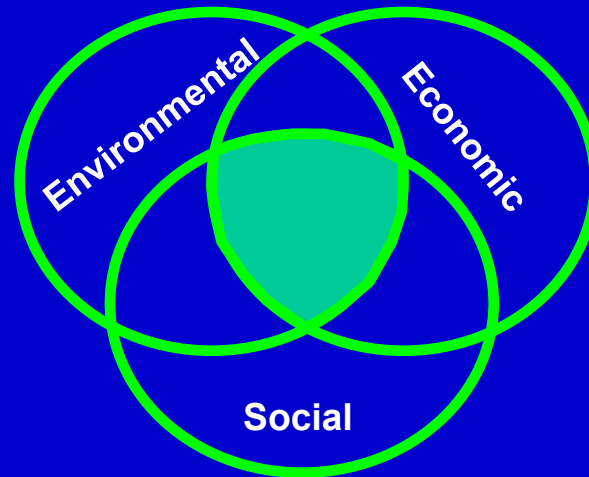


Conserve
Enhance
Create
Healthy and Sustainable Forests

Board of Natural Resources

March 2, 2004

AMENDED March 3, 2004



Two important questions

The HCP recognizes both conservation benefits and production, as simultaneous needs, to meet the Board's and the Department's trust duties.

To implement the letter and the intent of the HCP, we must answer two questions.

1. *How do we conserve, enhance and create eco-system habitats on landscape levels to meet ESA requirements?*
2. *How do we conserve, enhance and create healthy working forests to meet the financial obligations of the trust mandate?*

Benefits to all the people of Washington

All of the alternatives analyzed, including the Preferred Alternative, meet the letter and intent of the HCP and provide benefits to all the people of Washington.

The Board has given us clear direction for modeling the Preferred Alternative and asked us to come back today and discuss how we might implement it.

What the Preferred Alternative Delivers

- There is a dramatic change in forest structure over the life of the HCP.
 - Structurally Complex Forests nearly triples by 2067;
 - Competitive Exclusion Forest decreases 30 % by 2067;
 - Within 100 years, the amount of Structurally Complex Forests and Competitive Exclusion Forest are basically equal;
 - 10-15% of each HCP planning unit will have Structurally Complex Forests.

Increases in Inventory

Standing inventory starts at 33 billion board feet and increases to about 48 billion board feet by 2067 (over 45%).

- We are growing more timber than we are extracting;
- Over the life of the HCP more than 40 billion board feet will be harvested, sustainably.
 - Harvests will:
 - Improve the health of forests;
 - Meet all the HCP ecosystem commitments;
 - Provide increased net revenue to the beneficiaries.

Revenue for the Beneficiaries

The Preferred Alternative produces substantial revenue for the trusts:

- About \$350 million gross revenue;
- About \$230 million net revenue.

ACTIVE MANAGEMENT creates options.

A comparison of On-base Acres at two points in time.

Alternative 1		Preferred Alternative	
<i>Current</i>	<i>Long-Term</i>	<i>Current</i>	<i>Long-Term</i>
628,000	654,000	875,000	1,178,000
45%	47%	63%	85%

Active Management

In the long-term, starting in 2014, the Preferred Alternative has 80% more land on-base.

- Increasing the land on-base allows harvest and silvicultural activities that create ecological benefits to occur across the landscape;
- In the Preferred Alternative, silvicultural activities will be applied to about 17,000 acres a year.
 - Out of the 1,178,000 acres on-base we will be applying silviculture practices on 1.5% of the land each year.

Silviculture

- In Alternative 1:
 - About 15,000 acres are impacted each year.
 - Out of the 654,000 acres on-base we will be applying silviculture practices on 2.3% of the land each year.
- In the Preferred Alternative:
 - This impact is spread out across the landscape.
 - Currently it is more concentrated.

Cumulative Effects

Cumulative effects, to the extent that they exist, will, in general, be decreased by the Preferred Alternative.

- Ten year implementation plans will be developed for each HCP planning unit and will go through SEPA.
 - Any potential cumulative impacts will be identified and mitigated by this planning process.

Silvicultural Tools

We will meet our HCP requirements using good science and adaptive management applied through silvicultural tools.

Silviculture is the cultivation of a forest to meet specified objectives.

In the Preferred Alternative about 1 million acres will be under habitat management using:

- Variable retention silviculture regimes;
 - Seed tree retention, shelterwood, legacy tree and patch harvests.
- Variable density thinnings;
- Older thinnings;
- Smallwood thinnings;
- Riparian, spotted owl and murrelet habitat enhancement silviculture;
- NRF and Dispersal management zones;
- Low density plantation management to open stands;
- Deferrals.

