Bute East Landscape Unit

Sustainable Resource Management Plan



Ministry of Forests, Lands and Natural Resource Operations

South Coast Region

2012



July 10, 2012

Acknowledgements

The Ministry of Forests, Lands and Natural Resource Operations recognises the following participants and contributors, without which the completion of this Sustainable Resource Management Plan would not have been possible:

International Forest Products Ltd: Bob Craven, RPF; Mike Landers, RPF; Ian Emery, RFT; Michelle Mico, RPBio; Wayne Wall, RPBio; Laszlo Kardos, RPF, PEng; Melinda White

Smart Forest Planning Consulting: Brian Smart, RPF, RPBio

Pollock Forest Management Ltd.: Tania Pollock, RPF

Province of British Columbia: Greg George, RPBio; Chuck Anderson, RPF; Peter Verschoor, RPF; Frank DeGagne, RPF; Lew Greentree; Blake Fougere, RPF

Table of Contents

1.0	Introduction	1
2.0	Bute East Landscape Unit Description	2
2.1	Biophysical	
2.2	Summary of Land Status	4
3.0	Key Resource Tenure Holders	5
3.1	Forest Tenure Holders	5
3.2	Mineral Tenure Holders	5
4.0	Significant Resource Values	5
4.1	Wildlife, Fish and Biodiversity	5
4.2	Timber Resources	6
4.3	Private Land	6
4.4	Water	7
4.5	Recreation	
4.6	Mineral Resource Values	7
5.0	Existing Strategic Level Plans	7
6.0	First Nations	7
7.0	Planning Methodology	8
7.1	Existing Planning Processes	
7.2	Assessment and Review	8
7.3	Boundary Mapping	0
7.4	Amendment Policy	0
7.5	Mitigation of Timber Supply Impacts	1
8.0	OGMA Analysis 1	2

List of Tables

Table 1.	Land Status of the Bute East Landscape Unit	. 4
Table 2.	Crown Forested Land Base Classification within the Bute East Landscape Unit	
	prior to OGMA Delineation	. 4
Table 3.	Old Growth Management Area (OGMA) Distribution	12

List of Appendices

Appendix I	OGMA Summary and Rationale – Bute East LU	13
Appendix II	List of Acronyms	26
Appendix III	Public Consultation Summary	27

1.0 Introduction

This report provides background information used during the preparation of the Landscape Unit Plan for the Bute East Landscape Unit (LU) and associated proposed legal objectives. A description of the planning unit, discussion on significant resource values, and an Old Growth Management Area (OGMA) summary and rationale are provided. See Appendix 1 for the OGMA summary and Appendix 2 for a list of acronyms used.

Biological diversity or biodiversity is defined as: 'the diversity of plants, animals and other living organisms in all their forms and levels of organisation, and includes the diversity of genes, species and ecosystems as well as the evolutionary and functional processes that link them¹'. British Columbia is the most biologically diverse province in Canada.

LU Planning through Section 93.4 of the *Land Act* for the purposes of the *Forest and Range Practices Act* (FRPA) allows legal establishment of objectives to address and sustain landscape level biodiversity values. Implementation of this initiative is intended to help maintain certain biodiversity values. Managing for biodiversity through retention of old growth forests is considered important not only for wildlife, but can also provide important benefits to ecosystem management, protection of water quality and preservation of other natural resources. Although not all elements of biodiversity can be, or need be, maintained on every hectare, a broad geographic distribution of old growth ecosystems is intended to help sustain the genetic and functional diversity of native species across their historic ranges.

In accordance with the direction of government, the Sunshine Coast Forest District has established draft biodiversity Emphasis Options (BEO) for the 26 Landscape Units in its district. Through the ranking process, the Bute East LU was rated as "Intermediate" BEO, which requires that priority biodiversity provisions be undertaken immediately.

Development of this report and work to identify OGMAs was completed in collaboration with International Forest Products Limited (Interfor) and the Ministry of Forests, Lands & Natural Resource Operations (MFLNRO), with original work completed by Smart Forest Planning. Funding was provided by the Forest Investment Account and Interfor.

First Nations were consulted and public review from the public was sought during a 60-day public review and comment period (Appendix 3).

Supporting documentation regarding government policy, planning processes and biodiversity concepts are provided in the *Biodiversity Guidebook*, the *Landscape Unit Planning Guide*², the *Vancouver Forest Region Landscape Unit Planning Strategy*³, *Sustainable Resource Management*

¹ from BC Ministry of Forests and BC Environment. 1995. Biodiversity Guidebook.

² BC Ministry of Forests and Ministry of Environment. 1999. Landscape Unit Planning Guide. Victoria, BC

³ BC Ministry of Forests. 1999. Vancouver Forest Region Landscape Unit Planning Strategy

*Planning: A Landscape-level Strategy for Resource Development*⁴ as well as any strategic plan(s) that may be developed post publication of this document.

The distribution of OGMAs is to be reviewed periodically to ensure the objectives and ecological suitability are maintained through time. Wildlife management practices and operational procedures will improve as more information and technology is acquired.

2.0 Bute East Landscape Unit Description

2.1 Biophysical

The Bute East LU is situated on the eastern side of Bute Inlet. The Landscape Unit covers a total area of 65,444 ha and includes the Orford River watershed and several smaller stream systems.

Of the total area, 22,214 ha (34%) are within the Crown forested land base, and 43,230 ha (66%) are non-forested or non-Crown (rock, alpine tundra, water, private land etc.) and have been excluded from any OGMA contributions and calculations.

The Bute East Landscape Unit lies within the Pacific Ranges Ecoregion, Central Pacific Ranges ecosection⁵. Its climate is maritime, with warm, dry summers and wet, mild winters. Average annual precipitation ranges from 800 - 1000 mm with the majority of precipitation occurring in the fall and winter, which at higher elevations creates a snow pack that feeds the landscape unit stream network.

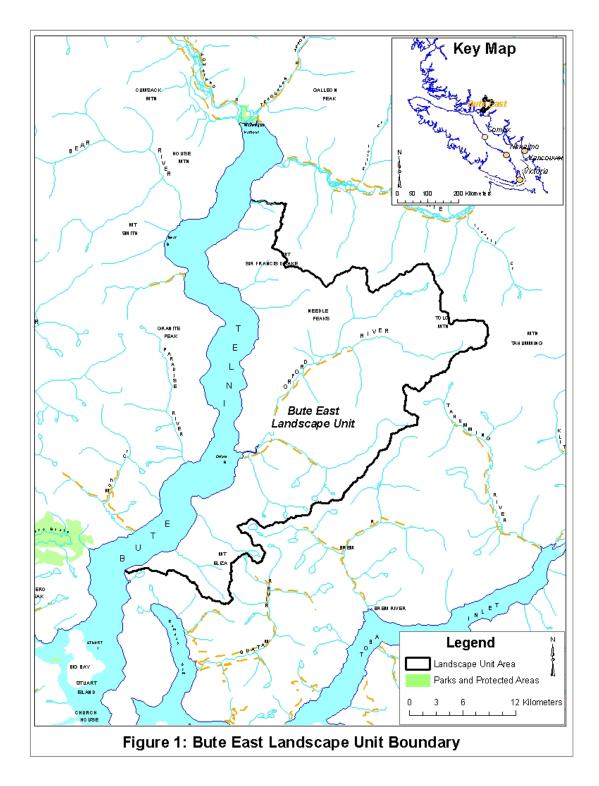
There are eight Biogeoclimatic Ecosystem Classification (BEC) subzones or variants, which fall within three natural disturbance types (NDTs)⁶: Coastal Western Hemlock zone – submontane very wet maritime variant (CWH vm1) and montane very wet maritime variant (CWH vm2) as well as Mountain Hemlock zone – windward moist maritime variant (MH mm1) and leeward moist maritime variant (MH mm2) fall within NDT 1. Three Coastal Western Hemlock zones: dry maritime subzone (CWH dm), southern dry submaritime variant (CWHds1), and southern moist submaritime variant (CWHms1) lie within NDT 2. Bute East also has substantial high elevation non-forested areas in NDT5 (Alpine Tundra).

