Hardwood Management Strategy for the Coast Region

Prepared by the Coast Region FRPA Implementation Team (CRIT)
Silviculture Working Group
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Introduction

- Background
- Objectives
- Implementation
- Strategies
- FG Standards
- Next Steps

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Background

- Hardwoods on the coast have been historically regarded as a weed species
- Major FG issue in many plantations
- Markets for alder in the 1980’s and earlier were intermittent and often faded overnight
- Markets for alder in the mid 1990’s began to stabilize and prices for sawlogs began to rise
- Hardwood FLs granted in 1996 permitting growing of alder under an intensive regime
- 332,000 m3 of hardwood harvested on the coast in 2006
- Some FSPs built in ability to grow limited amounts of alder
Coast Forest Action Plan

• October 2007

• Encourages a diversity of species and products across the landscape to adapt to changing economic and environmental conditions (e.g., climate change)

• Recognizes that hardwoods support a high value market

• Encourages a stronger alder market

• Encourages a strengthened strategy for harvesting and planting of alder
Objectives and Key Principles

- To provide context for review of hardwood strategies at management unit levels
- To present broad scale principles to guide professionals and decision makers (ecological filters, suitable geographic considerations)
- Focus management on production of Sawlogs
- Focus on alder
Objectives and Key Principles

• Produce products to support the timber supply
• Help to address timber supply short falls (medium and long term)
• Diversify timber yields and broaden market opportunities
• Manage for root disease as a short rotation crop

Hardwood Management is not intended to:
  • Specifically manage for biodiversity
  • Promote nutrient cycling
  • Provide a nurse crop to grow other species
Implementation

- Strategy intended for Coast Region at management unit level
- Formal targets to be established by TSR process for each management unit
- Interim target – to grow up to 1,200 ha per year of hardwood species for sawlog production
- Equates to approximately 300,000 m³ of annual harvest on the coast
- Interim target – allocated at the district level based on where current volume located, ecological filters and geographical considerations
Implementation

Distribution of alder interim target within the region:

- Sunshine Coast 250 ha
- Chilliwack 250 ha
- Campbell River 200 ha
- North Island-Central Coast 200 ha
- South Island 100 ha
- Other Districts 200 ha

- Licence holders voluntarily commit to manage for a portion of the target.
- Monitoring of performance tracked through RESULTS
Management Strategies

3 options are being recommended:

- Intensive
- Extensive
- Mixed Wood
Management Strategies

Intensive management strategy

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## Intensive Regime

<table>
<thead>
<tr>
<th>Site Prep</th>
<th>Stocking density</th>
<th>Stocking Control</th>
<th>Final Harvest (rotation)</th>
</tr>
</thead>
</table>
| Optional - herbicide - mechanical | Planting 1400-1600 sph | - Stand height 10 m  
- 50 % live crown ratio  
- Post spacing density 600-1000 sph | - Target 30 cm dbh  
- Target age 25-35  
- Target volume 300 m³ per ha |
| Optional Fertilize at time of planting with Phosphate |                  |                  |                         |
Intensive Regime

- Similar to currently approved Weyerhaeuser Hardwoods regime
- No reduction in AAC
- Suitable for filling gaps in timber supply
- Requires some certainty for access
- Costs for stocking control (spacing) proposed to be funded from the Forest Investment Account
- High initial density and uniform distribution more important than in a conifer regime – applies to all alder regimes
Management Strategies

Extensive management strategy
## Extensive Regime

<table>
<thead>
<tr>
<th>Site Prep</th>
<th>Stocking density</th>
<th>Final Harvest (rotation)</th>
<th>Comments</th>
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<tbody>
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<td>- Target volume</td>
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<td>300 m3 per ha</td>
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<td>- Natural ingress not well</td>
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<td>understood</td>
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<td>- prompt planting recommended</td>
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</table>
Extensive Regime

- Slight reduction in AAC when compared to conifer management
- Potential to fill medium and longer term gaps in timber supply
- Suited to more remote locations or locations with restricted access
Management strategies

