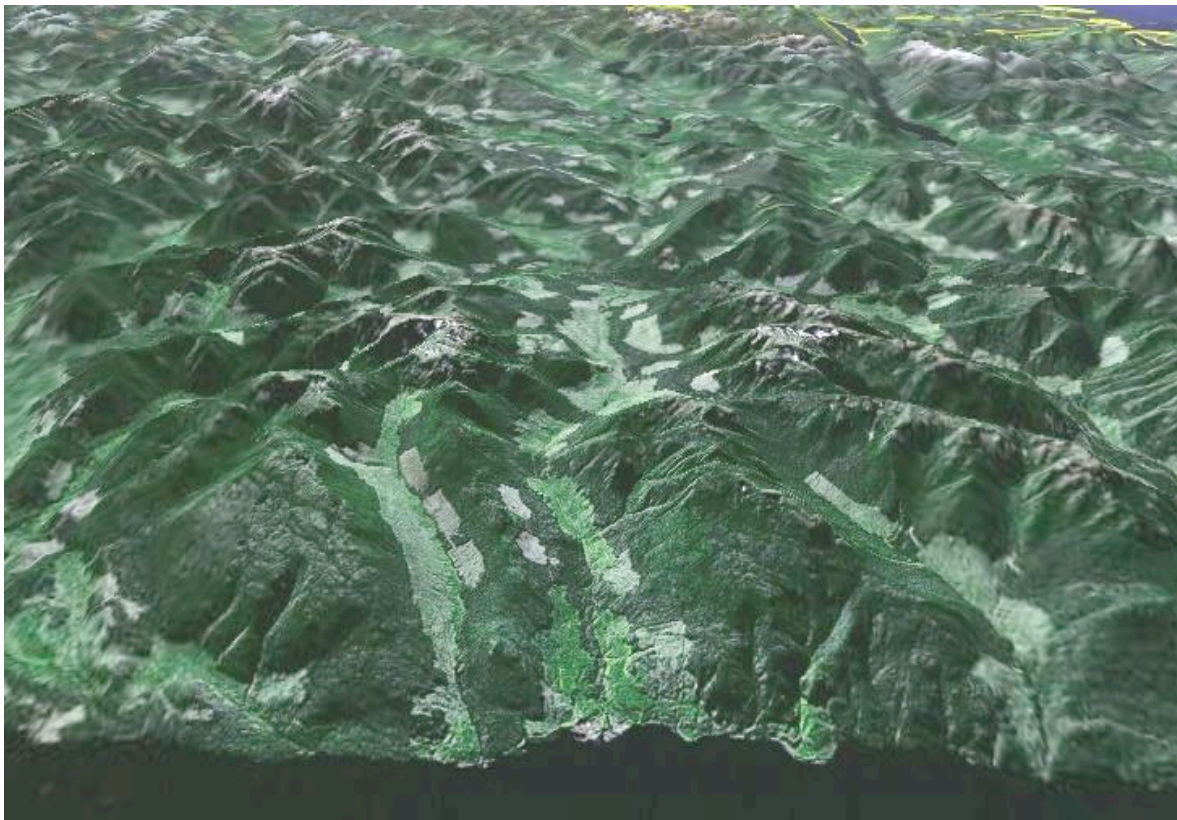


Integrated Land Management Bureau, Coast Region  
Johnstone Strait  
Sustainable Resource Management Plan  
Biodiversity Chapter  
for the  
Naka Landscape Unit



June 30, 2010

Prepared by:

**Ian McDougall, R.P. Bio**  
Senior Forest Planner  
Strategic Planning and Operations  
Integrated Land Management Bureau, Coast Region  
Campbell River, BC