⁴ BC Ministry of Agriculture and Lands. 2002. Sustainable Resource Management Planning: A Landscape-level Strategy for Resource Development

⁵ Demarchi, D. 1996. An introduction to the ecoregions of British Columbia. Wildlife Branch, Ministry of Environment, Victoria. Ministry of Agriculture and Lands. Update March 2004. British Columbia; Ecoregion Ecosystem Classification Units, Ver. 2.01.

⁶ NDT1 encompasses those ecosystems with rare stand-initiating events. NDT2 includes ecosystems with infrequent stand initiating events. NDT5 is Alpine Tundra or other parkland ecosystems that are not considered forested. For a more complete description of NDTs see the *Biodiversity Guidebook* (1995).

In the lower elevation subzones/variants, within NDT1 and 2, the Bute East LU has sustained substantial levels of disturbance. Forested stands on lower elevation productive sites (typically on slopes with low to moderate gradient) have been disturbed by forest fires and timber harvesting. The relatively low levels of old seral forest remaining within these BEC units reflects this disturbance history.



2.2 Summary of Land Status

Land status within the Bute East LU is summarised in Table 1. A description of the Crown forested land base and OGMA requirements is provided in Table 2.

Ownership Code	Ownership Class	Crown Forest Land Base	Excluded Land Base	Total Area (Ha)	Total of LU %
40-N	Private		7.4	7.4	0.0
50-N	Federal Reserve	3.4	7.9	11.3	0.0
52-N	Indian Reserve		332.8	332.8	0.5
62-C	TSA or PSYU	22,160.4	42,751.9	64,912.2	99.2
69-N	Misc Reserve	50.2	23.7	73.9	0.1
72-B	Crown Sch B lands		106.5	106.5	0.2
		22,214.0	43,230.1	65,444.1	100.0

Table 1. Land Status of the Bute East Landscape Unit

Table 2. Crown Forested Land Base Classification and OGMA target within the Bute East Landscape Unit.

BEC label	Crowi	n Forested Lan (ha)	d Base	Excluded Land Base (ha)	Crown Forested Land Base (ha)	Total Area (ha)		Target % imum)
	с	Р	Ν	х	(C + P + N)	()	%	На
CMAunp		0.4	216.1	26,582.0	216.5	26,798.6	0	0.0
CWHdm	1,279.1	870.5	1,136.0	712.4	3,285.6	3998.0	0.09	295.7
CWHds1	1,359.1	504.2	1,003.0	463.9	2,866.3	3,330.2	0.09	258.0
CWHms1	632.2	310.5	1,270.0	1,852.7	2,212.7	4,065.4	0.09	199.1
CWHvm1	2,352.2	1,829.9	1,983.8	1,992.3	6,165.9	8,158.2	0.13	801.6
CWHvm2	325.3	951.0	2,800.2	2,959.0	4,076.5	7,035.5	0.13	529.9
MHmm1	39.2	136.4	2,572.4	5,681.6	2,748.0	8,429.6	0.19	522.1
MHmm2	44.8	38.4	559.2	2,986.1	642.4	3,628.6	0.19	122.1
Totals	6,031.9	4,641.3	11,540.8	43,230.1	22,214.0	65,444.1		2,728.5

Please refer to attached map for location of OGMAs.

3.0 Key Resource Tenure Holders

The process to select OGMAs included the identification of tenures that are administered by the Ministry of Forests, Lands & Natural Resource Operations (MFLNRO). The selection of OGMAs generally avoided placement within existing tenures where permanent forest disturbance could occur (e.g. clean energy projects). Placement of OGMAs over cutblocks and roads that have received approval status, but were not yet harvested, was avoided; as well OGMAs avoided existing blocks. See Planning Methodology for more detail on OGMA placement guidelines.

3.1 Forest Tenure Holders

Within the plan area there are only two volume based tenures. Tenure is comprised primarily of Forest Licence A19220 held by International Forest Products Ltd. (Interfor). Northwest Hardwoods, a division of Weyerhaeuser Company Ltd., holds the licence for deciduous leading stands.

The OGMAs selected do not impact any known approved category "A" cutblocks or roads as approved under a Forest Stewardship Plan (FSP). Furthermore, Interfor and government agency resource staff were consulted to ensure that the intent of this plan was conveyed and impacts on future planned development was minimized.

3.2 Mineral Tenure Holders

Due to the remoteness of Bute Inlet there are only a few mineral tenures within the Bute East LU, all of which are located near the north end of the Landscape Unit. Since the establishment of an OGMA will not have an impact on the status of any existing mineral and gas permits or tenures, there was no real attempt to avoid placing OGMAs over mineral tenures. Exploration and development activities are permitted in OGMAs. The preference is that exploration and development would proceed in a way that is sensitive to the old growth values of the OGMA; however, if exploration and development proceeds to the point of significantly impacting old growth values, then the OGMA will be moved.

4.0 Significant Resource Values

4.1 Wildlife, Fish and Biodiversity

Wildlife resources of primary management concern in the Bute East LU include: grizzly bear, marbled murrelet, mountain goat, black-tailed deer, Queen Charlotte goshawk, several species of fish and some amphibians. Some of these species are recognized nationally as 'species at risk' under Canada's *Species At Risk Act*; and some are managed in British Columbia under the *Identified Wildlife Management Strategy* (e.g. marbled murrelets for which Wildlife Habitat Areas [WHA] may be established). Knowledge of various species habitats varies widely among

the wildlife listed. For the many other species that occur in this landscape unit and are poorly understood, habitat requirements are generally managed within habitat provisions provided for primary species (e.g. black bears are expected to use habitats for grizzly bears) or through other regulations (e.g. riparian dependent birds and wildlife within riparian management areas).

Where OGMAs overlap with forest stands that are ranked as very high, high or moderate suitability for marbled murrelet habitat, they will not only provide key features important for murrelet nesting but also will provide habitat for other old forest dependent species not actively managed for.

For mountain goat and black-tailed deer, conservation of their critical winter range habitat is provided through establishment as Ungulate Winter Range (UWR) under FRPA. Winter range habitat for mountain goat has been identified, mapped and legally established. Winter habitat for black-tailed deer has not yet been adequately mapped, and its establishment is likely a few years away. Where suitable, stands within UWR were selected as OGMAs.

Orford River and its major tributaries support salmon (Chinook, Coho, chum, pink, and sockeye), steelhead (winter run & summer run), Dolly Varden char and resident cutthroat and rainbow trout. The summer run steelhead are listed as 'extreme conservation concern'. A First Nations salmon hatchery is operated in lower Orford River. Hare Creek supports resident trout. As mentioned above, riparian reserve zones established and riparian management zone practices implemented under the *Forest and Range Practices Act* adjacent to these fish streams will help maintain fish and wildlife habitat.

