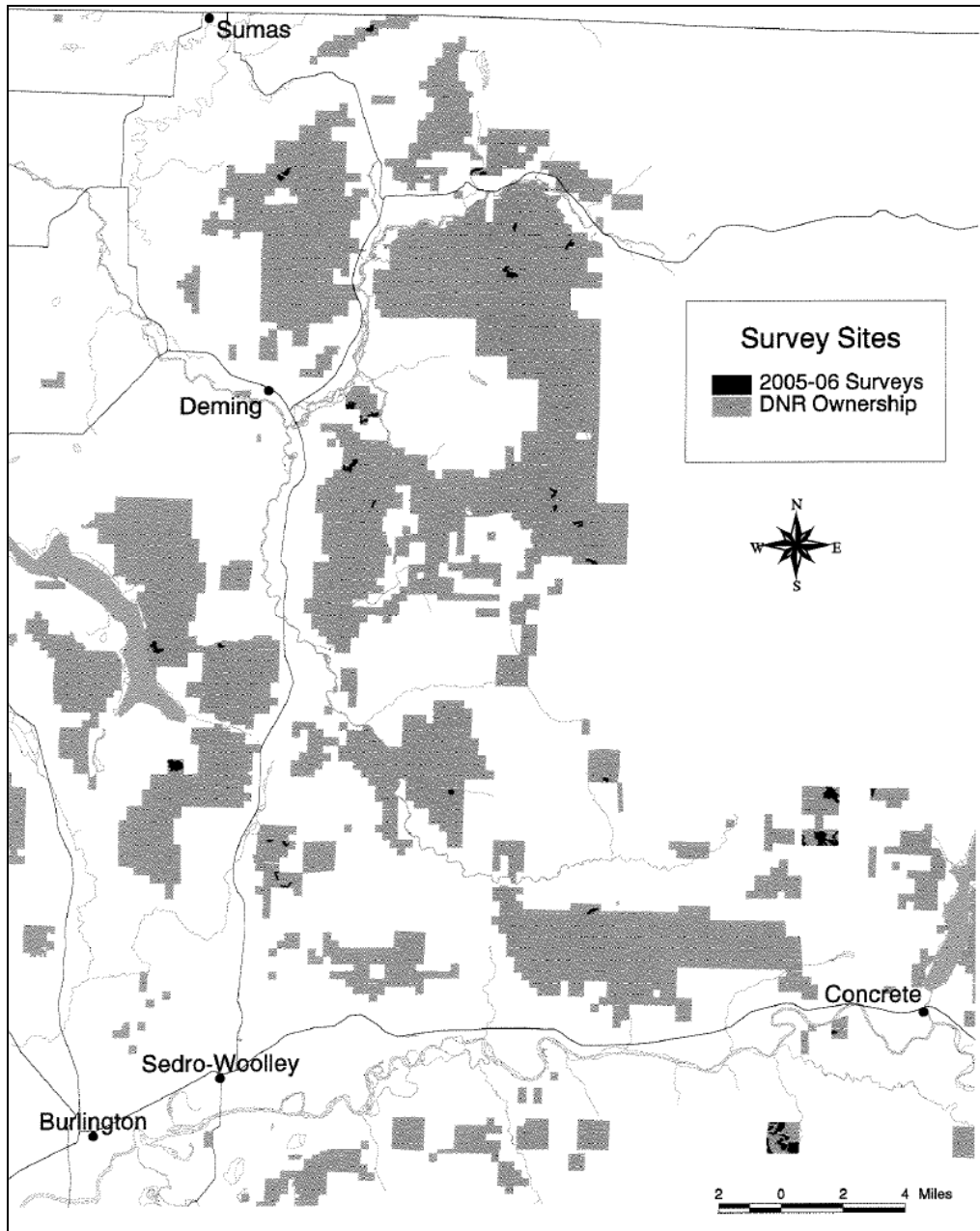
Long-term conservation planning is nearing completion in the Columbia, South Coast, Straits, and OESF Planning Units. In the last year, the Science Team developing the strategy has made significant progress towards identifying landscapes that are priorities for marbled murrelet conservation, forest habitat conditions that will be important for the development of future habitat, and landscape scenarios that will help evaluate predation risks to murrelet nests. A draft strategy is planned for completion in February of 2006. DNR managers will need to be informed of the report's findings and the marbled murrelet long-term conservation strategy will need to be acceptable to both the DNR and the USFWS. Once both parties agree upon a strategy, the NEPA/SEPA (National/State Environmental Policy Act) process will be initiated.

### **Inventory Surveys**

The South Puget Planning Unit (SPPU) is still implementing step #1 as described in the HCP's interim conservation strategy, "DNR shall identify and defer harvest of any part of a suitable habitat block" (DNR 1997, p. IV.39). In early 2006, DNR expects to begin exploring options with the USFWS that will result in marbled murrelet habitat identification processes in the SPPU.

DNR, USFWS and WDFW have been working closely to develop improved survey habitat identification methods in the North Puget Planning Unit (NPPU). A plan to more accurately identify habitat and related methodologies is near completion. DNR anticipates that these improved methodologies will be finalized and presented (along with appropriate documentation) at the HCP annual meeting in December 2006.

Inventory surveys in the NPPU are moving forward on schedule. In 2005, a total of 226 surveys of 47 sites (Fig. 7.3) were successfully completed.



**Figure 7.3.** Map of the marbled murrelet survey area, including Skagit and Deming survey areas (from 1999 DeLorme Yarmouth, ME).

### Survey Methods

All marbled murrelet surveys were performed in accordance with the 2003 Pacific Seabird Group (PSG) protocol. Each site in NPPU was visited at least five times (unless occupancy was determined with fewer visits) during the course of the marbled murrelet season (May 1 - August 5). Ideally, one of these visits occurred during the peak time for murrelet activity (July 11-17). If the presence of a murrelet was detected, a total of nine visits were completed for the season, unless an occupancy behavior was detected in fewer visits. Survey visits began 45 minutes before sunrise and continued for at least 75 minutes after sunrise (longer if there was a detection or bad weather late in the survey).

Some stations were located directly on streams for better visibility. However, the noise from the stream flow often impaired audibility, so another “tandem station” was placed nearby where audibility was unimpaired. Two people simultaneously surveyed such stations: one in audio range, one in visual range.

The parameters for deciding whether a survey met protocol were: having effective visibility to 2.0 canopies, 100 meters horizontal visibility and audio capability to hear murrelets to 200 meters. If the ability to meet these parameters was impeded for more than 12 minutes of the 120 minute survey period, then the visit was determined a non-protocol survey and the site was visited again within the next few days.

Quality control of survey techniques, station placement and data were carried out to ensure project and protocol compliance. DNR biologists accompanied the field personnel on surveys, assisted with station placement, and field checked randomly selected stations to ensure project and protocol compliance. Both the field technician and the project supervisor reviewed the data before submitting it to DNR.

**Results**

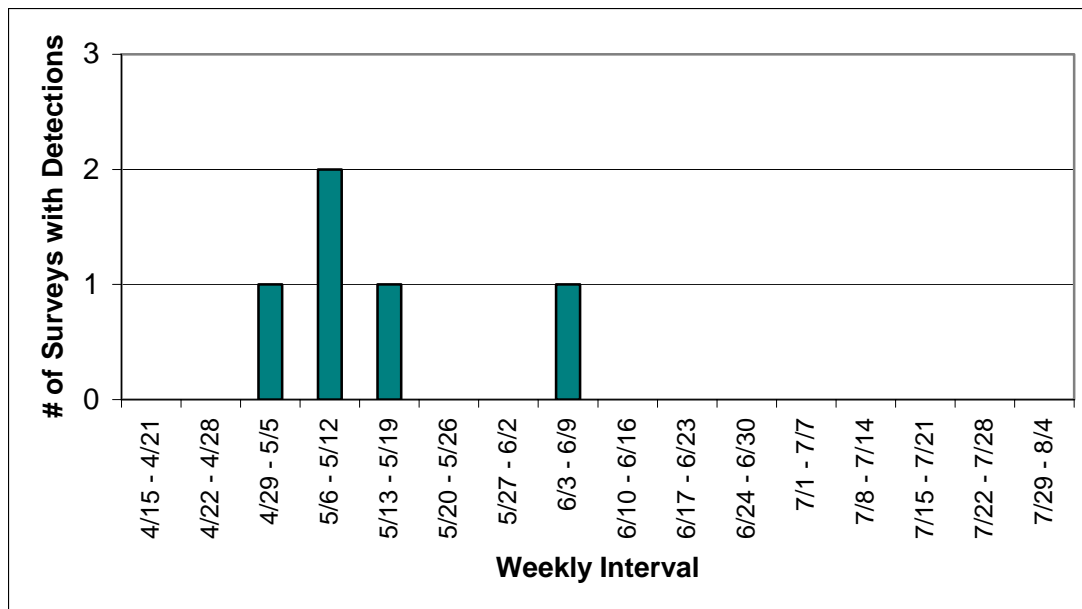
Hamer Environmental successfully met protocol requirements for all survey sites in the North Puget 2005 Marbled Murrelet Inventory. A total of 226 protocol survey visits to the 47 survey sites were completed for the 2005 marbled murrelet season, providing information on the:

- date a station was surveyed;
- number of detections with a breakdown of the number of visual, auditory and significant detections and;
- final site status (Table 7.1).

**Table 7.1.** Number and proportion of sites with absence, presence and occupancy by marbled murrelets in the North Puget Planning Unit in 2005.

<b>Area</b>	<b>Number of sites</b>	<b>Sites with absence</b>	<b>Sites with presence detections</b>	<b>Sites with occupancy</b>
<b>Deming</b>	30	30 (100%)	0 (0%)	0 (0%)
<b>Skagit</b>	17	12 (70.6%)	1 (5.9%)	4 (23.5%)
<b>All sites</b>	47	42 (89.4%)	1 (2.1%)	4 (8.5%)

Surveys with detections were also charted on a weekly basis (Fig. 7.4). All five detections were visuals where murrelets were seen between 0.8 and 1.3 canopy heights.



**Figure 7.4.** Number of surveys with marbled murrelet detections per weekly interval in the North Puget Planning Unit in 2005.

**Conclusion**

The 2005 season of DNR’s North Puget Planning Unit marbled murrelet surveys came to a successful conclusion, with four occupied sites. The second year (2006) survey visits will determine presence, probable absence, and occupancy in the remaining sites. A detailed summary of each survey site is available upon request.

**Summary of Murrelet Survey Results 2001-2005**

Five seasons of inventory surveys have been completed in the North Puget Planning Unit. At this point, some initial perspective can be drawn from these efforts.

Consistent with the general approach for the Westside HCP planning units, a habitat model for the NPPU was developed from a habitat-relationship study. This model designated 27,780 acres of “reclassified habitat” (expected to contain at least 95 percent of occupied sites) and 82,437 acres of “marginal habitat” (expected to contain not more than 5 percent of occupied sites), out of a total 453,723 acres (HCP lands and state Natural Resource Conservation Areas and Natural Area Preserves) evaluated by the model.

Due to concerns that the reclassified model did not capture enough of the suitable habitat, subsequent efforts were made to identify additional areas of suitable habitat. The “reclassified-plus” screens added 6,209 acres, while a compilation of “other” habitat areas based on field knowledge identified 6,263 additional acres. In total, these sources have identified around 40,000 acres of habitat in the NPPU. (NOTE: this represents acreage of *potential* habitat; field verification (delineation) to date has found at least half of the acreage to be unsuitable, and thus available for immediate release for forest management activities.)

As of the end of the 2005 season, DNR inventory surveys have yielded 22 occupied sites, of which 13 were identified by the reclassified model, and nine by the “plus” and “other” sources (Table 7.2). A substantial proportion of our survey effort in “plus” (22 percent), and particularly in



“other” (68 percent) habitat, is currently ongoing, so the proportion of occupancy for these sources may be underrepresented.

**Table 7.2.** Current murrelet survey status by habitat source.

<b>Year Initiated</b>	<b>Source</b>	<b># Sites</b>	<b># Occupied</b>	<b>% Occupied</b>
2001	Reclassified	113	11	
2002	Plus	10	0	
2003	Other	1	1	
2004	Reclassified	3	0	
	Plus	47	5	
	Other	11	1	
2005*	Reclassified	2	2	
	Plus	19	2	
	Other	26	0	
<b>TOTAL 2001-2005</b>	<b>Reclassified</b>	<b>118</b>	<b>13</b>	<b>11</b>
	<b>Plus</b>	<b>76</b>	<b>7</b>	<b>9</b>
	<b>Other</b>	<b>38</b>	<b>2</b>	<b>5</b>
	<b>OVERALL</b>	<b>232</b>	<b>22</b>	<b>9</b>

\*In-progress; will be completed in 2006

These preliminary data are useful for several reasons. First, it appears that concerns with the original (reclassified) modeling effort were well founded. While expected to capture at least 95 percent of occupied sites, at this point in our inventory process the reclassified habitat contains less than 60 percent of the occupied sites found. Second, subsequently (to the reclassified model) identified areas of potentially suitable habitat and occupied sites have largely been within the “marginal” areas of the reclassified model. Specifically, of the roughly 12,500 acres of potentially suitable habitat identified beyond (and independently of) the reclassified model, about 94 percent fall within the mapped “marginal” areas. Also, of the occupied sites outside of reclassified habitat, 89 percent fall within the marginal areas. Should this pattern continue – that the great majority of potential habitat and occupied sites are being captured by the reclassified + marginal areas - then this might be a useful means to anticipate where additional areas of habitat/occupancy are likely to be found.

### 2006 Survey Season

Northwest Region staff will initiate a contract to complete the field delineation work in the NPPU for potential habitat below 3000 feet in elevation. In 2006, DNR, WDFW and USFWS will need to address survey protocol methodologies in the remaining potential habitat in areas above 3000 feet and how to sample habitat within Natural Area Preserves and Natural Resource Conservation Areas. It is expected that all surveys will be completed in the North Puget Planning Unit by 2008.

### WORKS CITED

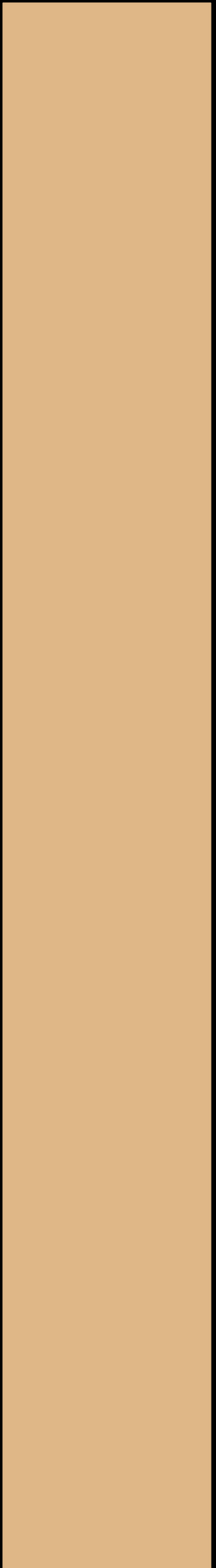
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# **APPENDIX A. SILVICULTURAL ACTIVITIES**



## **SILVICULTURAL ACTIVITIES**

Table A.1 details silvicultural activities that took place in each HCP planning unit in fiscal year 2005. It is derived from DNR's Forest Management Planning and Tracking (P&T) database, and includes all activities reported as completed during the reporting period. The type of activity, number of acres impacted, legal location (township, range, and section), and Forest Practices Application (FPA) number are included. Not all activities require an FPA, so these numbers are only listed where applicable.

The data in this appendix are summarized in the tables in the Silvicultural Management Activities section of this report.