All of the tools mentioned above are used to meet the specified habitat objectives in the HCP.

What Regeneration Harvests Really Are

Regeneration harvests are **NOT** clear-cuts as we knew them 20 years ago.

Regeneration harvests include significant retention of the previous stand. We call them:

Variable Retention Regimes or;
Variable Retention Harvests.

The Right Tool for the Right Place

Variable Retention Silviculture Regimes are being used in many and varied forms to create habitat in the riparian lands and in the uplands with specific management objectives.

- The scale (size) of these harvests is very different than their historical application of the GEMs;
- They are a tool to use to meet a desired forest condition.
 - The fact that they will be used on 66% of the harvested acres in the first decade is irrelevant if they accomplish their desired end.

Implementation Planning

The *10-year implementation plans* will highlight the landscape patterns that develop over time.

They will tell the story of how the Preferred Alternative is *conserving, enhancing, and creating* the desired future for the beneficiaries.

Implementation Schedule

We asked the Divisions and Regions:

- Could they reach the Preferred Alternative?
- If so, how soon?

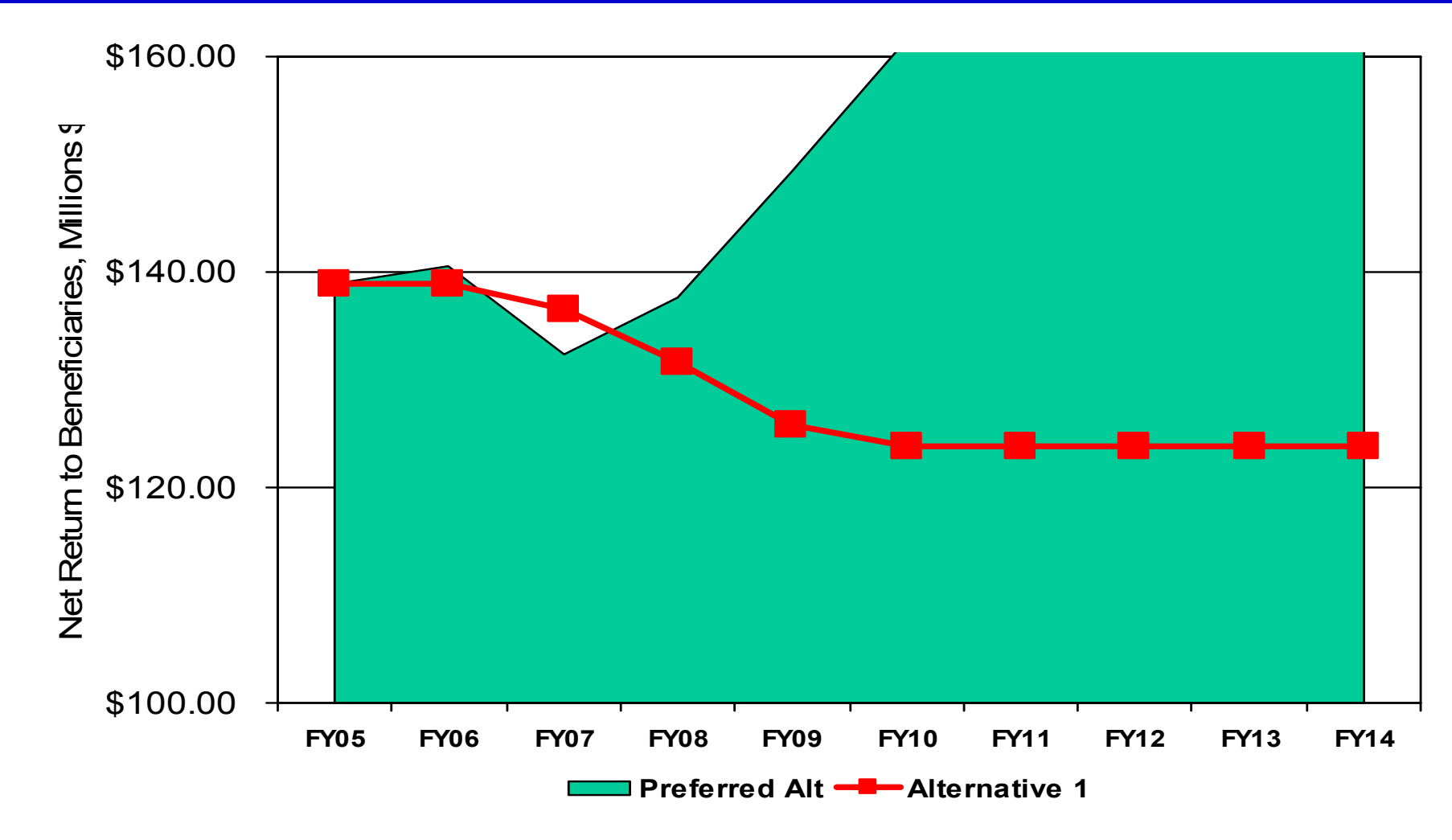
Here is their answer:

