

N A T U R A L

R E S O U R C E S



POLICY FOR SUSTAINABLE FORESTS

DECEMBER 2006



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

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Policy for Sustainable Forests

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December 2006

Dear Reader,

As we enter a new millennium, the many benefits that forested trust lands offer to Washington State continue to have enduring importance. In recognition of this, the Board of Natural Resources has launched sustainable forest management in a new direction. Replacing the 1992 *Forest Resource Plan* with the *Policy for Sustainable Forests* represents a critical step on this path, encompassing the Board's direction that will guide the Washington State Department of Natural Resources' management activities on 2.1 million acres of forested state trust lands.

In this suite of policies the Board has created more than just direction for the agency. It has created a vision for forested state trust lands that will lead to healthier, more biologically diverse and structurally complex habitat—all this while enhancing the revenue-producing capabilities of these forests in support of public schools, universities, local hospital and library districts and other trust beneficiaries. The policy direction will assist the agency in meeting many interests—the constant stream of revenue for the beneficiaries, forest health, local economic vitality, research, and public access and recreation use. The Board's adopted policies reflect the delicate balance needed to sustain these multiple benefits.

The Board understands the *Policy for Sustainable Forests* to be a living document, and may, with full public involvement, continue to refine these policies in response to new scientific, technological and other changes or opportunities that occur.

I commend both the leadership provided by members of the Board, and the effort that was devoted to this important project by the agency's team members, divisions and regions, the beneficiaries, the public, Tribes and other interested stakeholders. The two-year process and public involvement have yielded valuable guidance to assist the agency for years to come. The *Policy for Sustainable Forests* will allow us to make great strides in ever more effective management of this state's forested trust lands on behalf of the trust beneficiaries and the people of Washington.

Sincerely,

A handwritten signature in black ink, reading "Doug Sutherland".

Doug Sutherland
Commissioner of Public Lands

POLICY FOR SUSTAINABLE FORESTS

Policies in this document were adopted by the State Board of Natural Resources in September 2004 and July 2006.

DECEMBER 2006



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Introduction

On July 11, 2006, the state Board of Natural Resources approved the *Policy for Sustainable Forests*, after more than two years of development with the Washington State Department of Natural Resources (DNR).

This document guides management and stewardship of 2.1 million acres of forested state trust lands, and replaces the 1992 *Forest Resource Plan*.

Over the last two decades the forests in Washington have seen rapid change. Urbanization of Western and parts of Eastern Washington has converted thousands of acres of private working forests to other uses. At the same time, the state's growing population is seeking more open space and outdoor recreation opportunities from an increasingly limited forestland base. Habitat for a variety of plant and animal species has decreased; and forests on both sides of the state are experiencing significant forest health issues.

In the midst of all these changes, the financial needs of the trust beneficiaries continue to grow, increasing the demand for income from the state trust lands.

Locally, nationally and internationally there is increased demand for wood products and other forest products associated with Washington's forest lands. DNR-managed forested trust lands are at the center of these changes.

The challenge is to manage the lands to meet multiple objectives in a sustainable manner. The *Policy for Sustainable Forests* provides the broad direction needed to effectively manage the forested state trust lands for the beneficiaries and the people of Washington, today and into the future.



Development Process

Developing the *Policy for Sustainable Forests* was an extensive process that brought together people from within DNR and also outside the agency to create recommendations to the Board of Natural Resources for the policies to be included in this document. In addition to multiple individual meetings, DNR held 14 public workshops and hearings across the state to obtain input from a variety of constituencies — including the trust beneficiaries, Tribes, local and state governments, stakeholders, and the public. Following these public meetings, DNR discussed options for each of the policies with the Board of Natural Resources in order to determine the Board’s preferred policy direction. This preferred direction is reflected in the Policies chapter.

The policies are intended to provide direction that is clear and unambiguous, without being overly procedural in nature.

Purpose and Policy Objectives

The purpose and objectives establish a broad theme of sustainability to guide DNR’s management of forested state trust lands:

PURPOSE

Consistent with the fiduciary standards governing trust management, the purpose of the *Policy for Sustainable Forests* is to conserve and enhance the natural systems and resources of forested state trust lands managed by DNR to produce long-term, sustainable trust income, and environmental and other benefits for the people of Washington.

POLICY OBJECTIVES

Ten policy objectives were developed by the Board of Natural Resources and guided the development of the *Policy for Sustainable Forests*:

1. Meet all federal and state laws, including the trust obligations and the contractual commitments of DNR’s trust lands *Habitat Conservation Plan* (HCP);
2. Balance trust income, environmental protection and other social benefits from four perspectives: the prudent person doctrine; undivided loyalty to and impartiality among the trust beneficiaries; intergenerational equity; and not foreclosing future options;
3. Ensure policies are succinct, relevant and easily understood by the public and department employees;
4. Seek productive partnerships that help the department achieve policy objectives;
5. Use professional judgment, best available science and sound field forestry to achieve excellence in public stewardship;
6. Pursue outcome-based management within a flexible framework;
7. Promote active, innovative and sustainable stewardship on as much of the forested land base as possible;

-
8. Identify trust lands that provide special ecological, social or cultural benefits that are incompatible with active management and look for opportunities to protect such areas through creative partnerships and funding mechanisms with appropriate compensation to the trusts;
 9. Capture existing and future economic opportunities for the beneficiaries from the forestland base by being prudent, innovative and creative; and
 10. Monitor and periodically report to the Board of Natural Resources on the implementation and outcomes of Board of Natural Resources approved policies.



Policy Organization and Outcomes

The *Policy for Sustainable Forests* includes policies grouped into four major categories—each category addressing a key aspect of sustainable forest management: Economic Performance; Forest Ecosystem Health and Productivity; Social and Cultural Benefits; and Implementation (see Policies chapter).

Although the policies are separated into categories, together they represent DNR’s overarching policy to support healthy forest ecosystems to provide a sustainable, perpetual flow of economic, ecological and social benefits from the forested trust lands that DNR manages. The policies are consistent with, but do not restate governing laws (see Background and Context chapter), and achieve the Board of Natural Resources’ purpose and policy objectives. They are intended to provide direction that is clear and unambiguous, without being overly procedural in nature. Board of Natural Resources policies and intended outcomes are outlined below by major policy category.



ECONOMIC PERFORMANCE

The Economic Performance category contains policies that, consistent with the other policies in this document, provide the broad context for DNR's economic management of forested state trust lands and the production of perpetual revenue for each trust beneficiary. These policies relate to revenue production and financial performance, including activities and commodities to be considered in producing revenue from forested state trust lands; sustainable harvest; and lands that are available for timber management activities:

- Financial Diversification
- Financial Assumptions
- Definition of Sustainability for the Sustainable Harvest Calculation
- Recalculation of the Sustainable Harvest Level
- Harvest Deferral Designations

Intended Outcome

The Economic Performance policies are intended to ensure perpetual revenue for the trusts by:

- Using aggressive marketing and market timing of forest products and services in an international context;
- Optimizing the economic value of forest stands;
- Pursuing both existing and future economic opportunities related to non-timber commodities and ecological and social benefits;
- Evaluating and researching land use patterns and economic trends to identify additional financial diversification opportunities;
- Reviewing financial assumptions at least once per year;
- Recalculating the statewide sustainable harvest level at least every 10 years, or more frequently when changing circumstances warrant;
- Calculating a multi-decade sustainable harvest level for 20 sustainable harvest units in Western Washington; and
- Fluctuating the harvest level for any given year within a decade to take advantage of short-term operational or market opportunities.

FOREST ECOSYSTEM HEALTH AND PRODUCTIVITY

The Forest Ecosystem Health and Productivity category contains policies that provide the broad context for DNR's management and maintenance of the ecological health of forested state trust lands. These policies address subjects related to elements of the forest ecosystem that are important to ecological objectives and long-term health and productivity of trust assets:

- Forest Health
- Catastrophic Loss Prevention
- Old-Growth Stands in Western Washington
- Wildlife Habitat

- Watershed Systems
- Riparian Conservation
- Special Ecological Features
- Genetic Resource

Intended Outcome

The Forest Ecosystem Health and Productivity policies are intended to ensure forest ecosystem health and productivity by:

- Maintaining and improving forest health by actively managing species composition and stocking levels across forested landscapes;
- Developing fire and insect resistant forest stands to prevent significant forest resource losses;
- Protecting wildlife species and habitats through focusing on conservation of biodiversity within forested landscapes, compliance with DNR’s trust lands *Habitat Conservation Plan* (HCP), state and federal law, and voluntary agreements;
- Protecting water quality, watershed systems, and aquatic habitat by generally limiting even-aged harvest units to 100 acres, establishing riparian and wetland management zones along most streams and wetlands, and assessing the potential for cumulative impacts of DNR’s activities on watershed systems;
- Identifying and protecting special ecological features through a variety of methods, consistent with trust obligations; and
- Conserving old growth and targeting other suitable structurally complex forests to meet a 10 percent to 15 percent older-forest target for each Western Washington HCP planning unit, over 70 years.

SOCIAL AND CULTURAL BENEFITS

The Social and Cultural Benefits category contains policies that provide broad direction concerning the role that the forested trust lands play in the lives of Washington’s residents. These policies address subjects related to social and cultural benefits from the lands and DNR’s activities beyond those benefits resulting from production of trust revenue and forest ecological health:

- Public Access and Recreation
- Visual Impacts
- Cultural Resources
- Local Economic Vitality



Promoting public access and recreation that is compatible with trust objectives and the physical elements of the lands involved...

Intended Outcome

The Social and Cultural Benefits policies are intended to ensure a flow of social and cultural benefits from forested state trust lands by:

- Promoting public access and recreation that is compatible with trust objectives and the physical elements of the lands involved, supported by the recreating public, and the available financial and staff resources of DNR;
- Identifying and protecting significant historic and archaeological sites and working closely with the Tribes and interested stakeholders to address culturally significant areas;
- Mitigating visual impacts of DNR’s activities;
- Supporting local economic vitality through DNR’s actions, when compatible with or directly supporting trust objectives; and
- Identifying and protecting old growth and transferring it out of trust status, when in the best interest of the trusts.

IMPLEMENTATION

The Implementation category contains policies related to carrying out the *Policy for Sustainable Forests*. These policies address subjects that support putting the other policies into practice and keeping them current and meaningful:

- Forest Land Planning
- General Silvicultural Strategy
- Forest Roads
- Research
- External Relationships
- Implementation, Reporting and Modification of the Policy for Sustainable Forests



Intended Outcome

The Implementation policies are intended to ensure effective implementation of Board of Natural Resources policy by:

- Describing outcomes to be achieved for specific geographical areas, developing and documenting strategies to achieve outcomes, and adapting outcomes and strategies utilizing monitoring, communication and feedback;
- Actively managing the greatest possible portion of forested state trust lands utilizing intensive and innovative silviculture and professional expertise to achieve desired outcomes and meet trust needs;
- Using applied and cost-effective research and best available science to support accomplishment of trust objectives and meet the commitments of the trust lands HCP;
- Actively communicating and promoting collaboration with the trust beneficiaries, Tribes, agencies, stakeholders and the public in carrying out DNR's activities; and
- Monitoring implementation of Board of Natural Resources policy and annually reporting to the Board of Natural Resources on the effectiveness of implementation and any needed changes in policy.



Background and Context

To better understand the *Policy for Sustainable Forests*, it is helpful to first understand the role of the Washington State Department of Natural Resources (DNR) and the framework within which DNR manages the forested state trust lands in its care. This chapter provides information on five key elements that set the context for the *Policy for Sustainable Forests*:

- DNR, including the Board of Natural Resources – the agency responsible for managing forested state trust lands;
- State trust lands – the origin of the lands covered by the policies in this document;
- Legal framework – state, federal and common law affecting DNR management of forested state trust lands; and
- Related plans and policies – other DNR guidance affecting the forested state trust lands.



The Department of Natural Resources

DNR was established in 1957 with the consolidation of several state agencies, boards and commissions to serve, in part, as the manager of state trust lands. In addition to managing forested state trust lands, DNR manages trust lands in agriculture and grazing production, and commercial real estate. DNR also is steward of the state's aquatic lands and natural areas. All together, DNR cares for more than 5 million acres of state-owned lands. DNR also administers several regulatory programs and acts as the state's principle wildfire control agency. The agency is led by the Commissioner of Public Lands, a statewide-elected official.

More than half the acres that DNR manages are state trust lands, which provide substantial revenue to specific trust beneficiaries (the trusts) to benefit the people of Washington. State trust lands provide needed revenue to construct and maintain Washington's public schools, universities, prisons and state office buildings. Other state trust lands help fund fire departments, hospitals and other public services in many counties, and contribute to the state general fund, earmarked for education (see State Trust Lands section).

State trust lands also provide jobs, commodities, clean water, wildlife habitat and recreational opportunities. DNR manages state trust lands to provide these additional benefits while maintaining the primary goal of trust revenue production.

As steward of these lands and natural resources, DNR relies on a diverse staff of foresters, engineers, geologists, biologists, cartographers, hydrologists, soil scientists, economists, and others.