**Table A.1.** Silvicultural management activity detail by planning unit.

<b>Columbia Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Clear cut	5	T02N R03E S11	2904677
Timber Harvest - Clear cut	85	T02N R03E S11	2904677
Timber Harvest - Clear cut	49	T02N R03E S11	2904677
Timber Harvest - Clear cut	6	T03N R03E S16	2904098
Timber Harvest - Clear cut	23	T03N R03E S16	2904098
Timber Harvest - Clear cut	18	T03N R03E S16	2904098
Timber Harvest - Clear cut	50	T03N R03E S16	2904098
Timber Harvest - Clear cut	26	T03N R04E S09	2903974
Timber Harvest - Clear cut	14	T03N R04E S10	2903974
Timber Harvest - Clear cut	44	T03N R04E S10	2903974
Timber Harvest - Clear cut	44	T03N R04E S16	2903974
Timber Harvest - Clear cut	37	T03N R04E S17	2903974
Timber Harvest - Clear cut	1	T03N R04E S17	2903974
Timber Harvest - Clear cut	96	T03N R04E S21	2904416
Timber Harvest - Clear cut	85	T03N R04E S21	2904416
Timber Harvest - Clear cut	13	T04N R03E S14	2904678
Timber Harvest - Clear cut	71	T04N R03E S15	2904678
Timber Harvest - Clear cut	55	T04N R03E S15	2904678
Timber Harvest - Clear cut	13	T04N R03E S15	2904678
Timber Harvest - Clear cut	3	T04N R03E S22	2904678
Timber Harvest - Clear cut	63	T04N R04E S31	2904888
Timber Harvest - Clear cut	27	T06N R02E S29	2904812
Timber Harvest - Clear cut	20	T06N R02E S30	2904812
Timber Harvest - Clear cut	63	T06N R03E S06	2904656
Timber Harvest - Clear cut	27	T06N R03E S08	2904656
Timber Harvest - Clear cut	7	T06N R03E S11	2903767
Timber Harvest - Clear cut	38	T06N R03E S16	2905108
Timber Harvest - Clear cut	31	T06N R03E S28	2904868
Timber Harvest - Clear cut	16	T06N R03E S32	2904868
Timber Harvest - Clear cut	44	T06N R03E S32	2904868
Timber Harvest - Clear cut	5	T06N R04E S24	2905014
Timber Harvest - Clear cut	10	T06N R04E S25	2905014
Timber Harvest - Clear cut	93	T08N R05W S01	2905170
Timber Harvest - Clear cut	26	T08N R05W S16	2904418
Timber Harvest - Clear cut	29	T08N R05W S16	2904418
Timber Harvest - Clear cut	8	T08N R05W S16	2904418
Timber Harvest - Clear cut	13	T09N R04W S30	2904725
Timber Harvest - Clear cut	63	T09N R04W S30	2904725
Timber Harvest - Clear cut	34	T09N R05W S25	2905027
Timber Harvest - Clear cut	2	T09N R05W S27	2905087
Timber Harvest - Clear cut	80	T10N R02W S07	2910395
Timber Harvest - Clear cut	5	T10N R04W S32	2904085
Timber Harvest - Clear cut	52	T10N R08W S02	2512172
Timber Harvest - Clear cut	16	T10N R08W S02	2512172
Timber Harvest - Clear cut	21	T11N R07W S20	2506948
Timber Harvest - Clear cut	10	T12N R03W S36	2511534
Timber Harvest - Clear cut	5	T12N R03W S36	2511534
Timber Harvest - Clear cut	32	T12N R08E S20	2511821
Timber Harvest - Late rotation thinning	13	T06N R02E S16	2905114
Timber Harvest - Late rotation thinning	142	T06N R02E S16	2905114

<b>Columbia Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Late rotation thinning	52	T06N R02E S17	2904451
Timber Harvest - Late rotation thinning	22	T06N R02E S17	2905114
Timber Harvest - Late rotation thinning	10	T06N R02E S18	2904451
Timber Harvest - Late rotation thinning	37	T06N R02E S18	2904451
Timber Harvest - Late rotation thinning	34	T06N R02E S18	2904451
Timber Harvest - Late rotation thinning	9	T06N R02E S18	2904451
Timber Harvest - Late rotation thinning	153	T09N R05W S14	2903851
Timber Harvest - Late rotation thinning	120	T09N R05W S14	2904453
Timber Harvest - Late rotation thinning	60	T09N R05W S23	2904453
Timber Harvest - Late rotation thinning	38	T09N R05W S23	2904453
Timber Harvest - Late rotation thinning	146	T09N R05W S27	2905087
Timber Harvest - Late rotation thinning	16	T09N R05W S27	2905087
Timber Harvest - Late rotation thinning	8	T10N R04W S29	2904085
Timber Harvest - Late rotation thinning	11	T10N R04W S29	2904085
Timber Harvest - Late rotation thinning	15	T10N R04W S29	2904085
Timber Harvest - Late rotation thinning	10	T10N R04W S32	2904085
Timber Harvest - Late rotation thinning	18	T10N R04W S32	2904085
Timber Harvest - Late rotation thinning	21	T10N R04W S32	2904085
Timber Harvest - Seed tree intermediate cut	6	T03N R07E S01	2903467
Timber Harvest - Seed tree intermediate cut	2	T03N R07E S01	2903467
Timber Harvest - Selective product logging	65	T03N R04E S17	2903240
Timber Harvest - Selective product logging	94	T03N R04E S19	2903240
Timber Harvest - Selective product logging	8	T03N R04E S20	2903240
Timber Harvest - Selective product logging	105	T06N R03E S02	2903767
Timber Harvest - Smallwood thinning	256	T07N R05E S33	2903265
Timber Harvest - Smallwood thinning	5	T08N R04W S04	2904879
Timber Harvest - Smallwood thinning	9	T08N R04W S40	2904879
Timber Harvest - Smallwood thinning	13	T08N R05W S01	2904879
Timber Harvest - Smallwood thinning	47	T08N R05W S01	2904879
Timber Harvest - Smallwood thinning	11	T08N R05W S01	2904879
Timber Harvest - Smallwood thinning	23	T08N R05W S03	2904879
Timber Harvest - Smallwood thinning	32	T08N R05W S16	2904879
Timber Harvest - Smallwood thinning	63	T09N R03E S28	2904065
Timber Harvest - Smallwood thinning	25	T09N R03E S28	2904065
Timber Harvest - Smallwood thinning	113	T09N R03E S29	2904065
Timber Harvest - Smallwood thinning	7	T09N R03E S29	2904065
Timber Harvest - Smallwood thinning	9	T09N R03E S29	2904065
Timber Harvest - Smallwood thinning	24	T09N R04W S33	2904879
Timber Harvest - Smallwood thinning	122	T09N R04W S33	2904879
Timber Harvest - Smallwood thinning	10	T09N R04W S33	2904879
Timber Harvest - Variable density thinning	12	T03N R07E S01	2903467
Timber Harvest - Variable density thinning	84	T03N R07E S01	2903467
Timber Harvest - Variable density thinning	99	T03N R07E S01	2903467
Timber Harvest - Variable density thinning	6	T03N R07E S02	2903467
Timber Harvest - Variable density thinning	28	T03N R07E S02	2903467
Timber Harvest - Variable density thinning	80	T03N R07E S10	2903768
Timber Harvest - Variable density thinning	24	T03N R07E S15	2903768
Timber Harvest - Variable density thinning	12	T03N R07E S21	2903768
Timber Harvest - Variable density thinning	14	T03N R07E S21	2903768
Timber Harvest - Variable density thinning	3	T03N R07E S21	2903768

<b>Columbia Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Variable density thinning	95	T03N R07E S21	2903768
Timber Harvest - Variable density thinning	7	T06N R04E S26	2905014
Timber Harvest - Variable density thinning	34	T06N R04E S28	2905014
Timber Harvest - Variable density thinning	42	T06N R04E S33	2905014
Timber Harvest - Variable density thinning	47	T06N R05E S30	2904482
Timber Harvest - Variable density thinning	16	T06N R05E S31	2904482
Forest site preparation - Aerial herbicide	70	T06N R01E S36	2905322
Forest site preparation - Aerial herbicide	55	T06N R02E S16	2905322
Forest site preparation - Aerial herbicide	55	T06N R02E S16	2905322
Forest site preparation - Aerial herbicide	8	T06N R02E S25	2905322
Forest site preparation - Aerial herbicide	80	T06N R02E S28	2905322
Forest site preparation - Aerial herbicide	55	T06N R03E S06	2905322
Forest site preparation - Aerial herbicide	70	T06N R03E S10	2905322
Forest site preparation - Aerial herbicide	72	T06N R03E S30	2905322
Forest site preparation - Aerial herbicide	90	T08N R05W S12	2905322
Forest site preparation - Aerial herbicide	80	T08N R05W S21	2905322
Forest site preparation - Aerial herbicide	45	T08N R05W S21	2905322
Forest site preparation - Aerial herbicide	27	T09N R01W S36	2905322
Forest site preparation - Aerial herbicide	40	T09N R01W S36	2905322
Forest site preparation - Aerial herbicide	7	T09N R01W S36	2905322
Forest site preparation - Aerial herbicide	44	T09N R04W S03	2905322
Forest site preparation - Aerial herbicide	35	T09N R04W S29	2905322
Forest site preparation - Aerial herbicide	27	T10N R02W S06	2905322
Forest site preparation - Aerial herbicide	16	T10N R02W S06	2905322
Forest site preparation - Aerial herbicide	39	T10N R03W S01	2905322
Forest site preparation - Ground herbicide	72	T03N R03E S26	
Forest site preparation - Ground mechanical	25	T06N R03E S16	
Forest site preparation - Pile and burn	15	T11N R02E S24	
Forest site preparation - Pile and burn	1	T11N R03E S13	
Forest site preparation - Pile and burn	3	T11N R03E S15	
Forest site preparation - Pile and burn	25	T12N R03W S24	
Forest site preparation - Pile and burn	10	T12N R03W S24	
Forest site preparation - Pile and burn	2	T12N R03W S36	
Forest site preparation - Pile and burn	8	T12N R03W S36	
Forest regeneration - Hand planting	5	T03N R03E S16	
Forest regeneration - Hand planting	17	T03N R03E S16	
Forest regeneration - Hand planting	23	T03N R03E S16	
Forest regeneration - Hand planting	49	T03N R03E S16	
Forest regeneration - Hand planting	90	T03N R03E S25	
Forest regeneration - Hand planting	80	T03N R03E S26	
Forest regeneration - Hand planting	5	T03N R04E S18	
Forest regeneration - Hand planting	5	T03N R04E S19	
Forest regeneration - Hand planting	2	T03N R07E S01	
Forest regeneration - Hand planting	6	T03N R07E S01	
Forest regeneration - Hand planting	30	T04N R03E S14	
Forest regeneration - Hand planting	3	T04N R03E S22	
Forest regeneration - Hand planting	15	T04N R03E S23	
Forest regeneration - Hand planting	28	T04N R03E S23	
Forest regeneration - Hand planting	21	T04N R03E S24	
Forest regeneration - Hand planting	9	T04N R04E S28	



<b>Columbia Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest regeneration - Hand planting	1	T04N R04E S33	
Forest regeneration - Hand planting	3	T04N R04E S33	
Forest regeneration - Hand planting	32	T05N R02E S01	
Forest regeneration - Hand planting	42	T05N R03E S06	
Forest regeneration - Hand planting	84	T05N R03E S06	
Forest regeneration - Hand planting	7	T06N R01E S25	
Forest regeneration - Hand planting	4	T06N R01E S36	
Forest regeneration - Hand planting	10	T06N R01E S36	
Forest regeneration - Hand planting	45	T06N R01E S36	
Forest regeneration - Hand planting	68	T06N R02E S16	
Forest regeneration - Hand planting	57	T06N R02E S16	
Forest regeneration - Hand planting	5	T06N R02E S19	
Forest regeneration - Hand planting	18	T06N R02E S20	
Forest regeneration - Hand planting	8	T06N R02E S25	
Forest regeneration - Hand planting	81	T06N R02E S28	
Forest regeneration - Hand planting	54	T06N R03E S06	
Forest regeneration - Hand planting	72	T06N R03E S10	
Forest regeneration - Hand planting	20	T06N R03E S16	
Forest regeneration - Hand planting	72	T06N R03E S30	
Forest regeneration - Hand planting	35	T06N R03E S32	
Forest regeneration - Hand planting	54	T06N R04E S16	
Forest regeneration - Hand planting	25	T08N R05W S16	
Forest regeneration - Hand planting	29	T08N R05W S16	
Forest regeneration - Hand planting	8	T08N R05W S16	
Forest regeneration - Hand planting	79	T08N R05W S21	
Forest regeneration - Hand planting	47	T08N R05W S21	
Forest regeneration - Hand planting	48	T09N R04W S03	
Forest regeneration - Hand planting	39	T09N R04W S29	
Forest regeneration - Hand planting	15	T09N R04W S31	
Forest regeneration - Hand planting	96	T09N R05W S36	
Forest regeneration - Hand planting	5	T10N R01E S36	
Forest regeneration - Hand planting	5	T10N R01E S36	
Forest regeneration - Hand planting	25	T10N R02W S06	
Forest regeneration - Hand planting	16	T10N R02W S06	
Forest regeneration - Hand planting	39	T10N R03W S01	
Forest regeneration - Hand planting	10	T10N R04W S29	
Forest regeneration - Hand planting	2	T10N R04W S32	
Forest regeneration - Hand planting	10	T10N R04W S32	
Forest regeneration - Hand planting	5	T10N R04W S32	
Forest regeneration - Hand planting	5	T10N R04W S32	
Forest regeneration - Hand planting	79	T10N R06W S15	
Forest regeneration - Hand planting	1	T11N R03E S20	
Forest regeneration - Hand planting	21	T11N R07W S20	
Forest regeneration - Hand planting	49	T11N R07W S21	
Forest regeneration - Hand planting	31	T12N R03W S24	
Forest regeneration - Hand planting	10	T12N R03W S36	
Forest regeneration - Hand planting	5	T12N R03W S36	
Forest regeneration - Natural regeneration	6	T06N R04E S24	
Forest regeneration - Natural regeneration	25	T08N R05W S16	
Forest regeneration - Natural regeneration	8	T08N R05W S16	

<b>Columbia Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest regeneration - Natural regeneration	29	T08N R05W S16	
Forest regeneration - Natural regeneration	44	T09N R04W S07	
Vegetation management - Aerial herbicide	30	T02N R04E S10	2905323
Vegetation management - Aerial herbicide	45	T03N R04E S01	2905323
Vegetation management - Aerial herbicide	70	T03N R04E S19	2905323
Vegetation management - Aerial herbicide	80	T03N R04E S19	2905323
Vegetation management - Aerial herbicide	55	T03N R06E S19	2905323
Vegetation management - Aerial herbicide	95	T03N R06E S19	2905323
Vegetation management - Aerial herbicide	50	T03N R07E S01	2905323
Vegetation management - Aerial herbicide	20	T03N R07E S34	2905323
Vegetation management - Aerial herbicide	70	T03N R07E S34	2905323
Vegetation management - Aerial herbicide	85	T04N R04E S23	2905323
Vegetation management - Aerial herbicide	10	T04N R04E S26	2905323
Vegetation management - Aerial herbicide	50	T04N R04E S35	2905323
Vegetation management - Aerial herbicide	24	T04N R04E S35	2905323
Vegetation management - Aerial herbicide	70	T04N R04E S35	2905323
Vegetation management - Aerial herbicide	49	T05N R03E S06	2905323
Vegetation management - Aerial herbicide	80	T06N R03E S05	2905323
Vegetation management - Aerial herbicide	5	T06N R03E S10	2905323
Vegetation management - Aerial herbicide	35	T06N R03E S16	2905323
Vegetation management - Aerial herbicide	5	T06N R03E S16	2905323
Vegetation management - Aerial herbicide	50	T06N R04E S13	2905323
Vegetation management - Aerial herbicide	15	T06N R04E S15	2905323
Vegetation management - Aerial herbicide	30	T06N R04E S15	2905323
Vegetation management - Aerial herbicide	4	T06N R04E S15	2905323
Vegetation management - Aerial herbicide	45	T06N R04E S15	2905323
Vegetation management - Aerial herbicide	11	T06N R04E S15	2905323
Vegetation management - Aerial herbicide	40	T06N R04E S22	2905323
Vegetation management - Aerial herbicide	19	T06N R04E S23	2905323
Vegetation management - Aerial herbicide	30	T06N R05E S31	2905323
Vegetation management - Aerial herbicide	70	T06N R05E S31	2905323
Vegetation management - Aerial herbicide	40	T06N R05E S31	2905323
Vegetation management - Aerial herbicide	99	T07N R01E S09	Missing
Vegetation management - Aerial herbicide	60	T07N R04E S36	2905323
Vegetation management - Aerial herbicide	10	T10N R02W S16	Missing
Vegetation management - Aerial herbicide	15	T10N R02W S18	Missing
Vegetation management - Ground herbicide	32	T05N R02E S01	
Vegetation management - Ground herbicide	60	T05N R02E S12	
Vegetation management - Ground herbicide	30	T06N R01E S25	
Vegetation management - Ground herbicide	63	T06N R01E S36	
Vegetation management - Ground herbicide	21	T06N R02E S22	
Vegetation management - Ground herbicide	65	T06N R02E S22	
Vegetation management - Ground herbicide	18	T06N R02E S27	
Vegetation management - Ground herbicide	31	T06N R02E S30	
Vegetation management - Ground herbicide	24	T06N R02E S31	
Vegetation management - Ground herbicide	34	T06N R02E S31	
Vegetation management - Ground herbicide	8	T06N R02E S32	
Vegetation management - Ground herbicide	31	T06N R02E S32	
Vegetation management - Ground herbicide	11	T10N R02W S10	
Vegetation management - Ground herbicide	46	T10N R02W S10	

<b>Columbia Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Ground herbicide	29	T10N R02W S10	
Vegetation management - Ground herbicide	55	T10N R02W S10	
Vegetation management - Ground herbicide	18	T12N R02E S16	
Vegetation management - Hand cutting	25	T06N R01E S13	
Vegetation management - Hand cutting	75	T06N R01E S14	
Vegetation management - Hand cutting	18	T06N R01E S14	
Vegetation management - Hand cutting	15	T06N R02E S28	
Vegetation management - Hand cutting	15	T06N R02E S28	
Vegetation management - Hand cutting	8	T06N R02E S32	
Vegetation management - Hand cutting	5	T06N R02E S32	
Vegetation management - Hand cutting	8	T06N R02E S32	
Vegetation management - Hand cutting	70	T06N R03E S31	
Vegetation management - Hand cutting	3	T08N R04W S06	
Vegetation management - Hand cutting	5	T08N R04W S06	
Vegetation management - Hand cutting	11	T08N R04W S06	
Vegetation management - Hand cutting	73	T08N R04W S07	
Vegetation management - Hand cutting	6	T08N R05W S01	
Vegetation management - Hand cutting	5	T08N R05W S01	
Vegetation management - Hand cutting	8	T08N R05W S01	
Vegetation management - Hand cutting	6	T08N R05W S01	
Vegetation management - Hand cutting	66	T08N R05W S04	
Vegetation management - Hand cutting	32	T08N R05W S04	
Vegetation management - Hand cutting	33	T09N R01W S36	
Vegetation management - Hand cutting	18	T09N R02E S02	
Vegetation management - Hand cutting	10	T09N R02E S02	
Vegetation management - Hand cutting	11	T09N R02E S02	
Vegetation management - Hand cutting	4	T09N R02E S13	
Vegetation management - Hand cutting	4	T09N R03E S07	
Vegetation management - Hand cutting	47	T09N R04W S03	
Vegetation management - Hand cutting	90	T10N R01E S36	
Vegetation management - Hand cutting	91	T10N R01E S36	
Vegetation management - Hand cutting	32	T10N R01E S36	
Vegetation management - Hand cutting	10	T10N R01E S36	
Vegetation management - Hand cutting	18	T10N R01E S36	
Vegetation management - Hand cutting	9	T10N R01E S36	
Vegetation management - Hand cutting	7	T10N R02E S36	
Vegetation management - Hand cutting	3	T10N R02E S36	
Vegetation management - Hand cutting	7	T10N R02E S36	
Vegetation management - Hand cutting	97	T10N R02W S06	
Vegetation management - Hand cutting	69	T10N R03W S01	
Vegetation management - Hand cutting	79	T10N R04W S32	
Vegetation management - Hand cutting	30	T10N R04W S32	
Vegetation management - Hand cutting	61	T10N R04W S32	
Vegetation management - Hand cutting	28	T10N R04W S33	
Vegetation management - Hand cutting	8	T10N R04W S33	
Vegetation management - Hand cutting	15	T11N R02E S13	
Vegetation management - Hand cutting	20	T11N R02E S14	
Vegetation management - Hand cutting	14	T11N R02E S14	
Vegetation management - Hand cutting	31	T11N R02E S22	
Vegetation management - Hand cutting	12	T11N R02E S24	

