Strathcona TSA
Future Forest Estate Strategy

Coastal Silviculture Committee Winter Workshop
February 12 2009

Coas
Fore
Acti
Plan

A vision for a co

Strathcona TSA
Future Forest Estate Strategy

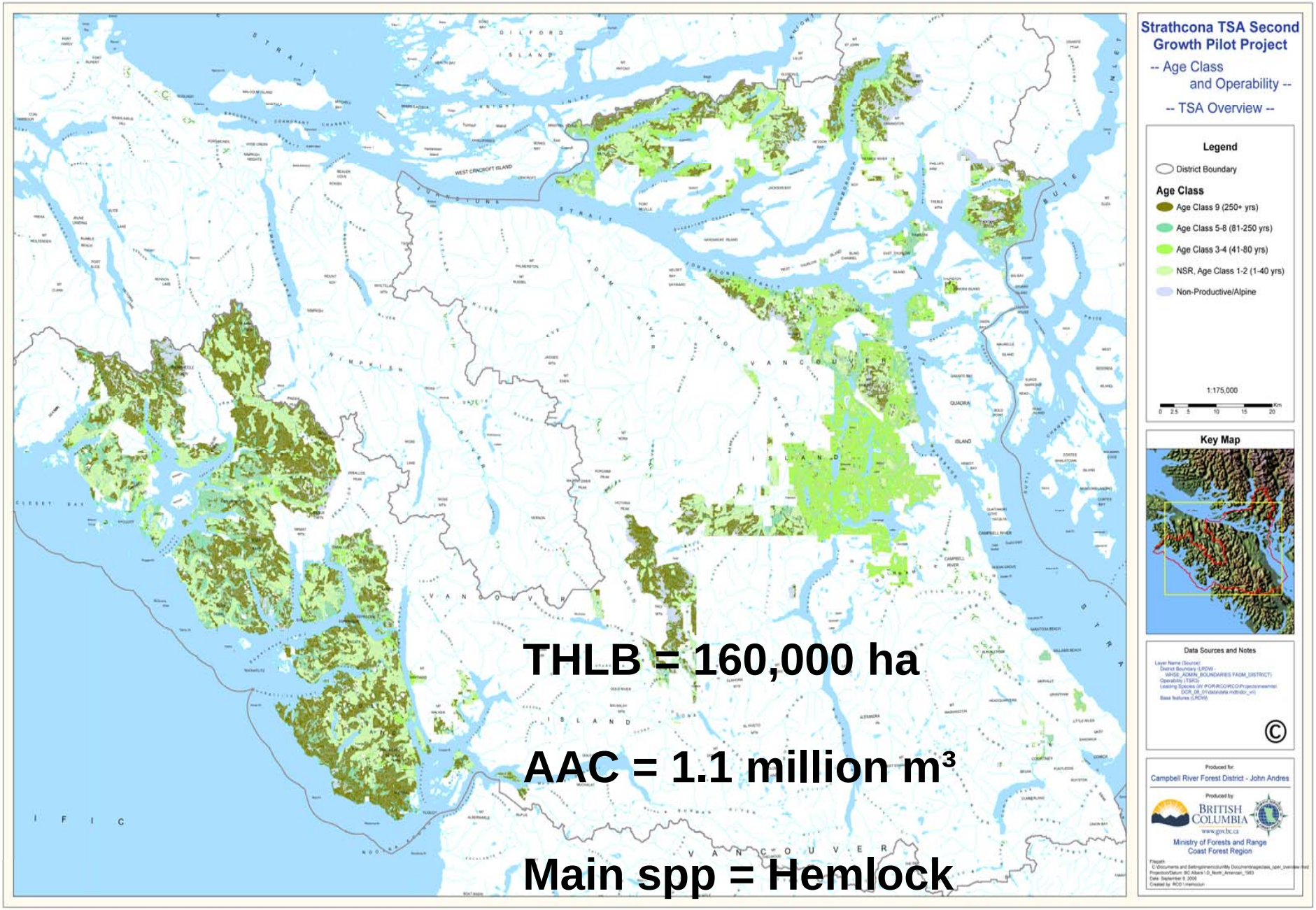
Three phases:

1. What Options to Increase Short-term 2nd Growth Harvest ?

2. What Types of Forests & Trees Should We Grow in this TSA?

3. Developing a Future Vision (Optional)

Strathcona TSA



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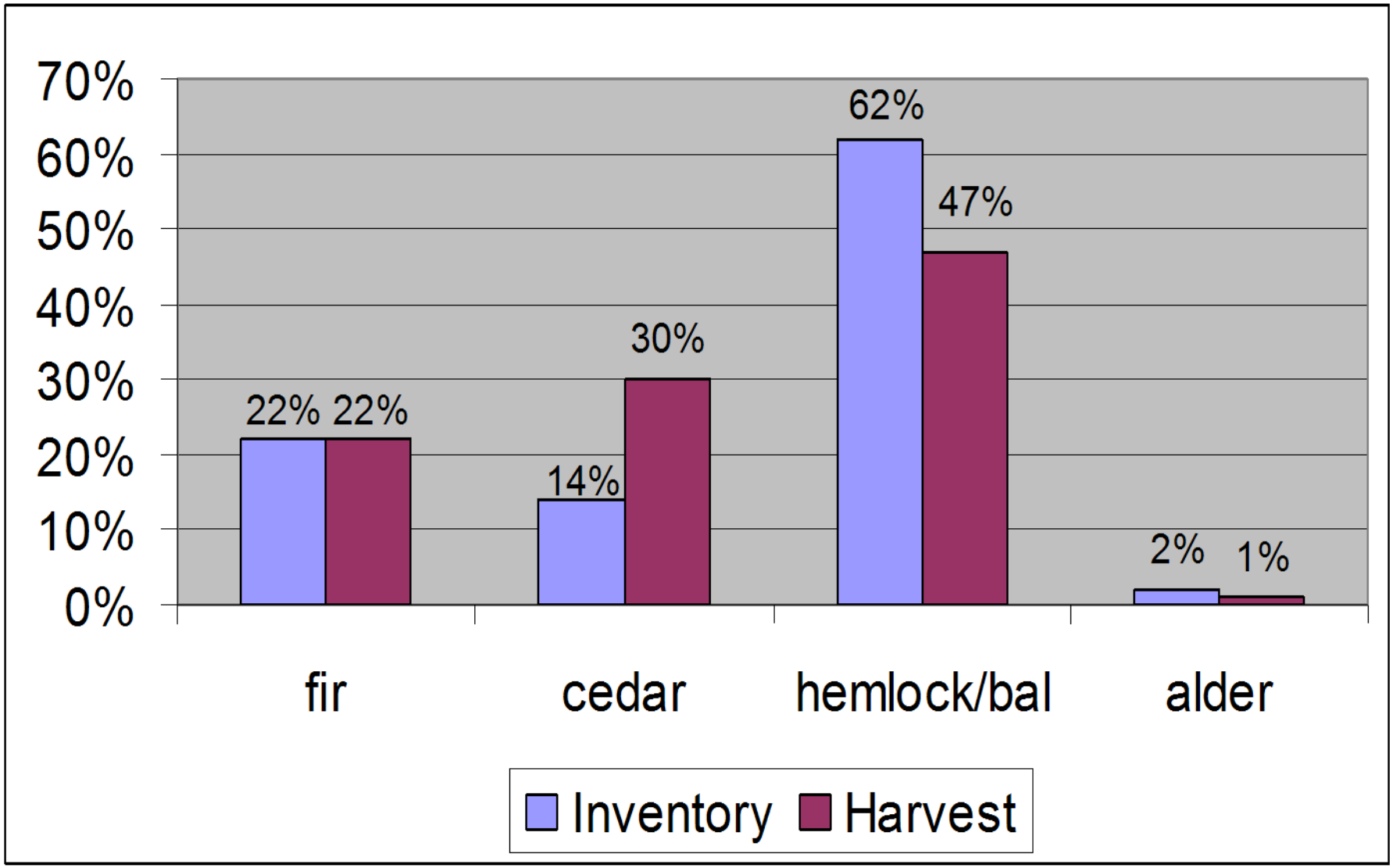
Inventory Profile vs 1999-2008 Harvest Profile