THE BOARD OF NATURAL RESOURCES

When creating the agency in 1957, the Legislature created the Board of Natural Resources. The Board of Natural Resources is charged with guiding DNR's management of the lands and resources in its care. The Board of Natural Resources establishes policies to ensure that acquisition, management and disposition of these lands and resources are based on sound principles and are consistent with applicable laws. The *Policy for Sustainable Forests* is one way the Board of Natural Resources fulfills that charge for forested state trust lands. The Board also approves timber sales and trust land transactions, and sets the sustainable timber harvest level.

By law, the Board of Natural Resources is composed of six members: the Commissioner of Public Lands; the Governor (or a designated representative); the State Superintendent of Public Instruction; the Dean of the College of Agricultural, Human and Natural Resource Sciences at Washington State University; the Dean of the College of Forest Resources at the University of Washington; and an elected representative from a county that contains State Forest Lands.

State Trust Lands

The forested state trust lands that DNR manages benefit specific beneficiaries. The beneficiaries, and some aspects of how the lands are managed, vary according to the origin of the trusts. Most of the forested state trust lands that DNR manages are Federal Grant Lands or State Forest Lands.

FEDERAL GRANT LANDS

Just prior to Washington becoming a state in 1889, Congress passed the Omnibus Enabling Act of 1889 and granted more than 3 million acres of land to Washington to support various public institutions important for the new state. For example, this act set aside 2 square miles of every 36-square mile “township” across the state (public survey sections 16 and 36) to produce financial support for the ‘common schools’— kindergarten through twelfth-grade public schools. Also, the act granted



additional lands to support other public institutions. This Congressional action for the new state of Washington was consistent with a pattern of Congressional land grants to the other western states entering the Union. However, Washington, more than most other western states, has retained ownership of these trust lands over the years to serve as an ongoing source of land-based financial support to the various beneficiaries. The lands that Congress granted are known as Federal Grant Lands and support seven specific trusts:

- **Common School trust** – supports the construction of public kindergarten through twelfth-grade public schools statewide;
- **Agricultural School trust** – supports construction at Washington State University;
- **Charitable, Educational, Penal and Reformatory Institutions (CEP&RI) trust** – supports establishment and maintenance of institutions managed by the Washington State Department of Corrections and Department of Social and Health Services;
- **University trust** – supports construction at the University of Washington (includes University-original trust lands, which were originally granted by Congress, and University-transfer trust lands, which were transferred by the

Legislature from the Charitable, Educational, Penal and Reformatory Institutions trust to provide additional support for the university);

- **Normal School trust** – supports construction at four universities (Western Washington University, Central Washington University, Eastern Washington University, and The Evergreen State College);
- **Scientific School trust** – supports construction at Washington State University; and
- **Capitol Building trust** – supports the construction of state office buildings at the Capitol Campus in Olympia.

Today, the Federal Grant Lands include forests, agricultural lands and commercial properties. Approximately 1.5 million acres are forestlands statewide, and are subject to the *Policy for Sustainable Forests*. Direction for management of these lands is specified in the Omnibus Enabling Act, and the Washington State Constitution further limits and directs the sale, lease and management of Federal Grant Lands (see Legal Framework section).



STATE FOREST LANDS

DNR manages two categories of State Forest Lands: State Forest Transfer Lands and State Forest Purchase Lands (previously known as State Forest Board Transfer Lands and State Forest Board Purchase Lands, respectively).

State Forest Transfer Lands

Most of the State Forest Lands are State Forest Transfer Lands. They total approximately 546,000 acres.

State Forest Transfer Lands were acquired by 21 counties in the 1920s and 1930s through tax foreclosures. Later, pursuant to state law, most of these lands were transferred to the state of Washington. Most of these lands had been harvested. The lands ultimately were deeded to the state and placed in trust status. In exchange for the deed transfer, the county and junior taxing districts in which the land is located are given a majority of the revenue from timber sales and other revenue-producing activities on these lands.



Because the state is both the grantor and trustee, the state has more flexibility to change the terms of this trust through statutory direction when compared to the Federal Grant Lands. However, the Legislature has directed that the State Forest Transfer Lands be managed in the same manner as the Federal Grant Lands (RCW 79.22.040).

State Forest Purchase Lands

Nearly 80,000 acres of State Forest Lands are State Forest Purchase Lands. These lands were either purchased by the state, or acquired by the state as a gift. The State Forest Purchase Lands were acquired under the 1923 Reforestation Act, which gave the State Forest Board the power to acquire any lands that were chiefly valuable for developing and growing timber and to designate these lands as State Forest Lands. All State Forest Purchase Lands were to be used primarily for forestry, forever reserved from sale. However, the timber could be sold and lands leased in the same manner as the State Federal Grant Lands (RCW 79.22.050).

OTHER TRUST LANDS

Community College Forest Reserve

In addition to Federal Grant Lands and State Forest Lands, DNR also manages more than 3,200 acres of forestlands for community colleges. The Community College Forest Reserve was established by the Legislature in 1990. Monies for DNR to purchase the properties were first appropriated that year.

These lands, located near urban areas, form a buffer between other working forests and suburban uses. The properties are managed for sustained timber production, but special consideration is given to aesthetics, watershed protection and wildlife habitat. Revenues go to a special fund for building and capital improvements on community college campuses.

King County Water Pollution Control Division

DNR manages more than 4,300 acres for the benefit of King County and its Wastewater Treatment Division. These lands were transferred to DNR for management through an agreement with the county in June 1995.

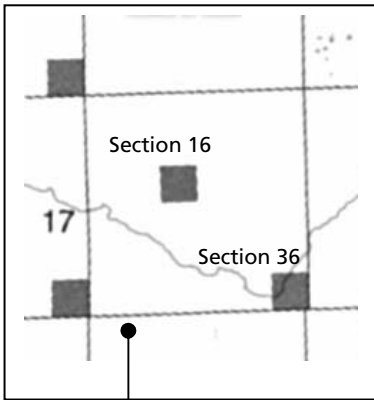
The agreement is part of a unique program to protect and enhance forests and wildlife habitat along the scenic I-90 corridor east of Seattle. The program was initiated by the nonprofit Mountains to Sound Greenway Trust and public and private partners. It currently includes the state Department of Natural Resources, King County, Hancock Timber Resources and the University of Washington.

These lands are managed for long-term forestry as are all of the other State Forest trust lands. They will have some of the county's biosolids applied where soils and locations are appropriate.

See Appendix D for a map of Washington and DNR-managed trust lands statewide.

Legal Framework

DNR is required to comply with state, federal and common law. This section highlights key portions of the legal framework that governs DNR management of forested state trust lands.



Example of
36-square mile
Township with
Federally
Granted State
Trust parcels

Each section is one
mile square or 640
acres.

(See map in
Appendix D)

FEDERAL ENABLING ACT AND STATE CONSTITUTION

The federal Enabling Act of 1889 spelled out the terms for statehood for Washington (also Montana and the Dakotas). The act granted federal lands to the state for specific purposes, to support the institutions the new state would need. These federally granted lands were the beginning of Washington's trust lands. Following adoption of the Enabling Act, the people of the Washington Territory held a convention to draft a state constitution and form a state government. The constitution, as ratified, accepted the Enabling Act grant lands.

Forest Land Transactions and Full Market Value

The Enabling Act (updated several times since 1889) places restrictions on the disposal and leasing of the granted lands, the most prominent being disposition at public sale for not less than full market value. It authorizes the lease of these lands under regulations prescribed by the Legislature, and the exchange of these lands for other lands of equal value. The Enabling Act contemplated the sale of timber and other crops from the lands, as well as oil, gas, and other mineral leasing.

The Washington State Constitution also imposes certain management restrictions and limitations on the sale of grant lands. It requires full compensation for the trust when trust lands are sold, transferred or otherwise disposed. It describes compensation as "...full market value of the estate or interest disposed of..." (Section 1), that the value of lands granted to the state shall be appraised by a board of appraisers and "...no sale shall be valid unless the sum bid be equal to the appraised value of said land" (Section 2), and "...that no sale of timber lands shall be valid unless the full value of such lands is paid or secured to the state." (Section 3). Additional requirements related to compensation to the trust can be found in RCW 79.17.200 and RCW 79.11.010.

TRUST DUTIES

The state of Washington, acting through DNR, has specific obligations in managing the forestlands that are covered by the *Policy for Sustainable Forests* because they are trust lands.

A trust is a relationship in which the trustee holds title to property that must be kept or used for the benefit of another. The relationship between the trustee and the beneficiary for these lands is a fiduciary relationship. A trust includes a grantor (the entity establishing the trust), a trustee (the entity holding the title), one or more beneficiaries (entities receiving the benefits from the assets), and trust assets (the property kept or used for the benefit of the beneficiaries).

In the case of Washington's trust responsibility, the trust assets consist of the trust lands, funds in certain dedicated accounts and the permanent funds associated with

certain trusts. With the state as trustee, the Legislature has designated DNR as manager of the Federal Grant Lands and State Forest Lands. The fiduciary aspect of trust management requires DNR to manage these lands to produce perpetual income for the beneficiaries (the trusts).

Much of what is known as the ‘trust mandate’ concerns the common law obligations of a trustee to operate as a prudent person on behalf of the trusts. The legal construction of Washington’s trust lands also creates considerable differences in how these lands are managed when compared to other public lands and private fiduciary trusts. For example, because the trusts are public institutions, the trust obligation continues in perpetuity—that is, forever.

TRUST MANDATE

In addition to complying with laws of general applicability, as a trust manager DNR follows the common law duties of a trustee. These include, but are not limited to: administering the trust in accordance with the provisions that created it; maintaining undivided loyalty to each of the trusts and its beneficiaries; managing trust assets prudently; making the trust property productive, while recognizing the perpetual nature of the trusts; dealing impartially with beneficiaries; and reducing the risk of loss to the trusts.

In 1984, the Washington State Supreme Court addressed the state trust relationship in County of Skamania v. State of Washington, 102 Wn.2d 127, 685 P.2d 576. The Skamania decision explicitly addressed two of the trustee’s duties. The Court found that a trustee must act with undivided loyalty to the trust beneficiaries to the exclusion of all other interests and to manage trust assets prudently. The court also cited a series of cases in which private trust principles were applied to land grant trusts. While all but one of these cases are from other states with differently worded enabling acts, they generally indicate that a state’s duty is to strive to obtain the most substantial financial support possible from the trust property over time, while exercising ordinary prudence and taking necessary precautions for the preservation of the trust estate.

The Skamania case, as well as other trust duties, are thoroughly discussed in a more recent formal opinion of the Attorney General, AGO 1996, No. 11.

Prudent Person Doctrine

In DNR’s view, prudent management means, among other things, avoiding undue risk. DNR believes it is in the best interest of the trusts over the long term to manage forested state trust lands to:

- Prevent losses of ecological function, which may cause the listing of additional species as threatened or endangered;
- Avoid circumstances likely to lead to public demand for ever-increasing, restrictive regulations of forest practices; and
- Avoid the resulting contract disputes, uncertainty and loss of the ability to manage trust lands for their primary purpose.

As a result, in certain policies DNR has exceeded existing state forest practices rules (Title 222 WAC) when necessary to best protect resources on forested state trust lands.

Because the trusts must be served in perpetuity, it is important to retain the long-term productive capacity of the forest, recognizing that near-term actions can create long-term economic, ecological and social benefits.



ENDANGERED SPECIES ACT

Passed in 1973, the federal Endangered Species Act (ESA) provides for the designation and protection of invertebrates, wildlife, fish and plant species that are in danger of becoming extinct, and provides a means to conserve the ecosystems on which such species depend.

The ESA defines an endangered species as any species that is in danger of becoming extinct throughout all or a significant portion of its range (16 U.S.C. § 1532(6)). A threatened species is one that is likely to become endangered in the foreseeable future (16 U.S.C. § 1532(20)). Section 9 of the ESA makes it unlawful to “take” a species that is listed as endangered without a permit from the secretary of the United States Department of the Interior or the Department of Commerce. The term “take” under the ESA is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 U.S.C. § 1532 (19)) any species listed as endangered under the ESA. The take prohibitions can be extended to species listed as threatened by federal regulation (16 U.S.C. § 1538(a)).

The U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration-Fisheries Service (NOAA Fisheries) share responsibility in administering the ESA. Generally, USFWS is responsible for terrestrial and freshwater aquatic species while NOAA Fisheries is responsible for marine mammals, anadromous fish and other marine species.

Habitat Conservation Plan Option

Section 10 of the Endangered Species Act (16 U.S.C. 1539) authorizes a landowner to negotiate a habitat conservation plan with the United States Secretaries of the Interior or Commerce to minimize and mitigate any incidental impact to threatened and endangered species while conducting lawful activities, such as forest practices. A habitat conservation plan may allow the landowner to develop habitat for endangered species at a landscape level, rather than protecting the individual sites at which the species is found on the landowner’s property. As long as the landowner manages under the terms and conditions of the habitat conservation plan, the landowner will not be prosecuted for “take” of an individual animal. The permit issued to the landowner by the federal government is referred to as an “Incidental Take Permit,” and identifies the range of activities allowed under each habitat conservation plan.

