

## Looking at state forests in the year 2200

When planning for forests 200 years into the future, DNR uses a comprehensive survey of the forestland it manages. On-the-ground data, aerial surveys and other data are placed into the Geographic Information System (GIS) which contains many layers of information.

DNR's sustainable harvest computer modeling system starts with the GIS data and then applies policy guidelines and tree growth models. As many as 40 rules or constraints are included, such as the age of trees at harvest, the number of trees left per acre, and protection for streams and unstable slopes.

To ensure that DNR's stewardship of the forest landscape is sustainable, the model simulates on-the-ground conditions spanning 200 years, given a variety of policy decisions.

As many as 40 data layers are used in the model, including:

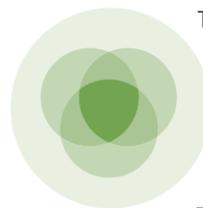
- age and types of trees in 30,000 to 40,000 different forest stand inventory units
- owl or murrelet habitat, unstable slopes
- management roads
- rivers, streams, wetlands and buffers
- basic landscape and topography

The Board of Natural Resources sets major policies for managing state trust lands and uses modeling results, public input and other information to decide the sustainable harvest level for the next decade.

Sustainable harvest calculation scenarios are on DNR's website: <http://www.wa.gov/dnr>. For information, call DNR at 360-902-1000.

## Sustainable harvest model: a tool to analyze options

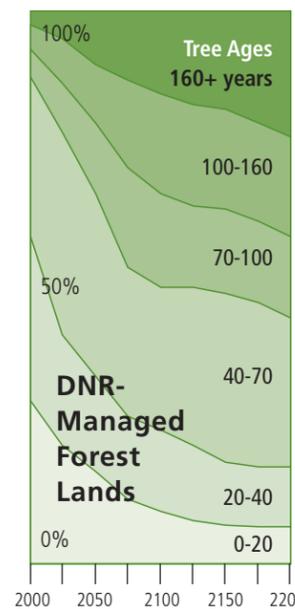
**How much timber can be harvested each year from state trust lands and be fair to both present and future beneficiaries, support healthy ecosystems, and offer diverse recreation opportunities and other benefits? In other words, what is the "sustainable harvest level?"**



The sustainable harvest level is the amount that can be harvested on average during a decade.

To make sure that timber harvests can continue into the future with fairness to all generations of trust beneficiaries, DNR carefully plans across the landscape to ensure that about the same amount of trees will be available for harvest each year.

The sustainable harvest calculation covers a 200-year period, and establishes the level for the first decade. There is flexibility for changing conditions on an annual basis, as long as the total 10-year harvest level is met. The level is recalculated every 10 years. DNR may, however, recalculate more often to accommodate new legal, economic, and environmental considerations, such as occurred when the



▲ Within 200 years, the HCP's wider stream buffers, more habitat trees and wildlife corridors will increase "old growth" forest by almost 8 times across the DNR-managed landscape.

1997 Habitat Conservation Plan was adopted.

DNR and the Board of Natural Resources use a landscape-based computer model to examine options and trade-offs in developing trust land policies. Although the harvest model is complex, it is extremely simple compared to the 2.1 million acres of actual trust forestlands.

The harvest model and the HCP provide some of the critical information for

crafting a sustainable balance of economic, environmental and social goals. The goals and policies are put into practice every day in state forests. Information from monitoring and from improved science and technology will be added to the model to help the Board and DNR adapt policies and practices to realize the vision for sustainable working forests.

◀ Correction Camp inmate plants tree seedlings. DNR typically replants trust land forests within one year after a timber harvest.



More than 200 years ago, the federal government had the foresight to grant trust lands to new states to forever support education and other public services. Today, DNR is looking 200 years into the future to find the best ways to manage the state's trust forest landscapes.



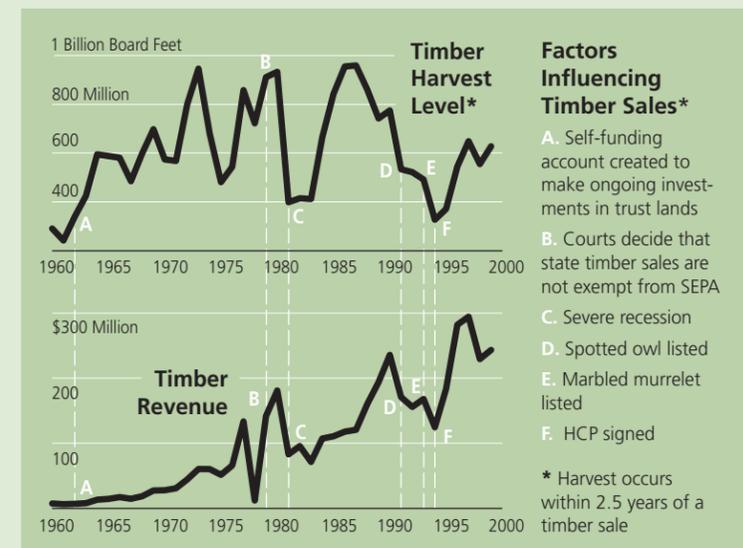
The Washington Department of Natural Resources (DNR) is seeking a sustainable blend of trust revenue, healthy ecosystems, and other benefits for the people of Washington.

It can be difficult to balance the different needs of a growing population. But by looking across time and landscapes, DNR is finding ways to provide all these benefits, today and for generations to come.

The concept of sustainability is gaining attention — "sustainable communities" and "sustainable agriculture" are now commonly heard terms. Sustainability means managing natural resources to meet the needs of the current generation without compromising the ability of future generations to meet their needs.

