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

# Sustainable Forest Management of Western Washington State Trust Lands 

Summary of the<br>Volume and Revenue Modeled for the Planning Decade Fiscal Year 2005 through Fiscal Year 2014<br>for<br>6.36 Billion Board Feet and 5.97 Billion Board Feet

## Summary Purpose

This document is to provide the Board of Natural Resources (Board), Washington's Department of Natural Resources (Department) (DNR) and the public with final information regarding DNR's recommendation on implementing the Preferred Alternative in the Final Environmental Impact Statement (Alternatives for Sustainable Forest Management on State Trust Lands in Western Washington). Additional economic information was modeled so the Final EIS Preferred Alternative's decadal sustainable harvest of 6.36 billion board feet can be compared to the Department's recommended decadal sustainable harvest level of 5.97 billion board feet.

The Board has previously directed DNR to prepare a Preferred Alternative in the Final EIS. The Board believes the Preferred Alternative better serves the interests of the trusts than Alternatives 3 and 5, even though Alternatives 3 and 5 were estimated to produce a greater volume of timber harvest. In the case of Alternative 3, this was because of that alternative's much greater annual and interdecadal variation in timber volume, which could produce severe revenue flow problems for many beneficiaries. Providing a relatively more stable flow of income is in the best interests of each trust and also ensures that both present and future beneficiaries enjoy the benefits of the trust. In the case of Alternative 5, the Board's preference for the Final EIS Preferred Alternative was primarily based on the inclusion in the Final EIS Preferred Alternative of innovative silviculture ("biodiversity pathways") which is intended to simultaneously increase production of both complex habitat and trust income, thereby accelerating Department compliance with its contractual Habitat Conservation Plan (HCP) commitments for habitat creation. Meeting HCP habitat goals will more quickly increase management flexibility over the long term, which benefits the trusts.

The summary outlines the major economic outcomes anticipated in the Planning Decade and over 6 subsequent decades. The Planning Decade is fiscal year 2005 through fiscal year 2014. The Board of Natural Resources will set the Planning Decade Sustainable Forestry volume in Resolution 1134.

Given the policy direction underlying the sustainable harvest level, Washington’s Department of Natural Resources recommends setting an implementation level that is somewhat less than the Final EIS Preferred Alternative's 6.36 billion board feet. The transition from the current harvest level and complexity of operations to achieve the sustainable harvest level envisioned by the policies of the Preferred Alternative results in the DNR recommending the following:

## - Planning Decade Sustainable Harvest Level = 5.97 billion board feet

o This allows for transition, recruitment and training of necessary people to implement the Preferred Alternative. The DNR cannot immediately foresee harvesting any more than this, given these constraints.
o It is anticipated that the annual harvest levels will reach 636 million board feet near the middle of the decade.
o A level of 5.97 billion board feet over the FY 2005-2014 Planning Decade will smooth future interdecadal variability for several trusts and their beneficiaries, consistent with the Board's proposed policies.

## Caveats

Data and results presented in this report provide trust-specific economic information associated with recommended decadal harvest levels of both 5.97 billion board feet and 6.36 billion board feet. This information parallels the economic data discussed in the Final EIS. Resolution 1134 will accomplish two things. First, it will establish the specific policies, procedures, and tasks necessary to effectuate the decadal sustainable harvest. Second, it will set the actual Planning Decade sustainable forest management level. Collectively, these decisions will set performance standards and direction for forest management of 1.4 million acres of western Washington state trust lands.

The data contained within this Summary are based on the best reasonably available information; speculation is avoided. Necessarily, there are a number of assumptions that are built into the complex computer models that simulate the policy effects on 1.4 million acres of trust land in Western Washington. The growth and yield models are used with high quality forest inventory data to assess how various policies change forest inventory over time and space.

Washington's Department of Natural Resources believes this Summary to be accurate in the context within which it was created. It is based on current data at the time of publication. Changes may occur that increase or reduce many of the numbers in this Summary. For instance, our current understanding of timber market dynamics leads to a set of conclusions about the trends in timber prices. Such price forecasts may not precisely predict the actual changes experienced over the next several years. The differences due to market dynamics may or may not be significant enough to lead to financial performance different than that stated in this Summary. Further, the DNR can plan to sell timber with specified removal dates in the sales contract; however, the timing of actual removals is determined by a series of independent business decisions by DNR's timber purchasers.