4.2 Timber Resources

Commercially valuable tree species in the Bute East LU are Douglas-fir (*Pseudotsuga menziesii*), western redcedar (*Thuja plicata*), yellow-cedar (*Chamaecyparis nootkatensis*), western hemlock (*Tsuga heterophylla*), mountain hemlock (*Tsuga mertensiana*), amabilis fir (*Abies amabilis*), sitka spruce (*Picea sitchensis*), subalpine fir (*Abies lasiocarpa*) and deciduous species such as bigleaf maple (*Acer macrophyllum*) and red alder (*Alnus rubra*).

Forest management activities occur throughout all phases of forest development. Operational work includes pre-harvest planning, cutblock layout, road engineering and construction, harvesting and stand regeneration. Post harvest activities include planting, brushing, juvenile spacing, pruning, thinning and road deactivation or maintenance.

4.3 Private Land

There is only one 7 ha parcel of private land within the Bute East LU. A further 333 ha of Indian Reserve and 11 ha of undisclosed Federal Reserve also exist. OGMAs were not located within private or reserve lands.

4.4 Water

There are no Community Watersheds within the Bute East Landscape Unit. There are three active water licences all held by Fisheries and Oceans Canada. They are located along Orford River, Algard Creek and Dupont Creek for the purpose of conserving fish.

4.5 Recreation

Bute East is relatively remote and is only accessible by boat or aircraft. Due to its remoteness, the Bute East LU has limited backcountry recreation activity; although activities would include rock-climbing, mountaineering, angling, and hunting. Kayaking, sailing and wildlife viewing occur along Bute Inlet. Commercial wildlife viewing – by several tour operators predominantly for grizzly bears – occurs along at least 7 km of the lower Orford River, in association with spawning salmon.

4.6 Mineral Resource Values

Subsurface resources (minerals, coal, oil, gas and geothermal) and aggregate resources are valuable to the province, but deposits are difficult to characterize due to their hidden nature. Ongoing or future exploration by tenure holders within the few Bute East mineral tenures is the most likely way to understand the value of subsurface resources in this area.

5.0 Existing Strategic Level Plans

There are no existing strategic level plans for the Sunshine Coast District.

6.0 First Nations

The Bute East LU is located entirely within the traditional territory of the Cape Mudge First Nation and Homalco First Nation. A small reserve is located at the mouth of the Orford River. The Orford River salmon hatchery is also operated by the Homalco First Nation and one of the commercial wildlife viewing companies is Homalco Wildlife Tours.

Consultation with the First Nation and Treaty Society, in respect of their aboriginal interests related to this Landscape Unit plan, initially occurred in 2005 with the original draft plans. Letters to First Nations were sent in 2009, informing them of the process to review the draft OGMAs, and again in 2011 to review the final draft plans. Since Landscape Unit planning is a conservation oriented initiative, legal designation of OGMAs will not affect First Nations aboriginal rights or title, or their traditional and cultural activities (e.g. First Nations traditional and cultural activities are exempt from the Legal Order).

7.0 Planning Methodology

7.1 Existing Planning Processes

Landscape Units contain varying amounts of mature or old forested habitat that are provided by existing processes (e.g. UWR, WHA or inoperable areas), which build on ecosystem management at the landscape scale. OGMAs further contribute to this principle. Other practices, such as the establishment of stand level riparian reserve zones and wildlife tree patches, will improve connectivity at the stand scale but add support to initiatives aimed at the landscape scale. Providing dispersal opportunities and minimizing fragmentation is one objective.

An important part of the OGMA planning exercise was to ensure that these separate processes complemented each other. For example, OGMAs placed within or adjacent to areas that are highly constrained from harvesting will increase patch size. These larger patches allow greater opportunity to improve connectivity between adjacent patches. As well, larger patches (when appropriately designed) will provide forest interior habitat conditions important to many species and ecosystem processes.

The intent is to maintain a series of old forest habitat patches across probable movement corridors to allow wildlife dispersal and gene flow. Some species are particularly susceptible to mortality in winter and connecting or aggregating OGMAs may help facilitate movement to more suitable habitats; other species are much less mobile and rely on other dispersal mechanisms. Shorter distances between appropriate habitats help facilitate the required genetic transfer. Stand level biodiversity measures together with landscape level OGMAs is a precautionary approach to manage for biodiversity and ecological values.

7.2 Assessment and Review

OGMAs were selected based on a review of several criteria and features. Individual forest stand attributes (e.g. age, stocking, site index, species composition, height class) was one of the factors since it was helpful in maximizing OGMA value from a biodiversity standpoint while minimizing timber supply impact. An approach guided strictly by age class or Allowable Annual Cut (AAC) contributions could result in the inclusion of stands of marginal biodiversity value and significant timber supply impact. To this end, effort was also extended to use forests from the non-contributing land base first for meeting OGMA objectives; and even when areas from the timber harvesting land base were required they were combined with non-contributing forests as much as possible. Air photo review and high resolution satellite imagery were also used to help verify OGMA biodiversity value. Interfor carried out field verification on many of the polygons. In virtually all cases, open stands with low stocking/volume, small trees, or poor productivity were not considered for OGMA candidates since they were not representative of an average stand. Specific rationale for the selection of most OGMAs is shown in Appendix III.

Mountain goat, grizzly bear and marbled murrelet are of particular management concern in the Bute East LU. For each of these species, habitat inventory was sufficiently complete to allow consideration for including portions in OGMA when biologically appropriate. Where feasible, forested stands within and adjacent to these high value wildlife habitats was captured as OGMA to include old growth representation with a specific wildlife habitat requirement. This also reduced timber supply impact.

An ideal OGMA candidate, for example, was an area that provided important biological value to grizzly bear or mountain goat, contained representative mature or old forest habitat, and was also an under-represented ecosystem type. In keeping with the objective of spatially distributing OGMA across the landscape, and given that not all wildlife habitats contain contiguous old forest (e.g. some UWR is open and rocky or contains smaller trees), not all wildlife habitats with old growth stands have been included as OGMA. This ensures biodiversity representation is not concentrated in a particular stand type or area.

To allow capture of key marbled murrelet habitat features within OGMAs (that were not already in WHAs), forested areas of the Bute East LU that were previously ranked by a qualified surveyor for murrelet nesting value were evaluated. Habitat class ranking was based on the frequency and abundance of key habitat features, such as tall trees, small canopy gaps, patch size and presence of large moss covered limbs. When the opportunity presented itself, the stands categorized as having suitable nesting habitat and low harvest chance were captured in OGMAs.

In addition to including areas with specific forest stand attributes and wildlife habitat requirements, other factors, such as patch size, forest interior habitat, spatial distribution and connectivity were considered during OGMA delineation. Due to the fragmented nature of the Bute East landscape at both lower and higher elevations, opportunities to recruit larger patches to provide for forest interior conditions were fairly limited, yet efforts were made to achieve this objective. Measuring the amount of OGMA that will provide forest interior habitat is confounded by the eventual fate of adjacent forest. In some cases, forest stands adjacent to OGMAs may never be disturbed and the OGMA (no matter what size) will maintain forest interior habitat; however in other cases adjacent forest will be harvested creating an edge and forest interior habitat will only be provided in large OGMAs.