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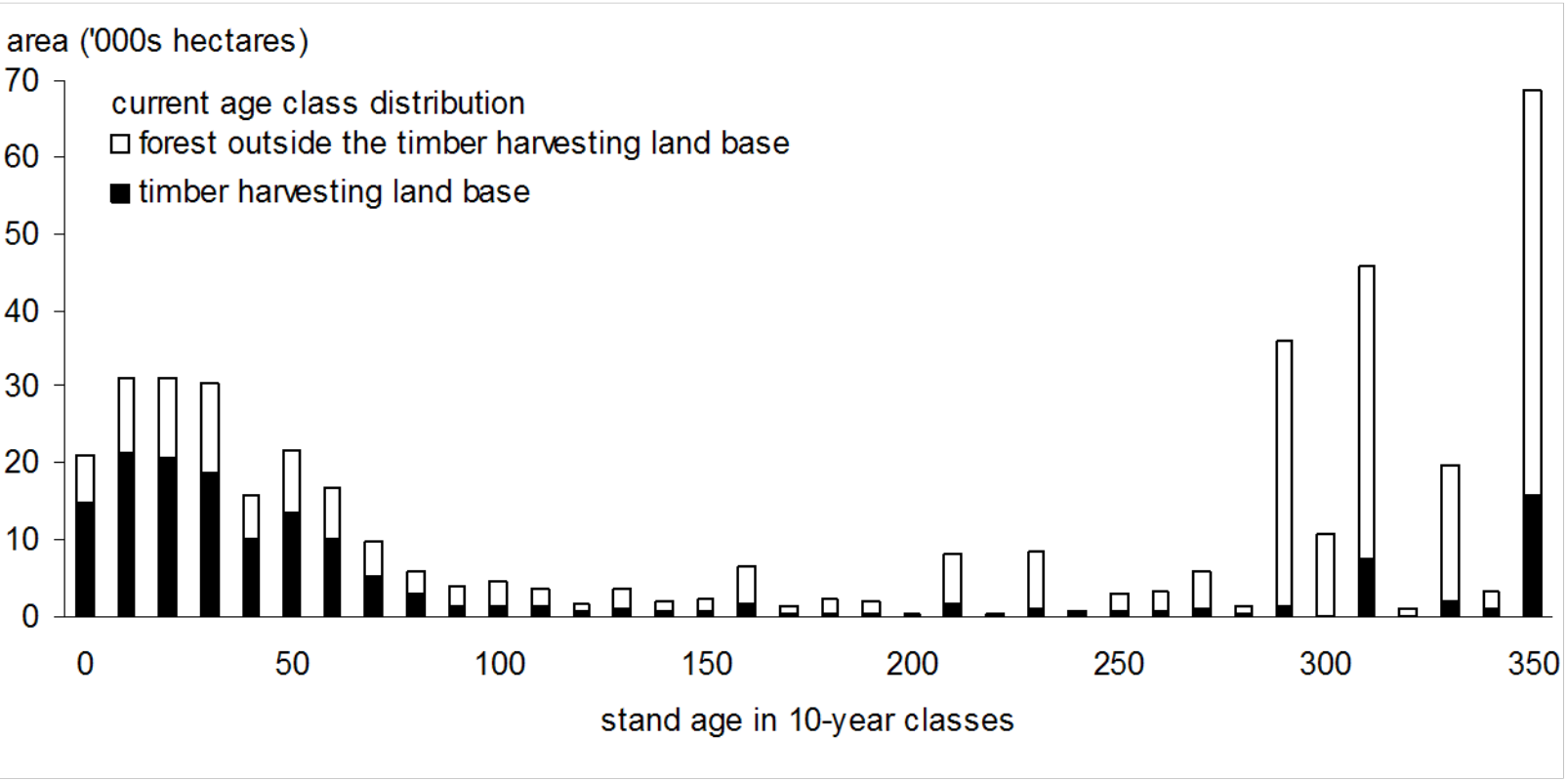
Age Classes



Strathcona TSA FFES
Phase 1 Report:

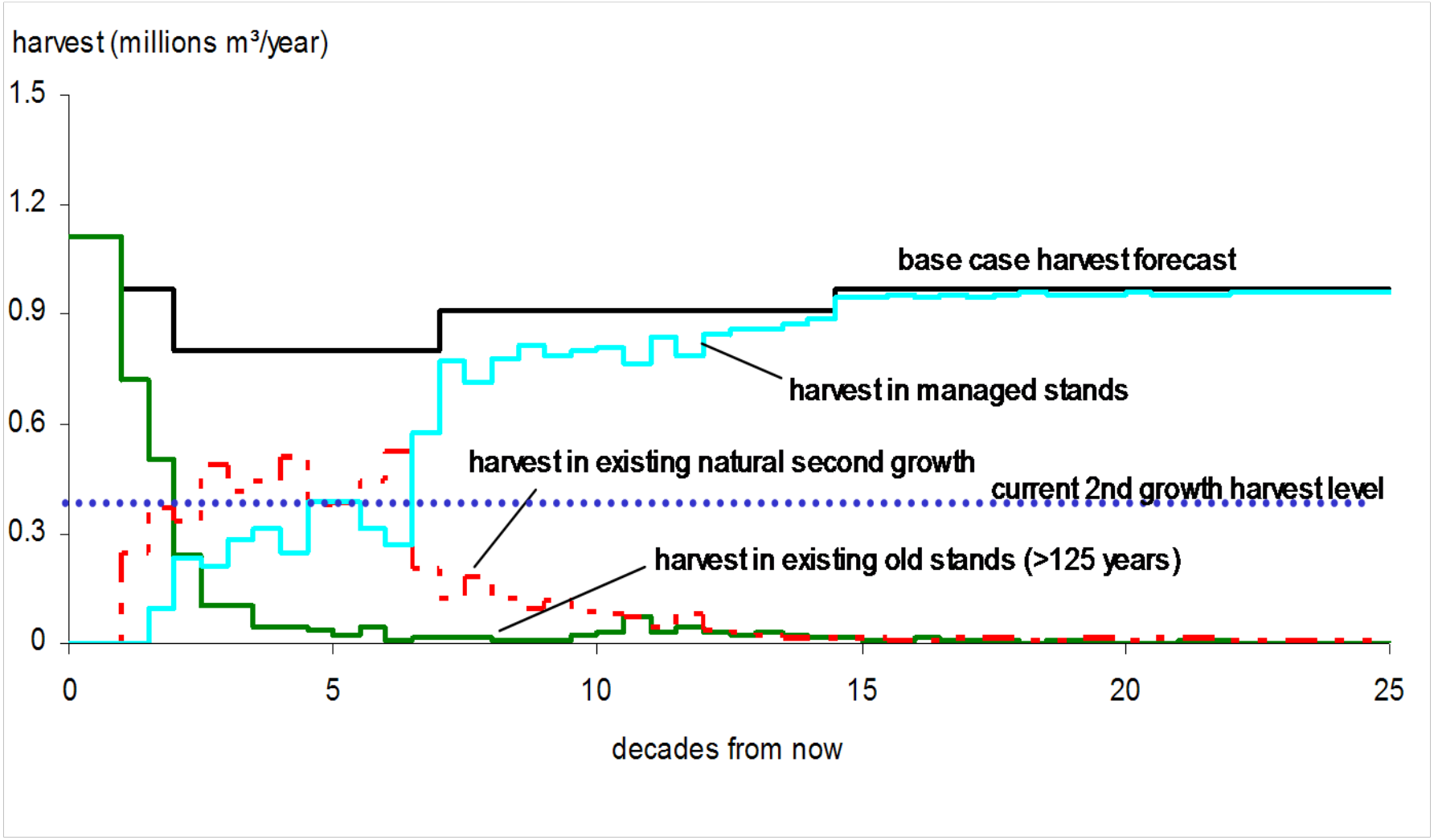
What options to increase short-term 2nd growth harvest

in this TSA?

(While maintaining old-growth harvest options?)