<b>Columbia Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Hand cutting	50	T11N R02E S24	
Vegetation management - Hand cutting	39	T11N R03E S17	
Vegetation management - Hand cutting	19	T11N R03E S18	
Vegetation management - Hand cutting	8	T11N R07W S18	
Vegetation management - Hand cutting	29	T11N R07W S18	
Vegetation management - Hand cutting	24	T12N R01E S16	
Vegetation management - Hand cutting	14	T12N R01E S16	
Vegetation management - Hand cutting	26	T12N R02E S33	
Vegetation management - Hand cutting	7	T12N R02E S36	
Vegetation management - Hand cutting	6	T12N R03E S28	
Vegetation management - Hand cutting	5	T12N R03E S28	
Vegetation management - Hand cutting	5	T12N R03W S25	
Vegetation management - Hand cutting	5	T12N R03W S36	
Vegetation management - Hand cutting	19	T13N R03E S35	
Pre-commercial thinning	196	T09N R03E S02	
Pre-commercial thinning	401	T09N R03E S03	
Pre-commercial thinning	191	T09N R03E S04	
Pre-commercial thinning	198	T09N R03E S04	
Pre-commercial thinning	143	T09N R03E S04	
Pre-commercial thinning	100	T09N R03E S04	
Pre-commercial thinning	223	T09N R03E S11	
Pre-commercial thinning	85	T09N R04W S04	
Pre-commercial thinning	117	T09N R04W S04	
Pre-commercial thinning	133	T09N R04W S04	
Pre-commercial thinning	33	T09N R04W S07	
Pre-commercial thinning	27	T09N R04W S09	
Pre-commercial thinning	12	T09N R04W S09	
Pre-commercial thinning	103	T09N R04W S09	
Pre-commercial thinning	131	T09N R04W S14	
Pre-commercial thinning	77	T09N R04W S19	
Pre-commercial thinning	47	T09N R04W S20	
Pre-commercial thinning	86	T09N R04W S30	
Pre-commercial thinning	82	T09N R05W S13	
Pre-commercial thinning	9	T09N R05W S27	
Pre-commercial thinning	410	T10N R03E S32	
Pre-commercial thinning	11	T10N R04W S32	
Pre-commercial thinning	120	T10N R04W S33	
Pre-commercial thinning	18	T10N R06W S04	
Pre-commercial thinning	87	T10N R06W S05	
Pre-commercial thinning	66	T10N R06W S05	
Pre-commercial thinning	76	T10N R06W S33	
Pre-commercial thinning	4	T11N R08W S26	
<b>Klickitat Planning Unit</b>			
Timber Harvest - Clear cut	1	T06N R10E S19	2701645
Timber Harvest - Clear cut	28	T06N R10E S20	2701645
Timber Harvest - Clear cut	67	T06N R15E S36	2702832
Timber Harvest - Clear cut	151	T06N R15E S36	2702832
Timber Harvest - Clear cut	134	T07N R11E S23	2701922
Timber Harvest - Clear cut	177	T07N R11E S26	2701922
Timber Harvest - Clear cut	101	T07N R11E S26	2701922

<b>Klickitat Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Salvage cut	18	T07N R11E S34	2702528
Timber Harvest - Salvage cut	177	T07N R11E S35	2702528
Timber Harvest - Salvage cut	42	T07N R12E S06	2702829
Timber Harvest - Salvage cut	36	T07N R12E S07	2702829
Timber Harvest - Smallwood thinning	21	T06N R10E S17	2701645
Timber Harvest - Smallwood thinning	19	T06N R10E S18	2701645
Timber Harvest - Smallwood thinning	78	T06N R10E S32	2701645
Timber Harvest - Temporary retention first cut	15	T07N R11E S26	2701922
Timber Harvest - Temporary retention first cut	36	T07N R11E S26	2701922
Timber Harvest - Temporary retention first cut	37	T07N R11E S26	2701922
Timber Harvest - Uneven-aged management	4	T07N R12E S06	2702830
Forest site preparation - Ground mechanical	28	T06N R10E S20	
Forest site preparation - Ground mechanical	120	T07N R11E S23	
Forest regeneration - Hand planting	5	T03N R12E S06	
Forest regeneration - Hand planting	7	T03N R12E S06	
Forest regeneration - Hand planting	80	T04N R10E S19	
Forest regeneration - Hand planting	23	T06N R10E S20	
Forest regeneration - Hand planting	16	T06N R12E S16	
Forest regeneration - Hand planting	8	T06N R12E S16	
Forest regeneration - Hand planting	134	T07N R11E S23	
Forest regeneration - Hand planting	101	T07N R11E S26	
Forest regeneration - Hand planting	176	T07N R11E S26	
Forest regeneration - Hand planting	17	T07N R11E S26	
Forest regeneration - Hand planting	175	T07N R11E S26	
Forest regeneration - Hand planting	43	T07N R11E S33	
Forest regeneration - Hand planting	202	T07N R11E S33	
Forest regeneration - Hand planting	80	T07N R11E S33	
Forest regeneration - Hand planting	18	T07N R11E S34	
Forest regeneration - Hand planting	177	T07N R11E S35	
Vegetation management - Ground herbicide	24	T03N R12E S06	
Vegetation management - Ground herbicide	36	T03N R12E S06	
Vegetation management - Ground herbicide	41	T04N R11E S06	
Vegetation management - Ground herbicide	6	T04N R12E S02	
Vegetation management - Ground herbicide	46	T04N R12E S02	
Vegetation management - Ground herbicide	34	T04N R12E S31	
Vegetation management - Ground herbicide	28	T05N R12E S36	
Vegetation management - Ground herbicide	16	T06N R12E S16	
Vegetation management - Ground herbicide	8	T06N R12E S16	
Vegetation management - Ground herbicide	134	T07N R11E S23	
Vegetation management - Ground herbicide	101	T07N R11E S26	
Vegetation management - Ground herbicide	176	T07N R11E S26	
Vegetation management - Ground herbicide	230	T07N R11E S26	
Vegetation management - Ground herbicide	43	T07N R11E S33	
Vegetation management - Ground herbicide	202	T07N R11E S33	
Vegetation management - Ground herbicide	80	T07N R11E S33	
Vegetation management - Ground herbicide	18	T07N R11E S34	
Vegetation management - Ground herbicide	177	T07N R11E S35	
Pre-commercial thinning	30	T04N R10E S04	
Pre-commercial thinning	7	T05N R10E S03	
Pre-commercial thinning	80	T05N R10E S03	

<b>Klickitat Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Pre-commercial thinning	62	T05N R10E S28	
Pre-commercial thinning	365	T07N R12E S30	
Pre-commercial thinning	223	T07N R12E S31	
<b>North Puget Planning Unit</b>			
Timber Harvest - Clear cut	1	T23N R07E S05	2409508
Timber Harvest - Clear cut	16	T23N R07E S05	2409508
Timber Harvest - Clear cut	66	T24N R07E S34	2409639
Timber Harvest - Clear cut	2	T26N R08E S05	2409507
Timber Harvest - Clear cut	7	T26N R08E S05	2409507
Timber Harvest - Clear cut	11	T26N R08E S05	2409507
Timber Harvest - Clear cut	12	T26N R08E S05	2409507
Timber Harvest - Clear cut	7	T26N R08E S05	2409507
Timber Harvest - Clear cut	2	T26N R08E S05	2409507
Timber Harvest - Clear cut	87	T26N R08E S05	2409587
Timber Harvest - Clear cut	85	T26N R08E S07	2408890
Timber Harvest - Clear cut	18	T26N R08E S08	2408369
Timber Harvest - Clear cut	35	T26N R08E S08	2409507
Timber Harvest - Clear cut	2	T26N R08E S17	2408369
Timber Harvest - Clear cut	15	T26N R08E S17	2408369
Timber Harvest - Clear cut	25	T26N R08E S17	2408369
Timber Harvest - Clear cut	31	T27N R07E S08	2805502
Timber Harvest - Clear cut	9	T27N R07E S17	2805502
Timber Harvest - Clear cut	85	T28N R07E S02	2806274
Timber Harvest - Clear cut	92	T28N R07E S04	2806357
Timber Harvest - Clear cut	16	T28N R07E S16	2806357
Timber Harvest - Clear cut	16	T28N R08E S03	2806780
Timber Harvest - Clear cut	79	T28N R08E S04	2805900
Timber Harvest - Clear cut	20	T28N R08E S10	2806780
Timber Harvest - Clear cut	12	T28N R08E S11	2806780
Timber Harvest - Clear cut	19	T28N R08E S11	2806780
Timber Harvest - Clear cut	167	T28N R08E S14	2806571
Timber Harvest - Clear cut	25	T28N R08E S14	2806780
Timber Harvest - Clear cut	96	T28N R08E S21	2806552
Timber Harvest - Clear cut	63	T28N R09E S29	2806009
Timber Harvest - Clear cut	26	T28N R09E S32	2806009
Timber Harvest - Clear cut	46	T29N R07E S03	2805263
Timber Harvest - Clear cut	79	T29N R07E S10	2804968
Timber Harvest - Clear cut	74	T29N R07E S33	2806357
Timber Harvest - Clear cut	2	T29N R08E S27	2804329
Timber Harvest - Clear cut	18	T30N R07E S33	2805766
Timber Harvest - Clear cut	46	T31N R06E S12	2805765
Timber Harvest - Clear cut	43	T31N R06E S15	2805769
Timber Harvest - Clear cut	80	T31N R06E S26	2805767
Timber Harvest - Clear cut	36	T31N R06E S35	2806293
Timber Harvest - Clear cut	41	T32N R06E S05	2804988
Timber Harvest - Clear cut	39	T32N R06E S06	2804988
Timber Harvest - Clear cut	75	T32N R06E S13	2806455
Timber Harvest - Clear cut	77	T32N R06E S22	2806455
Timber Harvest - Clear cut	60	T32N R06E S23	2806455
Timber Harvest - Clear cut	36	T32N R06E S23	2805831

<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Clear cut	52	T32N R06E S25	2805831
Timber Harvest - Clear cut	29	T32N R07E S30	2805831
Timber Harvest - Clear cut	58	T33N R04E S12	2806369
Timber Harvest - Clear cut	30	T33N R04E S12	2806369
Timber Harvest - Clear cut	29	T33N R05E S03	2805537
Timber Harvest - Clear cut	39	T33N R05E S04	2806468
Timber Harvest - Clear cut	63	T33N R05E S10	2806239
Timber Harvest - Clear cut	56	T33N R05E S15	2806575
Timber Harvest - Clear cut	21	T33N R05E S15	2806575
Timber Harvest - Clear cut	24	T33N R05E S18	2806369
Timber Harvest - Clear cut	32	T33N R05E S23	2806575
Timber Harvest - Clear cut	30	T33N R05E S36	2805511
Timber Harvest - Clear cut	3	T33N R06E S04	2804339
Timber Harvest - Clear cut	21	T33N R06E S04	2804339
Timber Harvest - Clear cut	28	T33N R06E S04	2804339
Timber Harvest - Clear cut	85	T33N R06E S05	2804339
Timber Harvest - Clear cut	10	T33N R06E S06	2804339
Timber Harvest - Clear cut	92	T33N R06E S24	2805132
Timber Harvest - Clear cut	43	T33N R06E S29	2805763
Timber Harvest - Clear cut	40	T33N R06E S30	2805511
Timber Harvest - Clear cut	57	T33N R06E S33	2804779
Timber Harvest - Clear cut	11	T33N R06E S33	2804779
Timber Harvest - Clear cut	64	T33N R06E S33	2804779
Timber Harvest - Clear cut	7	T33N R07E S27	2805314
Timber Harvest - Clear cut	51	T33N R07E S34	2805314
Timber Harvest - Clear cut	90	T34N R05E S04	2804100
Timber Harvest - Clear cut	41	T34N R05E S29	2804041
Timber Harvest - Clear cut	38	T34N R05E S33	2806468
Timber Harvest - Clear cut	31	T34N R05E S34	2806665
Timber Harvest - Clear cut	4	T34N R09E S12	2806577
Timber Harvest - Clear cut	6	T34N R09E S12	2806577
Timber Harvest - Clear cut	74	T34N R09E S12	2806577
Timber Harvest - Clear cut	16	T34N R09E S12	2806577
Timber Harvest - Clear cut	0	T35N R05E S02	2806097
Timber Harvest - Clear cut	7	T35N R05E S02	2806097
Timber Harvest - Clear cut	89	T35N R06E S06	2806418
Timber Harvest - Clear cut	19	T36N R04E S09	2807147
Timber Harvest - Clear cut	27	T36N R04E S09	2807147
Timber Harvest - Clear cut	31	T36N R06E S07	2806315
Timber Harvest - Clear cut	27	T36N R06E S16	2804828
Timber Harvest - Clear cut	67	T36N R06E S16	2804828
Timber Harvest - Clear cut	86	T36N R06E S26	2805664
Timber Harvest - Clear cut	76	T37N R04E S13	2805160
Timber Harvest - Clear cut	76	T37N R05E S05	2806762
Timber Harvest - Clear cut	85	T37N R05E S07	2805479
Timber Harvest - Clear cut	92	T37N R05E S10	2806759
Timber Harvest - Clear cut	11	T37N R05E S32	2806622
Timber Harvest - Clear cut	35	T37N R05E S32	2806622
Timber Harvest - Clear cut	21	T37N R05E S36	2806406
Timber Harvest - Clear cut	52	T37N R06E S32	2806406

<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Clear cut	40	T38N R05E S14	2804774
Timber Harvest - Clear cut	63	T38N R05E S16	2806161
Timber Harvest - Clear cut	1	T38N R05E S21	2806460
Timber Harvest - Clear cut	54	T38N R05E S21	2806460
Timber Harvest - Clear cut	44	T38N R05E S21	2806460
Timber Harvest - Clear cut	36	T38N R05E S21	2806161
Timber Harvest - Clear cut	30	T38N R05E S33	2806553
Timber Harvest - Clear cut	43	T38N R06E S17	2805627
Timber Harvest - Clear cut	73	T39N R04E S15	2806515
Timber Harvest - Clear cut	102	T39N R05E S18	2804273
Timber Harvest - Clear cut	71	T39N R05E S19	2806104
Timber Harvest - Clear cut	11	T39N R05E S34	2806517
Timber Harvest - Clear cut	47	T39N R05E S34	2806517
Timber Harvest - Clear cut	60	T39N R06E S05	2806160
Timber Harvest - Clear cut	39	T39N R06E S07	2806160
Timber Harvest - Clear cut	49	T40N R05E S04	2806514
Timber Harvest - Clear cut	64	T40N R05E S29	2806417
Timber Harvest - Clear cut	64	T40N R06E S07	2806758
Timber Harvest - Late rotation thinning	20	T26N R08E S07	2408369
Timber Harvest - Late rotation thinning	144	T29N R08E S20	2804993
Timber Harvest - Late rotation thinning	7	T32N R06E S05	2805990
Timber Harvest - Late rotation thinning	12	T32N R06E S05	2805990
Timber Harvest - Late rotation thinning	44	T32N R06E S05	2805990
Timber Harvest - Late rotation thinning	44	T32N R06E S06	2805990
Timber Harvest - Late rotation thinning	65	T33N R10E S08	2806679
Timber Harvest - Late rotation thinning	47	T33N R10E S08	2806679
Timber Harvest - Late rotation thinning	59	T34N R10E S19	2806679
Timber Harvest - Late rotation thinning	39	T34N R10E S30	2806679
Timber Harvest - Late rotation thinning	14	T34N R10E S31	2806679
Timber Harvest - Salvage cut	7	T28N R08E S03	2806748
Timber Harvest - Salvage cut	43	T28N R08E S03	2806748
Timber Harvest - Salvage cut	25	T28N R08E S12	2806571
Timber Harvest - Salvage cut	80	T29N R08E S33	2806748
Timber Harvest - Shelterwood intermediate cut	40	T36N R03E S15	2806431
Timber Harvest - Smallwood thinning	30	T29N R08E S05	2804230
Timber Harvest - Smallwood thinning	5	T29N R08E S05	2804230
Timber Harvest - Smallwood thinning	29	T29N R08E S05	2804230
Timber Harvest - Smallwood thinning	27	T29N R08E S05	2804230
Timber Harvest - Variable density thinning	70	T33N R10E S28	2804742
Timber Harvest - Variable density thinning	19	T33N R10E S28	2804742
Timber Harvest - Variable density thinning	33	T34N R10E S30	2806679
Forest site preparation - Aerial herbicide	27	T27N R07E S20	2806857
Forest site preparation - Aerial herbicide	47	T28N R07E S11	2806857
Forest site preparation - Aerial herbicide	43	T28N R07E S13	2806857
Forest site preparation - Aerial herbicide	25	T28N R08E S03	2806857
Forest site preparation - Aerial herbicide	79	T28N R08E S04	2806857
Forest site preparation - Aerial herbicide	45	T28N R08E S05	2806857
Forest site preparation - Aerial herbicide	36	T28N R08E S07	2806857
Forest site preparation - Aerial herbicide	94	T28N R08E S07	2806857
Forest site preparation - Aerial herbicide	83	T28N R08E S08	2806857