DNR’s Trust Lands Habitat Conservation Plan

In 1997, DNR and the USFWS and NOAA Fisheries (collectively referred to as “the Federal Services”) signed a multi-species habitat conservation plan to address

DNR's compliance with the federal Endangered Species Act in its management of forested state trust lands.

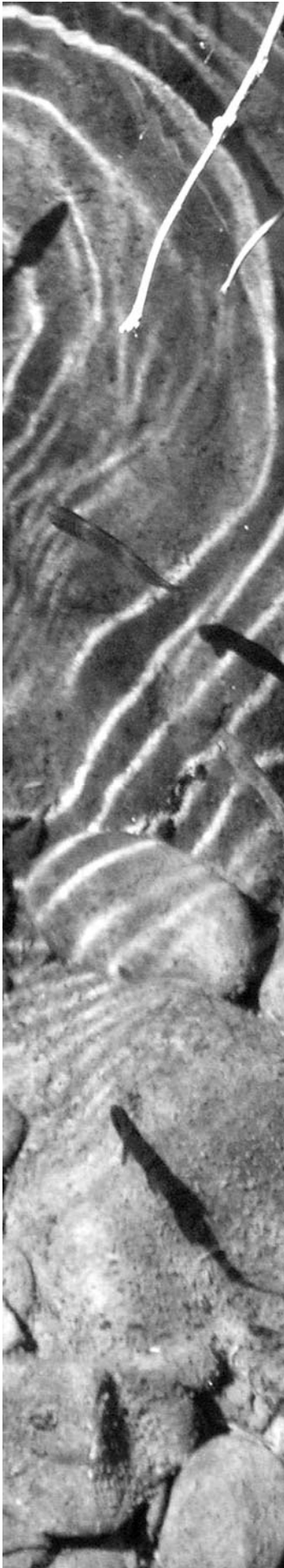
DNR's *Habitat Conservation Plan* (HCP) covers approximately 1.6 million acres of forested state trust lands within the range of the northern spotted owl and for the most part, is a multi-species land management plan that takes a landscape approach to managing for conservation of threatened and endangered species. Because many of DNR's forested state trust lands are adjacent to federal lands, the HCP also is designed to supplement federal land management protection measures at a landscape level, as described in the federal *Northwest Forest Plan*.



Lynx Habitat Management Plan

In 1996, DNR developed a *Lynx Habitat Management Plan* in response to the Washington State Department of Fish and Wildlife (WDFW) 1993 determination that the lynx was threatened, as defined in state law. The plan was approved by WDFW in 1996. In 2000, the USFWS listed the lynx as threatened under the Endangered Species Act. In response, DNR worked with U.S. Fish and Wildlife Service (USFWS) to modify the 1996 lynx plan to avoid being at risk for violating the Endangered Species Act. This plan was needed because the Canada Lynx inhabits lands outside of DNR's *Habitat Conservation Plan* (HCP). In 2002, DNR received a letter of agreement from USFWS that a modified plan that incorporates a number of restrictions (listed in the letter), will not likely result in an incidental take of lynx. DNR has finalized an update of the *Lynx Habitat Management Plan* that incorporates components of the *Washington State Recovery Plan for the Canada Lynx*, results from recent research and monitoring conducted on DNR-managed lands, and new scientific findings on lynx ecology and conservation.

Note: On behalf of the state, DNR's Forest Practices Program developed a Habitat Conservation Plan for the regulatory state Forest Practices Board, to protect aquatic species on non-federal and non-tribal forestland in Washington (i.e. primarily private and state-owned lands). The HCP was approved by the Federal Services in May of 2006. The Forest Practices HCP applies to all forested state trust lands, including those not covered by DNR's trust lands Habitat Conservation Plan.



PUBLIC LANDS ACT (RCW Chapter 79.01)

Many of DNR's obligations and authorities as a land manager are established in the state Public Lands Act. This statute defines both "multiple use" and "sustainable harvest," which are key concepts that help shape the *Policy for Sustainable Forests*.

Multiple Use Concept (RCW 79.10.120)

The Legislature has directed DNR to utilize a Multiple Use Concept in the administration of public state lands, when such use is in the best interests of the state and the general welfare of the citizens, and is consistent with the provisions of the lands involved.

When managing state trust lands, utilizing the Multiple Use Concept means DNR is to provide for other public uses when those uses are compatible with the obligations of trust management. Public uses that may be compatible with trust management activities include: recreational areas; recreational trails for both vehicular and non-vehicular uses; special educational or scientific studies; experimental programs managed by various public agencies; special events; hunting, fishing and other sports activities; maintenance of scenic areas; maintenance of historical sites; municipal or other public watershed protection; greenbelt areas; and public rights of way. If such uses are not compatible with the fiduciary obligations in the management of trust land, they may be permitted only if there is compensation to satisfy the trust's financial obligations.

Sustainable Harvest (RCW 79.10.300)

This statute requires DNR to manage the forested state trust lands on a sustained yield basis. DNR must periodically adjust the acreages designated for inclusion in the sustained yield management program and calculate a new sustainable harvest level.

The sustainable harvest level is defined in the law as the volume of timber scheduled for sale from state-owned lands during a planning decade, as calculated by DNR and approved by the Board of Natural Resources.

FOREST PRACTICES ACT (RCW Chapter 76.09)

The purpose of Washington's Forest Practices Act is to protect the state's public resources while maintaining a viable timber industry. The act regulates activities related to growing and harvesting timber on all non-federal and non-Tribal forestlands in Washington, including the forested state trust lands that DNR manages.

Under the act, the state Forest Practices Board adopts the state forest practices rules (Title 222 WAC) that govern how the Forest Practices Act must be implemented. Both the act and the rules have been amended over time to address evolving protection of public resources.

In 1999, the Legislature authorized the Forest Practices Board to adopt new rules consistent with the Forests and Fish Report, a multi-party collaborative agreement that addressed protection of aquatic resources (RCW 76.09.055). In response, the Forest Practices Board amended the state forest practices rules in July 2001. The objectives of the new rules are to further protect public resources by focusing on water quality, salmon habitat and other aquatic and riparian resources.

DNR's Forest Practices program administers and enforces the state Forest Practices Act and its rules. The Forest Practices program operates independently of DNR's state land management programs, and DNR forest management activities on forested state trust lands are subject to the state forest practices rules and generally require forest practices permits.

GROWTH MANAGEMENT ACT (RCW Chapter 36.70A)

The Growth Management Act requires local governments to establish comprehensive growth management plans that address a range of natural resource issues, including timber and other resources that may be on forested state trust lands.

DNR works with local governments as they develop land use plans and regulations. In some cases, forested state trust lands that lie in zones identified by local government for development will be converted and developed or transferred out of trust status, with compensation to the trust(s), when it best serves the trust(s) interests. In other cases, DNR identifies forested state trust lands that should be protected from development and retained for forest management, when it is in the trust(s) best interests.

HYDRAULIC PROJECT APPROVAL (RCW 77.55.100)

Hydraulic Project Approval (HPA) is required from the Washington State Department of Fish and Wildlife for most work done in or above a body of water. This is often necessary for road construction projects, which may or may not occur in conjunction with timber harvest activities from forested state trust lands. If a forest practices application is filed for the activity, the landowner does not have to file separately for a HPA. However, DNR would be required to apply for an HPA if a management activity on state trust lands does not require a forest practices permit but involves a state body of water.

OPEN PUBLIC MEETINGS ACT (RCW Chapter 42.30)

The Open Public Meetings Act requires that all government agency boards, commissions, committees, etc., including the Board of Natural Resources, conduct their business in a public forum. This act requires that all actions and deliberations be made and conducted openly. In addition, any member of the public shall be permitted to attend these open meetings. At the monthly Board of Natural Resources meetings, there are opportunities for public comment on decisions related to state forested trust lands, including timber sales and land transactions.



PUBLIC RECORDS ACT (RCW 42.56.001)

The Public Disclosure Act, passed by the Legislature in 1972, included a Public Records Act component that directed public agencies to provide for the disclosure of public records, with few exceptions. DNR complies with this component by facilitating any citizen's review of agency documents and providing copies as requested.

SHORELINES MANAGEMENT ACT (RCW 90.58.030)

The Shorelines Management Act requires the Washington State Department of Ecology and local governments to manage shorelines by planning for and fostering all reasonable and appropriate uses. When DNR conducts a management activity on forested state trust lands which falls within the purview of this law, DNR may be required to obtain a permit from the appropriate local government.

STATE ENVIRONMENTAL POLICY ACT (RCW Chapter 43.21C)

The State Environmental Policy Act (SEPA) requires state agencies to review proposed actions for probable significant adverse environmental impacts and, when necessary, to prepare an environmental impact statement for actions that may have a probable, significant adverse impact on the environment. Compliance with SEPA ensures timely analysis, public comment processes and a discussion of possible mitigation of the probable significant environmental impacts during various activities, including on-the-ground project planning and implementation, as well as during programmatic or policy-level planning efforts.

The SEPA rules (Chapter 197-11 WAC) provide more details for implementing this law. They also establish uniform environmental review requirements for all agencies.

Most DNR activities related to forest management (e.g., planning, road development, and timber harvesting) are subject to SEPA.

SURFACE MINING ACT (RCW 78.44.031)

The Surface Mining Act requires anyone who engages in surface mining activities, as defined by the act, to obtain a permit from DNR. The law applies equally to any mining activities that may occur on forested state trust lands.

WATER POLLUTION CONTROL ACT (RCW Chapter 90.48)

The Water Pollution Control Act requires that the state of Washington maintain the highest possible standards to ensure the purity of all waters of the state, consistent with public health and public enjoyment; the propagation and protection of wildlife, birds, game, fish and other aquatic life; and the industrial development of the state. It also requires the use of all known available and reasonable methods by industries and others to prevent and control the pollution of the state's waters.

Tribal Treaties

In treaties signed during the 1850s, Tribes of the Washington Territory ceded millions of acres of land to the federal government. In exchange for the ceded land, the Tribes were to receive certain payments, services, and protections from the government. The Tribes also reserved (i.e. did not cede) rights “to fish at all usual and accustomed places, and gather roots and berries and hunt on open and unclaimed land.” Some of the land the Tribes ceded to the federal government is now forested state trust land. Conversely, some of the reserved rights of the Tribes apply to forested state trust lands.

Related Plans and Policies

The *Policy for Sustainable Forests* is shaped by, and must be compatible with, other DNR policies, plans and decisions.

OLYMPIC EXPERIMENTAL STATE FOREST

About 264,000 acres of forested state trust lands on the Olympic Peninsula are managed as the Olympic Experimental State Forest (OESF).

As its name implies, the OESF is a place where, in addition to providing trust income and other benefits, DNR can experiment with forestry techniques, seeking field-tested, long-term solutions to forest management issues, particularly those related to integrating timber production and conservation. The long-term vision for the OESF is of a commercial forest in which ecological health is maintained through innovative integration of forest production activities and conservation.

This vision evolved in 1989 from recommendations of the Commission on Old Growth Alternatives. The Commission's intent was for DNR to avoid management disruptions from future listings of threatened and endangered species and future

conservation issues by learning to manage for healthy ecosystems that included older-forest features:

Forest scientists and managers are increasingly discussing the ability to sustain key elements of ecological diversity within managed commercial forests as an alternative to past approaches. The Commission sees a clear need for further research in this area and a great opportunity to conduct it on state-owned lands. The intent is to experiment with harvest regeneration methods to enhance habitat characteristics and commodities production. The Commission believes this recommendation may lead to entirely new models of forestry including workable alternatives which balance production with ecology (*Commission on Old Growth Alternatives for Washington's Forest Trust Lands*, 1989, p. 2).

Although it was not yet formally established, the OESF was included in the 1992 *Forest Resource Plan* as a “state forest that will be managed separately from other lands in Western Washington.” In DNR’s trust lands *Habitat Conservation Plan* (HCP), the OESF was identified as a separate planning unit.

The OESF’s planning history has led to a strategy that differs from the other HCP planning units in both concept and detail by combining conservation, production, research and monitoring, innovative silvicultural techniques, and communication and education in a unified effort. The aim is to learn how to manage the forest so that habitat conservation and timber production are melded across the landscape, rather than separated into designated areas.

Through the OESF, DNR actively questions its knowledge about the relationships between forest ecosystem functions and forest management activities. DNR explores these questions through monitoring and research and by sharing knowledge with and seeking insights from other professionals and publics. As the research provides new information, management activities will be adapted accordingly. Ultimately, what is learned in the OESF can be applied, where appropriate, to other DNR-managed forested trust lands.

ASSET STEWARDSHIP PLAN

The *Asset Stewardship Plan*, adopted by the Board of Natural Resources in 1998, provides a summary of DNR’s process for asset planning; a brief history of the state’s acquisition of lands managed by DNR; the legal framework under which they’re managed; information about the lands and resources on those lands, including information about their various economic values; and a recommended strategy for assuring the future value of these land-based assets. This overall strategy is reflected in DNR’s *Asset Allocation Strategy for Washington’s Upland Trust Lands* (October 2003) that addresses the composition of the trust asset base, and how assets should be continually evaluated and rearranged for the long-term benefit of trust beneficiaries. These strategies guide acquisition and disposal of forested state trust lands and are administered by DNR’s Asset Management Council.