Specific to connectivity, two factors were considered. First, low to high elevation connections were viewed as important (e.g. riparian valley bottom to upslope), albeit with limited opportunities due to disturbance history. To improve the likelihood of success with this measure, some riparian OGMAs were increased in width and others were linked to upslope constrained areas by inclusion of younger stands. Narrow and small, isolated riparian strips were not considered acceptable candidates for OGMA due to their limited value at the landscape scale.

Second, linkages between watersheds in the landscape unit were maintained to the extent possible by maintaining OGMA distribution across the LU and not concentrating them in a

particular drainage or map sheet. While in some cases, higher elevation forested areas are less disturbed and inaccessible or non-merchantable (and hence maintained by default) they can only sometimes provide connectivity between watersheds for dispersal and gene flow. Open alpine or ice-fields can form barriers for less mobile species. As such, purposeful placement of OGMAs is important for connectivity opportunities between watersheds. As with riparian to upslope connectivity, the opportunity to achieve this objective was limited.

Most of the time where an OGMA candidate had suitable attributes extending into an adjacent BEC unit, the OGMA was designed to include forests from both areas. This approach significantly increased the biological value of the plan by increasing OGMA patch size, connectivity and distribution over the Landscape Unit.

In the lower elevation biogeoclimatic subzones/variants, such as CWHdm, CWHds1 and CWHvm1, past natural and human disturbances created a complex mosaic of age classes and mixed-age stands. Some stands included as OGMAs are of mixed age if the old growth component is significant; and some OGMAs are younger aged where insufficient old growth existed. In situations where 'recruitment' OGMAs were necessary, attempts were made to add to other patches to increase size. Along the Orford River, several mature, but not old growth, stands leading in Sitka spruce and containing cottonwood were included as OGMA because such stands are now relatively uncommon, and hence provide excellent ecosystem and habitat representation.

7.3 Boundary Mapping

OGMA boundaries used natural features wherever possible to ensure they could be located on the ground, and utilized forest stand boundaries wherever possible to reduce operational uncertainty and improve ease of OGMA mapping. In a few cases, roads or cutblock boundaries were used, both of which are easy to locate in the field.

OGMAs were initially digitized and mapped using a 1:20,000 scale TRIM base. Satellite images, aerial photography and reconnaissance flights (summer 2003) were chiefly used to designate OGMAs. During early OGMA identification, structural attributes of the stand, rather than forest cover information, were primarily used to determine appropriateness. To mitigate the issues of utilizing a number of mapping techniques, final OGMAs were mapped with the aid of recent high resolution satellite images.

7.4 Amendment Policy

A MFLNRO South Coast Region policy provides direction to proponents (forest tenure holders) when applying for amendments to OGMA legal objectives. Amendment procedures will cover such things as minor or major amendments for resource development (e.g. roads, bridges, boundary issues, rock quarries & gravel pits), or the relocation of OGMAs. The policy also

discusses acceptable management activities and review procedures, and forms an integral part of this LU plan.

In general, most OGMA boundaries are not 'permanently fixed', they can be moved over time so long as biodiversity objectives are maintained. Replacement OGMAs are required to be equivalent or better than the original. As stand succession proceeds, some currently unsuitable forests may become good OGMA candidates and as such periodic assessment or revision to the OGMAs may occur.

7.5 Mitigation of Timber Supply Impacts

During delineation of OGMAs for priority biodiversity provisions, an attempt was made to mitigate the short and long-term impacts on timber supply. Wherever feasible, OGMAs were located to minimize impacts on current or future harvesting opportunities while simultaneously ensuring suitable old growth representation was achieved. Agreement with Interfor was reached for OGMA location.

OGMAs were delineated first in the non-contributing forest land base. Specifically, where compatible with biodiversity objectives, management zones, riparian reserve zones, lower productivity sites, areas of difficult access, marginal economics and stands with specific wildlife habitat values were assessed for OGMA suitability.

Since representation must be at the subzone/variant level, the non-contributing land base (or other constrained areas) could not always satisfy old forest requirements. Where this occurred, encroachment into the THLB was discussed and rationalized with the biologist and logging engineers to ensure the most current operational and biological information was utilized. Generally, more THLB was required for OGMAs in lower elevation subzone/variants due to a longer disturbance history resulting in a significant portion of younger stands across the landscape.

During the LU planning process, careful consideration was made to ensure that access to timber beyond an OGMA was not cut off by its delineation. Future access corridors, where known, were left out of OGMAs; and OGMA boundaries were delineated to simplify adjacent management.

Although OGMAs were primarily delineated within the oldest available age class, old forest stands that were approved or proposed for harvesting on FSPs were excluded from candidate OGMAs following direction outlined in the *Landscape Unit Planning Guide*.

8.0 OGMA Analysis

The Bute East LU was ranked as an Intermediate Biodiversity Emphasis Option through the biodiversity value ranking process completed earlier. This Intermediate designation along with the BEC subzone/variant determines the minimum percentage of the Crown forested land base that will be designated as OGMA. Table 3 outlines the total amount of OGMA required and established in each subzone/variant and from which Crown forest category it is derived. The old growth target figures in Table 3 are derived from Appendix 2 in the *Landscape Unit Planning Guide*. A rationale for OGMA designation for the Bute East LU is provided within Appendix III.

BEC label	OGMA Target %		OGMA Target 9		Establis hed OGMA (Ha)	Cont	A in Non- ributing (N)	Ра	VIA in rtial outing (P)	OGN Contribe	1A in uting (C)		VIA in ded (X)	Difference (Established - Target)
	%	На		%	На	%	На	%	На	%	На	На		
CWHdm	0.09	295.7	312.9	40.7	127.2	24.6	76.9	24.4	76.4	10.4	32.4	17.2		
CWHds1	0.09	258.0	279.0	44.6	124.5	12.2	34.0	24.3	67.8	18.9	52.8	21.0		
CWHms1	0.09	199.1	221.2	75.6	167.2	3.2	7.2	4.4	9.6	16.8	37.2	22.1		
CWHvm1	0.13	801.6	809.8	36.0	291.9	17.3	140.1	34.0	275.2	12.7	102.6	8.2		
CWHvm2	0.13	529.9	533.1	59.5	317.5	13.4	71.5	3.8	20.3	23.2	123.9	3.2		
MHmm1	0.19	522.1	528.6	74.6	394.4	4.7	25.0	2.6	13.8	18.0	95.4	6.5		
MHmm2	0.19	122.1	134.0	79.9	107.0	0.1	0.2	0.0	0.0	20.0	26.8	11.9		
		2,728.5	2,818.6	54.3	1,529.6	12.6	354.8	16.4	463.1	16.7	471.0	90.1		

