





# Marbled Murrelet Long-Term Conservation Strategy

## Sustainable Harvest Level

A presentation to the Board of Natural Resources

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# Today's Agenda

Review of Planning Decade Harvest Levels



Review of the Decisions

## 1. Marbled Murrelet Long-Term Conservation Strategy

- HCP Amendment



## 2. Setting the Sustainable Harvest Level

- a. Arrearage
- b. Riparian



# Marbled Murrelet



# Why do we need this decision now?

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Obligation in the 1997 Habitat Conservation Plan



Long-term certainty for DNR's timber harvest program



Significant contribution to marbled murrelets



# Board Direction on Marbled Murrelet

*(November 2017)*

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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**





# Options for Board Decision

Staff Recommendation
<b>HCP Amendment</b>

Strategy/Alternative	A	B	C	D	E	F	G
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Meets ESA Issuance Criteria	Permitted Interim Strategy	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	Permitted
Net Present Value <sup>1</sup> <i>(Billions of dollars)</i>	\$3.68	\$3.82	\$3.64	\$3.63	\$3.62	\$3.11	\$3.50	\$3.67 <sup>2</sup>
<i>Habitat created by final HCP decade (thousands of acres)<sup>3</sup></i>	68	55	73	67	75	107	84	66

1. Net Present Value (NPV): Alts. A through F assumes arrearage option (462) and riparian (1% of upland harvest) and Alts G and HCP Amendment assumes arrearage option (382) and no riparian harvest.
2. The Staff Recommended Alternative is the only alternative that strategically reduces financial impacts on unduly affected trusts and counties.
3. Based on data from MMLTCS FEIS Table 4.6.10. Numbers rounded.



# What is the Board's decision?



## Marbled Murrelet Long-Term Conservation Strategy

- Alternative A – *interim strategy*
- Alternative B – *occupied sites only*
- Alternative C – *emphasis areas and special habitat areas*
- Alternative D – *special habitat areas*
- Alternative E – *emphasis areas and special habitat areas*
- Alternative F – *marbled murrelet management areas*
- Alternative G – *combination of conservation area types*
- **Staff recommendation – HCP Amendment**





# Proposed Board Action:

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## Marbled Murrelet Long-Term Conservation Strategy

HCP Amendment

**Resolution #1559**

Sustainable Harvest Unit		Volume Sold FY 2015-2019 (MMBF)	Average Annual Sold Harvest FY 2015-2019 (MMBF)	Harvest Level Decision 2015-2024 (MMBF)	Remaining Harvest FY 2020-2024 (MMBF)	Average Annual Remaining Harvest 2020-2024 (MMBF)
Federally Granted &SFP		881	176	1,876	995	199
OESF		270	54	739	469	94
Capitol Forest		250	50	529	279	56
State Forest Transfer	Clallam	75	15	210	135	27
	Clark	65	13	48	0	0
	Cowlitz	19	4	23	4	1
	Grays Harbor	2	0.4	5	3	0.6
	Jefferson	25	5	65	40	8
	King	30	6	80	50	10
	Kitsap	15	3	12	0	0
	Lewis	114	23	191	77	15
	Mason	58	12	95	37	7
	Pacific	33	7	41	8	2
	Pierce	10	2	29	19	4
	Skagit	180	36	259	79	16
	Skamania	30	6	101	71	14
	Snohomish	127	25	203	76	15
	Thurston	25	5	23	0	0
Whatcom	45	9	59	14	3	
Wahkiakum	21	4	67	46	9	
<b>Total</b>		<b>2,274</b>	<b>455</b>	<b>4,654</b>	<b>2,403</b>	<b>481</b>

Totals may differ from sum of values due to rounding



# Modeled Sustainable Harvest Levels 2015-2024 & 2025-2034

Sustainable Harvest Unit		Harvest Level Decision 2015-2024 (MMBF)	Forecast Volume 2025-2034 (MMBF)
Federally Grants Trusts and SF Purchase		1,876	1,867
Olympic Experimental State Forest (OESF)		739	619
Capitol Forest		529	402
State Forest Transfer	Clallam	210	157
	Clark	48	55
	Cowlitz	23	21
	Grays Harbor	5	4
	Jefferson	65	55
	King	80	63
	Kitsap	12	14
	Lewis	191	162
	Mason	95	81
	Pacific	41	31
	Pierce	29	33
	Skagit	259	250
	Skamania	101	94
	Snohomish	203	172
	Thurston	23	20
Wahkiakum	59	36	
Whatcom	67	57	
<b>Grand Total</b>		<b>4,654</b>	<b>4,194</b>



Totals may differ from sum of values due to rounding



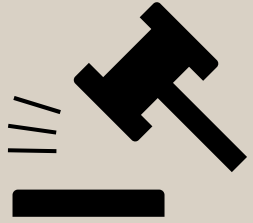
# Proposal for the Board

Establish a Sustainable Harvest Level  
for fiscal years **2015-2024**





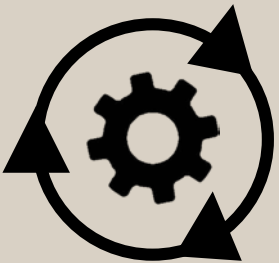
# Why do we need to make a decision for the Sustainable Harvest Level?



