

Appendix C. Arrearage Report

Note: This report describes the information presented to the Arrearage Subcommittee formed by the Board of Natural Resources and the recommendations made by the subcommittee.

Arrearage: 2005-2014

Report to the Board of Natural Resources

and

Proposed Management Approach

Washington Department of Natural Resources
2015

*minor updates in 2016

Executive Summary

The subcommittee work referenced in this document culminated at the August 2015 Board of Natural Resources (Board) meeting. The Board concluded that an arrearage exists, and they recommended that staff analyze four different approaches within the context of the Environment Impact Statement (EIS) and financial analysis as required by law. They include;

- Harvest 702 million board feet (MMBF) proportionally from the sustainable harvest units with deficits over 5 years.
- Harvest 462 MMBF proportionally from the sustainable harvest units with deficits over 10 years.
- Harvest 462 MMBF proportionally from sustainable harvest units with deficits in 1 year, and then harvest the remaining sustainable harvest level volume for the decade over the next 9 years.
- Set harvest levels without specifying for harvest of either arrearage quantity.

Purpose

Background

The fiscal year (FY) 2005 through 2014 planning decade for the sustainable harvest calculation concluded on June 31, 2014. By Washington State legislative statute (Revised Code of Washington (RCW) 79.10.300 through 340), the Washington Department of Natural Resources (department), with the Board of Natural Resources (Board), must determine if a timber harvest arrearage exists, and if so, what actions should be taken. (Refer to Laws and policy, below, for more information on laws in the RCW and department policies regarding arrearage and the sustainable harvest calculation). This document is intended to describe the work of a subcommittee to the Board of Natural Resources in their exploration of the subject of arrearage (history and causes) and provide the recommendations made to the full Board for addressing arrearage in the sustainable harvest calculation draft EIS alternatives to fulfill their legislative and trust responsibilities.

Subcommittee

After several discussions in 2014, the Board determined that an arrearage from the previous planning decade existed. In March 2015, the Board formed a subcommittee (consistent with the Open Public Meetings Act [RCW 42.30]) to understand this arrearage and to develop recommendations for addressing it for consideration by the full Board. The subcommittee consisted of Board member Jim McEntire (Clallam County Commissioner), Tom Deluca (Director, University of Washington School of Environment and Forest Sciences), and department staff. In April 2015, the subcommittee began its work with the purpose of critiquing and reviewing the arrearage intent as established in the RCW and department policy and identifying areas of improvement and opportunities for the future. The objective was to draft and present a final report and policy recommendations for consideration by the Board.

In their meetings, the subcommittee discussed a wide range of topics related to arrearage including its definition, history, relevant existing regulatory and policy framework, and an examination of causes for the FY 2005-2014 arrearage. They also discussed different quantifications of that arrearage as well as the consequences for harvesting arrearage in different time periods. The committee's work culminated with a set of recommendations made to the Board of Natural Resources for incorporating arrearage into the sustainable harvest calculation alternatives for the draft EIS.

Definition

Arrearage is a term typically associated with finance and used in reference to overdue debts, referring to the amount owed after one or more payments are missed. In context of the sustainable harvest calculation arrearage is defined in practice as the difference between the sustainable harvest level and the amount actually harvested, within a planning decade. This may be thought of as the difference between what the department planned to provide and what it actually provided. This formula has been agreed upon and used by the department for the fulfillment of legal obligations since the creation of the law that defined it. This is despite the different, clearly erroneous, definition that the law provided.

RCW 79.10.300 provides the definition of arrearage as:

“Arrearage’ means the summation of the annual sustainable harvest timber volume since July 1, 1979, less the sum of state timber sales contract default volume and the state timber sales volume deficit since July 1, 1979.”

If applied as written, this definition would equate to a value that is unreasonable and that fails to achieve legislative intent. In fact, by this formula the more volume sold, the higher the arrearage would become. Because of this, the traditional definition of arrearage has always been used.

Why is arrearage important?

Arrearage constitutes timber volume that was expected to be sold but was not. That shortage may result in lower than expected revenue for the trust beneficiaries and for department management accounts, depending on market conditions and department costs. The trust beneficiaries depend, to varying degrees, on this timber revenue. Reduced returns may impact the trust beneficiaries’ ability to meet their needs. It also affects the department management accounts and the department’s ability to manage lands for current and future revenue generation.