Table 3. Old Growth Management Area (OGMA) Distribution

Appendix I OGMA Summary and Rationale

	Total			
OGMA	Area		Area	
#	(ha)	BEC	(ha)	Comments
3	49.3	CWHds1	49.3	Recruitment
5	6.4	CWHds1	1.3	Old Forest Representation
5		CWHms1	5.0	Old Forest Representation
6	18.7	CWHds1	18.7	Recruitment, Old Forest Representation
8	8.6	CWHds1	8.6	Recruitment, Old Forest Representation
9	14.0	CWHds1	11.2	Recruitment, Old Forest Representation
9		CWHms1	2.9	Old Forest Representation
12	7.4	CWHds1	4.1	Recruitment, Old Forest Representation
12		CWHms1	3.3	Old Forest Representation
14	17.2	CWHds1	8.1	Recruitment, Old Forest Representation, Draft Ungulate Winter Range
14		CWHms1	9.1	Ungulate Winter Range
16	13.9	CWHds1	6.0	Ungulate Winter Range
16		CWHms1	8.0	Ungulate Winter Range
19	4.3	CWHds1	4.3	Recruitment, Old Forest Representation
20	5.3	CWHds1	5.3	Ungulate Winter Range
21	10.7	CWHds1	8.1	Old Forest Representation
21		CWHms1	2.6	Old Forest Representation
22	3.5	CWHms1	1.3	Ungulate Winter Range
22		MHmm2	2.2	Ungulate Winter Range
23	5.3	CWHds1	5.3	Recruitment, Old Forest Representation
27	2.8	CWHds1	2.8	Old Forest Representation
28	3.9	CWHds1	3.9	Old Forest Representation
31	7.0	CWHds1	7.0	Old Forest Representation
34	2.1	CWHds1	2.1	Recruitment, Mature Forest Representation
40	8.4	MHmm2	8.4	Old Forest Representation
43	2.0	MHmm2	2.0	Old Forest Representation, Ungulate Winter Range
44	18.6	CWHds1	0.9	Ungulate Winter Range
44		CWHms1	16.9	Ungulate Winter Range
44		MHmm2	0.8	Ungulate Winter Range

OGMA	Total Area		Area	
#	(ha)	BEC	(ha)	Comments
45	13.6	CWHms1	9.9	Ungulate Winter Range
45		MHmm2	3.8	Ungulate Winter Range
46	3.7	MHmm2	3.7	Old Forest Representation
47	3.3	MHmm2	3.3	Recruitment, Ungulate Winter Range
48	15.1	CWHms1	11.9	Old Forest Representation
48		MHmm2	3.2	Recruitment, Old Forest Representation
49	7.5	CWHds1	7.5	Recruitment, Mature Forest Representation
50	33.5	CWHds1	33.5	Recruitment, Old Forest Representation
53	5.9	CWHms1	0.7	Old Forest Representation
53		MHmm2	5.2	Old Forest Representation
55	3.6	MHmm2	3.6	Old Forest Representation
57	1.3	MHmm2	1.3	Mature Forest Representation
59	20.4	CWHms1	9.7	Exemption for road, Old Forest Representation
59		CWHvm1	10.7	Exemption for road, Recruitment, Old Forest Representation
60	3.7	CWHms1	0.2	Old Forest Representation
60		MHmm2	3.4	Old Forest Representation
61	14.1	CWHms1	14.1	Old Forest Representation
62	15.9	CWHds1	8.0	Old Forest Representation
62		CWHms1	5.1	Old Forest Representation
62		MHmm2	2.7	Old Forest Representation
63	2.8	CWHms1	0.4	Old Forest Representation
63		MHmm2	2.4	Old Forest Representation
65	34.2	CWHds1	16.6	Recruitment, Old Forest Representation
65		CWHms1	12.6	Old Forest Representation
65		MHmm2	4.9	Old Forest Representation
66	3.0	CWHms1	0.8	Old Forest Representation
66		MHmm2	2.1	Old Forest Representation
67	1.9	CWHms1	0.9	Old Forest Representation
67		MHmm2	1.0	Old Forest Representation
69	55.8	CWHvm1	55.8	Recruitment, Old Forest Representation, Draft Grizzly Bear Habitat Area
70	20.1	CWHms1	9.1	Recruitment, Old Forest Representation, Ungulate Winter Range
70		CWHvm1	3.7	Old Forest Representation

OGMA #	Total Area (ha)	BEC	Area (ha)	Comments
70		CWHvm2	6.3	Recruitment, Old Forest Representation, Ungulate Winter Range
70		MHmm1	0.9	Recruitment
71	5.4	CWHms1	3.4	Old Forest Representation
71		CWHvm1	2.0	Old Forest Representation
72	5.3	CWHvm2	0.1	
72		MHmm1	5.2	
73	9.0	CWHms1	6.8	Old Forest Representation
73		CWHvm1	2.2	Old Forest Representation
75	1.5	CWHvm2	14	Recruitment
75		MHmm1	0.1	
76	56.9	CWHms1	24.4	Old Forest Representation
76		CWHvm1	8.0	Recruitment, Old Forest Representation
76		MHmm2	24.6	Old Forest Representation
77	2.3	CWHvm2	0.3	Old Forest Representation
77		MHmm1	2.0	Old Forest Representation
78	7.9	CWHms1	5.4	Old Forest Representation
78		MHmm2	2.5	Old Forest Representation
79	6.8	CWHvm2	1.2	Old Forest Representation
79		MHmm1	5.6	Old Forest Representation
81	3.4	CWHvm1	3.4	Recruitment, Draft Grizzly Bear Habitat Area
82	14.5	CWHvm2	0.2	Old Forest Representation
82		MHmm1	12.9	Old Forest Representation
82		MHmm2	1.4	Old Forest Representation
84	2.2	MHmm2	2.2	Old Forest Representation
85	0.8	MHmm2	0.8	Old Forest Representation
89	12.2	CWHvm1	1.4	Old Forest Representation
89		CWHvm2	7.7	Old Forest Representation
89		MHmm1	3.1	Old Forest Representation
90	6.1	CWHvm2	5.8	Old Forest Representation
90		MHmm1	0.4	Old Forest Representation
92	9.4	MHmm2	9.4	Recruitment, Old Forest Representation
94	5.3	CWHvm1	2.8	Recruitment, Old Forest Representation

OGMA	Total Area		Area	
#	(ha)	BEC	(ha)	Comments
94		CWHvm2	2.5	Recruitment, Old Forest Representation
96	16.6	CWHvm1	10.2	Recruitment, Old Forest Representation, Draft Grizzly Bear Habitat Area
96		CWHvm2	6.4	Old Forest Representation
101	3.0	MHmm1	3.0	Old Forest Representation
102	4.9	CWHvm1	4.9	Exemption for road, Recruitment
103	12.5	CWHvm1	12.5	Old Forest Representation, Recruitment, Draft Grizzly Bear Habitat Area, Approved Wildlife Habitat Area
105	6.8	CWHvm1	1.9	Recruitment, Old Forest Representation
105		CWHvm2	4.9	Recruitment, Old Forest Representation
106	4.7	CWHvm1	4.7	Recruitment
107	7.8	CWHvm1	2.7	Old Forest Representation
107		CWHvm2	5.0	Old Forest Representation
108	2.3	CWHvm2	1.8	Recruitment, Ungulate Winter Range
108		MHmm1	0.4	Recruitment, Ungulate Winter Range
				Old Forest Representation, Draft Grizzly Bear Habitat Area, Approved Wildlife Habitat Area, Old
109	13.3	CWHvm1	13.3	Forest Representation
110	4.1	CWHvm1	4.1	Recruitment
111	11.0	CWHvm1	11.0	Exemption for road, Recruitment, Old Forest Representation
112	22.4	CWHvm1	20.3	Recruitment, Old Forest Representation
112		CWHvm2	2.1	Old Forest Representation
113	52.4	CWHdm	9.1	Recruitment, Old Forest Representation, Draft Deer Winter Range
113		CWHvm1	17.4	Recruitment, Draft Deer Winter Range, Old Forest Representation
113		CWHvm2	19.8	Recruitment, Old Forest Representation
113		MHmm1	6.1	Old Forest Representation
114	22.5	CWHvm1	8.6	Recruitment, Old Forest Representation
114		CWHvm2	13.8	Recruitment, Old Forest Representation
115	5.1	CWHvm1	5.1	Exemption for road, Recruitment
117	11.2	CWHvm1	11.2	Recruitment, Approved Wildlife Habitat Area, Old Forest Representation
118	11.2	CWHvm1	11.2	Old Forest Representation, Recruitment, Draft Grizzly Bear Habitat Area, Approved Wildlife Habitat Area
120	3.9	CWHvm2	1.1	Ungulate Winter Range, Old Forest Representation
120		MHmm1	2.8	Ungulate Winter Range, Old Forest Representation