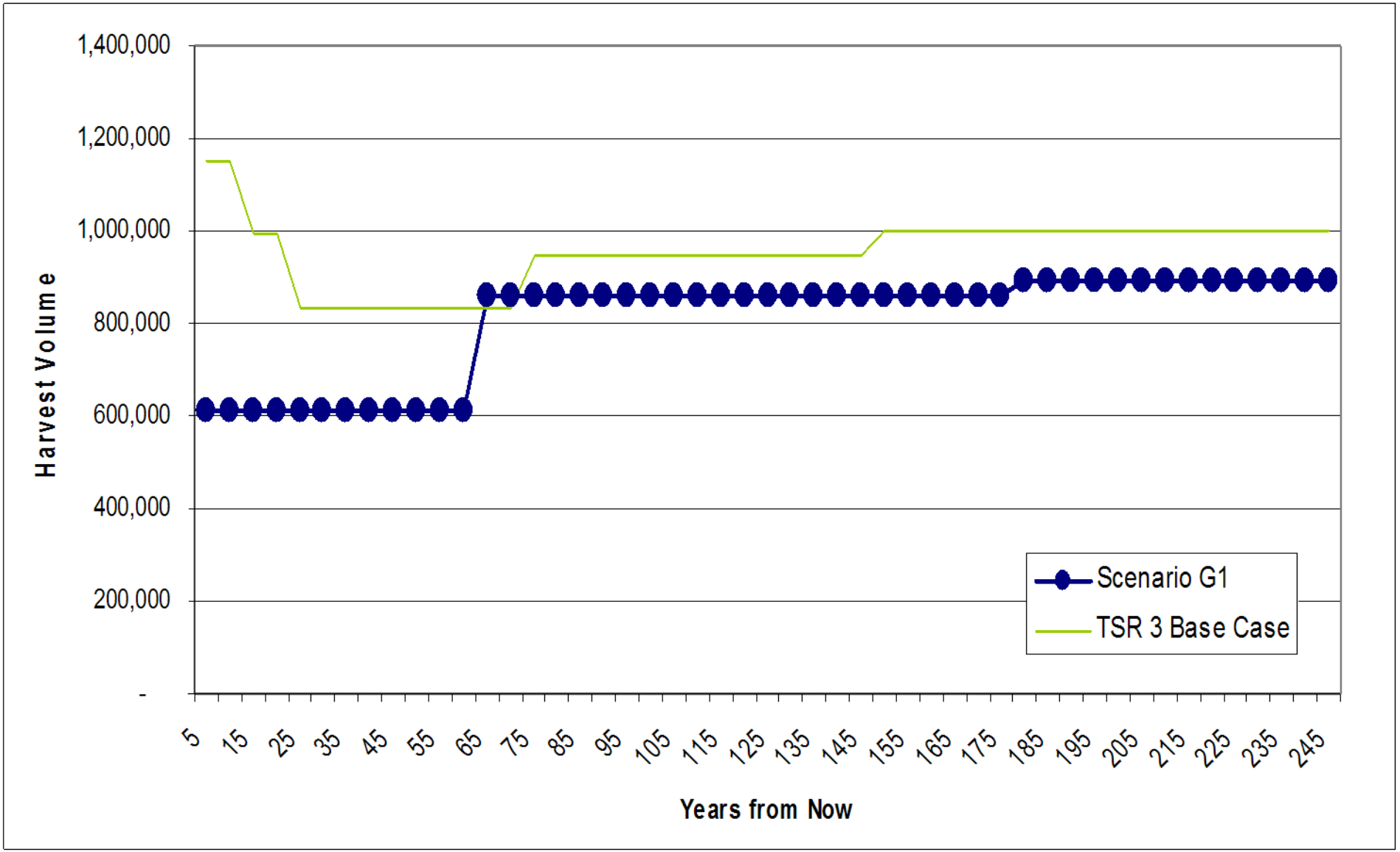
Strathcona TSA

TSR3 - Base Case Harvest Forecast



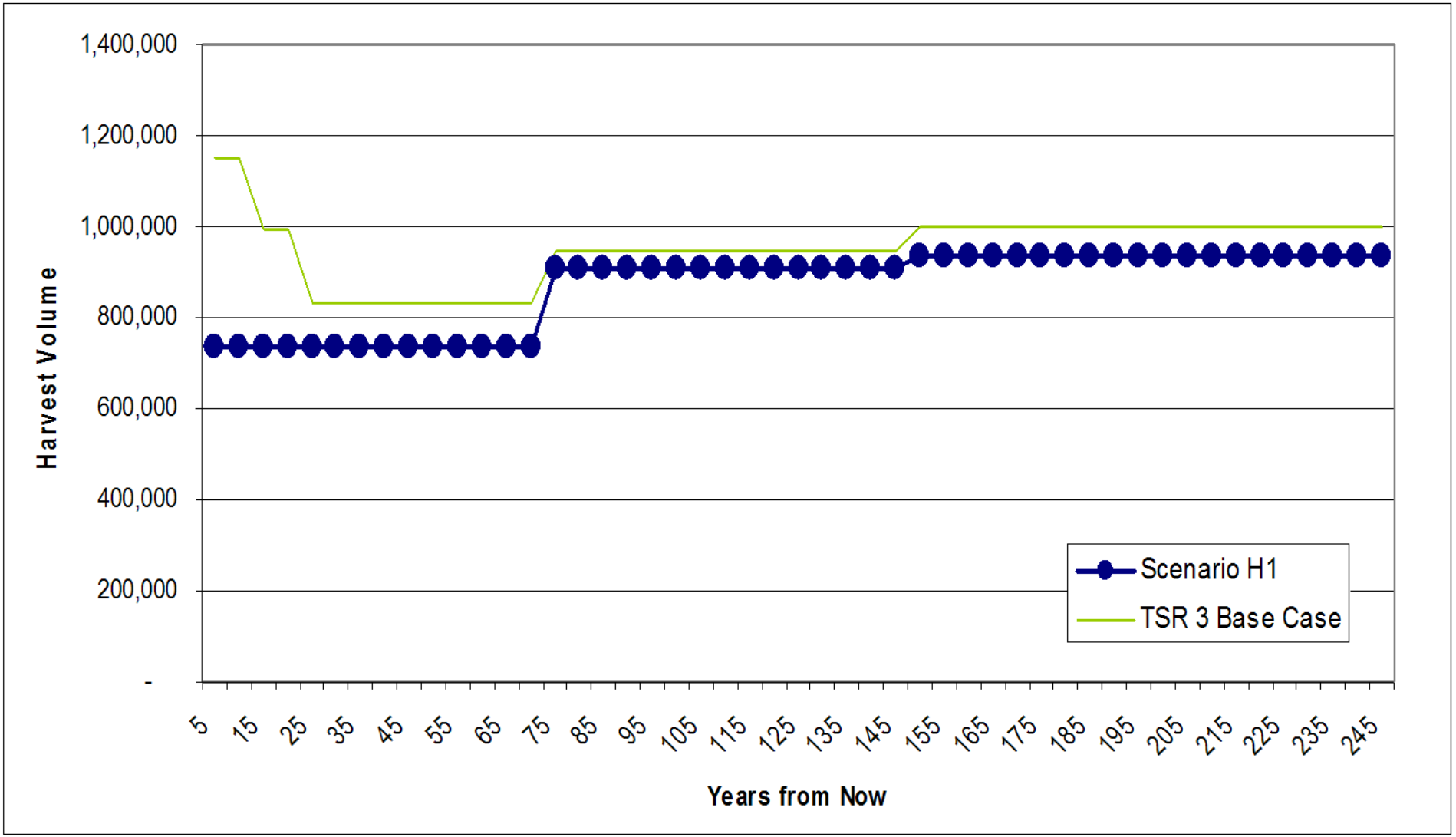
Strathcona TSR3 Base Case

Exclude all Old Growth

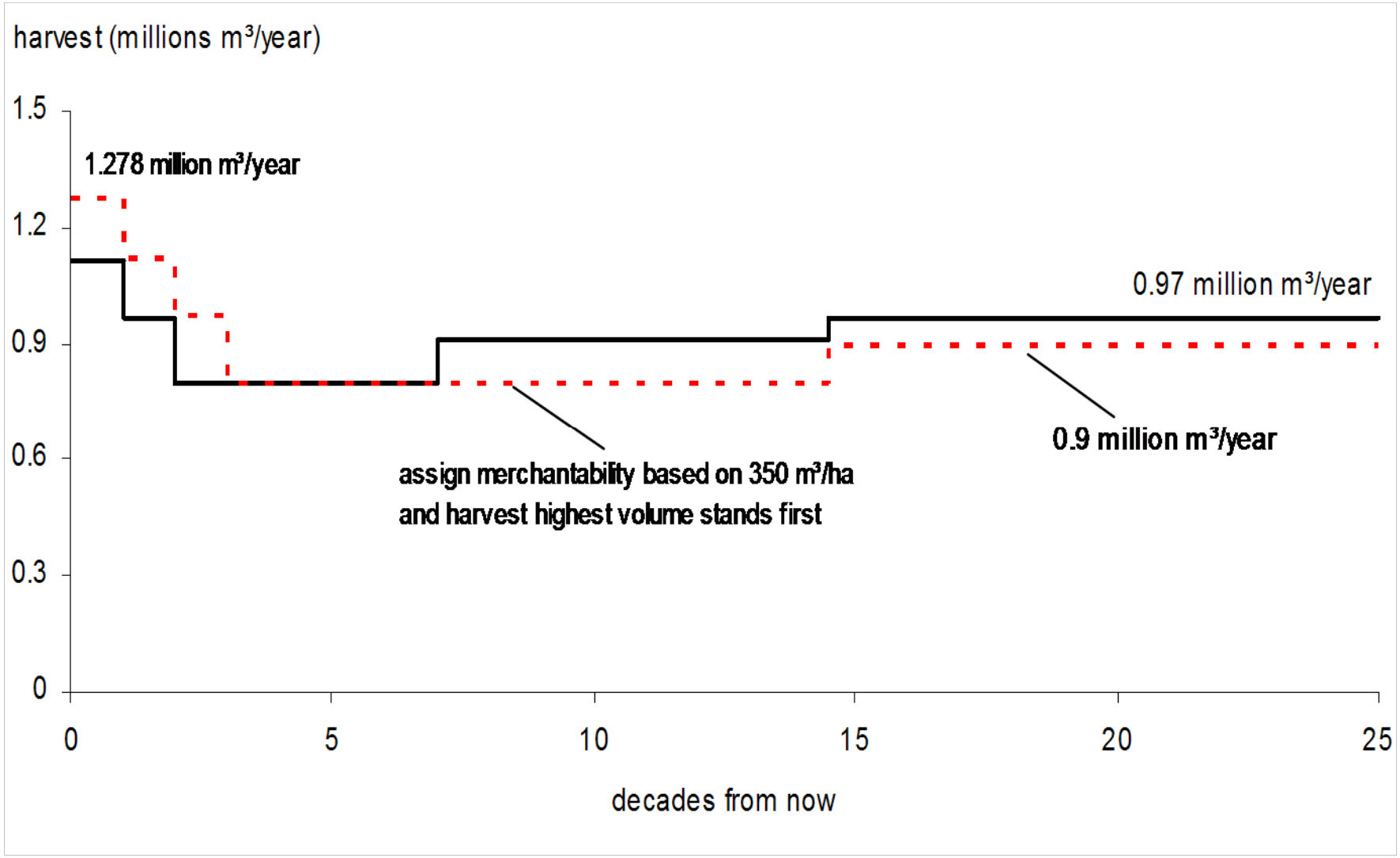


Strathcona TSR3 Base Case