<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest site preparation - Aerial herbicide	9	T28N R08E S12	2806857
Forest site preparation - Aerial herbicide	11	T28N R08E S12	2806857
Forest site preparation - Aerial herbicide	37	T28N R08E S18	2806857
Forest site preparation - Aerial herbicide	2	T28N R09E S07	2806857
Forest site preparation - Aerial herbicide	46	T29N R07E S03	2806857
Forest site preparation - Aerial herbicide	82	T29N R08E S34	2806857
Forest site preparation - Aerial herbicide	18	T30N R07E S33	2806857
Forest site preparation - Aerial herbicide	51	T31N R06E S01	2806857
Forest site preparation - Aerial herbicide	1	T31N R06E S11	2806857
Forest site preparation - Aerial herbicide	32	T31N R06E S11	2806857
Forest site preparation - Aerial herbicide	31	T31N R06E S11	2806857
Forest site preparation - Aerial herbicide	28	T31N R06E S12	2806857
Forest site preparation - Aerial herbicide	37	T31N R06E S14	2806857
Forest site preparation - Aerial herbicide	47	T31N R06E S14	2806857
Forest site preparation - Aerial herbicide	26	T31N R06E S22	2806857
Forest site preparation - Aerial herbicide	90	T31N R06E S22	2806857
Forest site preparation - Aerial herbicide	32	T32N R06E S03	2806857
Forest site preparation - Aerial herbicide	18	T32N R06E S05	2806857
Forest site preparation - Aerial herbicide	27	T32N R06E S06	2806857
Forest site preparation - Aerial herbicide	70	T32N R07E S05	2806857
Forest site preparation - Aerial herbicide	28	T32N R07E S30	2806857
Forest site preparation - Aerial herbicide	36	T33N R05E S15	2806857
Forest site preparation - Aerial herbicide	80	T33N R05E S25	2806857
Forest site preparation - Aerial herbicide	34	T33N R05E S26	2806857
Forest site preparation - Aerial herbicide	50	T33N R07E S19	2806857
Forest site preparation - Aerial herbicide	53	T33N R07E S27	2806857
Forest site preparation - Aerial herbicide	86	T33N R07E S29	2806857
Forest site preparation - Aerial herbicide	14	T33N R10E S15	2806857
Forest site preparation - Aerial herbicide	16	T34N R05E S21	2806857
Forest site preparation - Aerial herbicide	39	T34N R05E S28	2806857
Forest site preparation - Aerial herbicide	31	T34N R05E S29	2806857
Forest site preparation - Aerial herbicide	38	T34N R05E S29	2806857
Forest site preparation - Aerial herbicide	38	T35N R05E S01	2806873
Forest site preparation - Aerial herbicide	64	T35N R05E S02	2806873
Forest site preparation - Aerial herbicide	42	T38N R05E S04	2806873
Forest site preparation - Aerial herbicide	12	T39N R05E S14	2806873
Forest site preparation - Aerial herbicide	57	T39N R05E S14	2806873
Forest site preparation - Aerial herbicide	57	T39N R05E S14	2806873
Forest site preparation - Ground herbicide	2	T36N R06E S26	
Forest site preparation - Ground herbicide	39	T38N R05E S04	
Forest site preparation - Ground herbicide	49	T40N R05E S26	
Forest regeneration - Hand planting	23	T23N R07E S09	
Forest regeneration - Hand planting	3	T23N R07E S09	
Forest regeneration - Hand planting	25	T23N R07E S16	
Forest regeneration - Hand planting	35	T24N R07E S34	
Forest regeneration - Hand planting	30	T24N R07E S34	
Forest regeneration - Hand planting	50	T26N R08E S07	
Forest regeneration - Hand planting	66	T26N R08E S08	
Forest regeneration - Hand planting	25	T27N R07E S20	
Forest regeneration - Hand planting	16	T27N R07E S20	

<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest regeneration - Hand planting	44	T28N R07E S11	
Forest regeneration - Hand planting	39	T28N R07E S13	
Forest regeneration - Hand planting	16	T28N R08E S03	
Forest regeneration - Hand planting	23	T28N R08E S03	
Forest regeneration - Hand planting	71	T28N R08E S04	
Forest regeneration - Hand planting	42	T28N R08E S05	
Forest regeneration - Hand planting	32	T28N R08E S07	
Forest regeneration - Hand planting	87	T28N R08E S07	
Forest regeneration - Hand planting	78	T28N R08E S08	
Forest regeneration - Hand planting	4	T28N R08E S12	
Forest regeneration - Hand planting	9	T28N R08E S12	
Forest regeneration - Hand planting	35	T28N R08E S18	
Forest regeneration - Hand planting	90	T28N R09E S07	
Forest regeneration - Hand planting	41	T29N R07E S03	
Forest regeneration - Hand planting	4	T29N R07E S26	
Forest regeneration - Hand planting	3	T29N R08E S20	
Forest regeneration - Hand planting	76	T29N R08E S34	
Forest regeneration - Hand planting	42	T30N R07E S06	
Forest regeneration - Hand planting	33	T30N R07E S07	
Forest regeneration - Hand planting	16	T30N R07E S33	
Forest regeneration - Hand planting	48	T31N R06E S01	
Forest regeneration - Hand planting	31	T31N R06E S11	
Forest regeneration - Hand planting	28	T31N R06E S11	
Forest regeneration - Hand planting	1	T31N R06E S11	
Forest regeneration - Hand planting	26	T31N R06E S12	
Forest regeneration - Hand planting	35	T31N R06E S14	
Forest regeneration - Hand planting	42	T31N R06E S14	
Forest regeneration - Hand planting	40	T31N R06E S15	
Forest regeneration - Hand planting	24	T31N R06E S22	
Forest regeneration - Hand planting	85	T31N R06E S22	
Forest regeneration - Hand planting	64	T32N R06E S02	
Forest regeneration - Hand planting	29	T32N R06E S03	
Forest regeneration - Hand planting	16	T32N R06E S05	
Forest regeneration - Hand planting	23	T32N R06E S06	
Forest regeneration - Hand planting	65	T32N R07E S05	
Forest regeneration - Hand planting	25	T32N R07E S30	
Forest regeneration - Hand planting	95	T33N R05E S03	
Forest regeneration - Hand planting	24	T33N R05E S03	
Forest regeneration - Hand planting	35	T33N R05E S15	
Forest regeneration - Hand planting	76	T33N R05E S25	
Forest regeneration - Hand planting	33	T33N R05E S26	
Forest regeneration - Hand planting	27	T33N R05E S36	
Forest regeneration - Hand planting	88	T33N R06E S24	
Forest regeneration - Hand planting	15	T33N R06E S25	
Forest regeneration - Hand planting	19	T33N R06E S30	
Forest regeneration - Hand planting	48	T33N R07E S19	
Forest regeneration - Hand planting	47	T33N R07E S27	
Forest regeneration - Hand planting	81	T33N R07E S29	
Forest regeneration - Hand planting	14	T33N R10E S15	
Forest regeneration - Hand planting	8	T33N R10E S17	

<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest regeneration - Hand planting	90	T34N R05E S04	
Forest regeneration - Hand planting	14	T34N R05E S21	
Forest regeneration - Hand planting	35	T34N R05E S28	
Forest regeneration - Hand planting	35	T34N R05E S29	
Forest regeneration - Hand planting	28	T34N R05E S29	
Forest regeneration - Hand planting	36	T35N R05E S01	
Forest regeneration - Hand planting	62	T35N R05E S02	
Forest regeneration - Hand planting	20	T36N R05E S07	
Forest regeneration - Hand planting	12	T36N R05E S07	
Forest regeneration - Hand planting	25	T36N R06E S07	
Forest regeneration - Hand planting	2	T36N R06E S26	
Forest regeneration - Hand planting	20	T36N R06E S28	
Forest regeneration - Hand planting	25	T36N R06E S28	
Forest regeneration - Hand planting	68	T37N R04E S13	
Forest regeneration - Hand planting	65	T37N R05E S07	
Forest regeneration - Hand planting	37	T37N R05E S27	
Forest regeneration - Hand planting	17	T37N R05E S36	
Forest regeneration - Hand planting	77	T38N R05E S04	
Forest regeneration - Hand planting	80	T38N R05E S35	
Forest regeneration - Hand planting	40	T38N R06E S17	
Forest regeneration - Hand planting	34	T38N R06E S29	
Forest regeneration - Hand planting	12	T39N R05E S14	
Forest regeneration - Hand planting	54	T39N R05E S14	
Forest regeneration - Hand planting	57	T39N R05E S14	
Forest regeneration - Hand planting	58	T39N R06E S05	
Forest regeneration - Hand planting	37	T39N R06E S07	
Forest regeneration - Hand planting	24	T40N R04E S36	
Forest regeneration - Hand planting	50	T40N R05E S26	
Forest regeneration - Hand planting	89	T40N R06E S20	
Forest regeneration - Hand planting	94	T40N R06E S21	
Forest regeneration - Natural regeneration	66	T40N R04E S36	
Vegetation management - Aerial herbicide	29	T27N R07E S20	2806857
Vegetation management - Aerial herbicide	51	T28N R07E S11	2806857
Vegetation management - Aerial herbicide	32	T32N R07E S04	2806857
Vegetation management - Aerial herbicide	41	T33N R07E S33	2806857
Vegetation management - Aerial herbicide	16	T33N R07E S34	2806857
Vegetation management - Aerial herbicide	24	T33N R10E S22	2806857
Vegetation management - Aerial herbicide	9	T38N R05E S24	2806873
Vegetation management - Aerial herbicide	35	T38N R05E S24	2806873
Vegetation management - Aerial herbicide	35	T38N R05E S25	2806873
Vegetation management - Aerial herbicide	86	T39N R05E S17	2806873
Vegetation management - Aerial herbicide	95	T40N R05E S12	2806873
Vegetation management - Aerial herbicide	48	T40N R05E S30	2806873
Vegetation management - Aerial herbicide	34	T40N R06E S27	2806873
Vegetation management - Aerial herbicide	60	T40N R06E S27	2806873
Vegetation management - Aerial herbicide	34	T40N R06E S31	2806873
Vegetation management - Ground herbicide	20	T23N R07E S09	
Vegetation management - Ground herbicide	35	T23N R09E S21	
Vegetation management - Ground herbicide	27	T26N R08E S07	
Vegetation management - Ground herbicide	8	T27N R07E S17	

<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Ground herbicide	18	T27N R07E S20	
Vegetation management - Ground herbicide	22	T27N R09E S13	
Vegetation management - Ground herbicide	27	T29N R07E S09	
Vegetation management - Ground herbicide	4	T29N R07E S26	
Vegetation management - Ground herbicide	7	T31N R06E S02	
Vegetation management - Ground herbicide	51	T31N R06E S02	
Vegetation management - Ground herbicide	6	T31N R06E S02	
Vegetation management - Ground herbicide	9	T31N R06E S02	
Vegetation management - Ground herbicide	42	T31N R06E S03	
Vegetation management - Ground herbicide	28	T31N R06E S12	
Vegetation management - Ground herbicide	29	T31N R06E S12	
Vegetation management - Ground herbicide	18	T31N R06E S12	
Vegetation management - Ground herbicide	71	T32N R06E S02	
Vegetation management - Ground herbicide	36	T32N R06E S35	
Vegetation management - Ground herbicide	23	T32N R06E S35	
Vegetation management - Ground herbicide	15	T32N R06E S36	
Vegetation management - Ground herbicide	37	T32N R06E S36	
Vegetation management - Ground herbicide	18	T32N R06E S36	
Vegetation management - Ground herbicide	1	T32N R09E S21	
Vegetation management - Ground herbicide	3	T32N R09E S22	
Vegetation management - Ground herbicide	43	T32N R09E S26	
Vegetation management - Ground herbicide	5	T33N R05E S04	
Vegetation management - Ground herbicide	18	T33N R05E S09	
Vegetation management - Ground herbicide	52	T33N R05E S13	
Vegetation management - Ground herbicide	24	T33N R07E S31	
Vegetation management - Ground herbicide	28	T33N R10E S17	
Vegetation management - Ground herbicide	12	T33N R10E S17	
Vegetation management - Ground herbicide	2	T35N R05E S03	
Vegetation management - Ground herbicide	51	T35N R06E S01	
Vegetation management - Ground herbicide	90	T35N R06E S32	
Vegetation management - Ground herbicide	12	T36N R05E S07	
Vegetation management - Ground herbicide	18	T36N R05E S07	
Vegetation management - Ground herbicide	50	T36N R06E S07	
Vegetation management - Ground herbicide	13	T37N R05E S02	
Vegetation management - Ground herbicide	18	T37N R05E S02	
Vegetation management - Ground herbicide	31	T37N R05E S02	
Vegetation management - Ground herbicide	12	T37N R05E S03	
Vegetation management - Ground herbicide	19	T37N R05E S03	
Vegetation management - Ground herbicide	31	T37N R05E S04	
Vegetation management - Ground herbicide	1	T37N R05E S04	
Vegetation management - Ground herbicide	50	T37N R05E S25	
Vegetation management - Ground herbicide	18	T37N R06E S31	
Vegetation management - Ground herbicide	11	T37N R06E S31	
Vegetation management - Ground herbicide	3	T38N R05E S22	
Vegetation management - Ground herbicide	16	T39N R05E S01	
Vegetation management - Ground herbicide	52	T39N R05E S10	
Vegetation management - Ground herbicide	27	T39N R05E S12	
Vegetation management - Ground herbicide	34	T39N R05E S29	
Vegetation management - Ground herbicide	37	T39N R06E S06	
Vegetation management - Ground herbicide	13	T39N R06E S06	

<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Hand cutting	10	T23N R09E S27	
Vegetation management - Hand cutting	7	T23N R09E S27	
Vegetation management - Hand cutting	23	T23N R09E S27	
Vegetation management - Hand cutting	2	T23N R09E S27	
Vegetation management - Hand cutting	10	T23N R09E S28	
Vegetation management - Hand cutting	81	T26N R08E S18	
Vegetation management - Hand cutting	63	T26N R08E S19	
Vegetation management - Hand cutting	70	T26N R08E S20	
Vegetation management - Hand cutting	17	T27N R07E S17	
Vegetation management - Hand cutting	36	T27N R08E S31	
Vegetation management - Hand cutting	30	T27N R08E S31	
Vegetation management - Hand cutting	62	T28N R07E S14	
Vegetation management - Hand cutting	25	T29N R07E S04	
Vegetation management - Hand cutting	58	T30N R07E S21	
Vegetation management - Hand cutting	11	T30N R07E S33	
Vegetation management - Hand cutting	2	T31N R06E S16	
Vegetation management - Hand cutting	3	T31N R06E S22	
Vegetation management - Hand cutting	14	T32N R06E S05	
Vegetation management - Hand cutting	52	T32N R06E S23	
Vegetation management - Hand cutting	32	T32N R07E S17	
Vegetation management - Hand cutting	40	T32N R09E S03	
Vegetation management - Hand cutting	14	T32N R09E S04	
Vegetation management - Hand cutting	36	T32N R09E S06	
Vegetation management - Hand cutting	28	T32N R09E S06	
Vegetation management - Hand cutting	17	T32N R09E S12	
Vegetation management - Hand cutting	3	T32N R09E S16	
Vegetation management - Hand cutting	42	T32N R09E S16	
Vegetation management - Hand cutting	33	T33N R05E S03	
Vegetation management - Hand cutting	94	T33N R05E S11	
Vegetation management - Hand cutting	2	T33N R05E S24	
Vegetation management - Hand cutting	3	T33N R05E S25	
Vegetation management - Hand cutting	44	T33N R05E S29	
Vegetation management - Hand cutting	24	T33N R06E S25	
Vegetation management - Hand cutting	46	T33N R07E S29	
Vegetation management - Hand cutting	45	T33N R07E S33	
Vegetation management - Hand cutting	41	T33N R10E S07	
Vegetation management - Hand cutting	47	T33N R10E S07	
Vegetation management - Hand cutting	35	T33N R10E S10	
Vegetation management - Hand cutting	36	T33N R10E S18	
Vegetation management - Hand cutting	22	T33N R10E S22	
Vegetation management - Hand cutting	6	T33N R10E S27	
Vegetation management - Hand cutting	34	T33N R10E S27	
Vegetation management - Hand cutting	12	T33N R10E S28	
Vegetation management - Hand cutting	20	T33N R10E S28	
Vegetation management - Hand cutting	23	T34N R05E S16	
Vegetation management - Hand cutting	56	T34N R05E S21	
Vegetation management - Hand cutting	86	T34N R09E S12	
Vegetation management - Hand cutting	3	T34N R09E S24	
Vegetation management - Hand cutting	4	T34N R09E S25	
Vegetation management - Hand cutting	14	T35N R06E S34	

<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Hand cutting	11	T35N R07E S06	
Vegetation management - Hand cutting	63	T35N R07E S07	
Vegetation management - Hand cutting	4	T35N R09E S21	
Vegetation management - Hand cutting	38	T35N R09E S21	
Vegetation management - Hand cutting	29	T36N R03E S04	
Vegetation management - Hand cutting	52	T36N R04E S15	
Vegetation management - Hand cutting	45	T36N R04E S22	
Vegetation management - Hand cutting	70	T36N R04E S22	
Vegetation management - Hand cutting	40	T36N R05E S34	
Vegetation management - Hand cutting	26	T36N R07E S30	
Vegetation management - Hand cutting	74	T37N R04E S31	
Vegetation management - Hand cutting	58	T37N R05E S04	
Vegetation management - Hand cutting	38	T37N R05E S10	
Vegetation management - Hand cutting	2	T37N R05E S21	
Vegetation management - Hand cutting	5	T37N R05E S27	
Vegetation management - Hand cutting	30	T37N R05E S34	
Vegetation management - Hand cutting	59	T37N R05E S35	
Vegetation management - Hand cutting	37	T37N R05E S35	
Vegetation management - Hand cutting	36	T38N R05E S14	
Vegetation management - Hand cutting	21	T38N R05E S15	
Vegetation management - Hand cutting	19	T38N R05E S22	
Vegetation management - Hand cutting	90	T38N R05E S22	
Vegetation management - Hand cutting	44	T38N R05E S23	
Vegetation management - Hand cutting	27	T38N R05E S25	
Vegetation management - Hand cutting	17	T38N R05E S25	
Vegetation management - Hand cutting	23	T38N R05E S26	
Vegetation management - Hand cutting	116	T38N R05E S28	
Vegetation management - Hand cutting	62	T38N R05E S28	
Vegetation management - Hand cutting	68	T38N R05E S34	
Vegetation management - Hand cutting	3	T38N R06E S20	
Vegetation management - Hand cutting	45	T39N R05E S02	
Vegetation management - Hand cutting	100	T39N R05E S11	
Vegetation management - Hand cutting	102	T39N R06E S06	
Vegetation management - Hand cutting	39	T40N R05E S11	
Vegetation management - Hand cutting	70	T40N R05E S19	
Vegetation management - Hand cutting	28	T40N R05E S20	
Vegetation management - Hand cutting	45	T40N R05E S25	
Vegetation management - Hand cutting	24	T40N R06E S20	
Vegetation management - Hand cutting	20	T40N R06E S20	
Vegetation management - Hand cutting	80	T40N R06E S33	
Pre-commercial thinning	13	T32N R06E S24	
Pre-commercial thinning	57	T32N R06E S36	
Pre-commercial thinning	26	T32N R06E S36	
Pre-commercial thinning	42	T32N R06E S36	
Pre-commercial thinning	116	T38N R06E S24	
Pre-commercial thinning	44	T39N R05E S05	
Pre-commercial thinning	37	T39N R05E S12	
Pre-commercial thinning	48	T39N R05E S12	
Pre-commercial thinning	30	T40N R05E S19	
Pre-commercial thinning	47	T40N R05E S32	