OGMA #	Total Area (ha)	BEC	Area (ha)	Comments
# 122	2.5	CWHvm1	2.5	Recruitment, Draft Grizzly Bear Habitat Area, Approved Wildlife Habitat Area
129	3.6	CWHvm1	3.6	Recruitment, Approved Wildlife Habitat Area
130	5.6	CWHvm1	5.6	Exemption for road, Recruitment
	010			Recruitment, Mature Forest Representation, Old Forest Representation, Draft Deer Winter
131	21.0	CWHdm	11.6	Range
131		CWHvm1	5.4	Recruitment, Old Forest Representation, Draft Deer Winter Range
131		CWHvm2	2.8	Old Forest Representation
131		MHmm1	1.2	Old Forest Representation
132	10.1	CWHvm1	1.2	Recruitment, Draft Grizzly Bear Habitat Area, Approved Wildlife Habitat Area
132		CWHvm2	8.9	Recruitment
133	30.2	CWHvm1	22.3	Approved Wildlife Habitat Area, Old Forest Representation
133		CWHvm2	7.0	Approved Wildlife Habitat Area, Old Forest Representation
133		MHmm1	0.9	Old Forest Representation
135	16.8	CWHvm1	1.6	Old Forest Representation
135		CWHvm2	13.0	Old Forest Representation
135		MHmm1	2.2	Old Forest Representation
136	6.3	CWHvm2	4.2	Old Forest Representation
136		MHmm1	2.1	Old Forest Representation
138	3.0	CWHvm1	0.8	Old Forest Representation
138		CWHvm2	2.2	Old Forest Representation
139	6.1	CWHdm	6.1	Recruitment
140	17.4	CWHdm	8.3	Exemption for road, Recruitment, Old Forest Representation
140		CWHvm1	9.1	Exemption for road, Recruitment, Old Forest Representation
141	5.0	CWHvm2	5.0	Draft Grizzly Bear Habitat Area, Old Forest Representation
142	4.0	CWHdm	3.5	Exemption for road, Recruitment
142		CWHvm1	0.5	Exemption for road, Recruitment
144	1.4	CWHvm2	0.5	
		MHmm1	0.9	Old Forest Representation
145	12.2	CWHvm2	11.7	Old Forest Representation
145		MHmm1	0.5	Old Forest Representation
146	6.1	CWHdm	6.1	Recruitment
147	5.0	CWHdm	5.0	Recruitment

OGMA	Total Area		Area	
#	(ha)	BEC	(ha)	Comments
149	20.0	CWHvm2	18.7	Old Forest Representation, Approved Wildlife Habitat Area
149		MHmm1	1.3	Old Forest Representation
151	0.5	CWHvm2	0.5	Approved Wildlife Habitat Area, Old Forest Representation
152	9.7	CWHvm1	9.7	Recruitment
153	4.0	CWHvm2	3.2	Old Forest Representation
153		MHmm1	0.8	Old Forest Representation
154	0.9	CWHvm2	0.9	Old Forest Representation
155	1.7	CWHvm2	1.7	Approved Wildlife Habitat Area, Old Forest Representation
156	1.4	CWHvm2	1.4	Old Forest Representation
157	26.9	CWHvm2	20.7	Old Forest Representation, Approved Wildlife Habitat Area,
157		MHmm1	6.2	Old Forest Representation
158	4.1	CWHvm2	3.2	Old Forest Representation
158		MHmm1	0.9	Old Forest Representation
159	4.8	CWHdm	4	Recruitment
159		CWHvm1	4.5	Recruitment, Old Forest Representation
160	1.4	CWHvm2	1.4	Old Forest Representation
160		MHmm1	0.1	Old Forest Representation
162	1.8	CWHvm2	1.1	Old Forest Representation
162		MHmm1	0.7	Old Forest Representation
164	17.5	CWHvm1	6.7	Recruitment, Ungulate Winter Range, Old Forest Representation
164		CWHvm2	10.2	Old Forest Representation, Recruitment, Ungulate Winter Range
164		MHmm1	0.5	Old Forest Representation
165	12.1	CWHvm2	9.7	Old Forest Representation, Approved Wildlife Habitat Area
165		MHmm1	2.4	Old Forest Representation
166	12.9	CWHvm2	7.5	Old Forest Representation, Approved Wildlife Habitat Area
166		MHmm1	5.4	Old Forest Representation
168	53.4	CWHdm	41.4	Recruitment, Old Forest Representation
168		CWHvm1	12.0	Old Forest Representation
173	19.7	CWHvm2	12.7	Approved Wildlife Habitat Area, Old Forest Representation
173		MHmm1	7.0	Old Forest Representation
176	7.4	MHmm1	7.4	Old Forest Representation
184	3.2	CWHdm	1.3	Recruitment, Old Forest Representation

00144	Total Area		A #00	
OGMA #	(ha)	BEC	Area (ha)	Comments
184		CWHvm1	1.8	Old Forest Representation, Recruitment
185	20.6	CWHdm	5.3	Recruitment, Old Forest Representation
185		CWHvm1	15.4	Recruitment, Old Forest Representation
186	22.1	CWHvm1	18.8	Old Forest Representation, Recruitment, Ungulate Winter Range
186		CWHvm2	3.2	Old Forest Representation, Ungulate Winter Range
188	6.4	CWHdm	4.5	Recruitment, Ungulate Winter Range, Old Forest Representation
188		CWHvm1	1.8	Recruitment, Old Forest Representation
191	8.2	CWHdm	8.2	Recruitment
192	34.1	CWHvm1	15.7	Recruitment, Ungulate Winter Range, Old Forest Representation
192		CWHvm2	18.4	Recruitment, Ungulate Winter Range, Old Forest Representation
193	7.5	CWHvm2	0.4	Old Forest Representation
193		MHmm1	7.1	Old Forest Representation
195	7.5	CWHvm2	0.7	Recruitment, Old Forest Representation
195		MHmm1	6.8	Mature Forest Representation, Old Forest Representation
197	45.2	CWHdm	41.0	Recruitment, Old Forest Representation, Ungulate Winter Range
197		CWHvm1	4.2	Recruitment, Ungulate Winter Range, Old Forest Representation
205	10.4	CWHdm	9.4	Recruitment
205		CWHvm1	1.0	Recruitment
206	4.1	CWHvm2	3.9	
206		MHmm1	0.2	
207	6.6	MHmm1	6.6	Old Forest Representation
208	7.8	CWHvm1	7.8	Recruitment, Approved Wildlife Habitat Area
210	6.0	CWHvm1	6.0	Old Forest Representation, Recruitment, Approved Wildlife Habitat Area
211	22.3	CWHvm1	22.3	Recruitment, Approved Wildlife Habitat Area
212	52.1	CWHvm1	35.0	Approved Wildlife Habitat Area, Old Forest Representation
212		CWHvm2	17.1	Old Forest Representation
213	6.2	CWHvm1	6.2	Recruitment
214	12.9	CWHvm1	12.9	Recruitment, Old Forest Representation
215	10.4	CWHvm2	3.9	Old Forest Representation
215		MHmm1	6.4	Mature Forest Representation, Old Forest Representation
220	6.1	CWHvm1	4.0	Recruitment
220		CWHvm2	2.1	Recruitment