## Table of Contents

1.0	Introduction.....	3
2.0	Naka LU Description .....	5
2.1	Naka LU Biophysical Description.....	5
2.2	Summary of Land Status.....	6
3.0	Key Resource Tenure Holders .....	6
3.1	Forest Tenure Holders.....	7
3.2	Mining Tenure Holders.....	7
4.0	Significant Resource Values.....	7
4.1	Fish, Wildlife and Biodiversity.....	7
4.2	Timber Resources .....	8
4.3	Private Land.....	9
4.4	Recreation .....	9
5.0	Existing Higher level Plans.....	9
6.0	First Nations.....	11
7.0	OGMA Methodology.....	11
7.1	Integrating other values in OGMA selection.....	11
7.2	Assessment and Review.....	11
7.3	Boundary Mapping .....	12
7.4	OGMA Administrative Adjustment and Amendment Policy.....	12
7.5	Mitigation of Timber Supply Impacts.....	12
8.0	OGMA Analysis .....	13
8.1	OGMA Targets.....	13
8.2	Marbled Murrelet Habitat in OGMA.....	15
8.3	THLB Assessment.....	15
9.0	Landscape Unit Plan Objectives.....	16
	<a href="#">Appendix 1</a> OGMA's for the Naka Landscape Unit, Johnstone Strait Sustainable Resource Management Plan Area .....	<a href="#">25</a>
	<a href="#">Appendix 2</a> Landscape unit planning policy: administrative adjustment, amendments and operational procedures for Old Growth Management Areas.....	<a href="#">26</a>
	<a href="#">Appendix 3</a> OGMA Data.....	<a href="#">27</a>
	<a href="#">Appendix 4</a> Public Consultation Summary.....	<a href="#">27</a>

## List of Figures

<b>Figure 1:</b> Location of the Naka Landscape Unit, Northeast Vancouver Island.....	6
---	---

## List of Tables

Table 1 Land Status of the Naka Landscape Unit.....	7
Table 2 Distribution of Productive Forest within the Naka LU.....	9
Table 3 Land Base Summary and Old Growth Targets by BEC for the Naka LU.....	12
Table 4 OGMA Targets.....	13
Table 5 Old Growth Management Areas Summary for entire Naka LU.....	13
Table 6 Marbled murrelet habitat in OGMA's.....	14
Table 7. THLB impacts and harvest opportunity assessment.....	14

## 1.0 Introduction

This report describes the biodiversity conservation plan for the Naka Landscape Unit (LU) and includes the associated legal objectives for old growth retention. A description of the planning unit, discussion of significant resource values and an Old Growth Management Area (OGMA) summary is provided.

Biological diversity 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 them’<sup>1</sup>. British Columbia is the most biologically diverse province in Canada. In British Columbia, 115 species or subspecies of known vertebrates and 364 vascular plants are listed for legal designation as threatened or endangered<sup>2</sup>. The continuing loss of biological diversity will have a major impact on the health and functions of ecosystems and the quality of life in the province (Resources Inventory Committee, 1998).

Planning to maintain biodiversity occurs at a variety of levels, all of which are linked hierarchically. The provincial level includes parks and the Protected Area Strategy, while at the regional level, the Vancouver Island Land Use Plan gives guidance and legal direction to finer levels of strategic planning, in this case, landscape and stand level conservation of old growth forests.

Planning for the conservation of OGMA biodiversity values is recognized as a high priority for the province. LU planning is supported by the *Forest and Range Practices Act (FRPA)* while the *Land Act* provides for the legal establishment of objectives to address landscape level biodiversity values.

Implementation of this strategic planning initiative is intended to help sustain certain biodiversity values. Managing for biodiversity through retention of old growth forests is not only important for wildlife, but can also provide important benefits to ecosystem function, protection of water quality and preservation of other forest resources. Although not all elements of biodiversity can be, or need to 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.

The Campbell River Forest District has completed LU boundaries for its portion of Vancouver Island and has established Biodiversity Emphasis Options (BEOs) for each

---

<sup>1</sup> FPC Biodiversity Guidebook, September 1995

<sup>2</sup> BC Species and Ecosystems Explorer. Victoria, British Columbia, Canada. Available: <http://www.env.gov.bc.ca/atrisk/toolintro.html>

landscape unit in accordance with policy direction provided by government. Through a district wide ranking process, the Naka LU was rated with a “Lower” BEO. This process evaluated end ranked biogeoclimatic and terrain complexity, wildlife, fisheries, timber, recreation and other resource values. To the west of the Naka Landscape Unit, the richer and more biologically diverse Tsitika Landscape Unit was ranked through the same process and given a “Higher” BEO.