- Statute



- Policy



- Implementation



# Arrearage



# — 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.



# Board Direction on Arrearage

*(November 2017)*

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**.
- Board requested policy to capture this approach for future decades





# Arrearage Influence on Volume



## 702 MMBF

Provides approximately 20 MMBF annually over Rolled In option in the first decade

## 462 MMBF

Provides approximately 9 MMBF annually over the Rolled In option in the first decade

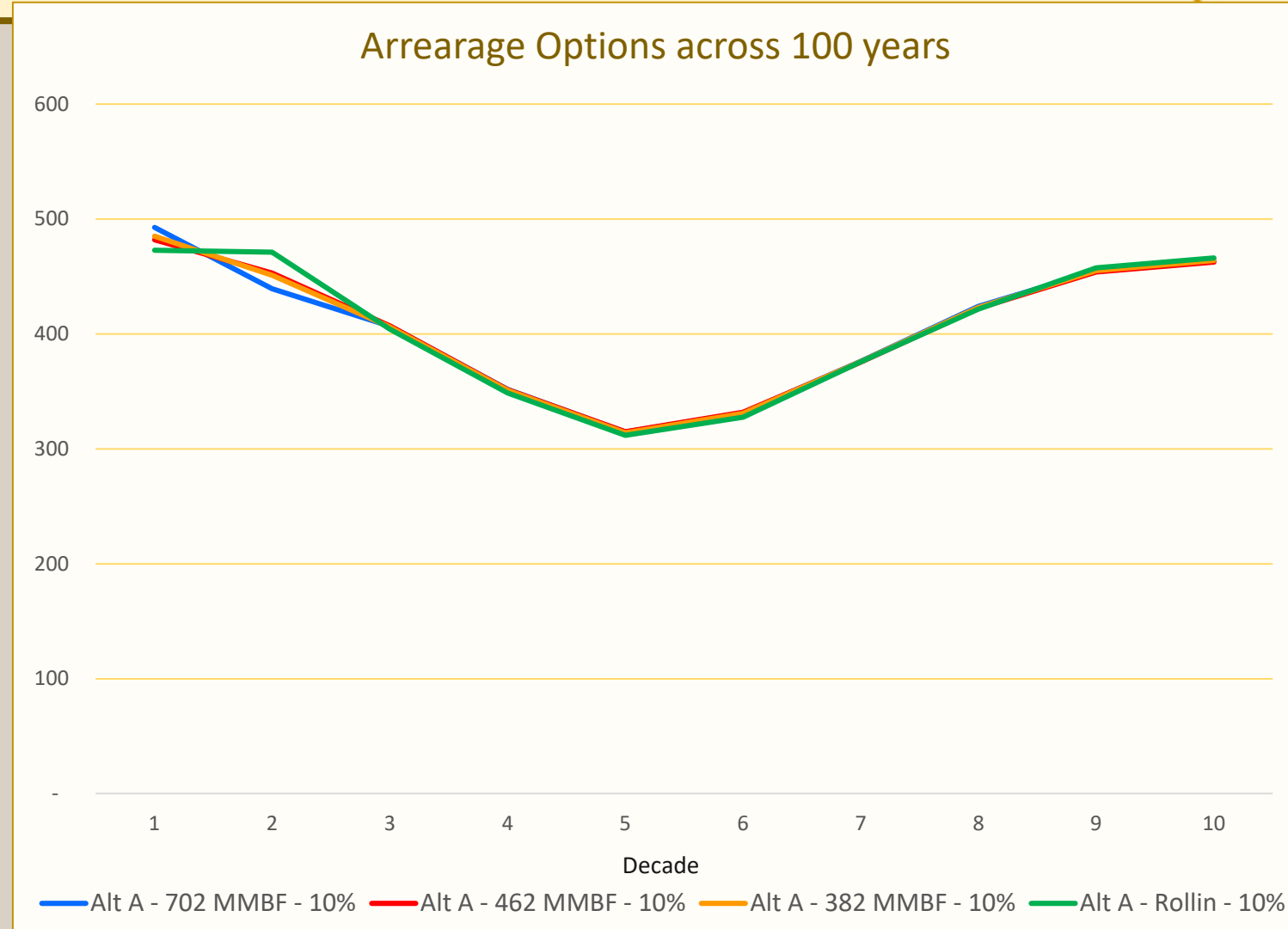
## 382 MMBF

Provides approximately 12 MMBF annually over the Rolled In option in the first decade

## Rolled In

Provides approximately 473 MMBF annually for the first decade.