OGMA #	Total Area (ha)	BEC	Area (ha)	Comments
223	9.7	CWHvm2	4.0	Old Forest Representation
223		MHmm1	5.6	Old Forest Representation
224	11.6	CWHvm1	11.6	Old Forest Representation, Approved Wildlife Habitat Area, Old Forest Representation
225	58.7	CWHvm1	22.6	Recruitment, Old Forest Representation
225		CWHvm2	30.6	Recruitment, Old Forest Representation
225		MHmm1	5.5	Old Forest Representation
227	20.2	CWHvm1	16.8	Recruitment, Old Forest Representation, Approved Wildlife Habitat Area
227		CWHvm2	3.4	Old Forest Representation
229	36.2	CWHdm	21.7	Recruitment
229		CWHvm1	14.5	Recruitment, Old Forest Representation
230	3.9	CWHvm2	1.8	Recruitment, Old Forest Representation
230		MHmm1	2.0	Recruitment, Old Forest Representation
231	8.5	CWHvm1	7.5	Old Forest Representation, Recruitment, Approved Wildlife Habitat Area
231		CWHvm2	1.0	Old Forest Representation
232	30.0	CWHvm2	3.9	Recruitment, Old Forest Representation
232		MHmm1	25.6	Recruitment, Old Forest Representation
232		MHmm2	0.5	Old Forest Representation
238	5.5	CWHvm2	55	Recruitment, Old Forest Representation
239	2.0	MHmm1	1.5	Old Forest Representation
239		MHmm2	0.5	Old Forest Representation
240	35.9	CWHvm1	26.7	Recruitment, Old Forest Representation
240		CWHvm2	7.6	Old Forest Representation
240		MHmm1	1.6	Old Forest Representation
241	4.0	CWHvm1	4.0	Recruitment, Old Forest Representation
242	1.2	MHmm1	0.8	Old Forest Representation
242		MHmm2	0.4	Old Forest Representation
244	5.3	MHmm1	5.1	Old Forest Representation
244		MHmm2	0.2	Old Forest Representation
245	11.1	MHmm1	11.1	Recruitment, Old Forest Representation
246	2.2	MHmm1	2.0	Old Forest Representation
246		MHmm2	0.3	Old Forest Representation
247	12.4	CWHvm2	3.1	Recruitment, Old Forest Representation

OGMA	Total Area		Area	
#	(ha)	BEC	(ha)	Comments
247		MHmm1	9.3	Recruitment, Old Forest Representation
248	1.9	CWHvm1	1.9	Recruitment, Old Forest Representation
249	0.6	CWHvm1	0.6	Old Forest Representation
250	8.1	CWHvm1	8.1	Recruitment, Old Forest Representation
253	13.3	CWHvm1	6.1	Old Forest Representation
253		CWHvm2	6.0	Old Forest Representation
253		MHmm1	1.2	Old Forest Representation
254	1.6	MHmm1	1.6	Recruitment, Old Forest Representation
255	7.0	MHmm1	6.1	Old Forest Representation
255		MHmm2	0.9	Old Forest Representation
257	1.1	MHmm1	1.1	Old Forest Representation
258	6.0	CWHvm1	5.6	Recruitment, Old Forest Representation
258		CWHvm2	0.4	Old Forest Representation
259	6.8	CWHvm2	1.7	Old Forest Representation
259		MHmm1	5.1	Old Forest Representation
265	1.7	MHmm1	1.7	
269	4.3	MHmm1	4.3	Old Forest Representation
270	4.0	CWHvm1	4.0	Recruitment, Approved Wildlife Habitat Area
271	2.3	CWHvm1	2.3	Recruitment
272	1.2	MHmm1	1.2	Old Forest Representation
278	1.8	MHmm1	1.6	Old Forest Representation
278		MHmm2	0.2	
279	8.3	CWHvm2	3.7	Old Forest Representation
279		MHmm1	4.5	Old Forest Representation
280	17.6	CWHvm1	5.0	Recruitment, Old Forest Representation, Ungulate Winter Range
280		CWHvm2	11.2	Old Forest Representation. Ungulate Winter Range
280		MHmm1	1.4	Old Forest Representation
287	33.1	CWHdm	17.0	Recruitment
287		CWHvm1	16.1	Recruitment, Old Forest Representation
289	2.6	CWHvm2	1.2	Recruitment, Old Forest Representation
289		MHmm1	1.3	Old Forest Representation
290	2.3	CWHvm2	1.1	Recruitment, Old Forest Representation

OGMA	Total Area		Area	
#	(ha)	BEC	(ha)	Comments
290		MHmm1	1.3	Recruitment, Old Forest Representation
292	4.3	CWHvm2	4.3	Recruitment, Old Forest Representation
293	5.4	CWHvm2	5.4	Old Forest Representation, Recruitment, Ungulate Winter Range
295	0.8	CWHvm2	0.8	Recruitment, Old Forest Representation
298	3.6	CWHvm1	3.6	Approved Wildlife Habitat Area
301	18.2	CWHvm2	9.9	Old Forest Representation
301		MHmm1	8.3	Old Forest Representation
303	25.8	CWHvm1	25.8	Ungulate Winter Range, Old Forest Representation
304	25.8	CWHdm	10.8	Recruitment
304		CWHvm1	14.4	Recruitment
304		CWHvm2	0.6	Recruitment
305	4.3	CWHvm2	2.2	Old Forest Representation, Ungulate Winter Range
305		MHmm1	2.1	Draft Ungulate Winter Range, Old Forest Representation
307	8.0	MHmm1	8.0	Recruitment, Old Forest Representation
308	21.4	MHmm1	21.4	Old Forest Representation
309	1.5	MHmm1	1.5	Ungulate Winter Range, Old Forest Representation
310	4.0	CWHvm2	0.4	Ungulate Winter Range, Old Forest Representation
310		MHmm1	3.6	Ungulate Winter Range, Old Forest Representation
314	36.5	CWHdm	23.4	Recruitment, Draft Deer Winter Range
314		CWHvm1	12.7	Recruitment, Draft Deer Winter Range
314		CWHvm2	0.3	Recruitment
318	6.6	CWHvm1	2.8	Old Forest Representation
318		CWHvm2	3.4	Old Forest Representation
318		MHmm1	0.4	Old Forest Representation
319	2.4	MHmm1	2.4	Old Forest Representation
322	32.6	CWHvm2	6.9	Old Forest Representation
322		MHmm1	25.7	Old Forest Representation
324	6.0	MHmm1	6.0	Old Forest Representation
325	35.4	CWHvm2	17.2	Old Forest Representation
325		MHmm1	18.2	Old Forest Representation
327	21.8	CWHvm2	1.7	Old Forest Representation
327		MHmm1	20.0	Old Forest Representation