Sustainability is not new to DNR. For nearly half a century, DNR periodically has completed studies to determine a 10-year "sustainable timber harvest level." With changing regulations and social priorities, and with fish and wildlife species listed as threatened or endangered, this calculation has become progressively more complicated. Today, DNR is using a computer model that includes dozens of factors to analyze different options and trade-offs, and to identify how to best provide working landscapes, healthy ecosystems, and other benefits for all the people of Washington.

**Market conditions, environmental protections, social and other factors influence sales and revenue from state trust lands.**



Washington's Department of Natural Resources manages 2.1 million acres of forested trust land to meet three important goals: working landscapes, healthy ecosystems, and other benefits for all the people of Washington. These goals are inter-related, and where they overlap represents where policies and decisions meet the needs of all three.



|| The more that we at DNR are able to integrate economic, environmental and social goals, the more opportunities we have to fulfill obligations and the public's expectations. ||

*Doug Sutherland*  
 Doug Sutherland  
 Commissioner of Public Lands

## Working landscapes

Most of the 2.1 million acres of forest lands that DNR manages were granted to Washington at statehood by the federal government in 1889. The lands were used to create trusts to support state institutions, including public schools, universities, prisons and hospitals.

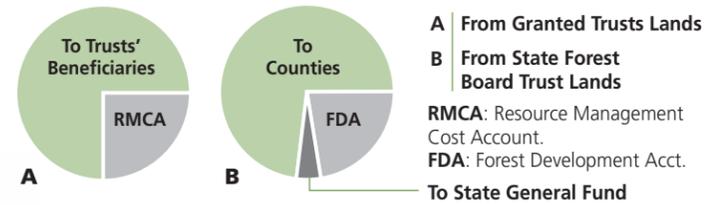
This includes some cutover and abandoned forests — Forest Board trust lands — acquired in the early 1930s.



These forests are relied on to generate revenue for specific beneficiaries, mostly through timber sales.

DNR is entrusted to care for state trust lands for current and future generations. These lands provide about one-third of

## TRUST LANDS REVENUE DISTRIBUTION



school construction funding, with the largest portion going to school districts with the greatest need. In addition, 21 counties and their taxing districts, such as school bonds, libraries and fire districts, receive Forest Board trust land revenue.

To equitably provide for all generations, DNR is working on a sustainable harvest calculation for the forested trust lands, planning for the next decade and the next 200 years. DNR is mindful that the trust obligation is forever.



## Healthy ecosystems

The complex interactions of plants, animals, water and soil make up an ecosystem. An ecosystem's health is dependent on the richness and diversity of these components.

The 2.1 million acres of DNR-managed state trust land forests across the state reflect a wide variety of ecosystems. Nearly 500 species of reptiles, mammals, birds and amphibians rely on the different habitats these forests offer.

In managing trust land forests, DNR must maintain not only the health and integrity of natural ecosystems but also the health and integrity of trust assets and other public resources, such as clean air and water.

In 1997, to comply with the Endangered Species Act, DNR adopted a Habitat Conservation Plan (HCP) spanning 70 to 100 years and encompassing 1.6 million acres of forests. Under the HCP, trust land

forests are managed to more accurately reflect a wide variety of ecosystems across the landscape — a mosaic of forest-

lands with trees of varying species and ages — that countless wildlife need to survive. The HCP helps assure that DNR can reliably harvest timber, provide long-term income for the trusts, and maintain healthy ecosystems.



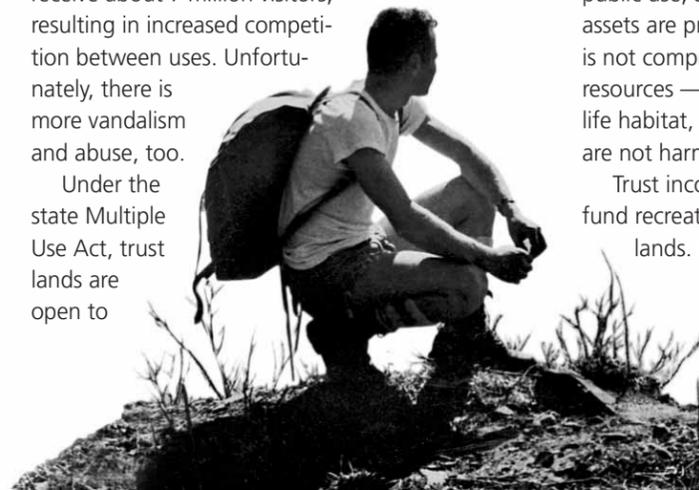
## Other benefits for the people of Washington

Many trust land forests are at lower elevations and near rapidly growing urban areas. These forests are wonderful resources for bird watching, education, research, hiking, fishing, hunting, camping and trail riding. Some state forests are part of viewscapes visible from highways, such as along the I-90 corridor.

As the state's population grows and fewer private lands are open to the public, more people rely on state forests as a place to go. Each year, trust land forests

receive about 7 million visitors, resulting in increased competition between uses. Unfortunately, there is more vandalism and abuse, too.

Under the state Multiple Use Act, trust lands are open to



public use, as long as trust assets are protected, public safety is not compromised, and public resources — such as fish and wildlife habitat, water and air quality — are not harmed.

Trust income does not directly fund recreation on DNR-managed lands. However, forest roads and management activities allow

access to diverse forests for hunting, berry and mushroom picking, as well as biking and horse riding.

A small amount of revenue does support law enforcement and volunteer coordination to protect trust lands from damage. DNR relies on volunteers to help maintain trails and campgrounds and restore native habitat.

