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

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

Intensive Regime

Site Prep	Stocking density	Stocking Control	Final Harvest (rotation)
Optional -herbicide -mechanical	Planting 1400-1600 sph Optional Fertilize at time of planting with Phosphate	-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

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

Site Prep	Stocking density	Final Harvest (rotation)	Comments
Optional -herbicide -mechanical	Planting 1000-1200 sph Optional Fertilize at time of planting with Phosphate	-Target 30 cm dbh - Target age 30-50 years -Target volume 300 m3 per ha	- Natural ingress not well understood - prompt planting recommended

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

Mixedwood Regime

Strategy option	Site Preparation	Stocking density	Final Harvest	Comments
Patch Mixedwood (> 0.5 ha)	Optional - Mechanical	1000 -1200 sph of conifer 1000-1200 sph of hardwoods usually through natural regeneration	Target age 50-70 years	Criteria: Tree density, distribution, patch size, and appropriate ecological site series

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

Species	BGZ	Site series													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
alder	CDFmm					6/C	6/D-E	*all*	*all*				all	all	
alder	CWHdm CWHxm	4/C				4/D-E	5-6/C	all	*all*	*all*				all	all
alder	CWHds1 CWHds2	4/C				4/D-E	5-6/C	all	*all*	*all*					
alder	CWHms2	4/C			4/D-E	5-6/C	all	all	all						
alder	CWHmm1	3-4/C				all	5-6/C	all	*all*	*all*					
alder	CWHvm1	3-4/C				all	5-6/C	all	*all*	*all*	*all*				
alder	CWHvh1 CWHvh2	*4-5/C*		*2/C*	3/C	all	all	*all*	*all*						
alder	CWHwh1	3-4/C			5-6/C	all	all	*all*	*all*						

Stocking standards

Intensive/extensive for Red alder

Ecology	Species (min heights)		Target (sph)	MSSp (sph)	MSSp&a (sph)	MITD (m)	Regen date (years)	Free Growing (years)
	Preferred	Acceptable						
CWHdm SS 07	Dr 4.0	Mb 4.0 Ep 4.0	1200	500	700	2.0	3	20

Stocking standards

Patch mixedwood standard (CWHmm1 -05)

Class	Preferred	Acceptable	Stocking density (sph)			MITD	Regen Delay	Free Growing	% above brush	Min Height
	Species	Species	P	P&A	Min P	(m)	(years)	(years)		(m)
D	Dr		1200	700		2.0	3	20	150	Dr 4.0
C	Fd Cw	Pw	900	500	400	2.0	3	20	150	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?