OGMA	Total Area		Area	
#	(ha)	BEC	(ha)	Comments
329	5.6	CWHdm	5.6	Exemption for road, Recruitment
332	10.1	CWHdm	10.1	Recruitment
333	10.8	CWHvm1	10.8	Recruitment
335	2.4	MHmm1	2.3	Old Forest Representation
335		MHmm2	0.1	Old Forest Representation
336	6.1	MHmm1	6.1	Old Forest Representation
337	24.5	CWHvm1	23.2	Recruitment, Old Forest Representation
337		CWHvm2	1.2	Old Forest Representation
341	4.7	CWHvm2	0.4	Old Forest Representation
341		MHmm1	4.3	Old Forest Representation
342	29.0	MHmm1	29.0	Recruitment, Old Forest Representation
346	7.2	CWHvm2	15	Old Forest Representation
346		MHmm1	5.7	Old Forest Representation
347	5.5	CWHdm	5.5	Recruitment
350	10.2	CWHdm	10.2	Recruitment
353	16.8	CWHvm1	15.0	Recruitment, Old Forest Representation
353		CWHvm2	1.8	Recruitment
354	3.7	CWHvm2	2.6	Recruitment
354		MHmm1	1.1	Recruitment
357	5.6	MHmm1	5.6	Old Forest Representation
358	23.8	CWHdm	0.9	Recruitment
358		CWHvm1	22.9	Recruitment, Old Forest Representation
360	16.9	CWHvm1	1.6	Recruitment, Old Forest Representation
360		CWHvm2	15.3	Recruitment, Old Forest Representation
361	7.9	CWHvm1	7.8	Recruitment, Old Forest Representation
361		CWHvm2	0.2	Recruitment
363	10.5	CWHvm2	0.3	Recruitment
363		MHmm1	10.2	Old Forest Representation
364	4.0	CWHvm2	0.2	Old Forest Representation
364		MHmm1	3.8	Old Forest Representation
368	6.6	CWHvm2	1.2	Recruitment, Old Forest Representation
368		MHmm1	5.3	Recruitment, Old Forest Representation

OGMA #	Total Area (ha)	BEC	Area (ha)	Comments
369	6.2	CWHvm2	6.2	Old Forest Representation
370	63.1	CWHvm2	13.5	Recruitment, Mature Forest Representation, Old Forest Representation
370		MHmm1	49.5	Recruitment, Mature Forest Representation, Old Forest Representation
372	4.3	MHmm1	4.3	Old Forest Representation
373	6.7	CWHvm2	5.0	Recruitment, Old Forest Representation
373		MHmm1	1.7	Old Forest Representation
375	2.2	CWHvm2	2.2	
377	1.8	MHmm1	1.8	Old Forest Representation
378	5.2	CWHvm2	0.5	Old Forest Representation
378		MHmm1	4.7	Old Forest Representation
379	1.3	MHmm1	1.3	Old Forest Representation
380	1.4	MHmm1	1.4	Old Forest Representation
381	6.5	MHmm1	6.5	Old Forest Representation
383	1.2	MHmm1	1.2	Old Forest Representation
387	1.4	MHmm1	1.4	Old Forest Representation
388	20.9	CWHds1	20.9	Recruitment, Old Forest Representation
393	5.8	CWHms1	0.2	Old Forest Representation
393		MHmm1	0.2	Old Forest Representation
393		MHmm2	5.3	Old Forest Representation
397	19.4	MHmm1	19.4	Old Forest Representation
399	3.5	MHmm1	3.5	Old Forest Representation, Ungulate Winter Range, Old Forest Representation
400	11.0	CWHdm	11.0	Mature Forest Representation, Old Forest Representation
401	3.0	CWHvm1	0.1	
401		CWHvm2	2.9	
402	17.0	CWHvm1	6.9	Ungulate Winter Range, Old Forest Representation
402		CWHvm2	10.1	Ungulate Winter Range, Old Forest Representation
403	8.0	CWHvm2	8.0	Ungulate Winter Range, Old Forest Representation
404	10.3	CWHvm2	4.6	Ungulate Winter Range, Old Forest Representation
404		MHmm1	5.7	Old Forest Representation, Ungulate Winter Range
405	3.7	CWHvm2	0.4	Ungulate Winter Range, Old Forest Representation
405		MHmm1	3.3	Ungulate Winter Range, Old Forest Representation
406	48.0	CWHds1	3.0	Ungulate Winter Range, Old Forest Representation, Draft Deer Winter Range

	Total			
OGMA	Area		Area	
#	(ha)	BEC	(ha)	Comments
406		CWHms1	34.1	Recruitment, Ungulate Winter Range, Old Forest Representation
406		MHmm2	10.9	Recruitment, Ungulate Winter Range
407	17.8	MHmm2	17.8	Old Forest Representation
408	10.0	CWHvm2	7.3	Old Forest Representation
408		MHmm1	2.7	Old Forest Representation
409	33.6	CWHds1	11.3	Recruitment, Ungulate Winter Range, Mature & Old Forest Representation
409		CWHms1	22.3	Recruitment, Ungulate Winter Range, Mature & Old Forest Representation
410	38.0	CWHvm1	38.0	Recruitment, Ungulate Winter Range
1001	21.1	CWHds1	21.1	Old Forest Representation
1002	36.0	CWHdm	36.0	Recruitment, Approved Wildlife Habitat Area
1003	5.2	CWHvm2	3.6	Ungulate Winter Range, Old Forest Representation
1003		MHmm1	1.6	Ungulate Winter Range, Old Forest Representation
1004	12.8	CWHds1	9.9	Ungulate Winter Range, Old Forest Representation
1004		CWHvm1	2.9	Ungulate Winter Range, Old Forest Representation
1005	35.9	CWHvm2	21.2	Ungulate Winter Range, Old Forest Representation
1005		MHmm1	14.5	Ungulate Winter Range, Old Forest Representation
1005		MHmm2	0.2	Ungulate Winter Range, Old Forest Representation

Appendix II List of Acronyms

AAC	Allowable Annual Cut
BEC	Biogeoclimatic Ecosystem Classification
BEO	Biodiversity Emphasis Option
FPC	Forest Practices Code of British Columbia Act
FRPA	Forest and Range Practices Act
LU	Landscape Unit
LUPG	Landscape Unit Planning Guide
MFLNRO	Ministry of Forest, Lands & Natural Resource Operations
MOE	Ministry of Environment
MFR	Ministry of Forests & Range
NDT	Natural Disturbance Type
OGMA	Old Growth Management Area
THLB	Timber Harvesting Land Base
UWR	Ungulate Winter Range
WHA	Wildlife Habitat Area
WTR	Wildlife Tree Retention

Appendix III Public Consultation Summary

A notification letter was sent to all First Nations with traditional territory within the Bute East Landscape Unit on October 9, 2009, to inform that the project was being initiated.

Advertising was placed in the following publications: BC Gazette (July 7 2011), Campbell River Mirror (July 8, 2011), Powell River Peak (July 6, 2011), Sunshine Coast Reporter (July 8).

The public and First Nations consultation period was set for July 15, 2011 to September 15, 2011.

No comments were received from First Nations on the proposed OGMAs and legal order during the concurrent 60 day public review and comment and First Nation consultation period.

No objections or comments requiring revisions to the plan were received from the public