Current government direction requires that priority biodiversity provisions, particularly the delineation of OGMAs, must be undertaken as one of the FRPA objectives required by government. This work was completed by the Ministry of Agriculture and Lands (formerly initiated by the Ministry of Sustainable Resource Management) in conjunction with Western Forest Products (TFL 25) and BC Timber Sales.

As a replacement for Wildlife Tree Patch Retention policy in the Landscape Unit Planning Guide, the specifications for Wildlife Tree Retention (WTR objectives) are now covered separately under the new *FRPA* Forest Planning and Practices Regulation (FPPR), Part 4, Division 5, Section 66.

<http://www.for.gov.bc.ca/tasb/legsregs/archive/fpc/fpcact/part4-5.htm>

Supporting documentation regarding government policy, planning processes and biodiversity concepts are provided in the following documents:

- 1995 *Biodiversity Guidebook*,  
<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/biodiv/biotoc.htm>
- 1999 Landscape Unit Planning Guide (LUPG),  
<https://www.for.gov.bc.ca/tasb/slrp/srmp/~Background//docs/LUGuide.pdf>
- Vancouver Forest Region Landscape Unit Planning Strategy (1999),  
Vancouver Forest region Planning Document, Nanaimo, B.C.
- Vancouver Island Land Use Plan (Feb. 2000)  
<https://www.for.gov.bc.ca/tasb/SLRP/plan90.html>
- the associated VILUP Higher Level Plan Order (Dec. 2000),  
[https://www.for.gov.bc.ca/tasb/slrp/lrmp/nanaimo/vancouver\\_island/docs/HLP\\_order\\_final.pdf](https://www.for.gov.bc.ca/tasb/slrp/lrmp/nanaimo/vancouver_island/docs/HLP_order_final.pdf)
- Sustainable Resource Management Planning: Standards for Creating, implementing and Administering Sustainable Resource Management Plans  
[https://www.for.gov.bc.ca/tasb/slrp/policies-guides/SRMP\\_applied\\_standards\\_guide.pdf](https://www.for.gov.bc.ca/tasb/slrp/policies-guides/SRMP_applied_standards_guide.pdf)