Exclude Hemlock-leading Old Growth stands



What about reducing Minimum Harvest Ages?



Late Rotation Fertilization

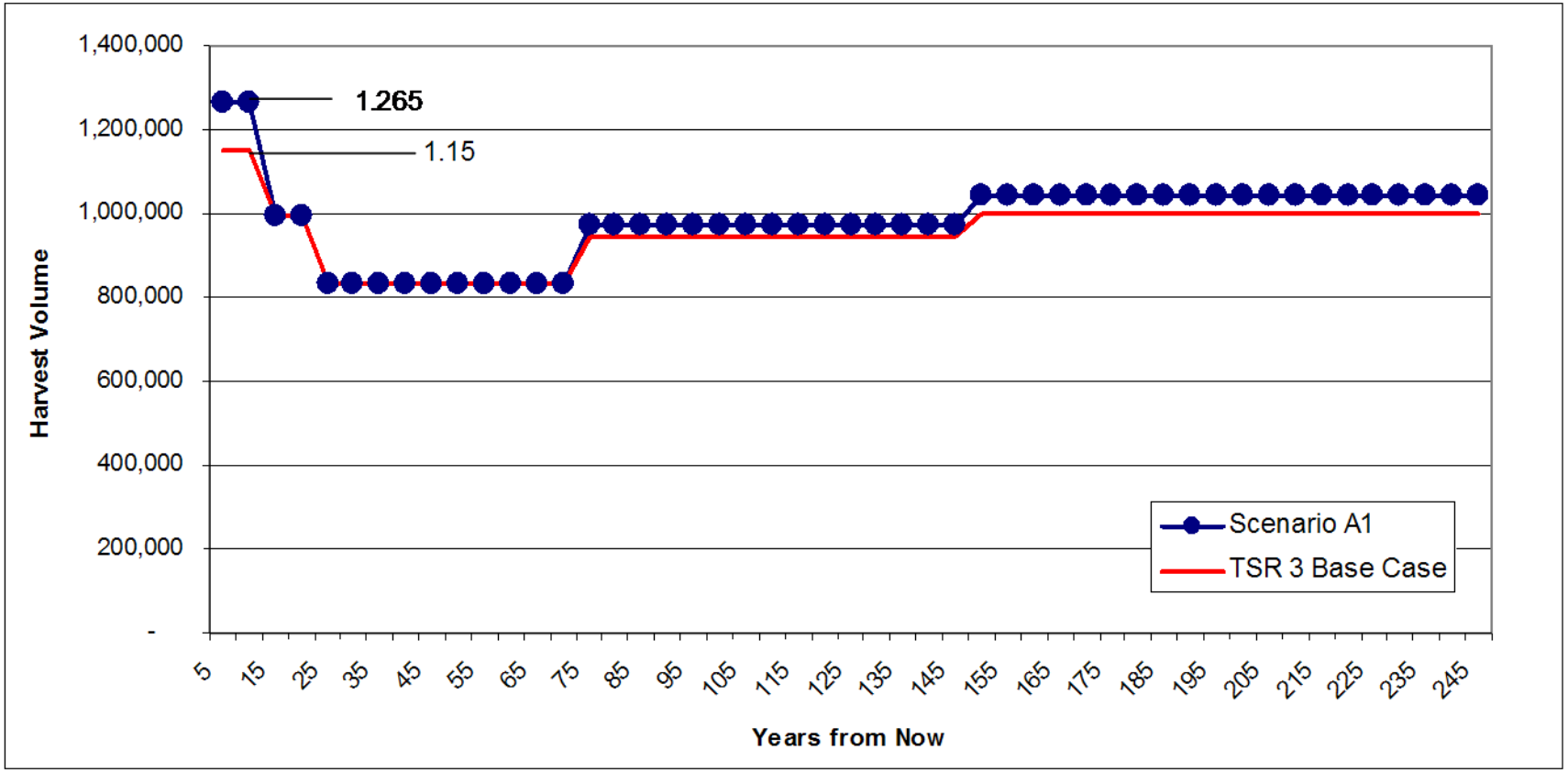
- CFAP ……..$9 million over next 3 years

What could $ 9 million buy?