<b>North Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Pre-commercial thinning	68	T40N R05E S32	
Pre-commercial thinning	31	T40N R05E S32	
Pre-commercial thinning	30	T40N R05E S32	
<b>OESF Planning Unit</b>			
Timber Harvest - Clear cut	10	T27N R12W S16	2605625
Timber Harvest - Late rotation thinning	37	T26N R11W S16	2604460
Timber Harvest - Late rotation thinning	123	T27N R12W S21	2605625
Timber Harvest - Smallwood thinning	34	T26N R11W S16	2604460
Timber Harvest - Smallwood thinning	33	T26N R11W S17	2604460
Forest regeneration - Hand planting	17	T28N R14W S17	
Forest regeneration - Hand planting	39	T28N R14W S18	
Forest regeneration - Hand planting	2	T29N R13W S08	
Forest regeneration - Hand planting	4	T29N R13W S20	
Forest regeneration - Hand planting	37	T30N R10W S28	
Forest regeneration - Hand planting	48	T30N R10W S28	
Forest regeneration - Hand planting	2	T30N R10W S30	
Forest regeneration - Hand planting	5	T30N R11W S25	
Forest regeneration - Hand planting	2	T30N R11W S29	
Forest regeneration - Hand planting	4	T30N R11W S31	
Forest regeneration - Hand planting	3	T30N R12W S25	
Forest regeneration - Hand planting	76	T30N R12W S26	
Forest regeneration - Hand planting	28	T30N R12W S28	
Forest regeneration - Hand planting	54	T30N R12W S30	
Forest regeneration - Hand planting	2	T30N R12W S36	
Forest regeneration - Hand planting	6	T31N R13W S14	
Forest regeneration - Hand planting	5	T31N R13W S14	
Forest regeneration - Hand planting	5	T31N R13W S15	
Forest regeneration - Hand planting	5	T31N R13W S23	
Forest regeneration - Hand planting	7	T31N R13W S23	
Forest regeneration - Hand planting	8	T32N R13W S16	
Forest regeneration - Hand planting	7	T32N R13W S17	
Forest regeneration - Hand planting	4	T32N R13W S29	
Forest regeneration - Hand planting	39	T32N R13W S29	
Vegetation management - Ground herbicide	26	T30N R10W S28	
Vegetation management - Ground herbicide	9	T30N R11W S30	
Vegetation management - Ground herbicide	3	T30N R11W S30	
Vegetation management - Ground herbicide	21	T30N R12W S22	
Vegetation management - Ground herbicide	32	T30N R12W S22	
Vegetation management - Ground herbicide	8	T30N R12W S36	
Pre-commercial thinning	86	T25N R10W S02	
Pre-commercial thinning	101	T25N R10W S03	
Pre-commercial thinning	109	T25N R10W S03	
Pre-commercial thinning	75	T25N R10W S04	
Pre-commercial thinning	88	T25N R10W S05	
Pre-commercial thinning	26	T25N R10W S05	
Pre-commercial thinning	91	T25N R10W S05	
Pre-commercial thinning	28	T25N R10W S06	
Pre-commercial thinning	8	T25N R11W S07	
Pre-commercial thinning	41	T25N R11W S15	
Pre-commercial thinning	129	T25N R11W S15	

<b>OESF Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Pre-commercial thinning	4	T25N R11W S29	
Pre-commercial thinning	104	T25N R11W S30	
Pre-commercial thinning	24	T25N R12W S25	
Pre-commercial thinning	51	T25N R12W S29	
Pre-commercial thinning	16	T26N R10W S03	
Pre-commercial thinning	64	T26N R10W S03	
Pre-commercial thinning	105	T26N R10W S04	
Pre-commercial thinning	11	T26N R10W S04	
Pre-commercial thinning	59	T26N R10W S04	
Pre-commercial thinning	93	T26N R10W S05	
Pre-commercial thinning	13	T26N R10W S06	
Pre-commercial thinning	22	T26N R10W S08	
Pre-commercial thinning	64	T26N R10W S08	
Pre-commercial thinning	50	T26N R10W S08	
Pre-commercial thinning	31	T26N R10W S08	
Pre-commercial thinning	60	T26N R10W S08	
Pre-commercial thinning	99	T26N R10W S09	
Pre-commercial thinning	77	T26N R10W S09	
Pre-commercial thinning	58	T26N R10W S09	
Pre-commercial thinning	186	T26N R10W S10	
Pre-commercial thinning	102	T26N R10W S10	
Pre-commercial thinning	89	T26N R10W S11	
Pre-commercial thinning	7	T26N R10W S11	
Pre-commercial thinning	102	T26N R10W S11	
Pre-commercial thinning	36	T26N R10W S14	
Pre-commercial thinning	44	T26N R10W S14	
Pre-commercial thinning	22	T26N R10W S17	
Pre-commercial thinning	106	T26N R10W S26	
Pre-commercial thinning	60	T26N R10W S29	
Pre-commercial thinning	15	T26N R10W S31	
Pre-commercial thinning	78	T26N R10W S31	
Pre-commercial thinning	31	T26N R10W S31	
Pre-commercial thinning	95	T26N R10W S31	
Pre-commercial thinning	26	T26N R10W S31	
Pre-commercial thinning	14	T26N R10W S34	
Pre-commercial thinning	9	T26N R10W S34	
Pre-commercial thinning	35	T26N R11W S01	
Pre-commercial thinning	132	T26N R11W S03	
Pre-commercial thinning	15	T26N R11W S26	
Pre-commercial thinning	58	T26N R11W S27	
Pre-commercial thinning	184	T26N R11W S27	
Pre-commercial thinning	14	T26N R11W S27	
Pre-commercial thinning	95	T27N R11W S29	
Pre-commercial thinning	52	T27N R11W S36	
Pre-commercial thinning	20	T27N R12W S09	
Pre-commercial thinning	28	T27N R12W S23	
Pre-commercial thinning	20	T27N R12W S28	
Pre-commercial thinning	14	T27N R12W S31	
Pre-commercial thinning	2	T27N R12W S31	
Pre-commercial thinning	4	T27N R12W S31	



<b>OESF Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Pre-commercial thinning	35	T27N R12W S31	
Pre-commercial thinning	3	T27N R13W S06	
Pre-commercial thinning	115	T27N R13W S08	
Pre-commercial thinning	107	T27N R13W S15	
Pre-commercial thinning	116	T27N R13W S28	
Pre-commercial thinning	101	T27N R13W S28	
Pre-commercial thinning	91	T27N R13W S36	
Pre-commercial thinning	19	T28N R13W S12	
Pre-commercial thinning	38	T28N R13W S12	
Pre-commercial thinning	12	T28N R13W S12	
Pre-commercial thinning	36	T28N R13W S12	
Pre-commercial thinning	6	T28N R13W S16	
Pre-commercial thinning	3	T28N R13W S16	
Pre-commercial thinning	7	T31N R13W S02	
Pre-commercial thinning	89	T31N R15W S16	
Pre-commercial thinning	8	T31N R15W S36	
Pre-commercial thinning	6	T31N R15W S36	
Pre-commercial thinning	96	T32N R12W S19	
Pre-commercial thinning	16	T32N R12W S30	
Pre-commercial thinning	70	T32N R12W S30	
Pre-commercial thinning	90	T32N R12W S31	
Pre-commercial thinning	25	T32N R12W S31	
Pre-commercial thinning	28	T32N R12W S36	
Pre-commercial thinning	140	T32N R13W S09	
Pre-commercial thinning	9	T32N R13W S18	
Pre-commercial thinning	64	T32N R13W S18	
Pre-commercial thinning	91	T32N R13W S20	
Pre-commercial thinning	91	T32N R13W S20	
Pre-commercial thinning	8	T32N R13W S20	
Pre-commercial thinning	34	T32N R13W S25	
Pre-commercial thinning	24	T32N R13W S25	
Pre-commercial thinning	21	T32N R13W S29	
Pre-commercial thinning	20	T32N R13W S30	
Pre-commercial thinning	99	T32N R13W S31	
Pre-commercial thinning	83	T32N R13W S31	
Pre-commercial thinning	51	T32N R13W S31	
Pre-commercial thinning	4	T32N R13W S35	
Pre-commercial thinning	88	T32N R13W S36	
Pre-commercial thinning	49	T32N R13W S36	
Pre-commercial thinning	59	T32N R14W S36	
Pre-commercial thinning	95	T32N R14W S36	
Pre-commercial thinning	23	T32N R14W S36	
Tree pruning - Hand pruning	1	T29N R13W S15	
<b>South Coast Planning Unit</b>			
Timber Harvest - Clear cut	0	T10N R08W S02	2512172
Timber Harvest - Clear cut	48	T12N R03W S15	2510497
Timber Harvest - Clear cut	16	T12N R03W S16	2511766
Timber Harvest - Clear cut	60	T12N R03W S22	2511766
Timber Harvest - Clear cut	24	T12N R03W S22	2511766
Timber Harvest - Clear cut	50	T12N R08W S04	2511520

<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Clear cut	89	T12N R08W S04	2511520
Timber Harvest - Clear cut	67	T13N R06W S05	2510409
Timber Harvest - Clear cut	65	T13N R06W S06	2510409
Timber Harvest - Clear cut	87	T13N R06W S30	2512132
Timber Harvest - Clear cut	11	T13N R06W S34	2511418
Timber Harvest - Clear cut	43	T13N R06W S35	2511418
Timber Harvest - Clear cut	81	T13N R06W S36	2511991
Timber Harvest - Clear cut	25	T13N R06W S36	2511418
Timber Harvest - Clear cut	57	T13N R07W S14	2510238
Timber Harvest - Clear cut	76	T13N R07W S22	2510830
Timber Harvest - Clear cut	69	T13N R07W S23	2510830
Timber Harvest - Clear cut	54	T13N R07W S24	2512132
Timber Harvest - Clear cut	48	T13N R07W S29	2510481
Timber Harvest - Clear cut	83	T13N R07W S31	2511532
Timber Harvest - Clear cut	48	T13N R08W S05	2511186
Timber Harvest - Clear cut	64	T13N R08W S08	2511533
Timber Harvest - Clear cut	37	T13N R08W S28	2507727
Timber Harvest - Clear cut	41	T13N R08W S29	2507727
Timber Harvest - Clear cut	72	T13N R08W S33	2507727
Timber Harvest - Clear cut	50	T14N R01W S08	2510137
Timber Harvest - Clear cut	11	T14N R04W S12	2510862
Timber Harvest - Clear cut	5	T14N R04W S12	2510862
Timber Harvest - Clear cut	3	T14N R04W S12	2510862
Timber Harvest - Clear cut	11	T14N R04W S12	2510862
Timber Harvest - Clear cut	36	T14N R07W S36	2511202
Timber Harvest - Clear cut	24	T14N R07W S36	2511202
Timber Harvest - Clear cut	66	T15N R05W S02	2510411
Timber Harvest - Clear cut	53	T15N R05W S03	2510240
Timber Harvest - Clear cut	24	T16N R04W S03	2508434
Timber Harvest - Clear cut	46	T16N R04W S06	2510832
Timber Harvest - Clear cut	33	T16N R04W S08	2511113
Timber Harvest - Clear cut	3	T16N R04W S12	2510199
Timber Harvest - Clear cut	13	T16N R04W S13	2508126
Timber Harvest - Clear cut	13	T16N R04W S13	2508126
Timber Harvest - Clear cut	54	T16N R04W S13	2508126
Timber Harvest - Clear cut	55	T16N R04W S15	2510780
Timber Harvest - Clear cut	45	T16N R04W S15	2510780
Timber Harvest - Clear cut	29	T16N R04W S21	2511113
Timber Harvest - Clear cut	39	T16N R04W S21	2511113
Timber Harvest - Clear cut	11	T16N R05W S28	2510240
Timber Harvest - Clear cut	34	T16N R05W S32	2511423
Timber Harvest - Clear cut	73	T16N R05W S33	2510240
Timber Harvest - Clear cut	75	T16N R05W S33	2511423
Timber Harvest - Clear cut	29	T16N R05W S33	2511423
Timber Harvest - Clear cut	37	T16N R05W S33	2511423
Timber Harvest - Clear cut	40	T16N R05W S34	2511423
Timber Harvest - Clear cut	48	T17N R03W S05	2507728
Timber Harvest - Clear cut	38	T17N R03W S05	2507728
Timber Harvest - Clear cut	39	T17N R03W S06	2510321
Timber Harvest - Clear cut	44	T17N R03W S06	2510321

<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Clear cut	18	T17N R03W S20	2506598
Timber Harvest - Clear cut	7	T17N R03W S20	2506598
Timber Harvest - Clear cut	13	T17N R03W S20	2506598
Timber Harvest - Clear cut	10	T17N R03W S30	2506598
Timber Harvest - Clear cut	57	T17N R03W S33	2511187
Timber Harvest - Clear cut	65	T17N R04W S05	2511692
Timber Harvest - Clear cut	32	T17N R04W S07	2509361
Timber Harvest - Clear cut	37	T17N R04W S07	2509361
Timber Harvest - Clear cut	44	T17N R04W S13	Missing
Timber Harvest - Clear cut	31	T17N R04W S14	Missing
Timber Harvest - Clear cut	15	T17N R04W S18	2509361
Timber Harvest - Clear cut	25	T17N R04W S19	2511066
Timber Harvest - Clear cut	27	T17N R04W S26	2511113
Timber Harvest - Clear cut	30	T17N R04W S29	2511066
Timber Harvest - Clear cut	37	T17N R04W S32	2511113
Timber Harvest - Clear cut	43	T17N R04W S32	2511113
Timber Harvest - Clear cut	46	T17N R04W S34	2508434
Timber Harvest - Clear cut	7	T17N R05W S25	2511992
Timber Harvest - Clear cut	41	T17N R05W S25	2511992
Timber Harvest - Clear cut	58	T17N R05W S25	2508759
Timber Harvest - Clear cut	50	T18N R03W S29	2910764
Timber Harvest - Clear cut	67	T18N R03W S29	2508159
Timber Harvest - Clear cut	66	T18N R03W S31	2507728
Timber Harvest - Clear cut	8	T18N R04W S26	2511692
Timber Harvest - Clear cut	8	T18N R04W S35	2511692
Timber Harvest - Clear cut	2	T18N R04W S36	2511692
Timber Harvest - Clear cut	17	T18N R05W S35	2509651
Timber Harvest - Late rotation thinning	74	T14N R05W S16	2509103
Timber Harvest - Late rotation thinning	102	T14N R05W S21	2509103
Timber Harvest - Late rotation thinning	19	T15N R05W S03	2511377
Timber Harvest - Late rotation thinning	13	T15N R05W S03	2511377
Timber Harvest - Late rotation thinning	78	T16N R04W S03	2510244
Timber Harvest - Late rotation thinning	289	T17N R04W S02	2507588
Timber Harvest - Late rotation thinning	51	T17N R04W S06	2510508
Timber Harvest - Late rotation thinning	0	T17N R05W S01	2510508
Timber Harvest - Late rotation thinning	1	T18N R03W S28	2510490
Timber Harvest - Late rotation thinning	30	T18N R03W S29	2510490
Timber Harvest - Late rotation thinning	11	T18N R04W S22	2507855
Timber Harvest - Late rotation thinning	12	T18N R04W S23	2507855
Timber Harvest - Phased patch regeneration cut	3	T17N R04W S19	2511066
Timber Harvest - Phased patch regeneration cut	3	T17N R04W S19	2511066
Timber Harvest - Phased patch regeneration cut	2	T17N R04W S30	2511066
Timber Harvest - Phased patch regeneration cut	5	T17N R04W S30	2511066
Timber Harvest - Salvage cut	36	T10N R10W S16	2511160
Timber Harvest - Salvage cut	29	T13N R09W S36	2510505
Timber Harvest - Selective product logging	28	T16N R04W S04	2511531
Timber Harvest - Selective product logging	7	T17N R03W S20	2512327
Timber Harvest - Selective product logging	21	T17N R03W S28	2512327
Timber Harvest - Selective product logging	6	T17N R03W S29	2512327
Timber Harvest - Selective product logging	17	T17N R03W S29	2512327