Since the department has a responsibility to generate revenue and other benefits for the trusts, it has an obligation to consider how to best handle unsold timber. Consideration of the short- and long-term effects on revenue generation and the environment of the harvest of arrearage volume is part of its obligation.

Legislative history

The arrearage statutes (RCW 79.10.330 – 340) resulted from the economic downturn of the late 1970s and early 1980s. The department’s primary focus for the timber harvest program was the harvest of the high-value old-growth forests that existed at that time. Because of the downturn, many of the department’s purchasers were unable to meet the terms of their contracts and hence defaulted on their sales. The term “defaults” is used to refer to such circumstances. The legislature then made several policy decisions that temporarily created economic relief for the timber purchasers by canceling their obligations under their contracts. As a result, in 1984, counties and other beneficiaries with state trust lands, in particular Skamania County, challenged the department for dereliction of its trust management duties and the implementation of the legislative direction (*County of Skamania v. State of Washington*, 102 W.n.2d, 685 P.2d 576 [1984]). This challenge became the leading Washington State legal case that applied trust principles to the federally granted lands (State Lands) and State Forest Lands.

At the beginning of the FY 1984 – 1993 planning decade, the department had over 1 billion board feet of timber in arrears. Because “arrearage” had not yet been defined in statute, it is believed that a common definition of arrearage¹ was applied. Arrearage was defined in statute in 1987 (RCW 79.10.300).

Due to this massive arrearage, in 1985 and 1986, the Washington State Legislature commissioned a full report on the arrearage from the Board through House Concurrent Resolution Number 29. This report was prompted by House Bill 508, which was introduced in the legislature in 1985. This bill was

¹ arrears defined in the Meriam Webster Dictionary as “the state of being behind in the discharge of obligations”

introduced for two reasons: one, it was requested by small mill owners who depended upon public timber sales and desired the arrearage to be sold in their interests (many had defaulted on timber sale contracts years earlier); and two, timber sale revenues were low, school construction needs were not being fulfilled, and the Superintendent of Public Instruction had requested the sale of bonds to solve the shortfall. The state legislature saw an opportunity to relieve the latter problem by selling the arrearage and demanded additional research. A final report with recommendations was delivered to the state legislature by the Board in August 1986.

The report's findings were taken up in the 50th state legislative session (1987). The report and subsequent bill language was passed out of both the House and Senate subcommittees, with final reading and passage in March (House) and April (Senate). That report is the most recent statutory work completed on the state laws that govern arrearage (Appendix 1).

Policy

In 2006, the Board adopted the *Policy for Sustainable Forests*, which updated the department's policy framework and guidance for the sustainable management of forested state trust lands². In this document, the department discusses and emphasizes the legal framework under which the department and Board must operate. This legal framework includes the state constitution; federal laws, such as the federal Enabling Act of 1889 and the Endangered Species Act; state laws, including those governing the sustainable harvest calculation and arrearage; and the common law duties of a trustee, the trust mandate, and the prudent person doctrine.

The *Policy for Sustainable Forests* includes several policies that are not specific to arrearage but provides the department and Board discretion to set the sustainable harvest calculation (within the department's policy and legal framework). An example is the policy for recalculation of the sustainable harvest level:

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.

Management history

Written records of prior discussions on addressing arrearage have been difficult to locate. It appears that since adoption of the current law (RCW 79.10.330) in 1987, much of the written record for subsequent planning decades on how to address arrearage was either lost or retired with the staff involved. In addition, the public record for Board discussions about arrearage is limited for the FY 1994 through 2003 and FY 2005 – 2014 planning decades. It also appears that the current Board has

² These policies were first adopted in September 2004 as part of the resolution on the sustainable harvest level (Board Resolution 1134)

conducted the most in-depth arrearage discussion (as it pertains to its duty) since the final legislative report on arrearage was adopted in 1986 and moved to law in 1987.

If an arrearage exists, the statutory language (RCW 79.10.330) directs the department to:

conduct an analysis of the alternatives to determine the course of action regarding the arrearage which provides the greatest return to the trusts based upon economic conditions then existing and forecast, as well as impacts on the environment of harvesting the additional timber. The department shall offer for sale the arrearage in addition to the sustainable harvest level adopted by the board of natural resources for the next planning decade if the analysis determined doing so will provide the greatest return to the trusts.

