Sustainable Harvest Level

A Presentation to the Board of Natural Resources

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Andrew Hayes
November 5, 2019
Today’s Agenda

Two Parts

Part 1 – The decision options

Part 2 – The environmental and financial analysis
Part 1 Outline

- Arrearage Options
- Riparian Options
- Marbled Murrelet Options
Trust Mandate

As manager of state trust lands, DNR has legal fiduciary responsibilities under the State Constitution to:

• Generate revenue and other benefits for each trust
  • Preserve the corpus of the trust
  • Exercise reasonable care and skill
• Act prudently to reduce the risk of loss for the trusts
  • Maintain undivided loyalty to beneficiaries
• Act impartially with respect to current and future beneficiaries
What is the Sustainable Harvest Level?

RCW 79.10.300

“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.”
Purpose:
Recalculate a sustainable harvest level

- RCW 79.10.320 – grow forest crops on sustained yield basis
- RCW 79.10.332 – if arrearage occurs, DNR shall conduct an analysis of alternatives
- Policy for Sustainable Forests – Recalculate the statewide sustainable harvest level every 10 years
Sustainable Harvest Decisions

- Arrearage Volume
- Riparian Harvest
- Marbled Murrelet Conservation Strategy
Arrearage
Volume planned — Volume sold

Arrearage
Arrearage in Sustainable Harvest Units

FY 2005-2014

Volume (MMBF)

Federal OESF Capitol Clallam Skamania Whatcom Skagit Mason Cowlitz Lewis Snohomish Clark

Difference

- 702 MMBF

+ 240 MMBF

- 462 MMBF
What happens if there is an arrearage?

RCW 79.10.330

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.
Arrearage

Causes

- Land transactions
- Riparian area management
- Owl management areas
- Marbled murrelet strategy
- Uncertainties
Arrearage

DEIS Arrearage Options

- 702 mmbf / 5 years
- 462 mmbf / 10 years
- 462 mmbf / 1 year
- No specified arrearage quantity
Arrearage Influence on Volume

702 MMBF
Provides approximately 493 MMBF annually for the first decade. The 10-decade average = 405 MMBF annually.

462 MMBF
Provides approximately 482 MMBF annually for the first decade. The 10 decade average = 405 MMBF annually

Rolled In
Provides approximately 473 MMBF annually for the first decade. The 10-decade average = 406 MMBF annually
Arrearage in Sustainable Harvest Units

FY 2005-2014

Volume (MMBF)

- Federal
- OESF
- Capitol
- Clallam
- Skamania
- Whatcom
- Wahkiakum
- King
- Pacific
- Kitsap
- Jefferson
- Thurston
- Pierce
- Skagit
- Mason
- Cowlitz
- Lewis
- Snohomish
- Clark

+240 MMBF

-702 MMBF

+ TLT & Reconveyance

-382 MMBF
### Arrearage in Sustainable Harvest Units

#### 2005-2014

<table>
<thead>
<tr>
<th>County</th>
<th>Volume (MMBF)</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Federal</td>
<td>-382 MMBF</td>
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<tr>
<td>OESF</td>
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<tr>
<td>Capitol</td>
<td>45</td>
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<tr>
<td>Clallam</td>
<td>200</td>
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<tr>
<td>Clallam</td>
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<td>Clallam</td>
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<tr>
<td>Skamania</td>
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<tr>
<td>Whatcom</td>
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<tr>
<td>Whatcom</td>
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<tr>
<td>Wahkiakum</td>
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<td>Kitsap</td>
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<td>+ 240 MMBF</td>
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<td>Jefferson</td>
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<td>Thurston</td>
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<td>Pierce</td>
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<td>Skagit</td>
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<td>Mason</td>
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<td>Cowlitz</td>
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<td>Lewis</td>
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<td>Snohomish</td>
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<td>Clark</td>
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<td>Takelma</td>
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<td>-702 MMBF</td>
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<tr>
<td>Skagit</td>
<td></td>
<td>+ TLT &amp; Reconveyance</td>
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<tr>
<td>Mason</td>
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<td>Cowlitz</td>
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<td>Lewis</td>
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<td>Clark</td>
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</tbody>
</table>

**Volume (MMBF) Range:**
- Federal: -382 MMBF
- OESF: 45
- Capitol: 200
- Clallam: 56
- Skamania: 25
- Whatcom: 19
- Wahkiakum: 0
- Kitsap: 17
- Jefferson: 16
- Thurston: 4
- Pierce: 0
- Skagit: 0
- Mason: 0
- Cowlitz: 0
- Lewis: 0
- Snohomish: 0
- Clark: 0

**Notes:**
- + 240 MMBF
- -702 MMBF
- + TLT & Reconveyance

**Volume (MMBF) Range:**
- Federal: -382 MMBF
- OESF: +240 MMBF
Develop and analyze a preferred alternative that addresses the arrearage volume of 462 MMBF and meets the following criteria:

- Address the trust and beneficiary revenue impacts caused from the shortfall of harvest in the sustainable harvest units with deficits
- Add the volume that was transacted through Trust Land Transfer or state forest lands reconveyance programs to the sold volume for each sustainable harvest unit for the previous planning decade
- The resulting total shortfall of volume from sustainable harvest units with deficits would be 382 MMBF.
Arrearage Options in the Sustainable Harvest Level
Final Environmental Impact Statement