<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Selective product logging	30	T17N R03W S30	2512327
Timber Harvest - Selective product logging	7	T17N R03W S31	2512327
Timber Harvest - Selective product logging	14	T17N R04W S13	2511531
Timber Harvest - Selective product logging	6	T17N R04W S14	2511531
Timber Harvest - Selective product logging	15	T17N R04W S14	2511531
Timber Harvest - Selective product logging	50	T17N R04W S34	2511531
Timber Harvest - Shelterwood intermediate cut	93	T14N R05W S16	2509103
Timber Harvest - Smallwood thinning	277	T14N R04W S01	2511765
Timber Harvest - Smallwood thinning	179	T17N R04W S02	2507588
Timber Harvest - Smallwood thinning	253	T17N R04W S03	2507588
Timber Harvest - Smallwood thinning	104	T17N R04W S05	2511589
Timber Harvest - Smallwood thinning	16	T17N R05W S01	2509252
Timber Harvest - Smallwood thinning	145	T18N R04W S36	2507588
Timber Harvest - Variable density thinning	60	T17N R04W S19	2511066
Timber Harvest - Variable density thinning	1	T18N R03W S30	2510170
Forest site preparation - Aerial herbicide	57	T15N R03W S32	2512240
Forest site preparation - Aerial herbicide	30	T15N R04W S35	2512240
Forest site preparation - Aerial herbicide	12	T16N R03W S04	Missing
Forest site preparation - Aerial herbicide	64	T17N R03W S28	Missing
Forest site preparation - Ground herbicide	94	T12N R03W S26	
Forest site preparation - Ground herbicide	18	T14N R04W S25	
Forest site preparation - Ground herbicide	36	T15N R04W S35	
Forest site preparation - Ground herbicide	10	T17N R04W S18	
Forest site preparation - Ground herbicide	25	T17N R04W S19	
Forest site preparation - Pile and burn	36	T10N R10W S16	
Forest site preparation - Pile and burn	13	T10N R10W S16	
Forest site preparation - Pile and burn	10	T10N R10W S16	
Forest site preparation - Pile and burn	1	T11N R08W S21	
Forest site preparation - Pile and burn	20	T12N R03W S26	
Forest site preparation - Pile and burn	2	T12N R06W S01	
Forest site preparation - Pile and burn	20	T13N R05W S36	
Forest site preparation - Pile and burn	3	T13N R06W S05	
Forest site preparation - Pile and burn	3	T13N R06W S06	
Forest site preparation - Pile and burn	2	T13N R06W S36	
Forest site preparation - Pile and burn	4	T13N R07W S02	
Forest site preparation - Pile and burn	10	T13N R07W S22	
Forest site preparation - Pile and burn	2	T13N R07W S23	
Forest site preparation - Pile and burn	5	T13N R08W S29	
Forest site preparation - Pile and burn	2	T13N R08W S32	
Forest site preparation - Pile and burn	4	T13N R08W S32	
Forest site preparation - Pile and burn	1	T14N R03W S07	
Forest site preparation - Pile and burn	2	T14N R03W S19	
Forest site preparation - Pile and burn	5	T14N R04W S25	
Forest site preparation - Pile and burn	5	T14N R04W S25	
Forest site preparation - Pile and burn	3	T14N R07W S36	
Forest site preparation - Pile and burn	3	T14N R07W S36	
Forest site preparation - Pile and burn	1	T15N R01E S08	
Forest site preparation - Pile and burn	1	T15N R01E S08	
Forest site preparation - Pile and burn	1	T15N R01E S08	
Forest site preparation - Pile and burn	1	T15N R01E S09	

<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest site preparation - Pile and burn	1	T15N R01W S04	
Forest site preparation - Pile and burn	2	T15N R03W S32	
Forest site preparation - Pile and burn	10	T15N R04W S35	
Forest site preparation - Pile and burn	1	T16N R01W S27	
Forest site preparation - Pile and burn	1	T16N R01W S32	
Forest site preparation - Pile and burn	1	T16N R01W S33	
Forest site preparation - Pile and burn	1	T16N R01W S33	
Forest site preparation - Pile and burn	1	T16N R01W S33	
Forest site preparation - Pile and burn	1	T16N R01W S36	
Forest site preparation - Pile and burn	1	T16N R04W S06	
Forest site preparation - Pile and burn	1	T16N R05W S01	
Forest site preparation - Pile and burn	61	T16N R05W S32	
Forest regeneration - Hand planting	34	T10N R10W S16	
Forest regeneration - Hand planting	48	T12N R03W S15	
Forest regeneration - Hand planting	94	T12N R03W S26	
Forest regeneration - Hand planting	76	T13N R05W S36	
Forest regeneration - Hand planting	67	T13N R06W S05	
Forest regeneration - Hand planting	65	T13N R06W S06	
Forest regeneration - Hand planting	75	T13N R06W S36	
Forest regeneration - Hand planting	72	T13N R07W S02	
Forest regeneration - Hand planting	57	T13N R07W S14	
Forest regeneration - Hand planting	76	T13N R07W S22	
Forest regeneration - Hand planting	69	T13N R07W S23	
Forest regeneration - Hand planting	48	T13N R07W S29	
Forest regeneration - Hand planting	73	T13N R08W S16	
Forest regeneration - Hand planting	14	T13N R08W S20	
Forest regeneration - Hand planting	2	T13N R08W S20	
Forest regeneration - Hand planting	1	T13N R08W S32	
Forest regeneration - Hand planting	2	T13N R08W S32	
Forest regeneration - Hand planting	29	T13N R09W S36	
Forest regeneration - Hand planting	50	T14N R01W S08	
Forest regeneration - Hand planting	14	T14N R04W S02	
Forest regeneration - Hand planting	18	T14N R04W S25	
Forest regeneration - Hand planting	58	T14N R05W S16	
Forest regeneration - Hand planting	6	T14N R06W S31	
Forest regeneration - Hand planting	4	T14N R06W S31	
Forest regeneration - Hand planting	28	T14N R07W S36	
Forest regeneration - Hand planting	23	T14N R07W S36	
Forest regeneration - Hand planting	57	T15N R03W S32	
Forest regeneration - Hand planting	5	T15N R04W S20	
Forest regeneration - Hand planting	69	T15N R04W S35	
Forest regeneration - Hand planting	12	T16N R03W S04	
Forest regeneration - Hand planting	17	T16N R03W S06	
Forest regeneration - Hand planting	21	T16N R03W S07	
Forest regeneration - Hand planting	21	T16N R03W S07	
Forest regeneration - Hand planting	1	T16N R03W S07	
Forest regeneration - Hand planting	3	T16N R03W S07	
Forest regeneration - Hand planting	1	T16N R03W S07	
Forest regeneration - Hand planting	59	T16N R04W S01	
Forest regeneration - Hand planting	70	T16N R04W S01	

<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest regeneration - Hand planting	37	T16N R04W S05	
Forest regeneration - Hand planting	10	T16N R04W S05	
Forest regeneration - Hand planting	7	T16N R04W S06	
Forest regeneration - Hand planting	46	T16N R04W S06	
Forest regeneration - Hand planting	38	T16N R04W S07	
Forest regeneration - Hand planting	3	T16N R04W S12	
Forest regeneration - Hand planting	1	T16N R04W S12	
Forest regeneration - Hand planting	54	T16N R04W S12	
Forest regeneration - Hand planting	20	T16N R04W S18	
Forest regeneration - Hand planting	26	T16N R04W S20	
Forest regeneration - Hand planting	78	T16N R05W S01	
Forest regeneration - Hand planting	17	T16N R05W S13	
Forest regeneration - Hand planting	64	T16N R05W S32	
Forest regeneration - Hand planting	44	T17N R03W S05	
Forest regeneration - Hand planting	36	T17N R03W S05	
Forest regeneration - Hand planting	29	T17N R03W S05	
Forest regeneration - Hand planting	3	T17N R03W S06	
Forest regeneration - Hand planting	3	T17N R03W S06	
Forest regeneration - Hand planting	3	T17N R03W S06	
Forest regeneration - Hand planting	2	T17N R03W S06	
Forest regeneration - Hand planting	35	T17N R03W S06	
Forest regeneration - Hand planting	34	T17N R03W S06	
Forest regeneration - Hand planting	24	T17N R03W S09	
Forest regeneration - Hand planting	13	T17N R03W S19	
Forest regeneration - Hand planting	15	T17N R03W S19	
Forest regeneration - Hand planting	32	T17N R03W S19	
Forest regeneration - Hand planting	4	T17N R03W S19	
Forest regeneration - Hand planting	7	T17N R03W S20	
Forest regeneration - Hand planting	13	T17N R03W S20	
Forest regeneration - Hand planting	18	T17N R03W S20	
Forest regeneration - Hand planting	44	T17N R03W S21	
Forest regeneration - Hand planting	17	T17N R03W S21	
Forest regeneration - Hand planting	41	T17N R03W S21	
Forest regeneration - Hand planting	39	T17N R03W S21	
Forest regeneration - Hand planting	51	T17N R03W S28	
Forest regeneration - Hand planting	59	T17N R03W S28	
Forest regeneration - Hand planting	10	T17N R03W S30	
Forest regeneration - Hand planting	57	T17N R03W S33	
Forest regeneration - Hand planting	2	T17N R04W S07	
Forest regeneration - Hand planting	37	T17N R04W S07	
Forest regeneration - Hand planting	32	T17N R04W S07	
Forest regeneration - Hand planting	40	T17N R04W S13	
Forest regeneration - Hand planting	3	T17N R04W S13	
Forest regeneration - Hand planting	29	T17N R04W S14	
Forest regeneration - Hand planting	15	T17N R04W S18	
Forest regeneration - Hand planting	25	T17N R04W S19	
Forest regeneration - Hand planting	3	T17N R04W S19	
Forest regeneration - Hand planting	3	T17N R04W S19	
Forest regeneration - Hand planting	10	T17N R04W S19	
Forest regeneration - Hand planting	86	T17N R04W S24	

<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest regeneration - Hand planting	85	T17N R04W S25	
Forest regeneration - Hand planting	27	T17N R04W S26	
Forest regeneration - Hand planting	10	T17N R04W S28	
Forest regeneration - Hand planting	31	T17N R04W S29	
Forest regeneration - Hand planting	5	T17N R04W S30	
Forest regeneration - Hand planting	2	T17N R04W S30	
Forest regeneration - Hand planting	42	T17N R04W S32	
Forest regeneration - Hand planting	5	T17N R04W S32	
Forest regeneration - Hand planting	2	T17N R04W S34	
Forest regeneration - Hand planting	45	T17N R04W S34	
Forest regeneration - Hand planting	21	T17N R04W S34	
Forest regeneration - Hand planting	10	T17N R04W S35	
Forest regeneration - Hand planting	11	T17N R04W S35	
Forest regeneration - Hand planting	62	T17N R05W S25	
Forest regeneration - Hand planting	66	T18N R03W S28	
Forest regeneration - Hand planting	2	T18N R03W S31	
Forest regeneration - Hand planting	66	T18N R03W S31	
Forest regeneration - Hand planting	76	T18N R03W S33	
Forest regeneration - Hand planting	0	T18N R03W S34	
Forest regeneration - Hand planting	2	T18N R05W S35	
Forest regeneration - Hand planting	17	T18N R05W S35	
Forest regeneration - Hand planting	36	T20N R10W S36	
Forest regeneration - Hand planting	16	T20N R11W S36	
Forest regeneration - Hand planting	38	T20N R11W S36	
Forest regeneration - Hand planting	37	T20N R12W S10	
Forest regeneration - Hand planting	38	T20N R12W S23	
Forest regeneration - Hand planting	89	T21N R09W S36	
Forest regeneration - Hand planting	35	T21N R09W S36	
Forest regeneration - Hand planting	45	T21N R10W S16	
Vegetation management - Aerial herbicide	25	T14N R05W S11	2512240
Vegetation management - Aerial herbicide	26	T14N R05W S14	2512240
Vegetation management - Aerial herbicide	47	T14N R05W S15	2512240
Vegetation management - Aerial herbicide	20	T14N R05W S15	2512240
Vegetation management - Aerial herbicide	45	T15N R05W S33	2512240
Vegetation management - Aerial herbicide	23	T16N R04W S18	Missing
Vegetation management - Aerial herbicide	25	T16N R04W S18	Missing
Vegetation management - Aerial herbicide	74	T16N R05W S08	2512239
Vegetation management - Aerial herbicide	94	T16N R05W S29	2512239
Vegetation management - Aerial herbicide	27	T17N R03W S28	
Vegetation management - Aerial herbicide	10	T17N R03W S28	
Vegetation management - Aerial herbicide	79	T17N R05W S14	
Vegetation management - Aerial herbicide	28	T18N R04W S30	
Vegetation management - Ground herbicide	27	T13N R04W S02	
Vegetation management - Ground herbicide	17	T13N R05W S29	
Vegetation management - Ground herbicide	20	T13N R05W S29	
Vegetation management - Ground herbicide	11	T13N R06W S31	
Vegetation management - Ground herbicide	45	T13N R06W S31	
Vegetation management - Ground herbicide	65	T14N R03W S10	
Vegetation management - Ground herbicide	69	T14N R03W S18	
Vegetation management - Ground herbicide	30	T14N R03W S18	

<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Ground herbicide	15	T14N R03W S18	
Vegetation management - Ground herbicide	13	T14N R03W S19	
Vegetation management - Ground herbicide	4	T14N R03W S20	
Vegetation management - Ground herbicide	40	T14N R05W S02	
Vegetation management - Ground herbicide	69	T14N R05W S28	
Vegetation management - Ground herbicide	10	T14N R05W S34	
Vegetation management - Ground herbicide	47	T14N R05W S34	
Vegetation management - Ground herbicide	48	T15N R01W S03	
Vegetation management - Ground herbicide	10	T15N R01W S03	
Vegetation management - Ground herbicide	59	T15N R03W S31	
Vegetation management - Ground herbicide	48	T15N R05W S04	
Vegetation management - Ground herbicide	48	T15N R05W S04	
Vegetation management - Ground herbicide	31	T15N R05W S26	
Vegetation management - Ground herbicide	27	T15N R05W S26	
Vegetation management - Ground herbicide	4	T16N R01W S29	
Vegetation management - Ground herbicide	39	T16N R01W S33	
Vegetation management - Ground herbicide	10	T16N R01W S33	
Vegetation management - Ground herbicide	42	T16N R03W S05	
Vegetation management - Ground herbicide	74	T16N R03W S14	
Vegetation management - Ground herbicide	25	T16N R04W S17	
Vegetation management - Ground herbicide	68	T16N R04W S20	
Vegetation management - Ground herbicide	55	T17N R03W S32	
Vegetation management - Hand cutting	46	T10N R10W S16	
Vegetation management - Hand cutting	11	T11N R07W S18	
Vegetation management - Hand cutting	22	T11N R07W S18	
Vegetation management - Hand cutting	6	T11N R08W S24	
Vegetation management - Hand cutting	3	T12N R03W S25	
Vegetation management - Hand cutting	8	T13N R02W S01	
Vegetation management - Hand cutting	7	T13N R02W S01	
Vegetation management - Hand cutting	38	T13N R02W S01	
Vegetation management - Hand cutting	16	T13N R02W S01	
Vegetation management - Hand cutting	53	T13N R07W S03	
Vegetation management - Hand cutting	60	T13N R07W S03	
Vegetation management - Hand cutting	79	T13N R07W S15	
Vegetation management - Hand cutting	50	T13N R07W S22	
Vegetation management - Hand cutting	99	T13N R08W S16	
Vegetation management - Hand cutting	2	T14N R03W S19	
Vegetation management - Hand cutting	2	T14N R03W S19	
Vegetation management - Hand cutting	15	T15N R05W S35	
Vegetation management - Hand cutting	55	T16N R01W S27	
Vegetation management - Hand cutting	2	T16N R01W S32	
Vegetation management - Hand cutting	2	T16N R01W S32	
Vegetation management - Hand cutting	25	T16N R03W S04	
Vegetation management - Hand cutting	30	T16N R03W S05	
Vegetation management - Hand cutting	25	T16N R03W S06	
Vegetation management - Hand cutting	5	T16N R04W S01	
Vegetation management - Hand cutting	51	T16N R04W S07	
Vegetation management - Hand cutting	5	T16N R04W S12	
Vegetation management - Hand cutting	82	T16N R04W S12	
Vegetation management - Hand cutting	68	T16N R04W S13	



<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Hand cutting	28	T16N R04W S14	
Vegetation management - Hand cutting	60	T16N R04W S16	
Vegetation management - Hand cutting	50	T16N R05W S01	
Vegetation management - Hand cutting	67	T16N R05W S13	
Vegetation management - Hand cutting	54	T16N R05W S28	
Vegetation management - Hand cutting	38	T17N R03W S06	
Vegetation management - Hand cutting	65	T17N R03W S06	
Vegetation management - Hand cutting	46	T17N R03W S07	
Vegetation management - Hand cutting	47	T17N R03W S08	
Vegetation management - Hand cutting	40	T17N R03W S08	
Vegetation management - Hand cutting	72	T17N R03W S16	
Vegetation management - Hand cutting	24	T17N R03W S20	
Vegetation management - Hand cutting	57	T17N R04W S04	
Vegetation management - Hand cutting	56	T17N R04W S13	
Vegetation management - Hand cutting	44	T17N R04W S23	
Vegetation management - Hand cutting	80	T17N R04W S25	
Vegetation management - Hand cutting	54	T17N R04W S28	
Vegetation management - Hand cutting	24	T17N R04W S35	
Vegetation management - Hand cutting	29	T17N R04W S36	
Vegetation management - Hand cutting	53	T17N R05W S01	
Vegetation management - Hand cutting	1	T17N R05W S11	
Vegetation management - Hand cutting	51	T17N R05W S12	
Vegetation management - Hand cutting	14	T17N R05W S23	
Vegetation management - Hand cutting	83	T17N R05W S23	
Vegetation management - Hand cutting	60	T18N R03W S28	
Vegetation management - Hand cutting	55	T18N R04W S17	
Vegetation management - Hand cutting	57	T18N R04W S26	
Vegetation management - Hand cutting	30	T18N R04W S28	
Pre-commercial thinning	25	T11N R08W S26	
Pre-commercial thinning	23	T11N R08W S26	
Pre-commercial thinning	119	T12N R08W S02	
Pre-commercial thinning	24	T13N R05W S18	
Pre-commercial thinning	146	T13N R07W S10	
Pre-commercial thinning	17	T13N R07W S15	
Pre-commercial thinning	27	T13N R07W S24	
Pre-commercial thinning	113	T14N R03W S19	
Pre-commercial thinning	119	T14N R03W S20	
Pre-commercial thinning	176	T18N R09W S16	
Pre-commercial thinning	50	T18N R10W S36	
Pre-commercial thinning	76	T18N R11W S16	
Pre-commercial thinning	13	T19N R12W S14	
Pre-commercial thinning	26	T19N R12W S14	
Pre-commercial thinning	56	T19N R12W S15	
Pre-commercial thinning	17	T19N R12W S15	
Pre-commercial thinning	56	T19N R12W S16	
Pre-commercial thinning	86	T20N R09W S36	
Pre-commercial thinning	112	T20N R10W S16	
Pre-commercial thinning	36	T20N R11W S16	
Pre-commercial thinning	36	T20N R11W S16	
Pre-commercial thinning	10	T20N R12W S28	