…..600,000 m³

Late Rotation Fertilization

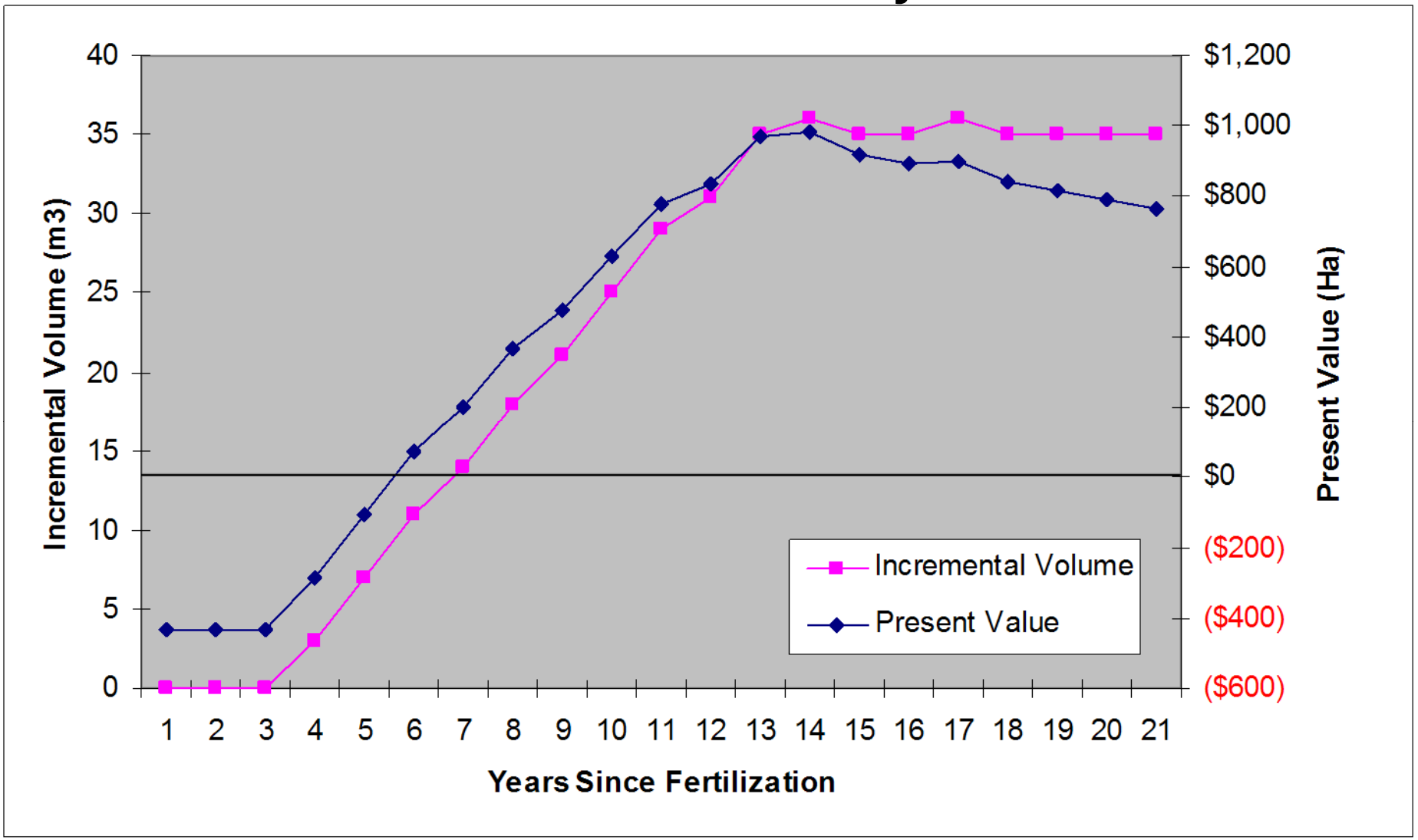
- fertilize all stands at age 40



…… yields additional 1.2 million m³

Fertilization in the Strathcona TSA

Cost-Benefit Analysis



Based upon data compiled by Martin Labelle, Strategic Forest Management, for Western Forest Products fall 2008 fertilization program