POLICIES ON ACQUIRING AND GRANTING RIGHTS-OF-WAY

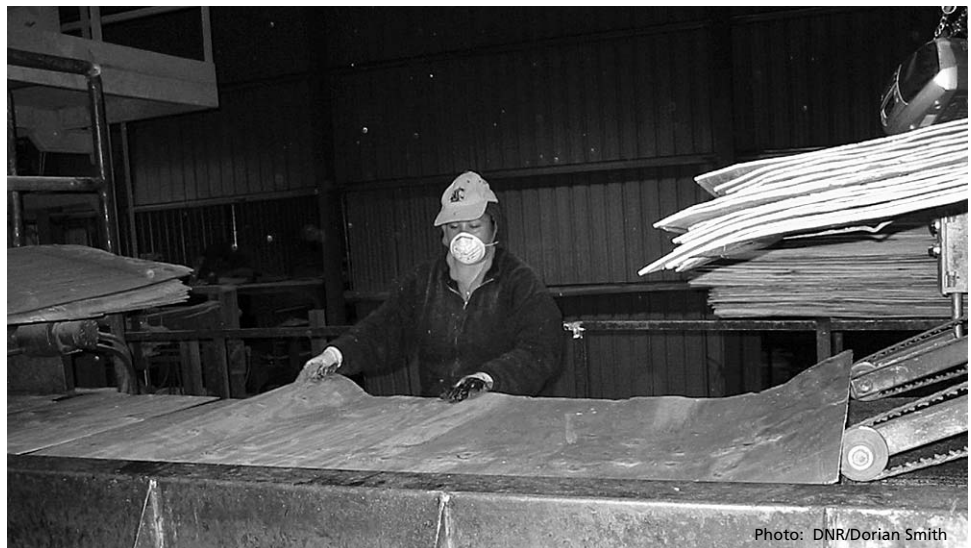
DNR acquires land and rights-of-way across private and other public lands to facilitate management and to increase the value of the trust assets, whether forested or non-forested. DNR acquires these rights-of-ways by gift, purchase, exchange, condemnation or road use agreements.

DNR recognizes that other entities may need rights-of-way across forested state trust lands. Permanent and temporary rights-of-way include grants or easements for utility, domestic use, timber haul and other purposes.

SUSTAINABLE FORESTRY INITIATIVE® PROGRAM CERTIFICATION

In March 2005, DNR obtained “green” certification by the Sustainable Forestry Initiative® Program, which recognized the agency’s balanced stewardship of forested state trust lands in Western Washington. In September 2006, DNR obtained certification of its Eastern Washington lands, making all of the department’s forestlands statewide certified. This balanced approach is a direct result of policy direction by the Board of Natural Resources as contained in the 1992 *Forest Resource Plan* and now by its successor, the *Policy for Sustainable Forests*.

About 150 million acres of forestland are independently third-party certified under the SFI® standard, making it the dominant certification standard in the United States and North America.





Policies

The *Policy for Sustainable Forests* is composed of multiple policies, which together provide broad direction to the Washington State Department of Natural Resources (DNR) to effectively and sustainably manage the forested state trust lands in its care.

On the pages that follow, individual policies are grouped into four major policy categories. Each category addresses a key aspect of sustainable forest management:

- Economic Performance
- Forest Ecosystem Health and Productivity
- Social and Cultural Benefits
- Implementation

Within each category, individual policy subject areas are introduced with a discussion, followed by the policy statements. The policy on any given subject may have multiple parts.

Although the individual policies are separated into categories and subject areas, taken collectively they create DNR's overarching policy to support healthy forest ecosystems to provide a perpetual flow of economic, ecological and social benefits from forested state trust lands.

Economic Performance

The Economic Performance category contains policies that, consistent with the other policies in this document, provide the broad context for DNR's economic management of forested state trust lands and the production of sustainable revenue for each trust beneficiary.

These policies address subjects related to revenue production and financial performance, including activities and commodities to be considered in producing revenue from forested state trust lands, and lands that are deferred from harvest activities:

- Financial Diversification
- Financial Assumptions
- Definition of Sustainability for the Sustainable Harvest Calculation
- Recalculation of the Sustainable Harvest Level
- Harvest Deferral Designations

Financial Diversification

DISCUSSION

Diversification is an important fiduciary consideration for meeting DNR's trust obligations. Diversification allows DNR to take advantage of a variety of opportunities to produce revenue for the trusts, and it protects the trusts from catastrophic losses, should markets or physical conditions significantly constrain a revenue source.

In its *Asset Stewardship Plan*, DNR addresses diversification among trust land asset classes (forestry, agriculture, commercial real estate) to improve total economic performance. Within a single asset class, diversification can improve the economic performance of that class and as a result contribute to improved performance of the total trust holdings. Financial diversification within the forest asset class includes income from the marketing and sales of a variety of forest products and from non-forest products or services. For example, on some forested trust lands, additional revenue can be captured through leasing the land for uses such as energy generation and communication sites.

Some of the ecological and social benefits from the forested trust lands may hold opportunities for immediate or future revenue production and thus, for improving the overall financial performance of the lands. By anticipating future demand for ecological and social benefits, DNR can be in a better position to take advantage of that demand on behalf of the trusts. Examples of such benefits include recreation, tourism, water quantity and quality, and carbon sequestration.

There are opportunities for DNR to expand its national and international marketing efforts. By evaluating different marketing and sales strategies, DNR may find ways to improve the overall financial performance of the forested trust lands. Research



Anticipating future demand, the department will prudently pursue economic opportunities related to ecological and social benefits that flow from forested state trust lands.

related to economic and financial trends may identify partnerships or additional opportunities to improve financial performance through diversification.

POLICY ON FINANCIAL DIVERSIFICATION

- **The department will identify and offer a mix of forest products to take advantage of existing markets and market value fluctuations.**
- **The department will evaluate and capture financial opportunities through production, marketing and sales of both timber and non-timber related commodities and uses.**
- **The department will actively expand its efforts to identify, develop and target new national and international markets for forest products and seek opportunities to creatively market and sell forest products to improve overall financial performance.**
- **Anticipating future demand, the department will prudently pursue economic opportunities related to ecological and social benefits that flow from forested state trust lands, to improve the net revenue from forestlands.**
- **To guide decisions about trust asset management and allocation and to identify additional diversification opportunities, the department will:**
 - **Continually evaluate land use patterns and changing land values; and**
 - **Pursue additional forecasting services and research related to economic and financial trends.**

Financial Assumptions

DISCUSSION

Forest investments are based on various financial assumptions. Assumptions about prices, costs, interest rates and other financial factors reflect national and regional economic conditions, as well as anticipated changes in forest product markets. DNR makes certain assumptions as it uses various investment models to guide decisions related to silvicultural investments, capital investments (such as roads), forestland investments, and others.

DNR relies primarily on net present value as the most comprehensive and direct way to measure financial returns to the trusts and evaluate investments. However, measures such as internal rate of return and cost-benefit ratio may be best suited for some specific situations.

The nature and timeliness of reviews and updates of financial assumptions are critical to making sound investment decisions on behalf of each trust. In addition, all DNR upland programs benefit from a periodic department review and, when appropriate, adjustment of basic financial assumptions. Such an approach provides better consistency between the various upland programs and financial decision-making on behalf of each trust.

POLICY ON FINANCIAL ASSUMPTIONS

- **At least once per year, the department will review financial assumptions that affect forest management and will make adjustments when general economic situations dictate.**
- **The department will utilize a comprehensive approach to review and update the financial assumptions used in forest management decisions.**

In order to take advantage of shorter term operational or market opportunities, the harvest level for any year within the planning decade may fluctuate up to 25 percent.

Definition of Sustainability for the Sustainable Harvest Calculation

DISCUSSION

State law defines sustained yield as “management of the forest to provide harvesting on a continuing basis without major prolonged curtailment or cessation of harvest” (RCW 79.10.310). A common law duty of the state as trustee is to not favor either present or future trust beneficiaries over each other. Sustained yield management helps accomplish this duty.

Within that broad statutory direction, various interpretations of sustained yield management are possible. Differences in interpretation may relate to the size of areas subject to separate calculations of sustainable yield of timber, for example, either the state trust ownership as a whole or smaller areas; the degree of variability of timber harvest over time; and the aspect of forest management to be the primary focus of sustainability, such as area or volume of timber harvested or retained, or revenue earned.



In the past, DNR has divided the forestland base into separate sustainable harvest units based on county boundaries, DNR’s administrative regions, and several separately treated areas. In addition, DNR has set the variability of harvest over time based on a non-declining even-flow objective. DNR has calculated sustainable yield based on timber volume. The Board of Natural Resources has expressed a desire for a more flexible system as the basis for the sustainable harvest calculation.

(Lands formerly known as Forest Board Transfer and Forest Board Purchase are now defined in RCW 79.02.010(10) as “State Forest Lands.” For purposes of this policy, former Forest Board Transfer lands will be called “State Forest Transfer Lands,” and former Forest Board Purchase Lands will be called “State Forest Purchase Lands”.)



POLICY ON DEFINITION OF SUSTAINABILITY FOR THE SUSTAINABLE HARVEST CALCULATION

- **The department will calculate, and the Board of Natural Resources will adopt, a separate long-term decadal sustainable harvest level for each of several distinct sustainable harvest units. The department will express the sustainable harvest level for a given unit as mean annual timber volume for a planning decade.**
- **In Western Washington, the sustainable harvest units (a total of 20) are as follows:**
 - **The Olympic Experimental State Forest, regardless of trust.**
 - **The Capitol State Forest, regardless of trust.**
 - **Each of the 17 county beneficiaries of State Forest Transfer lands separately (excluding those lands in the Olympic Experimental State Forest or Capitol State Forest).**
 - **All of the federally granted trusts and State Forest Purchase lands in Western Washington together, with the exception of the Olympic Experimental State Forest and Capitol State Forest.**
- **For Eastern Washington, sustainable harvest units will be determined as part of the Eastern Washington sustainable harvest calculation.**
- **In order to ensure intergenerational equity among beneficiaries, within each sustainable harvest unit, the department shall calculate an estimated multi-decade harvest level such that the mean annual timber volume for any decade should not vary up or down more than 25 percent from the level of the preceding decade, except that all State Forest Transfer lands outside Capital State Forest and Olympic Experimental State Forest shall be treated as a single sustainable harvest unit for purposes of achieving the allowable variation between decadal timber harvest levels.**
- **In order to take advantage of shorter term operational or market opportunities, the harvest level for any year within the planning decade may fluctuate up to 25 percent plus or minus from the mean annual harvest level adopted by the Board of Natural Resources, as long as the decadal mean is sustained over the decade.**
- **The department will analyze the financial characteristics of forest stands in order to optimize the economic value of forest stands and timber production over time, in calculating the sustainable harvest level, in planning and scheduling timber harvests, in making investments in forest growth, and in searching for the least-cost methods of achieving other forest management objectives.**

Recalculation of the Sustainable Harvest Level

DISCUSSION

State law requires that DNR shall manage the state-owned lands under its jurisdiction, which are primarily valuable for the purpose of growing forest crops on a sustained yield basis. “To this end, the Department shall periodically adjust the acreages designated for inclusion in the sustained yield management program and calculate a sustainable harvest level” (RCW 79.10.320). State law also defines sustainable harvest level as, “Sustainable harvest level means the volume of timber

scheduled for sale from state-owned lands during a planning decade as calculated by the department and approved by the board” (RCW 79.10.300(5)).

The legislature envisioned that the sustainable harvest level is likely to need adjustment from time to time, based on the quantity, quality, growth, and availability of the timber resource on state lands. At the time the statute was enacted, the suitable time period was thought to be one decade, with the average annual sustainable harvest level remaining constant during the decade.

Currently, the factors affecting a stable long-term sustainable harvest calculation remain dynamic. Regulatory requirements are in flux, and information about the resource base continues to improve. In addition, new more powerful and flexible computer models have emerged, making it feasible to adjust the harvest level as circumstances change. At the same time, the fundamental trust obligations and statutory requirements continue to be the foundation of policy.

POLICY ON RECALCULATION OF THE SUSTAINABLE HARVEST LEVEL

- **The department, with Board of Natural Resources approval, will recalculate the statewide sustainable harvest level, for Board of Natural Resources adoption no less frequently than every ten years.**
- **The department will adjust the calculation and recommend adoption by the Board of Natural Resources when the department determines changing circumstances within the planning decade suggest that an adjusted harvest level would be prudent. Such circumstances may include major changes in legal requirements, significant new policy direction from the Board of Natural Resources, new information about the resource base available for harvest, or changes in technology.**

Harvest Deferral Designations

DISCUSSION

Forested state trust lands are managed to meet multiple objectives that are economic, ecological or social in nature and are set by federal and state law, including DNR’s *Habitat Conservation Plan* (HCP) and Board of Natural Resources policy. All forested state trust lands contribute or have the potential to contribute to one or more of these objectives. The model used to calculate the sustainable harvest level analyzes the capability of forestlands and associated forest stands to meet objectives and assigns silvicultural regimes across broad landscapes to meet these objectives over space and time.