Pursuant to Resolution 1110, the Board has directed the DNR to provide annual reports to the Board and to use a flexible framework within which the DNR may, year to year and stand by stand, use professional judgment, best available science and sound field forestry to effectively market timber so as to increase the value of each timber sale, allowing some year-to-year variability. Refinements and changes for implementation of the decadal sustainable harvest may occur based upon future Board of Natural Resources actions.

The dynamic nature of management requires periodic evaluations. The Board has directed the Department to make a series of annual reports regarding implementation of the new sustainable harvest level and associated policies, procedures, and tasks.

This Summary is organized in three sections.

- Section 1: Net Revenue to the beneficiaries
- Section 2: Net Present Value
- Section 3: Sustainable Forestry Volumes


## Section 1: $\quad$ Net Revenue to the Beneficiaries

Table 1. Average annual net revenue (\$ millions), volume (millions of board feet, MMBF) and harvested acres

|  | Decades |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| All Trusts, All Revenue <br> Sources | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Net Revenue: Implementation | 151 | 153 | 144 | 148 | 148 | 142 | 129 |
| Net Revenue: Preferred Alt | 160 | 140 | 133 | 140 | 151 | 145 | 144 |
| Westside Harvest (MMBF): <br> Implementation | 597 | 574 | 531 | 539 | 547 | 543 | 499 |
| Westside Harvest (MMBF): <br> Preferred Alt | 636 | 514 | 506 | 511 | 559 | 537 | 528 |
| Westside Area (1000s of <br> acres): Implementation | 20 | 18 | 16 | 18 | 18 | 20 | 19 |
| Westside Area (1000s of <br> acres): Preferred Alt | 21 | 16 | 15 | 18 | 17 | 17 | 18 |

Table Notes:

1. Revenues and Costs are based on 2003-04 values
2. These numbers are net returns to the beneficiaries. All management costs have been subtracted from gross revenues. Estimated management costs are about $30 \%$.
3. Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond 2067, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7.
4. The data is for all trusts.

Figure 1. Western Washington State Trust lands annual average Net Revenue and Harvest Volume for each of 7 decades


Figure Notes:

1. Revenues and Costs are based on 2003-04 values
2. These numbers are net returns to the beneficiaries. All management costs have been subtracted from gross revenues. Estimated management costs are about $30 \%$.
3. Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond 2067, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7.
4. The data is for all trusts.

Table 2. Estimated annual average net revenue (\$ millions/year) to the Trusts for decade 1

| Trust | Net <br> Revenue <br> Implementation | Net <br> Revenue <br> Preferred- Alternative |
| :--- | :---: | :---: |
| Agricultural School | 3.7 | 3.8 |
| Capitol Grant | 11.9 | 12.3 |
| CEP\&RI | 5.8 | 5.9 |
| Common School and Indemnity | 63.0 | 65.2 |
| Community College Forest Reserve | 0.14 | 0.19 |
| Escheat | 0.3 | 0.3 |
| Normal School | 2.2 | 2.3 |
| Scientific School | 7.5 | 7.6 |
| State Forest Purchase | 6.4 | 6.4 |
| State Forest Transfer: WWA Only | 48.0 | 53.7 |
| University - Original | 0.17 | 0.22 |
| University - Transferred | 1.7 | 2.3 |
| Total | 150.7 | 160.2 |

Table Notes:

1. CEP\&RI = Charitable/Educational/Penal \& Reformatory Institution.
2. Revenues and Costs are based on 2003-04 values
3. These numbers are net returns to the beneficiaries. All management costs have been subtracted from gross revenues. Estimated management costs are about $30 \%$.

Table 3. Trust annual average net revenue (\$ millions/year) over $\mathbf{7}$ decades