Westside Volume

Year	FY	Alternative 1	Preferred Alt
1	2005	396	470
2	2006	396	450
3	2007	396	465
4	2008	396	500
5	2009	396	575
6	2010	396	600
7	2011	396	600
8	2012	396	600
9	2013	396	600
10	2014	396	636

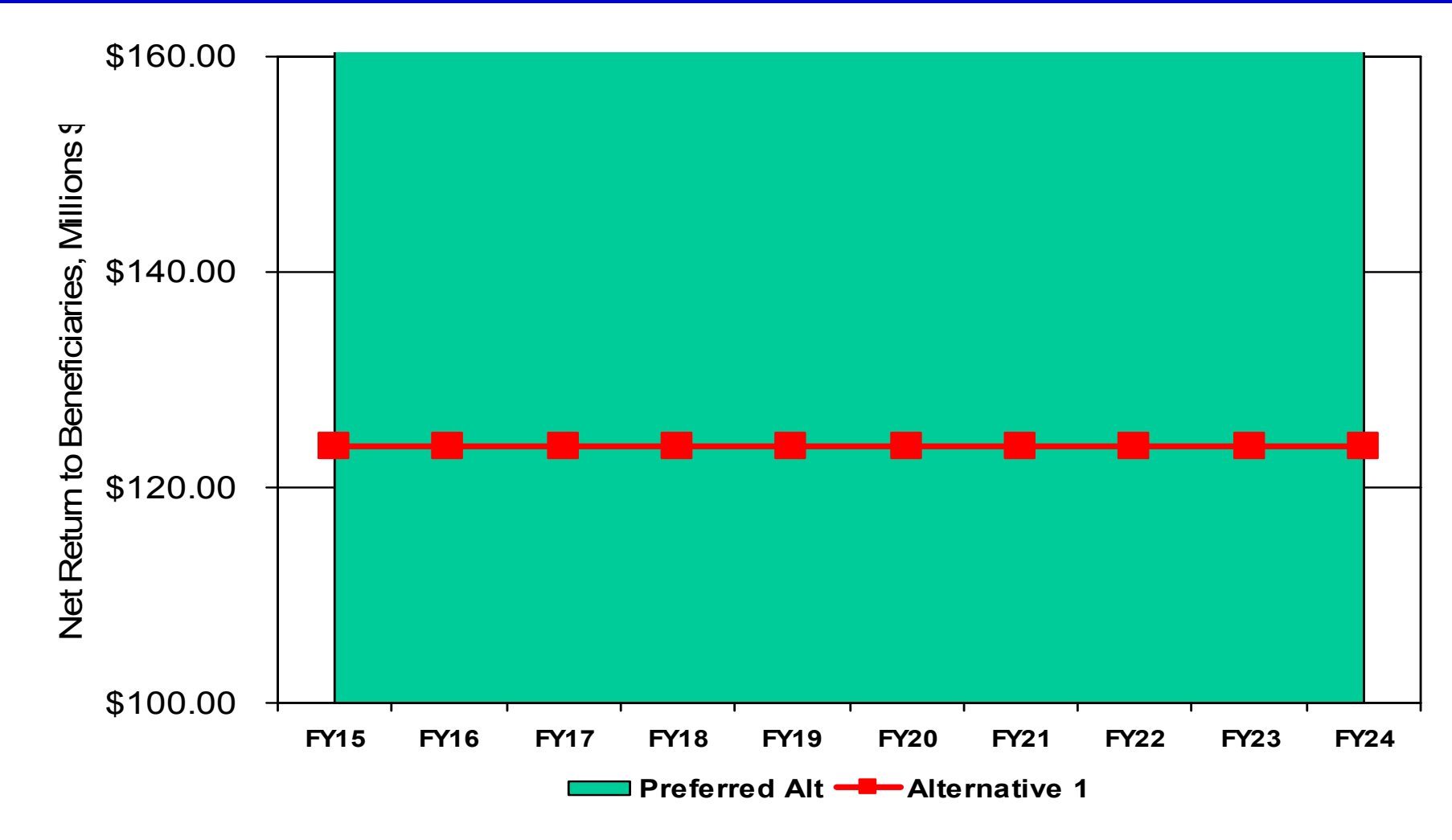
Net Returns to the Beneficiaries: Decade 1

The difference in the net return is the difference between the red line and the top of the green curve. The difference through FY 2024 is \$230 Million



Net Returns to the Beneficiaries: Decade 2

The difference in the net return is the difference between the red line and the top of the green curve. The difference through FY 2024 is \$528 Million



Increasing Net Revenue to the Beneficiaries

The Preferred Alternative can increase the total net revenue to the trusts by \$230 million in the first decade.