Some of these lands play an important role in meeting ecological objectives in their current condition and are not available for harvest during the next decade or longer. These lands are designated as either short-term or long-term deferrals in the sustainable harvest calculation and, while not currently available for harvest, are included in the calculation. For example, many old-growth stands help meet older-forest targets for HCP planning units, but are not available for harvest. Other examples of lands in this category are recreation sites and gene pool reserves. The



The department's forest health priority is the development of landscape strategies at an appropriate scale to address the forest health issues of overstocking and/or inappropriate species composition.

designation of short-term or long-term deferrals is subject to change as new information becomes available.

POLICY ON HARVEST DEFERRAL DESIGNATIONS

- **The department will designate lands and timber resources that are unavailable for harvest as either short-term or long-term deferrals.**

Forest Ecosystem Health and Productivity

The Forest Ecosystem Health and Productivity category contains policies that provide the broad context for DNR's management and maintenance of the ecological health of forested state trust lands. These policies address subjects related to elements of the forest ecosystem that are important to ecological objectives and long-term health and productivity of trust assets:

- Forest Health
- Catastrophic Loss Prevention
- Old-Growth Stands in Western Washington
- Wildlife Habitat
- Watershed Systems
- Riparian Conservation
- Special Ecological Features
- Genetic Resource

Forest Health

DISCUSSION

A functioning, healthy forest ecosystem has many components, one of which is the forest stand itself. Maintaining healthy stand conditions keeps the forests productive. Productive, healthy forests directly provide many economic, ecological, and social benefits to each trust and to all the people of Washington.

What constitutes a healthy forest varies for different locations within the state. Ecoregions, associated plant communities, and natural vegetative series are the basis for identifying ecologically appropriate species and stocking levels.

The two major components of maintaining forest health are:

- Prevention of damage, by maintaining ecologically appropriate species composition/age and stocking levels; and
- Treatment of insects, noxious weeds, disease, and animal damage, when their impacts are excessive.

A number of silvicultural activities, including prescribed fire, can be used to keep forests healthy and resistant to insects, disease, catastrophic fire and the effects of drought and climate changes. Emphasizing management of species composition and stocking levels recognizes the effectiveness of treating the underlying causes



of forest health problems in addition to the symptoms. It is also important to treat localized outbreaks of insects, diseases, noxious plants and animal damage when necessary to protect trust assets.

Serious forest health issues impact multiple ownerships and agencies. Therefore, to effectively address forest health issues, it is important to work with other landowners, agencies and the scientific community.

POLICY ON FOREST HEALTH

- **The department's forest health priority is the development of landscape strategies at an appropriate scale to address the forest health issues of overstocking and/or inappropriate species composition. Using vegetative series or other appropriate guidelines, the goal is to adjust stand composition to favor species best adapted to the site.**
- **The department will incorporate cost-effective forest health practices into the management of forested state trust lands to reduce or prevent significant forest resource losses from insects, disease, animals, noxious weeds and other similar threats to trust assets.**
- **The department will work closely with the scientific community, other agencies and other landowners to effectively address forest health issues.**

Catastrophic Loss Prevention

DISCUSSION

One of DNR's primary fiduciary responsibilities is to protect trust assets from catastrophic loss due to wildfire or other factors such as wind, insects, and disease. Prevention of catastrophic loss helps protect the economic, ecological, and social features of forested state trust lands and assures progress toward meeting trust objectives.

Preventing catastrophic losses involves identifying, planning, and implementing prevention efforts. Wildfire prevention involves fuel reduction on forested state trust lands. To accomplish this, DNR may invest management funds or seek other funding from state and federal programs.

Sometimes, conducting such prevention efforts with adjacent landowners and in coordination with fire prevention programs can help minimize impacts on forested state trust lands.

Overall, healthier forests are less likely to experience catastrophic losses.

POLICY ON CATASTROPHIC LOSS PREVENTION

- **The department will incorporate strategies to prevent catastrophic loss into its management of forested state trust lands. These strategies include development of fire-resistant stands.**
- **When in the best interest of the trust(s), forest stands that have been materially damaged by fire, wind, insects or disease will be salvaged. Such salvage will be conducted in compliance with state and federal law, contractual obligations, and Board of Natural Resources policy.**

-
- **The department will coordinate with local, state and federal fire prevention programs; the scientific community; other agencies; and other landowners to reduce the risk of forest resource loss from catastrophic events.**

The department will defer from harvest old-growth stands...to help meet DNR's Habitat Conservation Plan and regulatory requirements, older-forest targets, and social/cultural values.

Old-Growth Stands in Western Washington

DISCUSSION

From a historic perspective, old-growth forests are a result of a natural pre-European settlement origin (prior to year 1850) and of having been left unmanaged and relatively undisturbed by humans for hundreds of years. Consequently, unlike other structurally complex stands, old-growth stands in Western Washington are not a result of, nor will they result from, active management. From a scientific perspective, old-growth stands in Western Washington are characterized by the highest levels of structural complexity including a diversity of sizes and conditions of live trees, snags and logs. Therefore, for the purposes of this policy, old-growth stands on forested state trust lands are defined as follows:

- Stands in the most structurally complex stage of stand development, sometimes referred to as the fully functional stage of stand development; and
- A stand with a natural origin date prior to 1850, generally considered the start of European settlement in the Pacific Northwest.

Both criteria must be met for a stand to be identified as old growth for the purposes of this policy.

The 2004 Washington State Legislature directed DNR to inventory old-growth forest stands on state lands as defined by a panel of scientists. By applying an old-growth habitat indexing method to DNR's Forest Resource Inventory System, potential old-growth stands were identified (*Definition and Inventory of Old Growth Forests on DNR-Managed State Lands*, July 2005). The minimum mapping unit size of the Forest Resource Inventory System is five acres. Consequently, for the purposes of this inventory effort and this policy, five acres is the minimum stand size for old growth.

Because old-growth stands are the most structurally complex, they can help DNR meet regulatory requirements and can make important ecological contributions to meeting key elements of DNR's *Habitat Conservation Plan* (HCP), particularly older-forest targets and requirements related to wildlife and riparian habitats (see discussion of HCP older-forest targets in the General Silvicultural Strategy policy subject area). The majority of potential old-growth stands recently identified on DNR-managed lands are deferred from harvest to meet HCP and regulatory requirements related to northern spotted owl, marbled murrelet, and riparian habitat.

Socially and culturally, old-growth stands are often valued and revered as representatives of what used to exist. When in the best interest of the trust involved, old-growth stands will be transferred out of trust status if the trust receives full market value for the lands transferred. Such transfers can occur at any time and in such a way that these old-growth stands can continue to contribute to HCP habitat requirements and older-forest targets, even when no longer in trust status.



The conservation strategies for the Olympic Experimental State Forest HCP planning unit are somewhat different from the strategies for the other five Western Washington HCP planning units. The goal in the Olympic Experimental State Forest is to use management, research and monitoring to build new knowledge about integrating commodity production and conservation. Consequently, operations, including harvest, in some old-growth stands will occur in the Olympic Experimental State Forest to meet this goal.

In conifer forests of Western Washington, single, very large diameter, structurally unique trees are important habitat elements. These trees, sometimes referred to as old-growth remnants, are characterized by very large diameters (60 to 90 inches or more, depending on the species) and possess large, strong limbs; open crowns; large, hollow trunks; broken tops and limbs; and deeply furrowed bark. They are the focus for retention to meet HCP requirements for very large diameter, structurally unique trees.

POLICY ON OLD-GROWTH STANDS IN WESTERN WASHINGTON

- **The department will defer from harvest old-growth stands (stands 5 acres and larger that originated naturally, before the year 1850), in order to help meet DNR's *Habitat Conservation Plan* and regulatory requirements, older-forest targets, and social/cultural values. This policy is subject to the following conditions:**
 - **The Board of Natural Resources will be notified of any exceptions to this policy for operational considerations; and**
 - **The department will retain known very large diameter, structurally unique trees to meet DNR's *Habitat Conservation Plan* requirements for large, structurally unique trees. The department will notify the Board of Natural Resources of proposed harvests that may involve removals of very large diameter, structurally unique trees.**
- **Inside the Olympic Experimental State Forest, the department may conduct operations in old-growth stands consistent with the requirements of DNR's *Habitat Conservation Plan* to meet the research objectives of the Olympic Experimental State Forest.**

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- **When in the best interest of the trust(s), the department will actively seek to transfer old-growth stands and areas containing very large diameter trees of high social or cultural significance out of trust status, when full market value compensation to the trust(s) is secured. In seeking to transfer such stands out of trust status, the department will immediately prioritize old-growth stands that are not subject to protection under DNR's *Habitat Conservation Plan* or other applicable regulations.**

DEFINITION AND IDENTIFICATION OF OLD-GROWTH STANDS IN EASTERN WASHINGTON

In Eastern Washington, definition and identification of old-growth stands is difficult due to several reasons. Fire exclusion and selective logging of large pines have changed the structure of many old-growth stands, therefore, there are few places where fire-dependent old-growth types exist and can be studied. In addition, relatively little research has gone into characterizing old growth in these forests, so relevant information is limited. Finally, DNR's forest inventory information for Eastern Washington needs to be improved to help identify potential old-growth stands.

As a result of legislation in 2006, DNR is conducting an inventory of old-growth forest located on state lands east of the crest of the Cascade Mountains. This two-phased project is to be completed by December 15, 2007. This information will be used in the Eastern Washington sustainable harvest calculation. Until that time, DNR is retaining forest structures that may be important elements of historic old-growth forests. Along the east slope of the Cascade Range, in the range of the northern spotted owl, DNR is maintaining and developing submature and mature owl habitat that is expected to develop into older-forest stands. In the Klickitat HCP planning unit, DNR is retaining an average of 6 to 12 trees per acre of the largest diameter classes as part of its forest health and HCP strategies. DNR is also developing late successional forest as part of its *Loomis State Forest Final Landscape Plan* (June 1996). In addition, DNR retains large diameter trees as part of its land management activities across all of Eastern Washington.

Policy may be developed for Eastern Washington older forests and old-growth stands as part of an Eastern Washington sustainable harvest calculation.

Wildlife Habitat

DISCUSSION

An important trust objective is the conservation of upland, riparian, and aquatic wildlife species, including fish and their habitats, species listed as threatened and endangered, and non-listed species.

DNR's *Habitat Conservation Plan* (HCP) enables DNR to meet the requirements of the federal Endangered Species Act by setting wildlife habitat objectives for 1.6 million of the 2.1 million acres of forested state trust lands. The HCP is a long-term management plan to conserve not only currently threatened and endangered species, but also to help avoid the future listing of additional species. In addition to



providing habitat for identified listed and unlisted species, implementation of the HCP, with a focus on ecosystem sustainability and the conservation of biodiversity across forested landscapes, is also expected to provide habitat conditions that, over time, have the capacity to sustain native wildlife populations and communities.

Wildlife objectives for areas outside the HCP planning units are set through a combination of federal and state laws, voluntary agreements with other agencies and organizations, and Board of Natural Resources policy. An example of these efforts includes the development of a *Lynx Habitat Management Plan* for forested state trust lands in northeast Washington.

Moreover, DNR has adopted a number of land management strategies over the past ten years that incorporate the importance of biodiversity to ecosystem integrity. DNR is also an active member of the State of Washington Biodiversity Council that was created in 2004 to develop and promote more effective ways of conserving Washington's biodiversity.

POLICY ON WILDLIFE HABITAT

- **The department's conservation efforts will focus on biodiversity, which is recognized as the fundamental guiding principle for sustainable forest management.**
- **The department will meet the requirements of federal and state laws and contractual requirements that protect endangered, threatened and sensitive species and their habitats.**
- **When consistent with trust objectives, the department intends to voluntarily participate with federal and state agencies and other organizations or governments, in additional efforts to protect state and federal listed threatened and endangered species, recover and restore their habitat, and participate in initiatives related to non-listed species and habitats.**

DNR addresses potential influences, including cumulative impacts, of forest management on watershed systems in several ways...

Watershed Systems

DISCUSSION

Forested watersheds managed by DNR are an important resource for the state of Washington. A forested watershed is a forested drainage basin that contributes water, organic matter, dissolved nutrients and sediments to a stream, river, lake or ocean.

Forested watersheds vary in size—from small stream sub-basins as small as 1,000 acres to Water Resource Inventory Areas hundreds of thousands of acres in size. DNR's *Habitat Conservation Plan* (HCP) planning units contain multiple Water Resource Inventory Areas. Forested watersheds are sources for municipal water supplies, irrigation, and stream and subsurface flows throughout the state. They provide quality habitat for aquatic organisms, and also recreational opportunities.