| Implementation | Decades |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Mean |
| Agricultural School | 3.7 | 3.9 | 3.8 | 3.3 | 2.7 | 3.5 | 2.7 | 3.4 |
| Capitol Grant | 11.9 | 9 | 7.9 | 8 | 6.9 | 10.8 | 7.7 | 8.9 |
| CEP\&RI. | 5.8 | 4.9 | 4.1 | 4.1 | 3.8 | 5.4 | 4.5 | 4.7 |
| Common School and Indemnity | 63 | 67.7 | 63.8 | 67.9 | 73.1 | 62.3 | 59.1 | 65.3 |
| Community College Forest Reserve | 0.1 | 0.7 | 0.7 | 0.7 | 0.1 | 0.2 | 0.7 | 0.5 |
| Escheat | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.3 | 0.1 | 0.3 |
| Normal School | 2.2 | 2.6 | 2.9 | 2.6 | 3.7 | 2.9 | 2.2 | 2.7 |
| Scientific School | 7.5 | 9.2 | 6.1 | 5.2 | 7.8 | 6.6 | 8 | 7.2 |
| State Forest Purchase | 6.4 | 6.1 | 4.5 | 4.3 | 4.6 | 5.7 | 4 | 5.1 |
| State Forest Transfer: wWA Only | 48 | 46 | 45.3 | 48.2 | 42.9 | 40.3 | 36.9 | 43.9 |
| University - Original | 0.2 | 0.2 | 0.4 | 0.3 | 0.5 | 0.3 | 0.2 | 0.3 |
| University - Transferred | 1.7 | 2.7 | 4.1 | 3.2 | 1.6 | 3.5 | 3 | 2.8 |
| WWA (total) | 150.8 | 153.3 | 143.9 | 148.3 | 148.2 | 141.8 | 129.1 | 145.1 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | $D e c a d e s$ |  |  |  |  |
| Preferred Alternative |  |  |  |  |  |  |  | 7 |

Table Notes:

1. Revenues and Costs are based on 2003-04 values
2. These numbers are net returns to the beneficiaries. All management costs have been subtracted from gross revenues. Estimated management costs are about $30 \%$.
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4. CEP\&RI = Charitable/Educational/Penal \& Reformatory Institution.

Table 4. State Forest Transfer and State Forest Purchase estimated average annual net revenues (\$millions/year) from timber harvests

| Implementation County | Decades |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Clallam | 8.0 | 7.7 | 8.1 | 7.9 | 5.9 | 7.0 | 7.0 |
| Clark | 2.6 | 3.2 | 2.4 | 2.9 | 3.7 | 2.4 | 1.7 |
| Cowlitz | 1.0 | 1.0 | 1.4 | 1.3 | 1.3 | 1.0 | 0.7 |
| Grays Harbor | 2.5 | 2.2 | 1.7 | 1.8 | 1.1 | 2.8 | 0.8 |
| Jefferson | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 0.8 |
| King | 1.4 | 1.6 | 0.6 | 1.6 | 1.8 | 1.8 | 1.3 |
| Kitsap | 0.6 | 0.5 | 0.4 | 0.6 | 1.0 | 0.7 | 0.7 |
| Lewis | 4.3 | 4.6 | 4.9 | 6.9 | 3.5 | 3.4 | 2.1 |
| Mason | 0.7 | 1.4 | 1.2 | 1.4 | 0.9 | 1.5 | 1.6 |
| Pacific | 3.3 | 2.6 | 1.8 | 2.2 | 1.9 | 2.3 | 2.9 |
| Pierce | 1.2 | 0.9 | 1.2 | 1.0 | 0.8 | 0.8 | 0.5 |
| Skagit | 9.8 | 7.2 | 6.3 | 7.1 | 7.4 | 6.6 | 5.7 |
| Skamania | 3.2 | 2.8 | 2.7 | 2.5 | 2.8 | 2.6 | 3.3 |
| Snohomish | 5.7 | 6.4 | 7.4 | 6.3 | 6.1 | 5.2 | 4.6 |
| Thurston | 3.7 | 3.9 | 3.5 | 2.8 | 3.6 | 2.5 | 2.8 |
| Wahkiakum | 1.3 | 1.6 | 1.7 | 1.7 | 1.5 | 1.2 | 1.2 |
| Whatcom | 3.9 | 3.4 | 3.5 | 3.5 | 3.2 | 3.2 | 3.1 |
| Total | 54.4 | 52.1 | 49.8 | 52.5 | 47.6 | 46.0 | 40.9 |