Tree Improvement

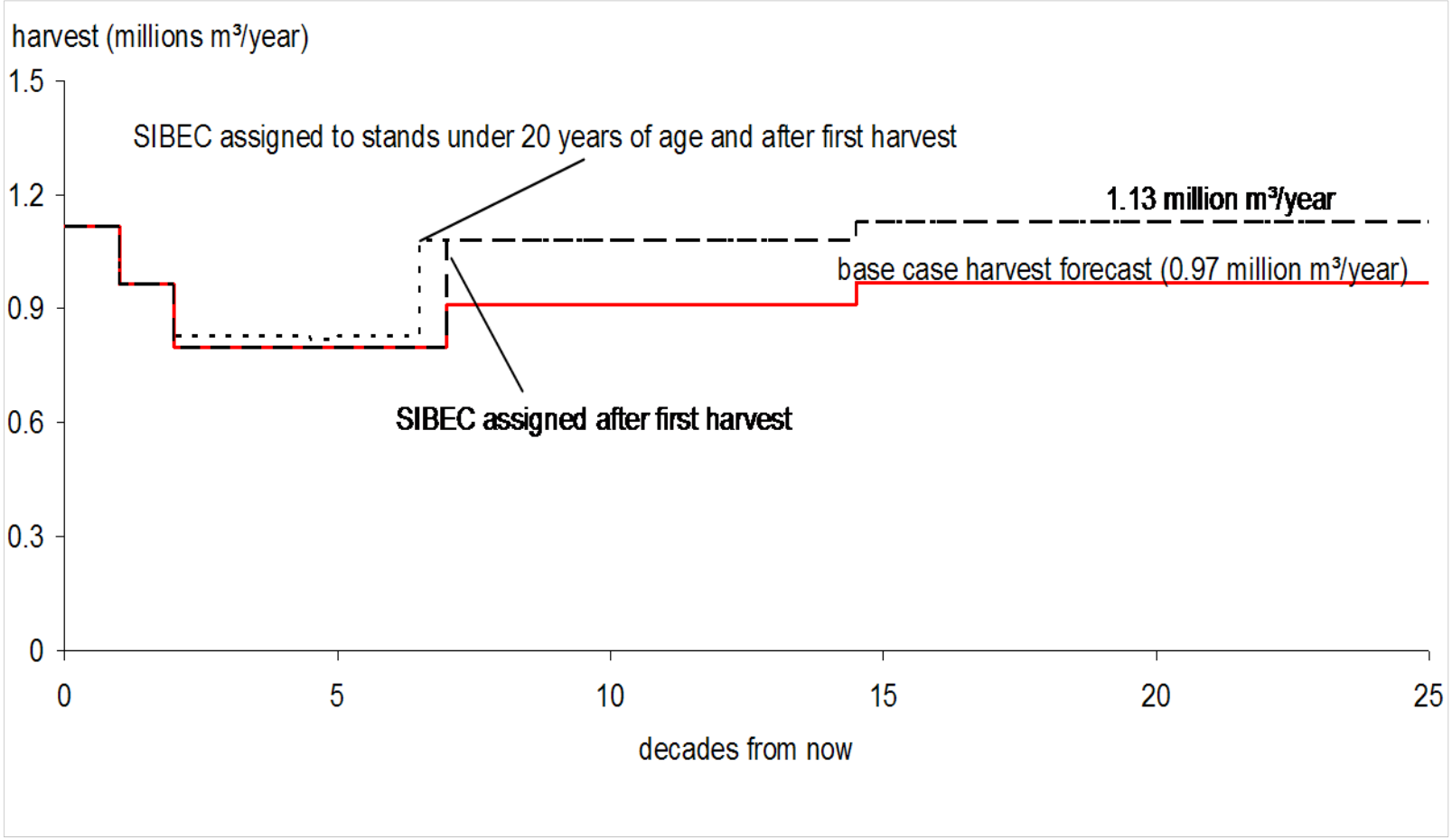
- CFAP … additional gains of 5-10%

Key Assumptions:

1. Aggressive breeding over next 10 yrs
   ……focused on Fd, Cw, and Hw

2. All sites planted with best available seed
   …..incl. continued Hw planting program

Site Productivity Estimates



Source: TSR3 for Strathcona TSA

Phase 1 Summary:

- Fertilization: - Need larger & more continued funding
- Tree improvement - likely no short-term benefit
- Site Productivity - likely no short-term benefit
- Harvest Ages – More now, or more later, but not both
- Old Growth – significant uncertainty re: hemlock

Strathcona FFES

Phase 2 Progress Report

What types of forests & trees should we grow in this TSA?

…considering:

- climate change
- value
- species diversity
- costs

The Strathcona Future Forest Strategy Team…

MFR Campbell River

The Symmetree Team

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Cam Brown (Forsite)

Stephen Smyrl (Forsite)

Colleen Jones (Shamaya)

Campbell River Forest District

John Andres
supported by CRFD Stewardship Section

Licensee steering committee

Other MFR contributors (Coast Forest Region, Branch)

Two scenarios to "bookend" the range of modeled climate impacts…

- **Hadley Centre for Climate Prediction UK (A1F1)**
  - (Most Change / Worst Case Scenario)
  - Pessimistic view of future emissions –current trend into the future.
  - Predicts hottest driest summers.

- **Atmospheric Research Program for Climate Modeling USA (PCM-B1)**
  - (Least Change / Best Case Scenario)
  - Optimistic that emissions will be significantly reduced.
  - Predicts moderate summers.

Modeling Climate Change with ClimateBC…

Used GIS tools used to:

- **Express changes in future climates as changes in subzone-variant climates.**
- Explored the reclustering of new climate variables guided by current data.
- Ecologist occasionally had to use judgment for boundary decisions.

Ecological Vulnerability Assessment

Specialist Discussions and Literature Reviews to ID key vulnerabilities and opportunities

Stand or tree vigor?

Other Plants?

Abiotic disturbance

Management Vulnerability / Opportunity Assessment

Specialist Discussions and Literature Reviews to ID key vulnerabilities and opportunities

Conservation of Biodiversity?

Timber

Species at risk

Recreation / Visuals

Water

First Nations Interests


REMEMBER - This is just a first approximation…
It must be revised, refined and adjusted as more information and better tools emerge over time.

What about “Value” ?

- How and where should we grow “value”?
- What are the markets looking for?
- Traditional modelling approaches based on assumption that ….

  larger tree diameters = “value”

But bigger isn’t always better….