In forested watersheds, the condition of the forest has a significant influence on the quality and quantity of the resource. The nature of the forest cover can also influence the timing and magnitude of peak water flows.



DNR addresses potential influences, including cumulative impacts, of forest management on watershed systems in several ways:

- In Western Washington, the HCP includes a riparian management strategy that prescribes methods to protect water quality and, to some extent, moderates influences on stream hydrographs;
- DNR also generally limits the size of even-aged harvest units to 100 acres. Even-aged harvest systems produce stands that are of the same relative age and usually involve retention of 20 trees per acre or less (e.g., regeneration harvest, seed tree and final shelterwood removals). Exceptions to this 100-acre limit include alternatives that are more ecologically beneficial (e.g., larger unit sizes that allow less road building), or the need to address forest health-related issues, such as areas damaged by fire, insect, disease or windthrow; or creation of healthy, fire and insect resistant forest stands.
- Almost all DNR forest management activities are reviewed under the State Environmental Policy Act. These reviews consider the influences on water quantity, timing, and quality, including their cumulative impacts. In addition, the state forest practices rules provide a mechanism for analyzing watershed conditions and the potential for cumulative impacts through a voluntary watershed analysis process; and
- DNR has also assessed the potential for significant cumulative impacts at various intensities and geographic scales through its planning activities.

POLICY ON WATERSHED SYSTEMS

- **The department will assess the potential for significant cumulative impacts of department activities on watershed systems, and develop mitigation strategies as needed.**
- **To moderate the impacts of department activities on watershed systems, the department will generally limit the size of even-aged harvest units to 100 acres.**
- **The department will participate in watershed analysis as defined by state forest practices rules, when initiated by other landowners or by the state's Forest Practices program, in watersheds containing forested state trust lands.**

Riparian Conservation

DISCUSSION

Riparian areas are areas where land and water meet along the edges of streams and lakes. Riparian areas include stream banks, adjacent floodplains, wetlands and associated riparian plant communities. Wetlands are areas where water saturates or floods the soils to develop an anaerobic rooting zone during the growing season, excluding plants that are not adapted to life in saturated soils. Wetland habitats in forested landscapes include freshwater marshes, swamps, bogs, fens, seeps, wet meadows and shallow ponds. They may be isolated from other surface waters or associated with surface water bodies, such as ponds, lakes, rivers and streams.

The interaction between aquatic and terrestrial ecosystems and the extensive edges where riparian areas adjoin upland habitats are characterized by a high

Although these (riparian) ecosystems are only a small portion of the Eastern Washington landscape, they are disproportionately important as habitat.

diversity, density and productivity of both plant and animal species; protect water quality and quantity; and provide some of the most important fish and wildlife habitat in forestlands. Maintaining the hydrologic functions of wetlands and other riparian areas is essential to maintaining the health and function of the entire aquatic ecosystem, and it contributes to the health of upland ecosystems. Because of their importance, riparian areas and wetlands are addressed in the state forest practices rules. The rules define these areas and require protection for them.

In Western Washington, protection and restoration of riparian acreage and function on forested state trust lands is an integral part of DNR's *Habitat Conservation Plan* (HCP). The objectives of the HCP riparian strategy are to 1) maintain or restore salmonid freshwater habitat on DNR-managed lands, and 2) contribute to the conservation of other aquatic and riparian obligate species. To meet these objectives, the HCP requires establishment of riparian management zones, including wetland management zones, and provides protection measures that meet specific criteria to ensure the proper functioning of these systems. In addition, DNR and the Federal Services have agreed on a Riparian Forest Restoration Strategy that implements the HCP riparian strategy.

In Eastern Washington, the protection of riparian and wetland acreage and function is critical. Although these ecosystems are only a small portion of the Eastern Washington landscape, they are disproportionately important as habitat. Riparian and wetland areas in Eastern Washington are more strongly differentiated from surrounding uplands than the same areas in Western Washington and therefore, provide a more specialized habitat for rare plant and animal species.

POLICY ON RIPARIAN CONSERVATION

- **In Western Washington, the department will maintain or restore salmonid freshwater habitat on department-managed lands and contribute to the conservation of other aquatic and riparian obligate species through implementation of DNR's *Habitat Conservation Plan*.**
- **In Eastern Washington, the department will establish riparian management zones along fish-bearing waters, perennial non-fish bearing waters, and when necessary, along seasonal non-fish bearing waters. The department will also establish wetland management zones. In both management zones, the department will protect key non-timber resources, such as water quality, fish, wildlife habitat and sensitive riparian and wetland plant species.**
- **Statewide, the department will allow no net loss of acreage and function of wetlands, as defined by state forest practices rules.**

The department will identify forested state trust lands with special ecological features of regional or statewide significance.

Special Ecological Features

DISCUSSION

Special ecological features are those species, specialized habitats, ecosystems and other natural features that are in need of special management consideration for their long-term survival. These include rare species and rare ecosystem types, as well as widespread ecosystem types that are threatened in some manner.

The distribution of ecosystem types and individual species, including special ecological features, are influenced by geology and climate, as well as by natural disturbances and ecological processes. They are neither uniform across the landscape, nor are they random in their distribution. Each species and each ecosystem type occupies that portion of Washington that is suitable in terms of these factors. Therefore, special ecological features vary considerably from one ecoregion to another. Some special ecological features occur in more than one ecoregion, while others are limited to a single ecoregion.

Special ecological features may be priorities for inclusion within the statewide system of natural areas, including Natural Area Preserves and Natural Resources Conservation Areas. Features that are priorities for inclusion within the system include those that are of conservation concern, and all of those naturally occurring features of the state for which there is no representation, or inadequate representation, within the natural areas system. In many cases, such features on forested state trust lands can be transferred out of trust status, with full compensation to ensure their protection. In other cases, special features may be small enough or located such that their continued protection is consistent with trust management.

POLICY ON SPECIAL ECOLOGICAL FEATURES

- **The department will identify forested state trust lands with special ecological features of regional or statewide significance that fill critical gaps in ecosystem diversity.**
- **The department will protect such areas through means consistent with trust objectives, including transfer out of trust status, retention in long-term deferral status, creative partnerships or other available mechanisms.**



Genetic Resource

DISCUSSION

The genetic makeup of tree populations is a key factor affecting forest health and productivity. The genetic makeup of native tree populations is referred to as the gene pool. DNR recognizes the importance of maintaining and protecting this genetic resource. As a result, DNR considers the native gene pool to be one of the trust assets that it protects.

DNR's Tree Improvement program has been protecting the gene pool both by carefully managing the reforestation seed supply and by maintaining a system of gene pool reserves. The reserves have been deferred from harvest to ensure that native genetic material, well-adapted to local conditions, will be available to DNR in the future.

Gene pools are also located in areas of forestlands that are protected for other reasons. Unstable slopes, riparian areas, and old-growth stands are examples of areas that may have excellent gene pools in a protected status. These pools may augment those that have been deliberately deferred from harvest to protect the genetic resource.

DNR considers the native gene pool to be one of the trust assets that it protects.

POLICY ON GENETIC RESOURCE

- **The department will protect and enhance a diverse gene pool of native trees on forested state trust lands to ensure well-adapted future forests.**

Social and Cultural Benefits

The Social and Cultural Benefits category contains policies that provide broad direction concerning the direct role that forested trust lands play in the lives of Washington's residents, in addition to tax-free support for schools and institutions. These policies address subjects related to social and cultural benefits from the lands and DNR's activities:

- Public Access and Recreation
- Visual Impacts
- Cultural Resources
- Local Economic Vitality

Public Access and Recreation

DISCUSSION

As directed by the Multiple Use Concept, DNR provides recreation and public access opportunities across 2.1 million acres of forested state trust lands. Every year hikers, hunters, trail riders, campers and others who enjoy recreating outdoors make more than nine million visits to DNR-managed lands. Recreation on forested state trust lands is an important component of the quality of life in Washington State. It can and does occur in both a dispersed or concentrated way and, in some



cases, is supported by developed facilities, such as campgrounds, trailheads and trails. Consequently, there are substantial public expectations for access and recreation. In addition, population growth has and will continue to greatly increase the demand for these uses, as well as the incidence of public abuse and illegal activities. At the same time as this demand and level of activities have been increasing, funding to provide recreational opportunities has decreased.

The Multiple Use Concept states that DNR shall provide recreational opportunities where such uses are compatible with trust objectives. Therefore, public access and recreation must be compatible with trust objectives. Compatibility can be achieved by:

- Obtaining full market value compensation to the trust(s) for developed facilities;
- Ensuring that dispersed uses have minimal economic, ecological or social impacts; or
- Enhancing trust returns.

The compatibility of dispersed uses with trust objectives is a function of:

- The physical location of the use, including its intensity; and
- The availability of the users, and DNR staff and resources to manage the use.

In some cases, dispersed uses must be mitigated, redirected, limited or eliminated to ensure compatibility with trust objectives. In addition, collaboration between DNR, the public, user groups, other landowners, and other agencies and organizations is critical for providing safe public access and recreation opportunities on forested state trust lands and in meeting trust objectives.

POLICY ON PUBLIC ACCESS AND RECREATION

- **When managing public access and recreation use on forested state trust lands, the department will protect trust interests and seek to balance economic, ecological and social concerns by evaluating the following on a landscape or case-by-case basis:**
 - **The physical condition of the area in a landscape context, including neighboring landowners;**
 - **The characteristics of the users, including their degree of organization;**
 - **The reasonable availability of financial, staff and other resources for sustainable, long-term management; and**
 - **Cost and benefit to the trust(s).**
- **The department will work to control negative effects of designated or dispersed public access and use on forested state trust lands through collaboration with the public, user groups, other landowners, and other agencies and organizations. Negative effects include:**
 - **Threats to public, employee and department contractor safety;**
 - **Theft, vandalism, garbage dumping and other illegal activities; or**
 - **Damage to soils, water quality, plants, animals or other elements of the forest environment.**

-
- **Mitigation will include the closing, limiting or redirecting of public access when necessary.**
 - **In meeting the intent of the Multiple Use Concept, the department will only expend management funds for closing, limiting or redirecting public access in order to meet trust objectives or protect trust assets by controlling the impacts of incompatible dispersed public access and illegal activities.**

Visual Impacts

DISCUSSION

DNR activities can alter the appearance of forest stands and forested landscapes. The “visibility” of forestry operations is influenced by several factors, including the position and distance of the viewpoint from the activity; the topography of the land; the type of operation and the intensity and/or concentration of activities; what is revealed as a result of the activity; and how long the activity is in view. Population growth, especially in Western Washington, has significantly increased the visibility of DNR’s forest management activities.



Public acceptance of forestry activities is influenced by visual changes. Changes can be local in nature, such as views from a recreational trail or an individual residence; or regional, such as the I-90 Greenway or the Columbia River Scenic Gorge, or may include views from a state highway, or a background view to cities and towns. The observer’s perspective and personal values influence whether the reaction to the visual impact is positive, neutral or negative.

Visual impacts can be mitigated through a variety of strategies and mechanisms:

- Early outreach to the community to help determine the visual sensitivity to a proposed activity;
- Use of land management requirements – such as riparian and wetland buffers, protection of unstable slopes, and location and arrangement of wildlife trees – to create buffers or screen harvest activities;

- Use of different silvicultural strategies – timing, design and size of timber harvest units; the arrangement of harvest units over time and space across landscapes; compliance with the “green-up” requirements of the state forest practices rules; and/or
- Visual modeling tools to help identify visual impact mitigation strategies.

DNR’s forest land planning process may be used to identify areas of visual sensitivity and develop strategies to mitigate visual impacts.

POLICY ON VISUAL IMPACTS

- **The department will consider whether there are visual impacts of management activities and will design appropriate mitigation strategies based on whether impacts are of local or regional significance as follows:**
 - **For local visual impacts, the department will generally mitigate visual impacts through design and application of other land management requirements; and**
 - **For regional visual impacts, the department will develop additional strategies to mitigate impacts. The department will assess the cost/benefit to the trust(s) of prudent expenditures to mitigate visual impacts, in light of public concerns, and seek compensation where appropriate.**
- **When in the best interest of the trust(s), the department will consider transfer of significant scenic areas out of trust status, when compensation to the trust(s) is secured.**

The department will actively communicate and promote collaboration with Tribes and interested stakeholders to address culturally significant areas.

Cultural Resources

DISCUSSION

DNR recognizes the significance of cultural properties, current cultural uses, and historic and archaeological sites. DNR also acknowledges the importance of government-to-government communications and collaboration with the Tribes, as discussed in the *Commissioner’s Order on Tribal Relations* (see Appendix B), as well as with interested stakeholders.

Timber harvest and associated road building activities can have various impacts on cultural resources and their functions. For archaeological and historic sites, these activities can result in physical damage or destruction with a loss of cultural, scientific and historic values. For traditional cultural properties, these activities can result in physical damage or destruction, as well as a loss of privacy, isolation and perceived purity. On the other hand, forest management can change species composition that can favor resources utilized by the Tribes. For example, timber harvesting, like the traditional native American burning of forests, can encourage the growth of berry-producing species and provide forage for game animals. Cedar growth is also promoted on many trust lands by the removal of competing tree species. Forest roads can also enable Tribal elders to more easily access traditional use areas.