| Preferred Alternative County | Decades |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Clallam | 9.0 | 5.8 | 6.9 | 7.3 | 5.6 | 7.4 | 9.0 |
| Clark | 2.7 | 3.7 | 1.8 | 3.5 | 2.9 | 2.4 | 1.6 |
| Cowlitz | 1.0 | 1.5 | 0.5 | 0.8 | 1.0 | 1.0 | 0.6 |
| Grays Harbor | 2.4 | 2.9 | 1.6 | 2.2 | 1.1 | 2.8 | 0.8 |
| Jefferson | 1.2 | 1.6 | 1.0 | 0.9 | 1.1 | 0.8 | 0.8 |
| King | 2.1 | 0.9 | 0.5 | 1.4 | 2.0 | 1.6 | 2.0 |
| Kitsap | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.7 | 0.4 |
| Lewis | 4.2 | 4.0 | 4.4 | 3.4 | 4.1 | 3.2 | 2.9 |
| Mason | 0.7 | 1.9 | 0.8 | 0.4 | 0.6 | 2.1 | 0.5 |
| Pacific | 3.4 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.9 |
| Pierce | 1.6 | 0.6 | 0.9 | 1.2 | 1.0 | 0.8 | 0.8 |
| Skagit | 12.3 | 3.9 | 6.9 | 8.4 | 8.3 | 7.9 | 7.0 |
| Skamania | 4.8 | 2.6 | 1.9 | 1.9 | 4.5 | 2.9 | 3.3 |
| Snohomish | 5.7 | 5.0 | 5.1 | 5.0 | 5.0 | 5.3 | 5.4 |
| Thurston | 3.7 | 4.1 | 3.0 | 3.2 | 3.5 | 2.8 | 2.7 |
| Wahkiakum | 1.3 | 1.1 | 1.1 | 0.9 | 1.2 | 1.1 | 1.0 |
| Whatcom | 3.3 | 2.8 | 2.9 | 2.6 | 2.8 | 3.1 | 3.1 |
| Total | 60.0 | 45.0 | 41.8 | 45.6 | 47.4 | 48.2 | 44.8 |

Table Notes:

1. Revenues and Costs are based on 2003-04 values
2. These numbers are net returns to the beneficiaries. All management costs have been subtracted from gross revenues. Estimated management costs are about $30 \%$.
3. Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond 2067, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7.

## Section 2: Net Present Value

Table 5. Trust performance over the life the HCP (64 years) expressed in Cumulative Net Present Value (NPV)

|  | IMPLEMENTATION <br> NPV in 64 years <br> (\$ millions) | PREFERRED <br> ALTERNAATVE <br> NPV in 64 years <br> (\$ millions) |
| :--- | ---: | ---: |
| Trust | 22 | 22 |
| Agricultural School | 58 | 59 |
| Capitol Grant | 31 | 30 |
| CEP\&RI. | 428 | 431 |
| Common School and Indemnity | 3 | 3 |
| Community College Forest Reserve | 2 | 2 |
| Escheat | 18 | 20 |
| Normal School | 47 | 49 |
| Scientific School | 32 | 34 |
| State Forest Purchase | 292 | 281 |
| State Forest Transfer | 2 | 2 |
| University - Original | 19 | 18 |
| University - Transferred | 954 | 950 |
| Total |  |  |

Table Notes:

1. CEP\&RI $=$ Charitable/Educational/Penal \& Reformatory Institution.
2. All trust revenues listed and departmental costs (excluding capital costs) included in the net present value calculation
3. Real Interest rate: $5 \%$
4. Revenues and Costs are based on 2003-04 values
5. These numbers are net returns to the beneficiaries. All management costs have been subtracted from gross revenues. Estimated management costs are about $30 \%$.
6. Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond 2067, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7.
7. Net Present Value in Million Dollars per Year, shown on an estimated cumulative basis

Section 3: Sustainable Forestry Volumes

Table 6. Trust annual average harvest volume (MMBF/year) by trust over 7 decades

|  | Decades |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Implementation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Agricultural School | 16 | 15 | 14 | 12 | 10 | 14 | 12 |
| Capitol Grant | 56 | 38 | 34 | 32 | 28 | 48 | 37 |
| CEP\&RI | 19 | 13 | 12 | 11 | 10 | 16 | 13 |
| Common School and Indemnity | 189 | 190 | 179 | 192 | 220 | 186 | 175 |
| Community College Forest Reserve | 1 | 3 | 3 | 3 | 1 | 1 | 3 |
| Escheat | 1 | 1 | 1 | 2 | 2 | 2 | 0 |
| Normal School | 9 | 10 | 12 | 11 | 16 | 12 | 10 |
| Scientific School | 32 | 32 | 21 | 18 | 29 | 27 | 32 |
| State Forest Board Purchase | 42 | 40 | 31 | 29 | 29 | 35 | 24 |
| State Forest Board Transfer | 222 | 217 | 201 | 212 | 194 | 183 | 174 |
| University - Original | 0 | 1 | 1 | 1 | 2 | 1 | 1 |
| University - Transferred | 9 | 14 | 21 | 18 | 9 | 17 | 16 |
| Total | 597 | 574 | 531 | 539 | 547 | 543 | 499 |