… and smaller isn’t always worse

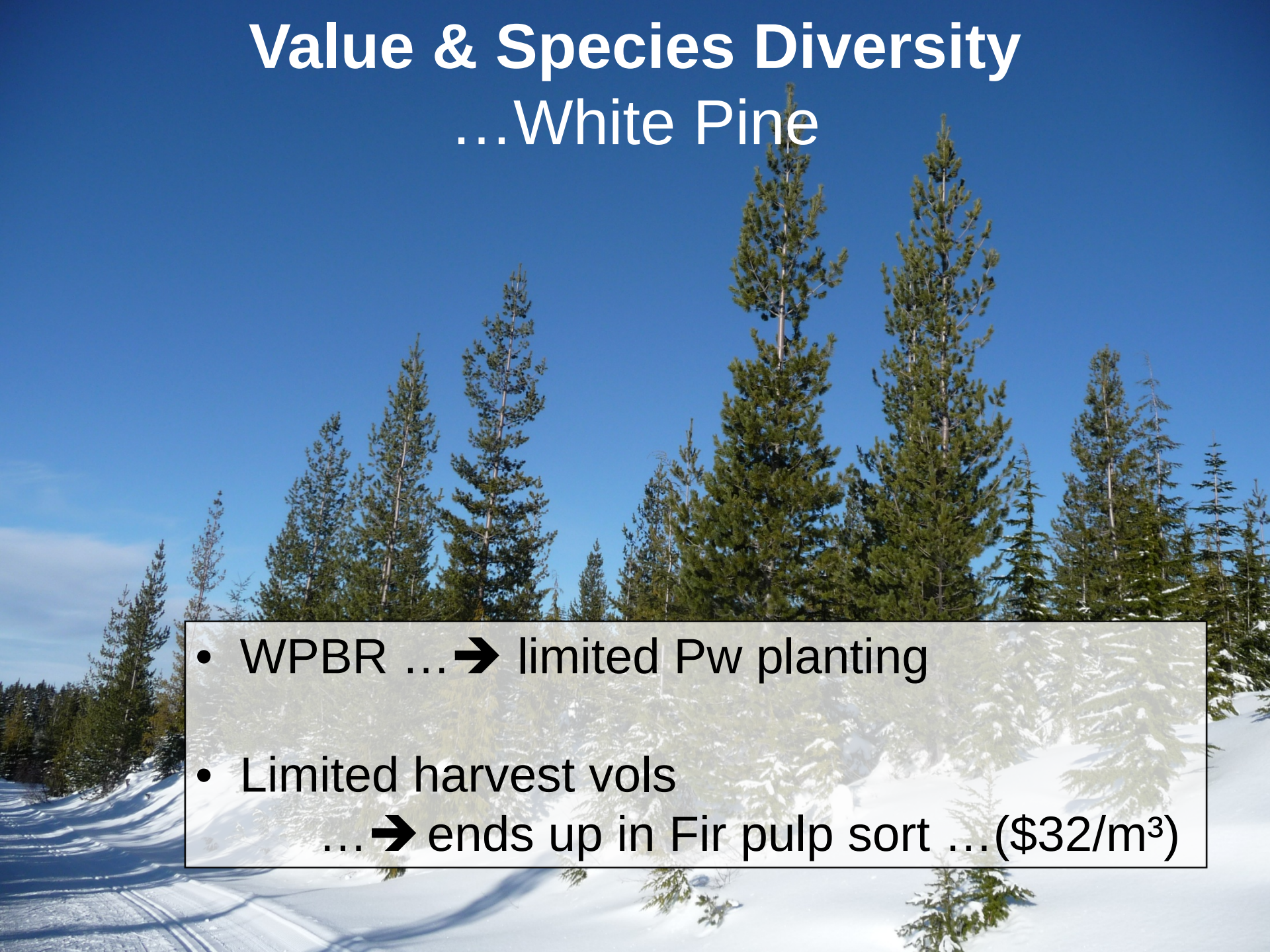
Value & Species Diversity

….Alder

Intensive **Extensive** **Mixed wood**

– Interim target of 200ha/year for the Campbell River District.

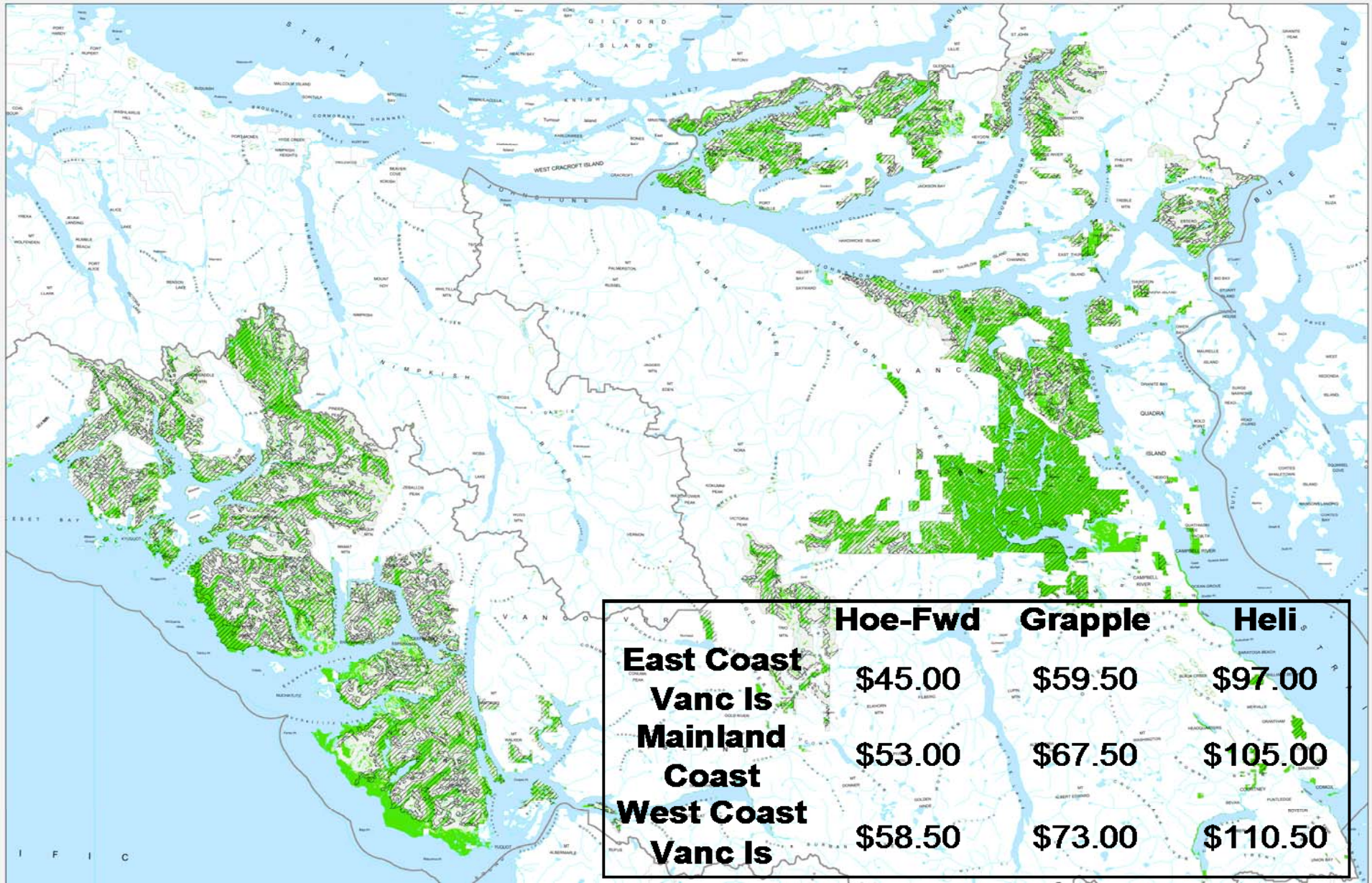
Value & Species Diversity
…White Pine



- WPBR …➔ limited Pw planting
- Limited harvest vols
  …➔ ends up in Fir pulp sort …($32/m³)

What about Costs?

Slopes < 40%, Isolated Operations



	Hoe-Fwd	Grapple	Heli
East Coast Vanc Is	$45.00	$59.50	$97.00
Mainland Coast	$53.00	$67.50	$105.00
West Coast Vanc Is	$58.50	$73.00	$110.50

Next Steps…

Phase 1 …

- Hemlock operability/merchantability
- FPInnovations - Hw markets & products
- Review fertilization programs

Phase 2 …

- Climate Change
  – Ecological Vulnerability Workshop
  - Management Vulnerability/Opportunity Assessment
  - Adaptation strategies … spp selection, seed zones, forest health
- Value/ Species Diversity …. White Pine
- Costs …… Where can we make money growing and logging trees?