The Department of Archaeology and Historic Preservation maintains both Tribal and non-Tribal information on more than 20,000 archaeological sites and more

than 100,000 historic properties. In addition, many Tribes maintain an extensive listing of cultural resource properties within ceded lands and usual and accustomed areas.



POLICY ON CULTURAL RESOURCES

- **The department will identify and protect significant historic and archaeological sites, consistent with state and federal law.**
- **The department will actively communicate and promote collaboration with Tribes and interested stakeholders to address culturally significant areas.**
- **When in the best interest of the trust(s), the department will consider transfer of historic, archaeological and culturally significant areas out of trust status, when compensation to the trust(s) is secured.**

Local Economic Vitality

DISCUSSION

While meeting trust objectives, management of forested state trust lands also provides dollars and jobs for local economies.



Forested state trust lands near local communities supply jobs in the forest products industry, both in the woods and in local mills that process timber from these lands. Some niche industries are also dependent on minor forest products from forested state trust lands. In addition, forested state trust lands often attract recreation visitors who spend money in local communities. These products and uses contribute to local economic vitality, which can also be affected by location and timing of management activities and access to state lands.

POLICY ON LOCAL ECONOMIC VITALITY

- **In considering the relationship between local economic vitality and forest management activities, the department may take actions in support of local economic vitality when they are compatible with or directly support trust objectives.**

Implementation

The Implementation category contains policies related to carrying out the *Policy for Sustainable Forests*. These policies address subjects related to key elements that support the direction of the policies being put into practice on the ground:

- Forest Land Planning
- General Silvicultural Strategy
- Forest Roads
- Research
- External Relationships
- Implementation, Reporting and Modification of the Policy for Sustainable Forests

Forest Land Planning

DISCUSSION

Through forest land planning, DNR takes the direction (required outcomes) established by state and federal law and by Board of Natural Resources policy, and applies it to a specific geographic area, identifying specific local strategies and measurable outcomes.

Many strategic outcomes identified in law and policy are based on large landscapes such as the planning units identified in DNR's *Habitat Conservation Plan* (HCP). Planning at a large scale provides a more comprehensive examination of the effects of forest management strategies across multiple landscapes. However, some forest management strategies may focus on smaller geographic scales to address critical, localized issues. With better forest information and more powerful technology to analyze it than ever before, DNR can plan at any scale in sufficient detail and accuracy to address complex natural resource issues, including assessing the potential for significant cumulative impacts of DNR's activities on watershed systems and development of mitigation strategies as needed.

Forest land planning not only identifies forest management strategies and where and what activities will most likely produce the desired outcomes, it also supports adaptive management. Through feedback and communication opportunities, including reporting progress toward desired outcomes to the Board of Natural Resources and providing for stakeholder and public participation, the forest land planning process can help refine strategies and outcomes as appropriate.

Environmental review requirements of the State Environmental Policy Act provide a mechanism to not only identify the impacts of forest land planning, but to also bring that information to the Board of Natural Resources and the public.

POLICY ON FOREST LAND PLANNING

- **In implementing Board of Natural Resources policy, the department will develop forest land plans at geographic scales similar to DNR's *Habitat Conservation Plan* planning units.**

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- **The department may use different geographic scales to address special circumstances.**
 - **The department will utilize the requirements of the State Environmental Policy Act to communicate department objectives and outcomes; to consider local, regional and statewide interests and concerns; and to develop and analyze forest management strategies.**
 - **The department will prioritize and develop new forest land plans over time. The development of plans will depend on available resources and budget.**
 - **As plans are developed, the department will integrate previous planning work within new forest land plans as appropriate.**

The department will provide professional management of forested state trust lands through active management and stewardship...

General Silvicultural Strategy

DISCUSSION

DNR defines silviculture as the art and science of cultivating forests to achieve objectives. Innovative silvicultural treatments may be used to create, develop, enhance, or maintain forest biodiversity, health and revenue potential. All silvicultural strategies are applied within a context of specific objectives (stand-level or larger-area) to achieve ecological outcomes, long-term sustainable flow of forest products, services, and other values. DNR generally intervenes with the management of stands whose progress toward objectives is below potential. Site-specific silvicultural prescriptions include intensive activities, such as improved planting stock, site preparation, fertilization and thinning. Stands selected for regeneration harvests include, but are not limited to, those that are not likely to positively respond to partial harvest regimes.

Treatments such as biodiversity pathways can be used to create complex, multi-aged forest stand structures that sustain key forest stand elements, replicating vital ecological functions at the stand and landscape levels. By developing the stand structures that are typical of older forests, this approach can be used to meet the older-forest targets of DNR's *Habitat Conservation Plan* (HCP).

DNR intends to actively manage suitable structurally complex forests to achieve older-forest structures across 10-15 percent of each Western Washington HCP planning unit in 70-100 years. Older-forest structures that contribute to this target are represented by stands in the fully functional or niche diversification stage of stand development.

The landscape context of a structurally complex stand greatly influences its suitability to be managed to meet older-forest targets. The size of the stand, its proximity to old-growth or other structurally complex forest stands, or the scarcity of old-growth and other structurally complex stands are all factors in determining if a stand is suitable for contributing to older-forest targets. Assessment of the landscape conditions can identify the relative contribution that a structurally complex forest stand can make toward achieving those targets.

POLICY ON GENERAL SILVICULTURAL STRATEGY

- The department will provide professional management of forested state trust lands through active management and stewardship of the greatest possible portion of these lands.
- The department will carry out active management as an integral part of the department's fiduciary responsibilities to achieve, on a landscape basis, a combination of forest structures that, over time, provide for broad and balanced economic, ecological and social benefits.
- The department will use intensive and innovative silviculture to guide the desired progression of stand development to simultaneously produce trust revenue and create structural diversity across the landscape.
- The department will target 10-15 percent of each Western Washington *Habitat Conservation Plan* planning unit for "older" forests—based on structural characteristics—over time.
- Through landscape assessments, the department will identify suitable structurally complex forest stands to be managed to help meet older-forest targets. Once older-forest targets are met, structurally complex forest stands that are not needed to meet the targets may be considered for harvest activities. However, old growth is addressed in the Old-Growth Stands in Western Washington policy.



Forest Roads

DISCUSSION

DNR repairs and maintains about 14,000 miles of forest roads statewide (12,000 on forested state trust lands and 2,000 on other non-DNR lands). The road system is a trust asset that facilitates cost-effective management of other trust assets and increases their value.

DNR's road system also provides a variety of social benefits, including recreational access and access to private forestlands and residences. However, if not properly managed, roads have the potential to cause increased costs and risks by damaging the environment or providing opportunities for illegal activities on forested state trust lands. Design, location and abandonment of forest roads are carefully considered in regard to the impacts to the environment and forestland management needs. Public access and recreation can also be a consideration.

POLICY ON FOREST ROADS

- The department will develop and maintain forest roads to meet trust objectives and Board of Natural Resources policy, including protecting and enhancing the asset value.
- To minimize adverse environmental impacts, the department will rely on the requirements of DNR's *Habitat Conservation Plan*, state forest practices rules and the State Environmental Policy Act, and will minimize the extent of the road network, consistent with other Board of Natural Resources policy.

Research

DISCUSSION

DNR engages and participates in a broad range of scientific and economic research.

DNR employs scientists to meet research and management needs that involve forest ecology, silviculture, economics, hydrology, fisheries, wildlife biology and other related subjects. It is important that DNR and its scientific staff stay abreast of the latest scientific findings, methods and technology. Information gathered through research helps ensure that the best available science and technology are available to support DNR's land management programs and financial performance.

These research efforts also help DNR meet research commitments—the concept of adaptive management as a result of research and monitoring is integral to DNR's *Habitat Conservation Plan* (HCP) as well as the state *Forest Practices Habitat Conservation Plan* (FPHCP). Adaptive management is also a cornerstone to effectively and efficiently implementing the *Policy for Sustainable Forests*.

DNR's research efforts are conducted in a variety of ecological settings to ensure relevance and applicability to the diverse forest ecosystems of the state. The Olympic Experimental State Forest plays a key role in DNR's research efforts where it is the appropriate ecological setting. Research is also conducted in other areas of the state, such as in the Capitol State Forest near Olympia, where it provides the right setting and applicability to other forested state trust lands.



Participation in research cooperatives is critical in meeting DNR's research objectives in an effective and cost-efficient manner. This includes participating in a variety of research cooperatives with other agencies and organizations, such as with the state forest practices Cooperative Monitoring Evaluation and Research group, the University of Washington and the Washington State University. DNR also recognizes the importance and value of peer review.

DNR values agency transparency and openness, and recognizes the importance of providing information to the public and collaborating with stakeholders and other agencies...

POLICY ON RESEARCH

- **The department will endeavor to stay abreast of and use the best available science.**
- **The department will focus research on issues related to natural resource protection and conservation, and to sustained production of forest products and may include:**
 - **Applied research to evaluate silvicultural activities, test current practices and, where appropriate, initiate a process for change; and**
 - **Research and evaluation of new methods of forestry, silvicultural strategies and changes in technology.**

External Relationships

DISCUSSION

As the manager of 2.1 million acres of forested state trust lands, DNR is a neighbor to thousands of citizens, businesses and other forest landowners. DNR values agency transparency and openness, and recognizes the importance of providing information to the public and collaborating with stakeholders and other agencies to achieve trust objectives.

DNR participates in educational efforts, such as sharing information about the forested state trust lands, including the trust mandate and how DNR's management activities provide funding for construction of schools, universities, prisons, institutions and Capitol buildings. DNR is also well-positioned to offer and promote environmental education, because forested state trust lands can serve as both a laboratory and an outdoor classroom.

POLICY ON EXTERNAL RELATIONSHIPS

- **In carrying out its management activities, the department will actively communicate and promote collaboration with trust beneficiaries; Tribes; local, state and federal governments; stakeholders; and the public.**

Implementation, Reporting and Modification of the Policy for Sustainable Forests

DISCUSSION

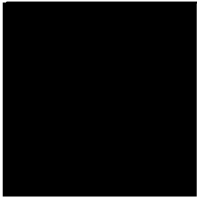
DNR has the responsibility to fully implement the *Policy for Sustainable Forests*. Keeping Board of Natural Resources policies current requires ongoing monitoring and periodic reporting on implementation. A program of monitoring and reporting allows the policies to then be reviewed and updated in response to changing circumstances; it also keeps the public informed.

The focus on a strong monitoring and adaptive management program for the *Policy for Sustainable Forests* should result in Board of Natural Resources policy remaining relevant and current. Therefore, there is no end date identified for the *Policy for Sustainable Forests*.



POLICY ON IMPLEMENTATION, REPORTING AND MODIFICATION OF THE POLICY FOR SUSTAINABLE FORESTS

- **The department will employ a structured program to monitor implementation of the policies in the *Policy for Sustainable Forests*, and will report annually to the Board of Natural Resources on implementation.**
- **As needed, the department will recommend changes in policy to the Board of Natural Resources due to changes in law, scientific knowledge, new information or other circumstances.**
- **At five-year intervals, the department will perform a substantive review of the *Policy for Sustainable Forests*.**
- **In reporting to the Board of Natural Resources and the public, the department will present clear and succinct information on the *Policy for Sustainable Forests*.**



Appendix A Board Resolution

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
BOARD OF NATURAL RESOURCES

RESOLUTION NO. 1208

A RESOLUTION by the Board of Natural Resources, Department of Natural Resources, State of Washington, approving and authorizing the policies in Attachment One.

BE IT RESOLVED BY THE BOARD OF NATURAL RESOURCES, DEPARTMENT OF NATURAL RESOURCES, STATE OF WASHINGTON, THAT:

SECTION 1. The policies in Attachment One were developed by the Board of Natural Resources (the Board) to guide the Department of Natural Resources' (the Department) management of forested state trust lands.

SECTION 2. RCW 43.30.215 authorizes the Board to establish policies concerning the management of forestlands within the Department's jurisdiction. The policies adopted under this Resolution will supersede the 1992 *Forest Resource Plan* policies and the policy PO10-002 Public Use on DNR-Managed Trust Lands. They will be published in a document entitled the *Policy for Sustainable Forests*. In addition to the policies in Attachment One, the *Policy for Sustainable Forests* will include two other policies adopted by the Board in September 2004 in Resolution No. 1134 titled "Definition of Sustainability for the Sustainable Harvest Calculation" and "Recalculation of the Sustainable Harvest Level". These two policies will remain in effect in their present form, and are not amended or readopted by this Resolution.

SECTION 3. The Department prepared a Final Environmental Impact Statement to assist the Board in its analysis of various policy choices, and any potentially significant environmental impacts. The Final EIS was published in June 2006, and the Board has reviewed and considered it in their decision to adopt the policies in Attachment One.