Interestingly, some discussion on the conflict between arrearage as defined in RCW 79.10.300 (Definitions) and RCW 79.10.330 (Arrearages – End of Decade) was documented. Following is an excerpt from a white paper written in 1999 (condensed from original internal DNR white paper “Arrearage issues”, 1999):

“Arrearage” means the summation of the annual sustainable harvest timber volume since July 1, 1979 less the sum of the state timber sales contract default volume and the state timber sales volume deficient since July 1, 1979.

“Deficit” means the summation of the difference between the department’s annual planned sales program volume and the actual timber volume sold.

A problem is created if an arrearage is calculated as the statutory definition provides. The definition of and formula for calculation an “arrearage” is clearly wrong, does not match the legislative intent behind the statute, and creates an absurd result when applied.

To illustrate, and for ease of calculation, assume that the sustained yield harvest level is set at 500 mmbf [million board feet] per year for a planning decade, that only 400 mmbf is sold each year for a decade, and that defaults are zero. Using common sense approach, one can argue that the “arrearage” each year is 100 mmbf. This can be arrived at by taking the 500 mmbf harvest level less the 400 mmbf sold for an “arrearage” of 100 mmbf for the year. If this happened all ten years of the decade, then the decadal “summation” of total of this “arrearage” would be 1 billion board feet (100 mmbf 10 years).

However this is not what the statutes provide. Instead, if the statutory definition of the “arrearage” is applied we get an absurd answer. Using the statutory definitions, if the Department’s annual planned sales program volume was 500 mmbf a year and the actual timber sold is 400 mmbf a year, the statute says that the “deficit” is 100 mmbf each year or 1 billion board feet summed up over the decade. Under the statutory arrearage definition and formula the arrearage is the summation of the annual sustainable harvest timber volume (5 billion board feet), less the contract default volume (let’s continue to assume this is zero) and the timber sales volume deficit (1 billion board feet). 5 billion board feet less 1 billion board feet is 4 billion board feet. This means that under the statutes the arrearage calculated would be 4 billion board feet, not the logical 1 billion board feet.

The Department simply cannot do a calculation that will arrive at such an absurd result which would threaten the sustainability of the management of the Trusts forests. This is made clear under the rest of the language of the arrearage statute and the intent behind it. Simply put, even if there is a technical “arrearage,” it does not mean that there is any arrearage to sell.

This discussion illustrates that there has been a long-existing conflict between legislative intent and the definitions that were adopted into law in 1987. It is unclear what types of decisions the department has contemplated historically for updating the RCW regarding arrearage. What is clear is that since 1994, the department, through the Board, has taken consistent action on any arrearage at the end of a planning decade.

It was during the FY 1984 – 1993 planning decade that the Board of Natural Resources provided its report on arrearage to the legislature. In the report, the Board told the legislature that it decided to offer for an additional 103 mmbf per year in addition to the average sustainable harvest level. The RCW was later amended in the current reading of the RCW by the House Natural Resources Committee (same year). Interestingly, the state legislature at that time (as stated in the 1986 Timber Sale Arrearage report to the legislature) had many of the same dilemmas we face in 2015:

- 1.) Revenues were not sufficient to fund school needs.
- 2.) Increasing timber sales to meet an arrearage obligation would require additional staff, but management account fund balances and the current fee structure were not sufficient to fund those staff.
- 3.) Offering for sale an entire arrearage could result in environmental litigation.

Starting with the 1994 – 2003 planning decade and each decade thereafter, the Board has chosen to exercise its discretion in providing the greatest return to the trusts by incorporating the volume of timber in arrears into the sustainable harvest timber base. Hence, no additional harvest has ever been conducted that has been classified specifically as arrearage volume.

The term “greatest return to the trusts” gave the Board the responsibility to consider the full range of factors that affect the interests of the trusts in regards to harvesting the arrearage, including intergenerational equity, and to consider the “impacts on the environment” of such harvest. The legislative findings for RCW 79.10.300 reflect the legislative intent that the arrearage be sold “without adversely affecting the continued productivity of state-owned forests” (Laws of 1987, Ch. 159, p.1 [emphasis added]). Hence, the department and Board demonstrated their common law duty as trustee to not favor either present or future trust beneficiaries in regards to the arrearage.