<b>South Coast Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Pre-commercial thinning	15	T21N R09W S16	
Pre-commercial thinning	6	T21N R10W S36	
Pre-commercial thinning	81	T21N R10W S36	
<b>South Puget Planning Unit</b>			
Timber Harvest - Clear cut	13	T14N R06E S05	2409475
Timber Harvest - Clear cut	12	T14N R06E S08	2409475
Timber Harvest - Clear cut	70	T15N R05E S01	2408717
Timber Harvest - Clear cut	15	T15N R05E S02	2409734
Timber Harvest - Clear cut	25	T15N R05E S02	2409734
Timber Harvest - Clear cut	10	T15N R05E S03	2409734
Timber Harvest - Clear cut	96	T15N R05E S05	2408438
Timber Harvest - Clear cut	99	T15N R05E S09	2408937
Timber Harvest - Clear cut	94	T15N R06E S08	2409473
Timber Harvest - Clear cut	74	T15N R06E S20	2409487
Timber Harvest - Clear cut	62	T18N R03W S03	2910207
Timber Harvest - Clear cut	62	T18N R03W S05	2910207
Timber Harvest - Clear cut	25	T18N R03W S08	2910207
Timber Harvest - Clear cut	80	T18N R03W S09	2512131
Timber Harvest - Clear cut	68	T18N R03W S22	2511993
Timber Harvest - Clear cut	29	T18N R03W S22	2511993
Timber Harvest - Clear cut	6	T18N R03W S29	2910764
Timber Harvest - Clear cut	88	T18N R04W S15	2511995
Timber Harvest - Clear cut	36	T18N R04W S24	2511995
Timber Harvest - Clear cut	3	T21N R08E S06	2407733
Timber Harvest - Clear cut	1	T21N R08E S06	2407733
Timber Harvest - Clear cut	4	T21N R08E S06	2407733
Timber Harvest - Clear cut	2	T21N R08E S07	2407733
Timber Harvest - Clear cut	91	T22N R02W S04	2409472
Timber Harvest - Clear cut	17	T22N R02W S09	2409472
Timber Harvest - Clear cut	10	T22N R02W S09	2409472
Timber Harvest - Clear cut	24	T22N R02W S18	2409472
Timber Harvest - Clear cut	96	T23N R01W S19	2408969
Timber Harvest - Clear cut	98	T23N R02W S22	2409797
Timber Harvest - Clear cut	81	T23N R02W S32	2409581
Timber Harvest - Clear cut	63	T24N R01W S08	2409372
Timber Harvest - Clear cut	75	T24N R01W S20	2409018
Timber Harvest - Clear cut	39	T24N R01W S21	2409018
Timber Harvest - Clear cut	8	T24N R01W S22	2409018
Timber Harvest - Late rotation thinning	25	T18N R03W S14	2511098
Timber Harvest - Late rotation thinning	60	T18N R03W S26	2510489
Timber Harvest - Late rotation thinning	12	T18N R03W S27	2511098
Timber Harvest - Late rotation thinning	18	T18N R03W S27	2511098
Timber Harvest - Late rotation thinning	75	T18N R03W S28	2510490
Timber Harvest - Late rotation thinning	60	T18N R04W S22	2507855
Timber Harvest - Late rotation thinning	121	T18N R04W S23	2507855
Timber Harvest - Late rotation thinning	21	T18N R04W S24	2511098
Timber Harvest - Phased patch regeneration cut	9	T18N R03W S03	2510480
Timber Harvest - Phased patch regeneration cut	10	T18N R03W S03	2510480
Timber Harvest - Phased patch regeneration cut	10	T18N R04W S24	2910207
Timber Harvest - Phased patch regeneration cut	29	T18N R04W S24	2910207

<b>South Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Salvage cut	3	T21N R07E S20	2410090
Timber Harvest - Salvage cut	2	T21N R07E S20	2410090
Timber Harvest - Salvage cut	10	T21N R07E S20	2410090
Timber Harvest - Salvage cut	15	T21N R07E S20	2410090
Timber Harvest - Selective product logging	41	T18N R03W S30	2510170
Timber Harvest - Selective product logging	7	T18N R03W S36	2512327
Timber Harvest - Selective product logging	15	T18N R03W S36	2512327
Timber Harvest - Selective product logging	7	T18N R03W S36	2512327
Timber Harvest - Selective product logging	3	T23N R02W S15	2409797
Timber Harvest - Shelterwood intermediate cut	36	T24N R01W S09	2409372
Timber Harvest - Variable density thinning	25	T15N R05E S14	2408887
Timber Harvest - Variable density thinning	5	T18N R03W S27	2510170
Timber Harvest - Variable density thinning	16	T18N R03W S27	2510170
Timber Harvest - Variable density thinning	11	T18N R03W S30	2510170
Timber Harvest - Variable density thinning	3	T18N R03W S35	2510170
Timber Harvest - Variable density thinning	13	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	25	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	8	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	10	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	14	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	2	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	27	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	77	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	10	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	5	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	28	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	5	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	57	T21N R08E S06	2407733
Timber Harvest - Variable density thinning	88	T21N R08E S07	2407733
Timber Harvest - Variable density thinning	22	T21N R08E S07	2407733
Timber Harvest - Variable density thinning	31	T21N R08E S07	2407733
Timber Harvest - Variable density thinning	32	T21N R08E S07	2407733
Timber Harvest - Variable density thinning	16	T21N R08E S07	2407733
Timber Harvest - Variable density thinning	65	T21N R08E S07	2407733
Timber Harvest - Variable density thinning	40	T21N R08E S07	2407733
Timber Harvest - Variable density thinning	49	T21N R08E S08	2407733
Timber Harvest - Variable density thinning	12	T21N R08E S08	2407733
Timber Harvest - Variable density thinning	3	T21N R08E S08	2407733
Timber Harvest - Variable density thinning	57	T21N R08E S08	2407733
Forest site preparation - Aerial herbicide	48	T18N R04W S15	Missing
Forest regeneration - Hand planting	70	T15N R05E S01	
Forest regeneration - Hand planting	99	T15N R05E S09	
Forest regeneration - Hand planting	75	T15N R05E S10	
Forest regeneration - Hand planting	60	T15N R05E S13	
Forest regeneration - Hand planting	94	T15N R06E S08	
Forest regeneration - Hand planting	180	T15N R06E S18	
Forest regeneration - Hand planting	19	T15N R06E S19	
Forest regeneration - Hand planting	81	T15N R06E S19	
Forest regeneration - Hand planting	23	T15N R06E S20	
Forest regeneration - Hand planting	14	T15N R06E S20	

<b>South Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest regeneration - Hand planting	5	T16N R01E S16	
Forest regeneration - Hand planting	33	T16N R01E S16	
Forest regeneration - Hand planting	10	T18N R03W S03	
Forest regeneration - Hand planting	9	T18N R03W S03	
Forest regeneration - Hand planting	6	T18N R03W S20	
Forest regeneration - Hand planting	2	T18N R03W S30	
Forest regeneration - Hand planting	17	T18N R03W S34	
Forest regeneration - Hand planting	48	T18N R04W S15	
Forest regeneration - Hand planting	90	T22N R01W S31	
Forest regeneration - Hand planting	69	T22N R02W S25	
Forest regeneration - Hand planting	74	T22N R02W S36	
Forest regeneration - Hand planting	90	T23N R01W S19	
Forest regeneration - Hand planting	6	T23N R02W S27	
Forest regeneration - Hand planting	80	T23N R02W S32	
Forest regeneration - Hand planting	74	T24N R01W S20	
Forest regeneration - Hand planting	39	T24N R01W S21	
Forest regeneration - Hand planting	8	T24N R01W S22	
Forest regeneration - Hand planting	1	T24N R02W S16	
Forest regeneration - Hand planting	3	T24N R02W S16	
Forest regeneration - Hand planting	29	T24N R02W S16	
Forest regeneration - Hand planting	57	T24N R02W S16	
Forest regeneration - Natural regeneration	19	T21N R04W S22	
Forest regeneration - Natural regeneration	10	T21N R07E S20	
Forest regeneration - Natural regeneration	3	T21N R07E S20	
Forest regeneration - Natural regeneration	2	T21N R07E S20	
Forest regeneration - Natural regeneration	14	T21N R07E S20	
Forest regeneration - Natural regeneration	23	T22N R07E S36	
Forest regeneration - Natural regeneration	50	T22N R07E S36	
Forest regeneration - Natural regeneration	7	T22N R07E S36	
Vegetation management - Ground herbicide	38	T21N R06E S36	
Vegetation management - Ground herbicide	6	T21N R06E S36	
Vegetation management - Ground herbicide	2	T21N R06E S36	
Vegetation management - Ground herbicide	8	T21N R06E S36	
Vegetation management - Ground herbicide	1	T21N R06E S36	
Vegetation management - Ground herbicide	1	T21N R06E S36	
Vegetation management - Ground herbicide	2	T21N R06E S36	
Vegetation management - Ground herbicide	2	T21N R06E S36	
Vegetation management - Ground herbicide	1	T21N R06E S36	
Vegetation management - Ground herbicide	3	T21N R06E S36	
Vegetation management - Ground herbicide	6	T21N R07E S17	
Vegetation management - Ground herbicide	42	T23N R01W S16	
Vegetation management - Ground herbicide	19	T23N R01W S16	
Vegetation management - Ground herbicide	91	T23N R01W S16	
Vegetation management - Ground herbicide	16	T23N R02W S13	
Vegetation management - Ground herbicide	10	T23N R02W S13	
Vegetation management - Ground herbicide	12	T23N R02W S24	
Vegetation management - Ground herbicide	5	T23N R06E S13	
Vegetation management - Ground herbicide	48	T23N R06E S13	
Vegetation management - Ground herbicide	7	T23N R06E S13	
Vegetation management - Ground herbicide	2	T23N R06E S13	

<b>South Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Ground herbicide	9	T23N R06E S13	
Vegetation management - Hand cutting	8	T14N R05E S01	
Vegetation management - Hand cutting	24	T14N R05E S01	
Vegetation management - Hand cutting	14	T14N R05E S01	
Vegetation management - Hand cutting	15	T14N R05E S12	
Vegetation management - Hand cutting	2	T14N R06E S06	
Vegetation management - Hand cutting	19	T14N R06E S06	
Vegetation management - Hand cutting	6	T14N R06E S07	
Vegetation management - Hand cutting	3	T14N R06E S07	
Vegetation management - Hand cutting	2	T14N R06E S08	
Vegetation management - Hand cutting	12	T14N R06E S08	
Vegetation management - Hand cutting	66	T15N R05E S14	
Vegetation management - Hand cutting	31	T15N R06E S20	
Vegetation management - Hand cutting	69	T15N R06E S20	
Vegetation management - Hand cutting	80	T15N R06E S21	
Vegetation management - Hand cutting	48	T16N R05E S33	
Vegetation management - Hand cutting	36	T16N R05E S33	
Vegetation management - Hand cutting	46	T16N R05E S35	
Vegetation management - Hand cutting	21	T16N R05E S35	
Vegetation management - Hand cutting	5	T18N R03E S36	
Vegetation management - Hand cutting	10	T18N R03E S36	
Vegetation management - Hand cutting	6	T18N R03E S36	
Vegetation management - Hand cutting	4	T18N R03E S36	
Vegetation management - Hand cutting	48	T18N R03W S03	
Vegetation management - Hand cutting	1	T18N R03W S11	
Vegetation management - Hand cutting	30	T18N R03W S14	
Vegetation management - Hand cutting	20	T18N R03W S20	
Vegetation management - Hand cutting	2	T18N R03W S33	
Vegetation management - Hand cutting	24	T19N R06E S16	
Vegetation management - Hand cutting	15	T20N R08E S03	
Vegetation management - Hand cutting	2	T21N R01E S16	
Vegetation management - Hand cutting	1	T21N R01E S16	
Vegetation management - Hand cutting	73	T21N R08E S10	
Vegetation management - Hand cutting	34	T21N R08E S15	
Vegetation management - Hand cutting	10	T21N R08E S23	
Vegetation management - Hand cutting	15	T21N R08E S23	
Vegetation management - Hand cutting	3	T21N R08E S23	
Vegetation management - Hand cutting	2	T21N R08E S23	
Vegetation management - Hand cutting	25	T22N R07E S35	
Vegetation management - Hand cutting	35	T22N R07E S36	
Vegetation management - Hand cutting	5	T22N R07E S36	
Vegetation management - Hand cutting	23	T23N R01E S36	
Vegetation management - Hand cutting	25	T23N R01W S19	
Vegetation management - Hand cutting	5	T23N R01W S19	
Vegetation management - Hand cutting	47	T23N R01W S30	
Vegetation management - Hand cutting	3	T23N R02W S20	
Vegetation management - Hand cutting	5	T23N R02W S20	
Vegetation management - Hand cutting	11	T23N R02W S25	
Vegetation management - Hand cutting	61	T23N R02W S36	
Vegetation management - Hand cutting	26	T23N R06E S11	

<b>South Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Hand cutting	7	T23N R06E S13	
Vegetation management - Hand cutting	9	T23N R06E S13	
Vegetation management - Hand cutting	2	T23N R06E S13	
Vegetation management - Hand cutting	5	T23N R06E S13	
Vegetation management - Hand cutting	18	T24N R01W S15	
Vegetation management - Hand cutting	19	T24N R01W S17	
Vegetation management - Hand cutting	33	T24N R01W S17	
Vegetation management - Hand cutting	3	T24N R01W S18	
Vegetation management - Hand cutting	15	T24N R02W S13	
Vegetation management - Hand cutting	4	T24N R02W S14	
Vegetation management - Hand cutting	11	T24N R02W S14	
Vegetation management - Hand cutting	1	T24N R02W S15	
Vegetation management - Hand cutting	13	T24N R02W S15	
Pre-commercial thinning	30	T14N R06E S30	
Pre-commercial thinning	89	T14N R06E S32	
Pre-commercial thinning	1	T15N R05E S09	
Pre-commercial thinning	40	T15N R05E S09	
Pre-commercial thinning	55	T15N R06E S09	
Pre-commercial thinning	32	T15N R06E S09	
Pre-commercial thinning	19	T15N R06E S09	
Pre-commercial thinning	27	T15N R06E S10	
Pre-commercial thinning	5	T15N R06E S10	
Pre-commercial thinning	14	T15N R06E S16	
Pre-commercial thinning	1	T15N R06E S17	
Pre-commercial thinning	37	T15N R06E S29	
Pre-commercial thinning	4	T20N R07E S01	
Pre-commercial thinning	5	T20N R07E S01	
Pre-commercial thinning	1	T20N R07E S01	
Pre-commercial thinning	46	T20N R07E S01	
Pre-commercial thinning	22	T20N R07E S01	
Pre-commercial thinning	21	T20N R07E S01	
Pre-commercial thinning	59	T20N R07E S01	
Pre-commercial thinning	4	T20N R07E S01	
Pre-commercial thinning	4	T20N R07E S12	
Pre-commercial thinning	16	T20N R07E S12	
Pre-commercial thinning	17	T20N R07E S12	
Pre-commercial thinning	7	T20N R07E S12	
Pre-commercial thinning	6	T20N R08E S05	
Pre-commercial thinning	20	T20N R08E S05	
Pre-commercial thinning	3	T20N R08E S06	
Pre-commercial thinning	9	T20N R08E S06	
Pre-commercial thinning	4	T20N R08E S06	
Pre-commercial thinning	39	T20N R08E S06	
Pre-commercial thinning	31	T20N R08E S06	
Pre-commercial thinning	10	T20N R08E S06	
Pre-commercial thinning	4	T20N R08E S07	
Pre-commercial thinning	44	T20N R08E S07	
Pre-commercial thinning	2	T20N R08E S07	
Pre-commercial thinning	66	T20N R08E S08	
Pre-commercial thinning	8	T20N R08E S08	

<b>South Puget Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Pre-commercial thinning	49	T20N R08E S15	
Pre-commercial thinning	57	T20N R08E S15	
Pre-commercial thinning	35	T20N R08E S18	
Pre-commercial thinning	29	T20N R08E S18	
Pre-commercial thinning	10	T21N R07E S36	
Pre-commercial thinning	31	T21N R08E S07	
Pre-commercial thinning	14	T21N R08E S07	
Pre-commercial thinning	54	T21N R08E S18	
Pre-commercial thinning	6	T21N R08E S19	
Pre-commercial thinning	4	T21N R08E S19	
Pre-commercial thinning	11	T21N R08E S19	
Pre-commercial thinning	56	T21N R08E S30	
Pre-commercial thinning	9	T21N R08E S31	
Pre-commercial thinning	23	T21N R08E S31	
Pre-commercial thinning	5	T21N R08E S31	
Pre-commercial thinning	10	T21N R08E S31	
Pre-commercial thinning	36	T21N R08E S31	
Pre-commercial thinning	24	T21N R08E S32	
Pre-commercial thinning	41	T22N R02W S03	
Pre-commercial thinning	36	T22N R03W S13	
Pre-commercial thinning	58	T23N R02W S14	
Pre-commercial thinning	57	T23N R02W S23	
Pre-commercial thinning	11	T23N R02W S27	
Pre-commercial thinning	5	T23N R02W S27	
Pre-commercial thinning	35	T24N R02W S02	
<b>Straits Planning Unit</b>			
Timber Harvest - Clear cut	3	T23N R03W S05	2409474
Timber Harvest - Clear cut	87	T23N R03W S05	2409474
Timber Harvest - Clear cut	31	T23N R03W S07	2409017
Timber Harvest - Clear cut	36	T23N R03W S07	2409017
Timber Harvest - Clear cut	34	T23N R03W S07	2409017
Timber Harvest - Clear cut	2	T23N R03W S08	2409474
Timber Harvest - Clear cut	5	T23N R03W S08	2409474
Timber Harvest - Clear cut	61	T23N R03W S08	2409474
Timber Harvest - Clear cut	46	T23N R03W S08	2409017
Timber Harvest - Clear cut	56	T23N R04W S01	2409504
Timber Harvest - Clear cut	57	T23N R04W S12	2409504
Timber Harvest - Clear cut	71	T23N R04W S14	2409640
Timber Harvest - Clear cut	98	T23N R04W S21	2409506
Timber Harvest - Clear cut	19	T23N R04W S22	2409506
Timber Harvest - Clear cut	33	T23N R04W S26	2409028
Timber Harvest - Clear cut	56	T23N R04W S26	2409028
Timber Harvest - Clear cut	42	T23N R04W S26	2409028
Timber Harvest - Clear cut	72	T24N R03W S02	2408262
Timber Harvest - Clear cut	2	T24N R03W S02	2408262
Timber Harvest - Clear cut	188	T24N R03W S02	2408262
Timber Harvest - Clear cut	29	T24N R03W S11	2408262
Timber Harvest - Clear cut	87	T24N R03W S15	2409585
Timber Harvest - Clear cut	15	T24N R03W S20	2408801
Timber Harvest - Clear cut	50	T24N R03W S20	2408801