|  | Decades |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Preferred Alternative | 1 | 2 | 3 |  | 5 | 6 | 7 |
| Agricultural School | 17 | 15 | 13 | 13 | 10 | 14 | 10 |
| Capitol Grant | 58 | 36 | 34 | 31 | 31 | 42 | 39 |
| CEP\&RI | 19 | 13 | 11 | 11 | 11 | 15 | 12 |
| Common School and Indemnity | 197 | 173 | 180 | 184 | 225 | 183 | 185 |
| Community College Forest Reserve | 1 | 3 | 2 | 3 | 1 | 1 | 3 |
| Escheat | 1 | 1 | 1 | 2 | 2 | 1 | 1 |
| Normal School | 9 | 8 | 13 | 10 | 15 | 12 | 17 |
| Scientific School | 32 | 30 | 22 | 20 | 30 | 26 | 37 |
| State Forest Board Purchase | 42 | 45 | 27 | 34 | 31 | 34 | 28 |
| State Forest Board Transfer | 248 | 178 | 179 | 186 | 193 | 192 | 186 |
| University - Original | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| University - Transferred | 12 | 11 | 22 | 17 | 8 | 16 | 10 |
| Total | 636 | 514 | 506 | 511 | 559 | 537 | 528 |

Table Notes:

1. CEP\&RI = Charitable/Educational/Penal \& Reformatory Institution.

Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7.

Table 7. Western Washington harvest flow (MMBF/year) over seven decades by Sustainable Harvest Group

| 7.1 Implementation |  | Decades |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Federally Granted Trusts and State Board Purchase |  | 299 | 260 | 227 | 209 | 254 | 248 | 262 |
| Olympic Experimental State Forest |  | 64 | 78 | 90 | 108 | 87 | 105 | 65 |
| Capitol State Forest |  | 39 | 39 | 36 | 35 | 33 | 33 | 23 |
| State <br> Board Transfer | Clallam | 22 | 22 | 17 | 18 | 16 | 14 | 16 |
|  | Clark | 10 | 13 | 10 | 11 | 11 | 9 | 7 |
|  | Cowlitz | 5 | 5 | 6 | 5 | 5 | 4 | 3 |
|  | Grays Harbor | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Jefferson | 6 | 6 | 5 | 5 | 5 | 4 | 4 |
|  | King | 7 | 8 | 4 | 8 | 9 | 8 | 7 |
|  | Kitsap | 2 | 2 | 2 | 2 | 3 | 2 | 3 |
|  | Lewis | 18 | 20 | 21 | 25 | 15 | 13 | 8 |
|  | Mason | 5 | 7 | 6 | 7 | 5 | 7 | 7 |
|  | Pacific | 9 | 10 | 8 | 7 | 7 | 7 | 9 |
|  | Pierce | 4 | 4 | 5 | 3 | 3 | 3 | 3 |
|  | Skagit | 38 | 33 | 30 | 31 | 35 | 29 | 29 |
|  | Skamania | 15 | 15 | 13 | 11 | 10 | 12 | 13 |
|  | Snohomish | 26 | 29 | 27 | 28 | 27 | 23 | 21 |
|  | Thurston | 5 | 4 | 4 | 4 | 3 | 3 | 3 |
|  | Wahkiakum | 6 | 7 | 7 | 7 | 6 | 5 | 6 |
|  | Whatcom | 16 | 13 | 13 | 14 | 14 | 14 | 12 |
| Total in WWA |  | 597 | 574 | 531 | 539 | 547 | 543 | 499 |

Table Notes:

1. Shaded cells: not all sustainable harvest groups comply with the policy expectation of $+/ 25 \%$ inter-decadal variation but reflect the best fit possible, given the age-class distributions and other factors.
2. Yellow/lighter shading represents a decline of greater than $25 \%$, Orange/dark shading represents an increase greater than $25 \%$ from the previous decade. These numbers are shown as integers and as such are rounded to the nearest whole number. The percent calculations are based on actual numbers that have not been rounded.
3. Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond 2067, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7 .
4. Shaded cells: not all sustainable harvest groups comply with the policy expectation of $+/ 25 \%$ inter-decadal variation but reflect the best fit possible, given the age-class distributions and other factors.
5. Yellow/lighter shading represents a decline of greater than $25 \%$, Orange/dark shading represents an increase greater than $25 \%$ from the previous decade. These numbers are shown as integers and as such are rounded to the nearest whole number. The percent calculations are based on actual numbers that have not been rounded.
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| 7.2 Preferred Alternative |  | Decades |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Federally Granted Trusts and State Board Purchase |  | 307 | 245 | 214 | 211 | 261 | 244 | 265 |
| Olympic Experimental State Forest |  | 77 | 58 | 105 | 94 | 95 | 91 | 80 |
| Capitol State Forest |  | 37 | 48 | 31 | 45 | 30 | 33 | 30 |
| State Board <br> Transfer | Clallam | 20 | 19 | 16 | 17 | 14 | 16 | 15 |
|  | Clark | 10 | 14 | 7 | 13 | 8 | 9 | 6 |
|  | Cowlitz | 5 | 6 | 3 | 4 | 4 | 4 | 2 |
|  | Grays Harbor | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Jefferson | 6 | 7 | 5 | 5 | 5 | 4 | 4 |
|  | King | 10 | 5 | 3 | 7 | 10 | 8 | 10 |
|  | Kitsap | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|  | Lewis | 18 | 17 | 18 | 15 | 16 | 13 | 12 |
|  | Mason | 5 | 8 | 5 | 4 | 4 | 9 | 3 |
|  | Pacific | 10 | 8 | 8 | 7 | 7 | 7 | 9 |
|  | Pierce | 7 | 3 | 4 | 4 | 4 | 3 | 2 |
|  | Skagit | 49 | 18 | 33 | 34 | 36 | 36 | 32 |
|  | Skamania | 21 | 13 | 10 | 9 | 19 | 12 | 12 |
|  | Snohomish | 27 | 23 | 22 | 22 | 23 | 24 | 24 |
|  | Thurston | 5 | 3 | 4 | 3 | 3 | 4 | 3 |
|  | Wahkiakum | 6 | 5 | 5 | 5 | 5 | 4 | 5 |
|  | Whatcom | 14 | 11 | 11 | 11 | 13 | 13 | 13 |
|  | Total in WWA | 636 | 514 | 506 | 511 | 559 | 537 | 528 |

Table Notes:

1. Shaded cells: not all sustainable harvest groups comply with the policy expectation of $+/ 25 \%$ inter-decadal variation but reflect the best fit possible, given the age-class distributions and other factors.
2. Yellow/lighter shading represents a decline of greater than $25 \%$, Orange/dark shading represents an increase greater than $25 \%$ from the previous decade. These numbers are shown as integers and as such are rounded to the nearest whole number. The percent calculations are based on actual numbers that have not been rounded.
3. Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond 2067, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7.
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Table 8. Forest Board Transfer and Forest Board Purchase average annual harvest volumes (MMBF/year) over seven decades for all Sustainable Harvest Groups

| Implementation County | Decades |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Clallam | 42 | 38 | 35 | 36 | 28 | 35 | 36 |
| Clark | 12 | 14 | 11 | 13 | 16 | 9 | 7 |
| Cowlitz | 5 | 5 | 6 | 5 | 5 | 4 | 3 |
| Grays Harbor | 16 | 16 | 13 | 14 | 8 | 17 | 7 |
| Jefferson | 6 | 6 | 5 | 5 | 5 | 4 | 4 |
| King | 7 | 8 | 4 | 8 | 9 | 8 | 7 |
| Kitsap | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| Lewis | 20 | 21 | 23 | 27 | 16 | 15 | 10 |
| Mason | 5 | 7 | 6 | 7 | 5 | 7 | 7 |
| Pacific | 16 | 13 | 10 | 10 | 9 | 13 | 14 |
| Pierce | 7 | 6 | 7 | 5 | 5 | 4 | 3 |
| Skagit | 38 | 33 | 30 | 31 | 35 | 29 | 29 |
| Skamania | 20 | 17 | 13 | 12 | 13 | 13 | 16 |
| Snohomish | 27 | 29 | 27 | 29 | 27 | 23 | 21 |
| Thurston | 19 | 21 | 20 | 16 | 19 | 14 | 14 |
| Wahkiakum | 6 | 7 | 7 | 7 | 6 | 5 | 6 |
| Whatcom | 16 | 14 | 13 | 14 | 14 | 14 | 13 |
| WWA (total) | 264 | 257 | 232 | 241 | 223 | 218 | 199 |