Causes for arrearage

Key factors discussed in the committee included the causes for arrearage, which are identified by staff and are listed in the following table (Table . 1)

Table 1 Factors considered by the subcommittee as contributing to a rrearage.

Contributing factors	Discussion
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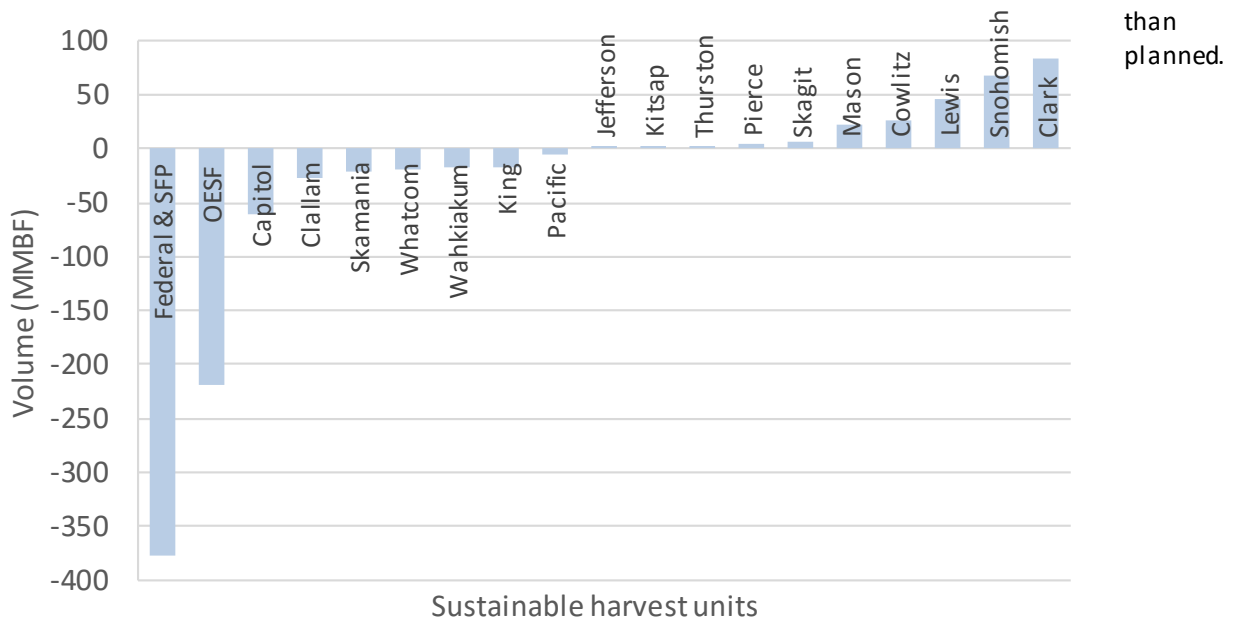
Land transactions	<ul style="list-style-type: none"> • Over time, land transactions resulted in disposal (sale or transfer) of mature forests and acquisition of younger forests to increase the size of the land base. • In the planning decade, the department disposed of 57,000 acres and acquired 69,000 acres, with a timber volume of 165 mmbf acquired and 800 mmbf disposed. The timber value was \$28 million and \$195 million, respectively. • 82% of the disposed volume occurred under the Trust Land Transfer (TLT) program. Under this program, the trust received full value of the disposed lands with no management fee deducted. • Of this amount, only 353 mmbf or \$90 million was planned for disposal under the TLT program; the remainder (302 mmbf or \$81 million) was additional.
Riparian area	<ul style="list-style-type: none"> • The total area in riparian and wetland management zones of state trust lands on the west side was 470,000 acres or 32% of the land base. • Projected harvest for the planning decade was 394 mmbf or 7% of total volume. • At the end of the planning decade, total riparian harvest was 39 mmbf or 10% of the projected harvest volume • The modeling assumption was not validated and the assumption was never adjusted during the planning decade.
Owls	<ul style="list-style-type: none"> • Approximately 504,000 acres of state trust lands were located inside <i>State Trust Lands Habitat Conservation Plan</i> (HCP) spotted owl management units (SOMUs). • In regards to harvest, the department under-performed through restoration thinning's in nesting, roosting, and foraging areas and Olympic Experimental State Forest (OESF) SOMUs, and over-performed in dispersal areas.
Marbled murrelet	<ul style="list-style-type: none"> • For the FY 2005 – 2015 sustainable harvest calculation, the department assumed that the long-term conservation strategy would be completed during the decade. • 148,000 acres were held in long- and short-term deferrals. • The lack of a long-term conservation strategy impacted deliverables.
Uncertainties	<ul style="list-style-type: none"> • After the December 2007 wind storm (the Great Coastal Gale), the department focused resources on salvaging 1,100 acres as quickly as possible to maximize value. This effort redirected staff from working on normal deliverables. • The economic downturn during the decade (the Great Recession) forced the department to focus on high-value sales close to the I-5 corridor. • The private sector curtailed harvest to a minimum, while the department continue harvesting to support local cash-strapped mills. • The private sector exported logs overseas while the department continued to provide timber volume to local mills.

