Western Washington Sustainable Harvest Calculation

For forested State Trust Lands
A Report to the Board of Natural Resources

Kyle Blum and Angus Brodie
May 2016
Sustainable Harvest Calculation

This Month:

1. Overview of SHC Rules and Guidance
2. Policies that effect the Land Base
3. Financial Assumptions

subject to change
Sustainable Harvest Calculation

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RCW

PSF

HCP
Revised Code of Washington

79.10.310 – Sustained yield plan
79.10.320 – Sustainable harvest program
79.10.330 – Arrearages
79.10.340 – Sustainable harvest sale
79.10.120 – Multiple use
SHC Guidance

Definition of Sustainability
Sustainable Harvest Units
Harvest Flow
Optimize Economic value
Harvest Deferrals

Management Policy

Old Growth
Genetic Reserves
Cultural Resources
Visual Impacts
Public Access

Northern Spotted Owl
Riparian
Marbled Murrelets
Multiple Species Strategy
Olympic Experimental State Forest
This Month:

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Sustainable Harvest Units

20

1  Olympic Experimental State Forest (OESF)

1  Capitol State Forest

17  County beneficiaries of State Forest Trust lands

1  Federally granted trusts and State Forest Purchase lands in Western Washington
Land Base

Deferrals

Riparian / Wetlands

Northern Spotted Owl

Marbled Murrelet

Multiple Species

Natural Areas Preserves and Natural Resource Conservation Areas

Old Growth

Northern Spotted Owl – High Quality

Riparian areas
  • Desired Future Condition
  • Potential Unstable Slopes

Potentially Unstable Slopes

Other Policies

subject to change
Land Base

Deferrals

Riparian / Wetlands

Northern Spotted Owl

Marbled Murrelet

Multiple Species

Other Policies

Riparian Conservation Strategy

- Riparian Forest Restoration Strategy in the 5 Westside HCP units
- OESF

subject to change
Land Base

Deferrals

Riparian / Wetlands

Northern Spotted Owl

Marbled Murrelet

Multiple Species

Other Policies

Nesting, Roosting, Foraging

Dispersal

OESF

subject to change
Land Base

- Deferrals
- Riparian / Wetlands
- Northern Spotted Owl
- Marbled Murrelet
- Multiple Species
- Other Policies

Interim Strategy
Long Term Conservation Strategy

subject to change
Land Base

Deferrals

Riparian / Wetlands

Northern Spotted Owl

Marbled Murrelet

Multiple Species

Other Policies

- Bats
- California wolverine
- Common loon
- Gray wolf
- Harlequin duck
- Northern goshawk
- Oregon silverspot butterfly
- Pacific fisher
- Pileated woodpecker
- Vaux’s swift

- Balds
- Cliffs
- Caves
- Mineral Springs
- Oak woodlands
- Talus

subject to change
• Deferrals
• Riparian
• Uplands with specific objectives
• Uplands with general objectives
Total forested area of DNR-managed lands in western Washington = 1.46 million acres
Includes Natural Area Preserves (NAPs) and Natural Resource Conservation Areas (NRCAs)
Land Base

Deferrals

Riparian / Wetlands

Northern Spotted Owl

Marbled Murrelet

Multiple Species

Other Policies

Unstable Slopes

Cultural Resources

Special Features

Neighbors

Visual Impacts

subject to change
Sustainable Harvest Calculation

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Capitol Forest Example

Harvest Volume (MMBF/YR)

Decades

-25%
Harvest Level
+25%

subject to change
“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,....”

Policy on Definition of Sustainability for the Sustainable Harvest Calculation
Policy for Sustainable Forest, 2006, page 29
## Management Fees

<table>
<thead>
<tr>
<th>Legislative Ceiling</th>
<th>Board Decision</th>
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<tr>
<td>32%</td>
<td>31%</td>
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<tr>
<td>27%</td>
<td>25%</td>
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Note: Subject to change.
Management Fees

Management Fees By Fund

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Percentage of Revenue</th>
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<tr>
<td>2007</td>
<td>20%</td>
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<tr>
<td>2008</td>
<td>22%</td>
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<td>2009</td>
<td>24%</td>
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<td>2010</td>
<td>26%</td>
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<td>2011</td>
<td>28%</td>
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<tr>
<td>2012</td>
<td>30%</td>
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<tr>
<td>2013</td>
<td>32%</td>
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RMCA

FDA

subject to change
Management Fees

State Trust Land Expenditures ($ Millions)

Fiscal Year


$0 $20 $40 $60 $80

FDA RMCA Sustainable Harvest Budget Projection

subject to change
Decade 1 harvest under different annual budget scenarios

Harvest Volume (MMBF/YR)

- $1.35 M
- $2.2 M
- $3.5 M
Westside Forestry Expenditures
1 fiscal year from ‘13-15 biennium

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<thead>
<tr>
<th>Direct</th>
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<th>46%</th>
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<td>Timber Sales</td>
<td>$13,672,000</td>
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<td>Silviculture</td>
<td>$7,844,000</td>
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<table>
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<th>Indirect</th>
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<td>Informatics</td>
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<td>HCP</td>
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<td>Research &amp; Monitoring</td>
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<td>Seed Orchard/Seed Planting</td>
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<td>Transactions</td>
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<td>State Lands Infrastructure</td>
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<td>Title and Records Office</td>
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<td>Leasing &amp; Rights of Way</td>
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<table>
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<th>Indirect</th>
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<td>Facilities</td>
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<td>Region Admin Adjustments</td>
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<td>Information Technology</td>
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<td>Miscellaneous</td>
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<td>Human Resources</td>
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<td>Communications</td>
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subject to change
Summary of Financial Assumptions

Costs
- Direct costs
  - Timber sales ($/acre)
  - Silviculture ($/acre)
- Indirect costs

Prices
- Stumpage price by species

Other
- Discount rate
Upcoming Presentations

Marbled Murrelets
Updates to Analytical Framework
Impacts & Mitigation Outputs
NSO Habitat
Sensitivity Analysis
Dr. Peery’s Model

Sustainable Harvest Calculation
Alternatives for the Draft EIS