| Preferred <br> Alternative <br> County | Decades |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clallam | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Clark | 46 | 30 | 35 | 34 | 27 | 35 | 41 |
| Cowlitz | 12 | 15 | 8 | 14 | 13 | 10 | 7 |
| Grays Harbor | 5 | 7 | 3 | 4 | 4 | 4 | 3 |
| Jefferson | 16 | 19 | 11 | 16 | 9 | 16 | 8 |
| King | 6 | 7 | 5 | 5 | 5 | 4 | 4 |
| Kitsap | 10 | 5 | 3 | 7 | 10 | 8 | 10 |
| Lewis | 2 | 2 | 2 | 2 | 2 | 3 | 2 |
| Mason | 20 | 18 | 20 | 17 | 18 | 15 | 12 |
| Pacific | 5 | 8 | 5 | 4 | 4 | 9 | 3 |
| Pierce | 17 | 12 | 11 | 10 | 10 | 12 | 13 |
| Skagit | 9 | 4 | 5 | 6 | 6 | 5 | 4 |
| Skamania | 49 | 18 | 33 | 34 | 36 | 36 | 32 |
| Snohomish | 26 | 16 | 10 | 10 | 21 | 14 | 15 |
| Thurston | 27 | 23 | 22 | 22 | 23 | 24 | 24 |
| Wahkiakum | 19 | 23 | 16 | 19 | 18 | 15 | 17 |
| Whatcom | 6 | 5 | 5 | 5 | 5 | 4 | 5 |
| WWA (total) | 15 | 12 | 12 | 11 | 13 | 14 | 14 |
| Table Notes: | 289 | 223 | 206 | 220 | 224 | 226 | 214 |

Table Notes:

1. Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond 2067, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7.
2. Values in Table 9 are different than those in Table 8 since Table 9 shows total harvest for these two trusts independent of Sustainable Harvest Groups.

Table 9. Average annual volume and average annual net revenues over seven decades for Forest Board Transfer and Forest Board Purchase for all Sustainable Harvest Groups

|  | Implementation |  | Preferred Alternative |  |
| :---: | :---: | :---: | :---: | :---: |
| County |  | Net Revenue <br> (Millions \$/Year) | Volume <br> (millions BF/year) | Net Revenue <br> (Millions \$/Year) |
| Clallam | 36 | 7.4 | 35 | 7.3 |
| Clark | 12 | 2.7 | 11 | 2.6 |
| Cowlitz | 5 | 1.1 | 4 | 0.9 |
| Grays Harbor | 13 | 1.8 | 14 | 2.0 |
| Jefferson | 5 | 1.0 | 5 | 1.0 |
| King | 7 | 1.4 | 8 | 1.5 |
| Kitsap | 2 | 0.6 | 2 | 0.5 |
| Lewis | 19 | 4.3 | 17 | 3.7 |
| Mason | 6 | 1.3 | 6 | 1.0 |
| Pacific | 12 | 2.4 | 12 | 2.4 |
| Pierce | 5 | 0.9 | 5 | 1.0 |
| Skagit | 32 | 7.2 | 34 | 7.8 |
| Skamania | 15 | 2.8 | 16 | 3.1 |
| Snohomish | 26 | 5.9 | 24 | 5.2 |
| Thurston | 17 | 3.2 | 18 | 3.3 |
| Wahkiakum | 6 | 1.5 | 5 | 1.1 |
| Whatcom | 14 | 3.4 | 13 | 3.0 |
| WWA total | 233 | 49.0 | 229 | 47.5 |

Table Notes:

[^0]
[^0]:    1. Revenues and Costs are based on 2003-04 values
    2. These numbers are net returns to the beneficiaries. All management costs have been subtracted from gross revenues. Estimated management costs are about $30 \%$.
    3. Decade 7 is represented by four years, rather than a full 10 years. The analyses are focused on the initial life of the Habitat Conservation Plan (2067). While summary analyses are run beyond 2067, the data contained within this report is based on the more detailed analyses run through 2067. The first four years of decade 7 are annualized and projected the remainder of decade 7.
    4. Real Interest rate: $5 \%$