The Preferred Alternative can increase the total net revenue to the trusts by \$528 million in the second decade.

This is new revenue the trusts are not going to receive under our current operations.

Time to Achieve the Potential

Operationally it will take time to move up to the potential.

- Time to do the planning and put up the sales.
- Time to hire and train new employees.

Operational Certainty

We can do it operationally if we have policy certainty.

- NRF and dispersal target (50%);
- Remove 50/25, using the extended SEPA analyses now in place for every timber sale;
- NSO Memo #1 = 2007, outside OESF = 2007, SW Washington = 2006, OESF = 2004;
- Legacy and reserve trees = HCP;
- Old Growth = 10-15% in HCP planning units and keep the Old Growth Research Areas;
- Other details are summarized in the Resolution, that if passed, would be fully analyzed in the Final EIS.

What are the financial requirements to reach this potential?

We will shorten contract lengths and use contract harvesting where it is operationally feasible.

- Creates about \$13 million in the first three years to ramp up;
- Increases the fund balance in the short run.

We know the direct costs required to meet the operational schedule.

- We are very efficient.

Detailed Cost Study

Indirect costs are more difficult to determine exactly because they are tied to most of the other programs in the agency but we have analyzed them as well.

For the presentation on Feb. 17th, we used 4-year cost averages. We wanted to compare between alternatives.

- Indicated that preferred alternative might cost as much as 31%.

Further Analysis

After getting a better sense of what the Preferred Alternative might be, DNR conducted a preliminary, yet very different, implementation analysis.

We used current actual costs that reflect the efficiencies we have made and evaluated economies of scale.

The result was a substantial reduction of projected costs.

The analysis will ultimately be refined and presented to you prior to policy action on the Preferred Alternative.

Management Costs

The Preferred Alternative will require an increase for some period of time.

The increase will need to be in place before the end of 2007.

It looks like:

- FDA needs to go to 25%;
- RMCA needs to go to 27%;
- Having the increase in place prior to the end of 2007 would add more financial certainty in meeting the preferred outcomes.

Temporary?

The fund balances will recover towards the end to the decade.

The management costs should be re-evaluated at the end of the decade to see if the increases are still necessary.

- No outside funding (loan) is necessary.

Success Depends Upon Several Things

- Operational certainty;
 - Clear direction and support on the policy direction from the BNR.
- DNR meeting the operational levels projected on time;
- No decrease in prices;
 - Price is a big variable over which we have no control.
 - Held constant.
 - No downturn in forecast.
- No major surprises that curtail operations;
- Obtaining a temporary increase in the management funds prior to 2007;
 - Needed for either for alternative 1 or the Preferred Alternative.
 - Less is needed for the Preferred Alternative.
- No increase in operational costs.

Targets (with some level of acceptable variation) need to be agreed upon.

636 mmbf is the biological potential of the forest under policies of the preferred alternative.

- It is sustainable;
- It is obtainable by the end of the decade;
- The number will vary somewhat as new information and more certainty is incorporated into operations and as we refine the data in the model;
 - E.g. approved Marbled Murrelets, Riparian Management Strategies, FRP Review.

554 mmbf is the mean annual volume for the first decade.

650 mmbf is the mean annual volume for the second decade.

Annual Revenue Projections are Targets

- Revenues will vary, as prices vary, for various grades and species of wood;

Acceptable Variation in Target Volume

- 10% variation in the target volume seems reasonable with the policies and procedures needed to implement the Preferred Alternative.

The Board gave us Management Principles and Objectives

We constructed the Preferred Alternative to meet those objectives.

- Meet fiduciary and legal obligations;
 - Being prudent.
 - Assuring intergenerational equity.
 - Maintaining asset productivity in perpetuity.
- Create a flexible framework to work within;
- Phase in management strategies to maximize revenue within reasonable expenditures;
- Experiment with innovative forestry techniques to maintain a diverse, healthy forest system and to protect sensitive area and habitats;
- Monitor and report results in an outcome based-format annually at a minimum.

We will implement the Preferred Alternative using the objectives.

With a little wind at our back
and if the creek don't rise –
we can do it.