<b>Straits Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Clear cut	37	T27N R02W S15	2605221
Timber Harvest - Clear cut	66	T27N R02W S15	2605221
Timber Harvest - Clear cut	59	T28N R01E S07	2605792
Timber Harvest - Clear cut	8	T28N R01E S07	2605792
Timber Harvest - Clear cut	48	T28N R01E S07	2605792
Timber Harvest - Clear cut	24	T28N R01E S28	2606070
Timber Harvest - Clear cut	46	T28N R01E S28	2606070
Timber Harvest - Clear cut	14	T30N R06W S25	2606448
Timber Harvest - Clear cut	44	T30N R08W S12	2605724
Timber Harvest - Clear cut	42	T30N R09W S03	2605026
Timber Harvest - Clear cut	86	T31N R08W S27	2605841
Forest site preparation - Ground herbicide	44	T30N R08W S12	
Forest site preparation - Ground herbicide	42	T30N R09W S03	
Forest site preparation - Pile and burn	1	T27N R02W S15	
Forest site preparation - Pile and burn	1	T27N R02W S15	
Forest site preparation - Pile and burn	1	T28N R01W S31	
Forest site preparation - Pile and burn	1	T28N R01W S31	
Forest site preparation - Pile and burn	1	T28N R01W S31	
Forest site preparation - Pile and burn	1	T29N R05W S14	
Forest site preparation - Pile and burn	1	T30N R01W S08	
Forest site preparation - Pile and burn	1	T30N R04W S29	
Forest site preparation - Pile and burn	1	T30N R04W S31	
Forest site preparation - Pile and burn	1	T30N R04W S32	
Forest site preparation - Pile and burn	1	T30N R04W S32	
Forest site preparation - Pile and burn	1	T30N R04W S36	
Forest site preparation - Pile and burn	1	T30N R05W S35	
Forest site preparation - Pile and burn	1	T30N R05W S36	
Forest site preparation - Pile and burn	1	T30N R06W S21	
Forest site preparation - Pile and burn	1	T30N R06W S28	
Forest site preparation - Pile and burn	1	T30N R06W S32	
Forest site preparation - Pile and burn	1	T30N R06W S33	
Forest regeneration - Hand planting	35	T23N R03W S07	
Forest regeneration - Hand planting	31	T23N R03W S07	
Forest regeneration - Hand planting	33	T23N R03W S07	
Forest regeneration - Hand planting	46	T23N R03W S08	
Forest regeneration - Hand planting	52	T23N R04W S01	
Forest regeneration - Hand planting	56	T23N R04W S12	
Forest regeneration - Hand planting	33	T23N R04W S26	
Forest regeneration - Hand planting	55	T23N R04W S26	
Forest regeneration - Hand planting	42	T23N R04W S26	
Forest regeneration - Hand planting	10	T24N R03W S01	
Forest regeneration - Hand planting	2	T24N R03W S02	
Forest regeneration - Hand planting	183	T24N R03W S02	
Forest regeneration - Hand planting	70	T24N R03W S02	
Forest regeneration - Hand planting	29	T24N R03W S11	
Forest regeneration - Hand planting	15	T24N R03W S20	
Forest regeneration - Hand planting	50	T24N R03W S20	
Forest regeneration - Hand planting	89	T24N R03W S31	
Forest regeneration - Hand planting	38	T25N R03W S36	
Forest regeneration - Hand planting	6	T25N R03W S36	



<b>Straits Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Forest regeneration - Hand planting	66	T27N R02W S15	
Forest regeneration - Hand planting	32	T27N R02W S15	
Forest regeneration - Hand planting	25	T27N R02W S16	
Forest regeneration - Hand planting	36	T27N R02W S28	
Forest regeneration - Hand planting	8	T28N R01E S07	
Forest regeneration - Hand planting	56	T28N R01E S07	
Forest regeneration - Hand planting	48	T28N R01E S07	
Forest regeneration - Hand planting	24	T28N R01E S28	
Forest regeneration - Hand planting	46	T28N R01E S28	
Forest regeneration - Hand planting	90	T28N R01W S34	
Forest regeneration - Hand planting	19	T29N R02W S16	
Forest regeneration - Hand planting	5	T29N R04W S14	
Forest regeneration - Hand planting	18	T29N R05W S14	
Forest regeneration - Hand planting	92	T30N R01W S08	
Forest regeneration - Hand planting	36	T30N R04W S32	
Forest regeneration - Hand planting	95	T30N R05W S36	
Forest regeneration - Hand planting	64	T30N R06W S21	
Forest regeneration - Hand planting	41	T30N R06W S32	
Forest regeneration - Hand planting	95	T30N R06W S33	
Forest regeneration - Hand planting	44	T30N R08W S12	
Forest regeneration - Hand planting	42	T30N R09W S03	
Forest regeneration - Hand planting	52	T31N R10W S25	
Forest regeneration - Natural regeneration	45	T21N R04W S22	
Forest regeneration - Natural regeneration	14	T21N R04W S22	
Forest regeneration - Natural regeneration	9	T21N R04W S22	
Forest regeneration - Natural regeneration	18	T21N R04W S22	
Forest regeneration - Natural regeneration	3	T24N R03W S04	
Vegetation management - Ground herbicide	60	T23N R04W S21	
Vegetation management - Ground herbicide	18	T24N R03W S01	
Vegetation management - Ground herbicide	18	T24N R03W S01	
Vegetation management - Ground herbicide	38	T25N R03W S36	
Vegetation management - Ground herbicide	6	T25N R03W S36	
Vegetation management - Ground herbicide	28	T27N R01W S17	
Vegetation management - Ground herbicide	24	T27N R01W S27	
Vegetation management - Ground herbicide	63	T27N R02W S16	
Vegetation management - Ground herbicide	11	T27N R02W S21	
Vegetation management - Ground herbicide	35	T27N R02W S22	
Vegetation management - Ground herbicide	4	T27N R02W S25	
Vegetation management - Ground herbicide	36	T27N R02W S28	
Vegetation management - Ground herbicide	77	T27N R02W S28	
Vegetation management - Ground herbicide	4	T28N R02W S36	
Vegetation management - Ground herbicide	3	T28N R02W S36	
Vegetation management - Ground herbicide	13	T29N R02W S17	
Vegetation management - Ground herbicide	30	T29N R02W S20	
Vegetation management - Ground herbicide	7	T29N R04W S14	
Vegetation management - Ground herbicide	62	T29N R05W S02	
Vegetation management - Ground herbicide	65	T29N R05W S10	
Vegetation management - Ground herbicide	28	T30N R07W S19	
Vegetation management - Ground herbicide	44	T30N R07W S20	
Vegetation management - Ground herbicide	12	T30N R08W S14	

<b>Straits Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Vegetation management - Ground herbicide	5	T30N R08W S14	
Vegetation management - Ground herbicide	21	T30N R08W S20	
Vegetation management - Ground herbicide	58	T30N R08W S22	
Vegetation management - Ground herbicide	50	T30N R08W S24	
Vegetation management - Ground herbicide	39	T30N R09W S06	
Vegetation management - Ground herbicide	31	T31N R09W S30	
Vegetation management - Ground herbicide	66	T31N R09W S31	
Vegetation management - Ground herbicide	50	T31N R10W S25	
Vegetation management - Hand cutting	9	T22N R04W S03	
Vegetation management - Hand cutting	48	T23N R04W S15	
Vegetation management - Hand cutting	5	T23N R04W S23	
Vegetation management - Hand cutting	25	T23N R04W S23	
Vegetation management - Hand cutting	16	T24N R03W S02	
Vegetation management - Hand cutting	47	T24N R03W S15	
Vegetation management - Hand cutting	131	T30N R07W S10	
Pre-commercial thinning	7	T27N R01E S17	
Pre-commercial thinning	41	T27N R01E S17	
Pre-commercial thinning	21	T27N R01W S09	
Pre-commercial thinning	8	T27N R01W S09	
Pre-commercial thinning	30	T27N R01W S09	
Pre-commercial thinning	23	T27N R01W S09	
Pre-commercial thinning	29	T27N R01W S10	
Pre-commercial thinning	16	T27N R01W S10	
Pre-commercial thinning	18	T27N R01W S10	
Pre-commercial thinning	20	T27N R01W S10	
Pre-commercial thinning	52	T27N R01W S22	
Pre-commercial thinning	28	T27N R02W S26	
Pre-commercial thinning	12	T28N R01E S07	
Pre-commercial thinning	12	T28N R01E S07	
Pre-commercial thinning	37	T28N R01E S07	
Pre-commercial thinning	8	T28N R01E S28	
Pre-commercial thinning	17	T28N R01W S05	
Pre-commercial thinning	26	T28N R01W S05	
Pre-commercial thinning	52	T28N R01W S16	
Pre-commercial thinning	8	T28N R01W S16	
Pre-commercial thinning	67	T28N R01W S34	
Pre-commercial thinning	29	T28N R02W S12	
Pre-commercial thinning	68	T28N R02W S12	
Pre-commercial thinning	40	T29N R02W S07	
Pre-commercial thinning	6	T29N R02W S07	
Pre-commercial thinning	30	T29N R02W S07	
Pre-commercial thinning	114	T29N R02W S18	
Pre-commercial thinning	44	T29N R02W S19	
Pre-commercial thinning	24	T29N R02W S19	
Pre-commercial thinning	7	T29N R02W S20	
Pre-commercial thinning	8	T29N R02W S29	
Pre-commercial thinning	85	T29N R03W S05	
Pre-commercial thinning	68	T29N R03W S09	
Pre-commercial thinning	37	T29N R03W S11	
Pre-commercial thinning	62	T29N R03W S14	

<b>Straits Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Pre-commercial thinning	33	T29N R03W S16	
Pre-commercial thinning	57	T29N R03W S16	
Pre-commercial thinning-	58	T29N R04W S07	
Pre-commercial thinning	20	T29N R04W S09	
Pre-commercial thinning	54	T29N R04W S09	
Pre-commercial thinning	18	T29N R04W S11	
Pre-commercial thinning	59	T29N R04W S11	
Pre-commercial thinning	63	T29N R04W S14	
Pre-commercial thinning	87	T29N R05W S10	
Pre-commercial thinning	81	T29N R05W S15	
Pre-commercial thinning	92	T30N R04W S19	
Pre-commercial thinning	10	T30N R04W S31	
Pre-commercial thinning	8	T30N R04W S32	
Pre-commercial thinning	7	T30N R04W S33	
Pre-commercial thinning	8	T30N R04W S33	
Pre-commercial thinning	9	T30N R04W S33	
Pre-commercial thinning	7	T30N R04W S36	
Pre-commercial thinning	24	T30N R05W S24	
Pre-commercial thinning	86	T30N R05W S24	
Pre-commercial thinning	36	T30N R05W S26	
Pre-commercial thinning	130	T31N R08W S27	
Pre-commercial thinning	72	T31N R08W S34	
<b>Yakima Planning Unit</b>			
Timber Harvest - Late rotation thinning	42	T19N R19E S24	2702902
Timber Harvest - Late rotation thinning	23	T19N R19E S24	2702902
Timber Harvest - Late rotation thinning	24	T19N R19E S24	2702902
Timber Harvest - Late rotation thinning	18	T19N R19E S24	2702902
Timber Harvest - Late rotation thinning	39	T19N R19E S24	2702902
Timber Harvest - Late rotation thinning	367	T20N R16E S16	2702790
Timber Harvest - Late rotation thinning	50	T20N R19E S34	2703048
Timber Harvest - Salvage cut	38	T12N R14E S24	2702795
Timber Harvest - Salvage cut	91	T12N R15E S20	2702795
Timber Harvest - Salvage cut	338	T12N R15E S20	2702795
Timber Harvest - Salvage cut	135	T15N R16E S06	2703119
Timber Harvest - Salvage cut	164	T15N R16E S08	2703119
Timber Harvest - Salvage cut	50	T15N R16E S08	2703119
Timber Harvest - Salvage cut	30	T15N R16E S16	2703119
Timber Harvest - Salvage cut	54	T15N R16E S16	2703119
Timber Harvest - Salvage cut	37	T15N R16E S16	2703119
Timber Harvest - Seed tree intermediate cut	158	T21N R20E S36	2702703
Timber Harvest - Seed tree intermediate cut	16	T21N R21E S32	2702248
Timber Harvest - Shelterwood intermediate cut	68	T20N R16E S16	2702790
Timber Harvest - Shelterwood intermediate cut	91	T20N R16E S16	2702790
Timber Harvest - Shelterwood intermediate cut	22	T20N R16E S16	2702790
Timber Harvest - Shelterwood intermediate cut	65	T20N R19E S34	2703048
Timber Harvest - Uneven-aged management	244	T11N R13E S02	2701641
Timber Harvest - Uneven-aged management	355	T12N R14E S02	2702105
Timber Harvest - Uneven-aged management	74	T12N R14E S02	2702105
Timber Harvest - Uneven-aged management	33	T12N R15E S20	2702795
Timber Harvest - Uneven-aged management	67	T20N R21E S32	2701995

<b>Yakima Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Timber Harvest - Uneven-aged management	92	T20N R21E S32	2701995
Timber Harvest - Uneven-aged management	39	T21N R20E S36	2702703
Timber Harvest - Uneven-aged management	96	T21N R21E S30	2702248
Forest site preparation - Ground mechanical	38	T12N R14E S24	2702725
Forest site preparation - Ground mechanical	338	T12N R15E S20	
Forest site preparation - Ground mechanical	91	T12N R15E S20	2702725
Forest site preparation - Ground mechanical	33	T12N R15E S20	
Forest site preparation - Ground mechanical	23	T19N R19E S24	2702902
Forest site preparation - Ground mechanical	24	T19N R19E S24	2702902
Forest site preparation - Ground mechanical	18	T19N R19E S24	2702902
Forest site preparation - Ground mechanical	42	T19N R19E S24	2702902
Forest site preparation - Ground mechanical	39	T19N R19E S24	2702902
Forest site preparation - Ground mechanical	65	T20N R19E S34	2703048
Forest site preparation - Ground mechanical	50	T20N R19E S34	2703048
Forest site preparation - Ground mechanical	96	T21N R21E S30	
Forest site preparation - Ground mechanical	16	T21N R21E S32	
Forest regeneration - Hand planting	0	T12N R14E S16	
Forest regeneration - Hand planting	2	T12N R14E S16	
Forest regeneration - Hand planting	65	T12N R14E S16	
Forest regeneration - Hand planting	118	T12N R14E S16	
Forest regeneration - Hand planting	5	T12N R14E S16	
Forest regeneration - Hand planting	4	T12N R14E S16	
Forest regeneration - Hand planting	2	T12N R14E S16	
Forest regeneration - Hand planting	7	T12N R14E S16	
Forest regeneration - Hand planting	20	T12N R14E S24	
Forest regeneration - Hand planting	3	T12N R15E S18	
Forest regeneration - Hand planting	26	T12N R15E S18	
Forest regeneration - Hand planting	338	T12N R15E S20	
Forest regeneration - Hand planting	100	T13N R14E S26	
Forest regeneration - Hand planting	11	T17N R16E S30	
Forest regeneration - Hand planting	25	T17N R16E S30	
Forest regeneration - Hand planting	4	T17N R16E S32	
Forest regeneration - Hand planting	50	T17N R16E S32	
Forest regeneration - Hand planting	22	T20N R16E S16	
Forest regeneration - Hand planting	68	T20N R16E S16	
Forest regeneration - Hand planting	91	T20N R16E S16	
Forest regeneration - Hand planting	16	T20N R19E S12	
Forest regeneration - Hand planting	17	T20N R19E S12	
Forest regeneration - Hand planting	29	T20N R19E S12	
Forest regeneration - Hand planting	7	T20N R20E S24	
Forest regeneration - Hand planting	18	T20N R20E S24	
Forest regeneration - Hand planting	19	T20N R20E S24	
Forest regeneration - Hand planting	12	T20N R20E S24	
Forest regeneration - Hand planting	33	T20N R20E S24	
Forest regeneration - Hand planting	38	T20N R20E S24	
Forest regeneration - Natural regeneration	355	T12N R14E S02	
Forest regeneration - Natural regeneration	30	T12N R14E S34	
Forest regeneration - Natural regeneration	33	T12N R14E S34	
Forest regeneration - Natural regeneration	33	T12N R15E S20	
Forest regeneration - Natural regeneration	91	T12N R15E S20	

<b>Yakima Planning Unit</b>			
<i>Silvicultural Activity</i>	<i>Acres</i>	<i>Location</i>	<i>FPA #</i>
Pre-commercial thinning	59	T12N R14E S24	
Pre-commercial thinning	578	T13N R14E S24	
Pre-commercial thinning	110	T16N R16E S02	
Pre-commercial thinning	102	T16N R16E S18	
Pre-commercial thinning	508	T16N R16E S22	
Pre-commercial thinning	44	T16N R16E S26	
Pre-commercial thinning	135	T16N R16E S26	
Pre-commercial thinning	25	T17N R16E S24	
Pre-commercial thinning	50	T19N R20E S08	
Pre-commercial thinning	200	T19N R21E S08	
Pre-commercial thinning	34	T20N R19E S36	
Pre-commercial thinning	38	T20N R20E S24	
Pre-commercial thinning	12	T20N R20E S24	
Pre-commercial thinning	33	T20N R20E S24	
Pre-commercial thinning	7	T20N R20E S24	
Pre-commercial thinning	111	T20N R20E S30	
Pre-commercial thinning	117	T20N R20E S30	
Pre-commercial thinning	6	T20N R21E S28	
Pre-commercial thinning	9	T20N R21E S30	
Pre-commercial thinning	43	T20N R21E S30	
Pre-commercial thinning	12	T20N R21E S30	