Mixed wood management strategy
<table>
<thead>
<tr>
<th>Strategy option</th>
<th>Site Preparation</th>
<th>Stocking density</th>
<th>Final Harvest</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patch Mixedwood (&gt; 0.5 ha)</td>
<td>Optional - Mechanical</td>
<td>1000 -1200 sph of conifer</td>
<td>Target age 50-70 years</td>
<td>Criteria: Tree density, distribution, patch size, and appropriate ecological site series</td>
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<tr>
<td></td>
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<td>1000-1200 sph of hardwoods usually through natural regeneration</td>
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Mixedwood Regime

- Recognizes for the first time that naturally regenerated alder within a conifer plantation may be a good thing
- Opportunity for reduction in brushing costs; brushing will not be eliminated, but it will be more focused
- Increased reduction to timber supply
- Opportunity for a variety of strategies/regimes
- Expectation is to have conifer and alder forest types on the same block, on similar rotations
- Critical to decide early if mixedwood management is the preferred option
Example of a mixedwood candidate
Mixedwood Regime

Types of mixedwood regimes

- Stratified mixtures (deciduous overstory with coniferous understory)
- Intimate mixtures (both deciduous and conifer show dominance on site)
- Mosaic mixtures (distinct patches)

Coast Strategy will focus on the mosaic mixtures
- Minimum patch size = 0.5 ha
Free Growing criteria
Free Growing Criteria

Ecology
- Restrict alder to sites where it will achieve sawlog size in the expected rotation

Location
- Favour locations where falling and yarding can be ground based
**Productivity of hardwood species based on ecological conditions**

Medium and good productivity site series for Red Alder, Maple and Birch management

<table>
<thead>
<tr>
<th>Species</th>
<th>BGZ</th>
<th>Site series</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
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<td>alder</td>
<td>CDFm</td>
<td>4/C</td>
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<tr>
<td>alder</td>
<td>CWDh m</td>
<td>4/D-E</td>
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<td>alder</td>
<td>CWHm s2</td>
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<td>CWHm h2</td>
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<tr>
<td>alder</td>
<td>CWHm h2</td>
<td>4/D-E</td>
</tr>
</tbody>
</table>
## Stocking standards

### Intensive/extensive for Red alder

<table>
<thead>
<tr>
<th>Ecology</th>
<th>Species (min heights)</th>
<th>Target (sph)</th>
<th>MSSp (sph)</th>
<th>MSSp&amp;a (sph)</th>
<th>MITD (m)</th>
<th>Regen date (years)</th>
<th>Free Growing (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred</td>
<td>Acceptable</td>
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<tr>
<td>CWHdm SS 07</td>
<td>Dr 4.0</td>
<td>Mb 4.0</td>
<td>1200</td>
<td>500</td>
<td>700</td>
<td>2.0</td>
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</table>

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# Stocking standards

## Patch mixedwood standard (CWHmm1 -05)

<table>
<thead>
<tr>
<th>Class</th>
<th>Preferred</th>
<th>Acceptable</th>
<th>Stocking density (sph)</th>
<th>MITD</th>
<th>Regen Delay</th>
<th>Free Growing</th>
<th>% above brush</th>
<th>Min Height</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Species</td>
<td>Species</td>
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<td>(years)</td>
<td>(m)</td>
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<td>Dr</td>
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<td>1200</td>
<td>700</td>
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<td>150</td>
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<tr>
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<td>Fd Cw</td>
<td>Pw</td>
<td>900</td>
<td>500</td>
<td>400</td>
<td>2.0</td>
<td>3</td>
<td>20</td>
</tr>
</tbody>
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Fd 3.0
Cw 1.5
Pw 2.5
Next Steps

To implement the strategy the CRIT Silviculture Working group will:

• Develop standards for performance; guide and monitor implementation
• Provide mentoring and training for Industry and Government Professionals
• Sponsor two field based workshops: One on Vancouver island, and one on the mainland later this spring
• Encourage Government and Industry to work together at the local management unit level to allocate the proportion of hardwoods individual licensees will commit to grow
Less of this
And more of this
Thank you

Questions?