**Selecting an arrearage option, reduces the next decade's volume by approximate the same amount**



Adapted from the 2019 Revised Financial Analysis – Figure 7.

# Staff Recommendation on Arrearage



Consistent with the Board's 2017 direction:

**Sell the following arrearage volume in 2015-2024**

Sustainable Harvest Unit	Arrearage Volume
Capitol	56
Clallam	25
Federally Granted Lands and State Forest Purchase	45
King	16
OESF	200
Pacific	4
Skamania	19
Wahkiakum	17
<b>Total</b>	<b>382</b>

And adopt...

**Arrearage Policy**

*2019 Revised Financial Analysis, Table A1*



# Riparian





## **WHY** | To set expectations and provide direction

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DNR must recalculate a sustainable harvest level consistent with DNR policies, including the *Policy for Sustainable Forests*, the 1997 HCP, and applicable state laws.



# Board Motion and Direction on Riparian *(November 2017)*

The Board directs the Department staff to develop and analyze a preferred alternative that represents:

- The Board expects riparian harvests to be conducted based on their ecological value as intended as part of the State Lands HCP Riparian Forest Restoration Strategy
- Harvest volume from riparian areas will not be included in the calculation of the sustainable harvest level
- Timber volume obtained from harvests in riparian areas can count towards meeting the sustainable harvest target



# Riparian Influence on Volume

(five west-side planning units)

2019 Revised Financial Analysis – Figure 8.



## Not included in calculation.

Treatment rates based on ecological and financial criteria.