Arrearage number and timing for harvesting

The subcommittee considered two methods for determining the arrearage amount. The first was based on a method proposed by the department in May 2014. At that time having to estimate the planned sale volume of FY 2014, they predicted delivery of 5,046 MMBF of the planned 5,500 MMBF sustainable harvest level in the decade. Following the definition of arrearage as simply as possible, that difference equated to an arrearage of 454 MMBF. Based on an updated analysis, the subcommittee updated those numbers first to 5,062 MMBF delivered (February 2015), resulting in an arrearage of 438 and then finally to 5,038 MMBF resulting in an arrearage of 462 delivered (August 2015). Much of this analysis was based on updated information from the department’s timber sales database.

The subcommittee also further explored a second method for calculating arrearage, which also had been introduced at the May 2014 Board meeting. Viewing arrearage at the sustainable harvest unit level, by counting only the arrearages from the nine sustainable harvest units (SHUs) in arrears and ignoring overages in others, a summation of 736 MMBF in arrearage could be calculated. The subcommittee took the updated staff analysis and using this method determined that the sum of the SHUs in arrears totaled 702 MMBF (Figure 1).

Figure 1. Difference between the planned harvest level for the FY 2005 to 2014 planning decade and the actual harvest in the planning decade by sustainable harvest unit. Negative values indicate units where the actual harvest was lower than planned.



The subcommittee considered information on the consequences for selling arrearage volumes over short and long terms and how sales of the additional volume would impact industry, as well as the department’s operational capacity and land base. Staff reported that the land base may not be able to sustainably support a rapid depletion of the inventory without long-term impacts to the trusts. In addition, without additional funding to support department operations, the department may need to curtail other land management activities to supply this volume. Later analysis showed impact of

arrearage volume harvest on the total volume harvested in a decade was small and that the biological capacity of the land base could support the sustainable harvest of arrearage volume.

Based on these discussions, the subcommittee elected to propose that the Board analyze both arrearage numbers as well as range of time periods within which to harvest it.

Recommendations

Based on the information collected and considered, the subcommittee proposed the following three options to the full Board for incorporation into the sustainable harvest calculation alternatives.

- Option 1: Incorporate arrearage totaling 462 MMBF into the starting forest inventory and schedule harvests over the planning horizon (i.e., 100 years).
- Option 2: Sell arrearage totaling 462 MMBF over the next 5 years based upon a proportional distribution amongst the sustainable harvest units in arrears.
- Option 3: Sell arrearage over the next 5 years based upon a proportional distribution amongst the sustainable harvest units in arrears, by incorporating ecological catchup thinning treatments.

Board decision

After thorough stakeholder feedback and careful deliberation, the Board decided on four final options to include into the EIS and financial analysis.

- Harvest of 702 MMBF proportionally from the sustainable harvest units with deficits over five years;
- Harvest of 462 MMBF proportionally from the sustainable harvest units with deficits, over 10 years;
- Harvest of 462 MMBF proportionally from sustainable harvest units with deficits in one year, and then harvest the remaining sustainable harvest level volume for the decade over the next nine years; and
- Set harvest levels without specifying for harvest of either arrearage quantity.

Laws and policies

RCW and Relevant Policies from 2006 *The Policy for Sustainable Forests*

RCW 79.10.300

Definitions.

Unless the context clearly requires otherwise the definitions in this section apply throughout RCW [79.10.310](#), [79.10.320](#), and [79.10.330](#).

(1) "Arrearage" means the summation of the annual sustainable harvest timber volume since July 1, 1979, less the sum of state timber sales contract default volume and the state timber sales volume deficit since July 1, 1979.