A. 702 MMBF / 5 years
B. 462 MMBF / 10 years
C. 462 MMBF / 1 year
D. 382 MMBF / 10 years
E. No specified arrearage quantity

Preferred Alternative
Riparian
Riparian Conservation Objectives
Five Westside HCP Planning Units

1. To maintain or restore salmonid freshwater habitat
2. To contribute to the conservation of other aquatic and riparian obligate species
Riparian Forest Restoration Strategy

Implements 1997 HCP Riparian Conservation Strategy

Guides foresters in how and when to treat stands to achieve desired future conditions in riparian management zones
Riparian Thinning

In the 2004 planning decade, riparian and wetland management zones of state trust lands on the west side were then identified as encompassing 470,000 acres or 32% of the land base.

Projected harvest for the planning decade was 394 mmbf, or 7% of total volume. Only 39 mmbf (10% of projected harvest volume) was harvested.
Riparian Thinning

Causes

• Late implementation of the Riparian Forest Restoration Strategy procedures (2006)
• Financial crisis in 2007 - 2009
Riparian Influence on Volume
(five west-side planning units)

Up to 10% of riparian area
Riparian areas cover ~334,000 acres. This option would set riparian thinning area maximum at 33,400 acres for the decade.

Up to 1% of upland harvest
E.g. If DNR harvests 100,000 acres outside of riparian areas, this option would set the riparian thinning maximum at 1,000 acres for the decade.
Develop and analyze a preferred alternative that assumes no riparian harvest volume is included in the sustainable harvest level for planning decade.
<table>
<thead>
<tr>
<th>Riparian Options in the Sustainable Harvest Level</th>
<th>Final Environmental Impact Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1% upland harvest</strong></td>
<td>Thin riparian areas up to 1% of the decade’s thinned or harvested <strong>non-riparian area</strong> within the 5 west-side HCP planning units.</td>
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<tr>
<td><strong>10% riparian areas</strong></td>
<td>Thin riparian areas up to <strong>10% of the total riparian area</strong> in the 5 west-side HCP planning units.</td>
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<tr>
<td><strong>No specific level</strong></td>
<td>Thin riparian areas according to the Riparian Forest Restoration Strategy, <strong>do not include riparian volume when setting the sustainable harvest level</strong> – Volume harvested during implementation will count towards attaining Sustainable Harvest Level.</td>
</tr>
</tbody>
</table>
Marbled Murrelet
Develop, analyze, and submit for application a preferred alternative based on staff recommendations to:

• Minimize impacts to marbled murrelets
  • Conserve all existing occupied sites
  • Capture existing habitat in conservation areas
  • Meter habitat in strategic locations

• Offset impacts and address uncertainty
  • Buffer occupied sites
  • Conservation in strategically important locations
  • Increase interior forest

• Reduce disproportionate financial impacts
### Components by Alternative

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H** Amendment</th>
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<td>Occupied sites</td>
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<tr>
<td>Occupied site buffers</td>
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<td>High quality P-stage habitat ($\geq .47$)</td>
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</table>

*Includes old forest habitat, old forest buffers, and high quality adjusted habitat in OESF

**Includes a delay of the harvest of habitat during the first decade, otherwise known as “metering”
The Amendment

- Murrelet specific conservation
- Existing conservation
- Restrictions in conservation areas
- Metering
- Monitoring
- Reporting
### The Amendment – by the numbers

<table>
<thead>
<tr>
<th>Land Area</th>
<th>Acres</th>
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<tbody>
<tr>
<td>Occupied Sites <em>(388)</em></td>
<td>59,000</td>
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<tr>
<td>Occupied Site Buffers</td>
<td>33,000</td>
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<tr>
<td>Special Habitat Areas <em>(20)</em></td>
<td>47,000</td>
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<tr>
<td>Existing Conservation</td>
<td>567,000</td>
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<table>
<thead>
<tr>
<th>Habitat</th>
<th>Acres</th>
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<tbody>
<tr>
<td>Current (2019)</td>
<td>207,000</td>
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<tr>
<td>Habitat conserved</td>
<td>168,000</td>
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<tr>
<td>Habitat released</td>
<td>39,000</td>
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<tr>
<td>Total Habitat in 50 years</td>
<td>272,000</td>
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<td>Habitat Grown</td>
<td>104,000</td>
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<td>Net increase in Habitat</td>
<td>32%</td>
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### Thousand Acres of Long-term Forest Cover (LTFC)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<th>H</th>
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<tr>
<td>Existing conservation that may provide benefits to marbled murrelets</td>
<td>567</td>
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<tr>
<td>Marbled murrelet specific conservation</td>
<td>33</td>
<td>9</td>
<td>49</td>
<td>51</td>
<td>54</td>
<td>176</td>
<td>75</td>
<td>37</td>
</tr>
<tr>
<td>Total approximate acres</td>
<td>600</td>
<td>576</td>
<td>617*</td>
<td>618</td>
<td>621</td>
<td>743</td>
<td>642</td>
<td>604</td>
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* Totals may not add up due to rounding

HCP Amendment: 567, 37, 605*