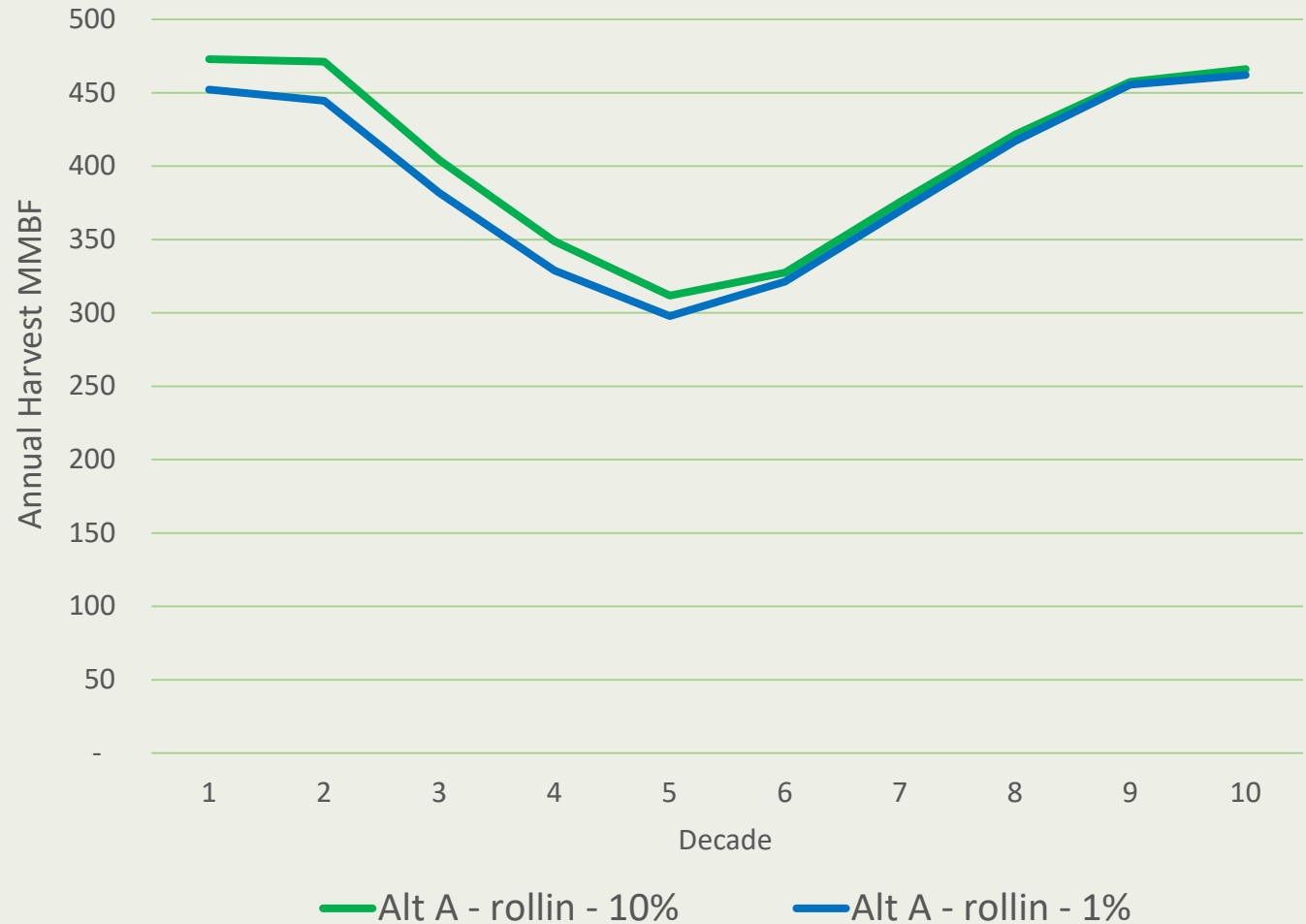
## Up to 1% of harvest

Maintains riparian thinning level at 2015-2016 level. Potentially contributes 1-2% (or 6-7 MMBF/year) of the total harvest during the first decade.

## Up to 10% of riparian area

More than doubles level from 2015-2016 level. Potentially contributes 4-5% (or 16-20 MMBF/year) of the total harvest during the first decade.

## Riparian Options across 100 Years



# Staff Recommendation on Riparian...



The Board directs the Department staff to develop and analyze a preferred alternative that represents:

- The Board expects riparian harvests to be conducted based on their ecological value as intended as part of the State Lands HCP Riparian Forest Restoration Strategy
- Harvest volume from riparian areas will not be included in the calculation of the sustainable harvest level
- ~~Timber volume obtained from harvests in riparian areas can count towards meeting the sustainable harvest target~~
- Timber volume from riparian areas will be tracked and reported **separately** from the sustainable harvest volume





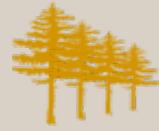
Decision:

# Set a Sustainable Harvest Level

Staff  
Recommendations



1. MMLTCS – HCP Amendment



2. Arrearage – 382 MMBF



3. Riparian – Not included in setting the level

Sustainable Harvest Level (2015-2024)

4,272 MMBF

Arrearage Volume (2005-2014 )

382 MMBF

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2015-2024 Harvest Level

4,654 MMBF





# Proposed Board Action:

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Harvest Level Decision:

4,654 MMBF/Decade FY2015-2024



Arrearage: 382 MMBF

Riparian: No riparian harvest included in the level



## Resolution #1560



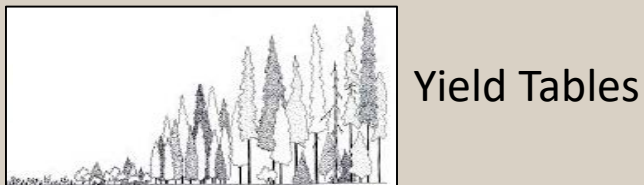
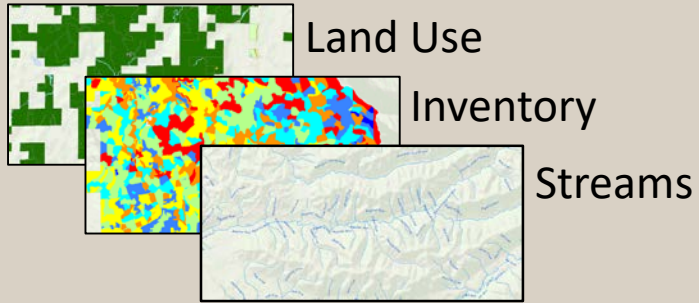
# Definitions in Biological Opinion

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- **Habitat** – “In this analysis, ‘habitat’ is any area that has a P-stage classification greater than 0” (p. 31 of the Biological Opinion).
- **Suitable habitat** – Per Biological Opinion author, “Suitable habitat” is synonymous with “habitat” as defined above.
- **Potential habitat** – Refers to federal and non-federal lands identified under the Northwest Forest Plan as having some level of habitat capability, based on analyses conducted in the status and trend reporting for marbled murrelet nesting (Raphael, 2016).



# INPUT



# What goes into the calculation?

# OUTPUT



Harvest Schedule  
(Activities File)



Report of Current and  
Future Conditions  
(State of the Forest File)



Forest Estate Model