(2) "Default" means the volume of timber remaining when a contractor fails to meet the terms of the sales contract on the completion date of the contract or any extension thereof and timber returned to the state under *RCW [79.01.1335](#).

(3) "Deficit" means the summation of the difference between the department's annual planned sales program volume and the actual timber volume sold.

(4) "Planning decade" means the ten-year period covered in the forest land management plan adopted by the board.

(5) "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.

[2003 c 334 § 537; 1987 c 159 § 2. Formerly RCW [79.68.035](#).]

Notes:

***Reviser's note:** RCW [79.01.1335](#) expired December 31, 1984.

Intent -- 2003 c 334: See note following RCW [79.02.010](#).

Legislative findings -- 1987 c 159: "Adequately funding construction of the state's educational facilities represents one of the highest priority uses of state-owned lands. Many existing facilities need replacement and many additional facilities will be needed by the year 2000 to house students entering the educational system. The sale of timber from state-owned lands plays a key role in supporting the construction of school facilities. Currently and in the future, demands for school construction funds are expected to exceed available revenues.

The department of natural resources sells timber on a sustained yield basis. Since 1980, purchasers defaulted on sales contracts affecting over one billion one hundred million board feet of timber. Between 1981 and 1983, the department sold six hundred million board feet of timber less than the sustainable harvest level. As a consequence of the two actions, the department entered their 1984-1993 planning decade with a timber sale arrearage which could be sold without adversely affecting the continued productivity of the state-owned forests." [1987 c 159 § 1.]

RCW 79.10.310

"Sustained yield plans" defined.

"Sustained yield plans" as used in RCW [79.10.070](#), [79.44.003](#), and this chapter shall mean management of the forest to provide harvesting on a continuing basis without major prolonged curtailment or cessation of harvest.
[2003 c 334 § 536; 1971 ex.s. c 234 § 3. Formerly RCW [79.68.030](#).]

Notes:

Intent -- 2003 c 334: See note following RCW [79.02.010](#).

RCW 79.10.320

Sustainable harvest program.

The department 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 insofar as compatible with other statutory directives. 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.

[2003 c 334 § 538; 1987 c 159 § 3; 1971 ex.s. c 234 § 4. Formerly RCW [79.68.040](#).]

Notes:

Intent -- 2003 c 334: See note following RCW [79.02.010](#).

Legislative findings -- 1987 c 159: See note following RCW [79.10.300](#).

RCW 79.10.330

Arrearages — End of decade.

If an arrearage exists at the end of any planning decade, the department shall conduct an analysis of alternatives to determine the course of action regarding the arrearage which provides the greatest return to the trusts based upon economic conditions then existing and forecast, as well as impacts on the environment of harvesting the additional timber. The department shall offer for sale the arrearage in addition to the sustainable harvest level adopted by the board of natural resources for the next planning decade if the analysis determined doing so will provide the greatest return to the trusts.

[1987 c 159 § 4. Formerly RCW [79.68.045](#).] **Legislative findings -- 1987 c 159:** See note following RCW [79.10.300](#).

RCW 79.10.340

Sustainable harvest sale.

The board of natural resources shall offer for sale the sustainable harvest as identified in the 1984-1993 forest land management program, or as subsequently revised. In the event that decisions made by entities other than the department cause a decrease in the sustainable harvest the department shall offer additional timber sales from state-managed lands.

[1989 c 424 § 9. Formerly RCW [43.30.390](#).]

Notes:

Effective date -- 1989 c 424: See note following RCW [43.30.810](#).

Policy for Sustainable Forests

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 effectively eliminate 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 marketing efforts to national and international markets. By evaluating different marketing and sales strategies, DNR may find ways to improve the overall financial performance of the forested trust lands. Research related to economic and financial trends may identify partnerships or additional opportunities to improve financial performance through diversification.

Policy

- 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.

Policy for Sustainable Forests

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

- 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.

Policy for Sustainable Forests

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 Trust Lands,” and former Forest Board Purchase Lands will be called “State Forest Purchase Lands”.)

POLICY

- 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 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 Trust 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 Trust 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.

Policy for Sustainable Forests

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

- 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.

Policy for Sustainable Forests

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

POLICY

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

Policy for Sustainable Forests

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 recreationists 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

- 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.