SECTION 4. These policies were developed during an extensive process that began in January 2004, and brought together both internal and external resources to develop recommendations for the Board. The department held a number of public workshops, hearings and meetings across the state to obtain input from a variety of constituencies, including the trust beneficiaries, Tribes, local and state governments, stakeholders, and the public. The Board and Department used the feedback from this outreach to craft the policy options studied

in the Draft EIS. The Draft EIS was used to create the Board's preferred policies included in the Final EIS and Attachment One.

SECTION 5. The Board finds these policies to be in the best interest of the trusts. Therefore, the Board approves and adopts the policies in Attachment One and directs the Department to publish the *Policy for Sustainable Forests* as described in Section 2.

SECTION 6. The Board recognizes the increasing complexity of managing forested state trust lands to meet economic, ecological and social objectives. Because these policies assist the Department in properly balancing its management responsibilities, the Board directs the Department to implement these new policies as soon as operationally feasible. Additionally, the Department shall report annually to the Board on implementation progress, consistent with the "Implementation, Reporting and Modification of the Policy for Sustainable Forests" policy in Attachment One, including any recommendations for suggested changes to the policies.

SECTION 7. In directing the Department to begin implementation of the policies set forth in Attachment One, the Board recognizes that funding and resource constraints may affect the timing of implementation. The Department should phase in implementation where such constraints exist and shall report to the Board on its progress. Therefore, these policies do not create any legally enforceable rights in any individual or group with respect to the performance, non-performance, or site-specific application of any policy within the Policy for Sustainable Forests, beyond those rights that already exist.

APPROVED AND ADOPTED by the Board of Natural Resources, Department of Natural Resources, State of Washington, this 11th day of July, 2006.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the Commissioner of Public Lands.

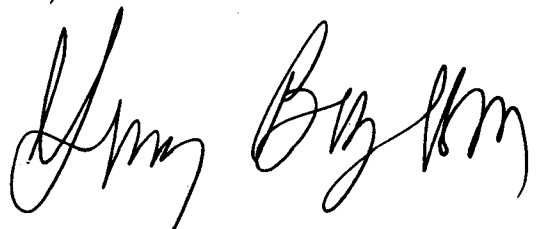
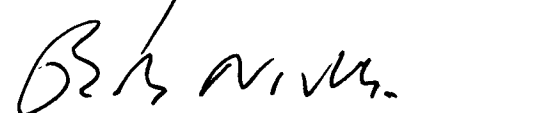


DOUG SUTHERLAND
Commissioner of Public Lands

Approved as to form this 10th
day of July, 2006.



Assistant Attorney General



Appendix B. Commissioner's Order on Tribal Relations

Inherent tribal sovereignty and tribal rights predate the formation of the United States and the State of Washington. In treaties signed during the 1850s, tribes of the Washington Territory ceded millions of acres of land to the federal government. In exchange for the ceded land, the tribes were to receive certain payments, services, and protections from the government. The tribes also reserved rights “to fish at all usual and accustomed places, and gather roots and berries and hunt on open and unclaimed land.”

Today, parts of those lands ceded by the tribes are lands that the Washington State Department of Natural Resources carefully manages for all the citizens of the state. The Department shares with the tribes the objectives of proper stewardship of public resources, and it acknowledges and respects the values, culture, and natural resources wisdom accumulated by tribal people over the millennia.

Similar to the tribal tradition of considering seven generations into the future when making important decisions, the Department's moral and legal obligation extends to current and future generations of beneficiaries of the state trust lands and submerged lands managed by the Department. The Department also bears public obligations in carrying out its regulatory, and fire control programs.

In 1989, the Governor of the State of Washington and twenty-four tribes around the state signed the Centennial Accord in order to promote better relationships through a commitment to communication and problem solving. In the spirit, recognition, and support of the goals of the Centennial Accord and its supplementary document, the 2000 Millennium Agreement, the Department of Natural Resources hereby reaffirms its commitment to collaborative tribal relationships.

Department Commitment

The Department of Natural Resources recognizes the sovereign status accorded the twenty-nine Federally Recognized Tribes in the State of Washington. The Department will actively work with tribes to encourage understanding and the cooperative pursuit of common objectives. Collaboration with tribal governments is emphasized through opportunities for cooperative management as well as through procedures for consultation on significant natural resource-related issues that affect tribes; for example, the Department's regions and divisions will consult with Tribes whenever appropriate for operational and program planning. The Department will encourage partnerships with Tribes by pursuing opportunities for information exchange and for joint grants, research and training.

1. Collaborative Problem Solving

Consistent with this government-to-government policy, the Department recognizes it is in the best interest of all parties to resolve issues and concerns outside of the courts whenever possible. Cooperation between the Department and tribal governments is emphasized. The Department in good faith will exhaust all reasonable means of discussions, negotiation, and mediation before pursuing judicial resolution. In these discussions and negotiations, the Department will seek outcomes mutually beneficial to the Tribes and the state.

2. Issue Resolution

It is the Department's policy to resolve mutual issues and concerns with the Tribes whenever possible at the organizational level that is closest to the issue and that has appropriate delegated authority. Technical personnel should strive to resolve technical issues within their delegated authority and refer policy disagreements to appropriate representatives within the governmental structure. The appropriate Region Manager will represent the first level of policy for the Department. The Commissioner of Public Lands and the respective tribal council will make ultimate policy decisions.

3. Periodic Meetings

The Department will meet periodically with all tribes. To facilitate issue awareness and improve governmental relations, the Department will provide information on its programs and organization to the tribes and invites the Tribes to submit information about tribal programs to the Department.

4. Continued Commitment

To ensure a consistent and positive relationship with each Federally Recognized Tribe of Washington, the Department will continue to support and fund its Tribal Relations Program as an important ongoing element in its commitment to respect the sovereign status of tribal governments.

/S/

Doug Sutherland
Commissioner of Public Lands

Dated this 26th day of April, 2004.



Appendix C. Glossary of Terms

Anaerobic

Occurring in the absence of free oxygen; living in the absence of molecular oxygen; growing in the absence of molecular oxygen (such as anaerobic bacteria); occurring in the absence of molecular oxygen (such as a biochemical reaction).

Botanically Diverse

Stand development stage in which multiple canopies of trees and communities of forest floor plants are evident. Large and small trees have a variety of diameters and heights. Decayed and fallen trees are lacking abundance.

Biodiversity

The relative degree of abundance of wildlife species, plant species, communities, habitats or habitat features in an area.

Biodiversity Pathways

An approach to achieving goals of biodiversity conservation popularized by Andrew Carey, a scientist with the United States Department of Agriculture Forest Service Pacific Northwest Research Station, and published in the Washington Forest Landscape Management Project (Carey et al., 1996). The approach applies traditional silvicultural techniques to specific forest management objectives of biodiversity and habitat conservation while also incorporating revenue generation.

Ecoregion

A relatively large area of land or water that contains a geographically distinct assemblage of natural communities with similar broad ecological patterns in vegetation, soils, geology, hydrology, landforms and natural disturbances, such as fire.

Forest Land Planning

DNR's process to develop strategies for its management units that link the broader forest management policies to local conditions and stand-level prescriptions. The process addresses timber harvests and other silvicultural treatments throughout these landscapes over time, enabling forest managers to implement the policies to achieve landscape environmental, economic, and social goals.

Fully Functional

The most structurally complex stand development stage in which the forest stand has culminated in its development of structural complexity and older forest characteristics — as expressed in DNR's *Final Environmental Impact Statement on Alternatives for Sustainable Forest Management of State Trust Lands in Western Washington and for Determining the Sustainable Harvest Level*.

Gene Pool

The totality of all alleles (groups of genes) and all individuals in a particular population.

Gene Pool Reserve

A stand of trees that has been deferred from harvest to conserve for the future native genetic material well-adapted to local conditions.

Habitat Conservation Plan Planning Unit

DNR's management units for forested state lands in the range of the northern spotted owl — as described in the state trust lands Habitat Conservation Plan. The managements units are grouped into three blocks for the purpose of implementing the HCP: the Olympic Experimental State Forest (“implementation block” and a planning unit); five other Western Washington planning units: South Coast, North Coast, Columbia, Straits, and South Puget; and three Eastern Washington planning units: Chelan, Yakima, and Klickitat.

Large Structurally Unique Trees

Large trees with structural characteristics important for wildlife.

Natural Area Preserves

A statewide system of preserves that protect the best remaining examples of native ecological communities and rare plant and animal habitats, established through the state Natural Area Preserves Act of 1972. The NAP network helps ensure that blueprints, or reference sites, of ecosystems and habitats are protected. NAPs include such ecosystems as large coastal high quality wetlands, salt marshes, sagebrush shrub-steppe and oak woodlands, mounded prairies, sphagnum bogs; and they range in size from 8 acres to 3,500 acres. DNR's Natural Areas Program manages about 31,000 acres in 51 NAPs statewide.

Natural Resources Conservation Areas

A statewide system of natural areas that protect outstanding examples of native ecosystems, habitat for endangered, threatened and sensitive plants and animals, and scenic landscapes. NRCAs also offer opportunities for low impact public use. They include coastal and high elevation forests, alpine lakes, nesting birds of prey, and unique plant communities. NRCAs also protect geologic, cultural, historic and archeological sites. DNR's Natural Areas Program manages 30 sites totaling about 88,000 acres in Washington.

Net Present Value

Today's estimate of net value of future income from an investment. It is a parameter used in financial analysis in which all costs / investments (negative values) and revenues (positive values) of a business — for example, a timber harvesting rotation investment period — are first discounted to the present and then summed.

Niche Diversification

A forest stand development stage in which structural complexity is evident and the stand has taken on characteristics of older forests.

Obligate

Relating to a species that is limited in its habitat to specific environmental conditions, or a parasite or pathogen to a specific host.

Old Growth Remnant

Individual trees or groves remaining after a timber harvest, wildfire or other removal of an old growth stand. (*See also* Large Structurally Unique Trees.)

Old Growth (Western Washington)

For state trust lands, defined as forest stands five acres or larger, in the most structurally complex stage of stand development that also is referred to as fully functional with a natural origin date prior to 1850, considered pre-European settlement in the Pacific Northwest.

Riparian Management Zone

An area along streams where specific measures are taken to protect the stream and its functions. The riparian management zone (RMZ) consists of the stream, the adjacent riparian buffer and, where appropriate, a wind buffer to protect the integrity of the managed riparian buffer — designed to maintain / restore processes that influence salmonid habitat quality, and contribute to the conservation of other aquatic and riparian obligate species. Buffers vary according to stream type, location of the flood plain, potential windthrow, and stream width.

Silviculture

The art and science of cultivating forests to achieve objectives — incorporating theory, planning, and practice related to all scales, from forest stands through landscape-wide areas.

Snag

A standing dead tree.

Special Ecological Features

Rare plant and animal species, habitats, and communities that may fill gaps in ecosystem diversity due to limited or no representation in the state's natural areas system. Special ecological features need special management consideration for their long-term survival.

Structurally Complex Stand

A forest in the 'botanically diverse' 'niche diversification' or 'fully functional' stage of stand development. Forests in these phases have varying sizes of trees, understory vegetation and lichen, downed wood and snags, etc.

Sustainable Harvest Level

The volume of timber scheduled for sale from Washington's state-owned trust lands during a planning decade, as calculated by the state Department of Natural Resources and approved by the Board of Natural Resources.

Sustained Yield

Management of Washington's state trust forests to provide harvesting on a continuing basis without major prolonged curtailment or cessation of harvest.

Traditional Cultural Properties

Specific geographic areas that are associated with cultural practices or beliefs of a living community that are rooted in that community's history and that are important in maintaining the continuing cultural identity of the community.

Trust Mandate

DNR's legal duty to produce long-term income for the trust beneficiaries. The trust mandate is grounded in four tenets: the prudent person doctrine, undivided loyalty to the trusts, intergenerational equity versus maximizing current income, and avoiding foreclosing future options. Although it is the original and basic foundation for DNR's management of trust lands, the trust mandate must be implemented with respect to other applicable laws and rules as well.

Water Resource Inventory Area

A watershed-based planning unit, defined by the Washington State Department of Ecology. WRIAs are determined and defined by drainages to common water bodies. WRIA may be thought of as a contiguous grouping of Watershed Administrative Units.

Watershed Administrative Unit

The basic hydrologic unit used for 'watershed analysis' under the state Forest Practices Act. The Forest Practices program within DNR—in cooperation with the Departments of Ecology, Fish and Wildlife, federally recognized Indian tribes, local government entities, forest land owners, and the public—defines and maps WAUs throughout the state. WAUs generally are between 10,000 to 50,000 acres in size and are discrete hydrologic units.

Wetland Management Zone

A specified area adjacent to Type A and B Wetlands, as defined in WAC 222-16-010. The Zone defines where specific measures are to be taken to protect the wetland functions.

Wetlands

Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to normally support a prevalence of vegetation typically adapted for life in saturated soil conditions such as swamps, bogs, fens and similar areas.

Windthrow

A tree or trees that have been felled, broken off or are leaning due to wind. The terms 'blowdown' or 'windfall' also are used.



Appendix D. Washington State Trust Lands Map

(See next page for map which also includes other major public lands.)