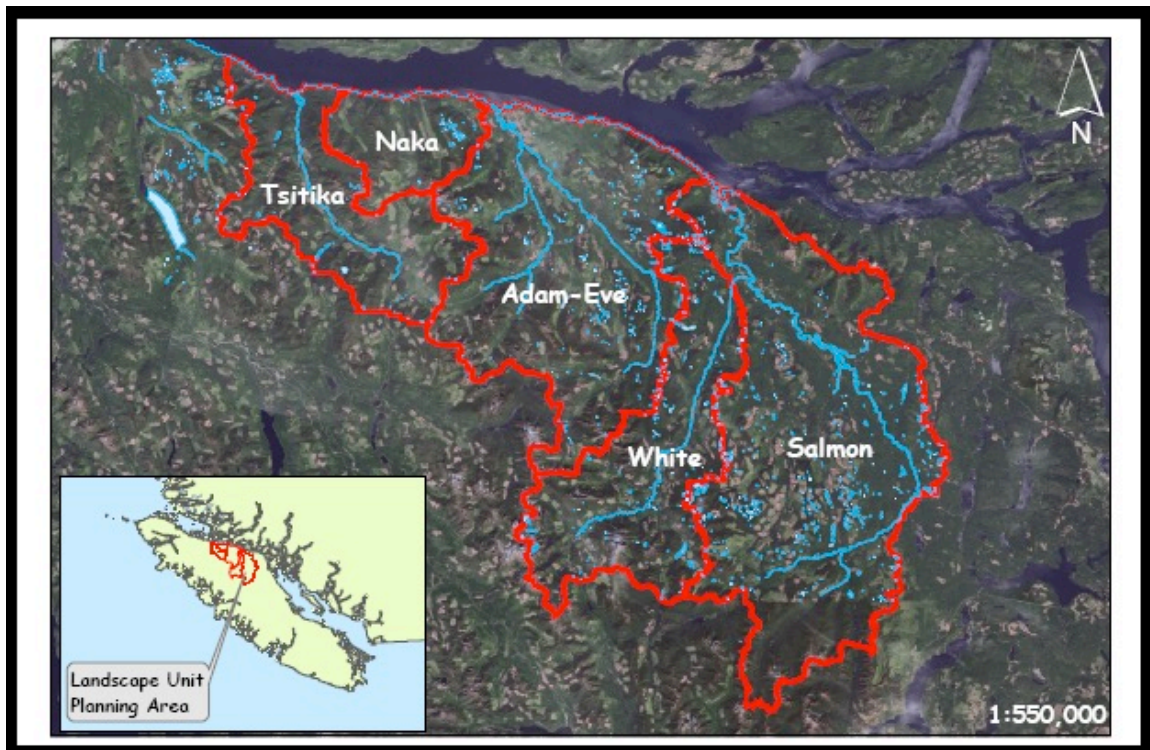


## 2.0 Naka LU Description

### 2.1 Naka LU Biophysical Description

The Naka LU is situated within the Northern Island Mountain Ecosection on the northeast coast of Vancouver Island. The total landscape unit area is approximately 14,950 ha, of which 86% is productive forest. The LU has four main creek systems that drain northward into Johnstone Strait, namely, from west to east: Peel, Naka, Teissum and Cedarstedt. There are many productive forest sites throughout the landscape unit along these major riparian systems. The terrain is moderately sloped with some steeper mountainous topography separating each riparian system. Elevations within the LU area are generally below 1000 m with the highest elevation within the LU area being approximately 1700 m above sea level. The local climate is dominated by maritime influence, with cool summers followed by wet winters characterized by intermittent strong storms. Average annual precipitation at Duncan Bay, the nearest climate recording center, is 162 centimetres, most of this occurring as rainfall. Based on biogeoclimatic classification, it is expected that average annual precipitation within the LU area would be greater than that reported for Duncan Bay.

The location of the Naka LU on Vancouver Island is shown in Figure 1.



**Figure 1** Location of the Naka Landscape Unit, Northeast Vancouver Island

The Naka LU is covered by the Coastal Western Hemlock (CWH) and Mountain Hemlock (MH) Biogeoclimatic Ecosystem Classification (BEC) zones. The three biogeoclimatic subzone variants found within the Naka LU are the CWHvm1 submontane, very wet maritime; CWHvm2 montane, very wet maritime, and the MHmm1 windward, moist maritime. One natural disturbance type (NDT 1)<sup>3</sup> is dominant, representing mixed conifer, old growth forest ecosystems with uneven-aged stands. Natural regeneration typically occurs after the death of individual trees, or small patches of trees. Some unclassified NDT3 may be present where periodic catastrophic wind disturbances have affected larger stands of trees. This natural disturbance type would be, however, largely subordinate within the temporal and spatial distribution of natural disturbances normally occurring within the area of the Naka LU.

## 2.2 Summary of Land Status

Land status within the Naka LU is summarized in Table 1.

**Table 1** Land Status of the Naka Landscape Unit

<b>Ownership</b>	<b>Hectares</b>
BCTS (formerly TFL 25, Block 3)	14,678
BCTS Timber Licence T0887 (formerly Cascadia)	272
<b>Grand Total</b>	<b>14,950</b>

## 3.0 Key Resource Tenure Holders

Tenure holdings include forest tenures administered by the Ministry of Forests BC Timber Sales program, potential future mineral tenures administered by the Ministry of Energy, Mines and Petroleum Resources and other resource tenures administered by the Ministry of Agriculture and Lands. With tenure holders, other than forestry, the planning strategy generally aims to avoid placement of OGMA's within existing tenures. With regard to forest tenures, the management intent is to avoid placement of OGMA's over cutblocks and roads that have received approval status.

---

<sup>3</sup> FPC Biodiversity Guidebook, September 1995

### 3.1 Forest Tenure Holders

The LU plan area is covered by the BC Timber Sales takeback area which was formerly Western Forest Product's Tree Farm License 25, Block 3 and Cascadia's Timber Licence T0887. OGMA's were selected to avoid impact to any known approved cutblocks or roads as approved under a Forest Stewardship Plan. The plan proponents have avoided placing any OGMA's within Timber Licence T0887 (former Cascadia Forest Products Limited), of which approximately 70% is harvested. Extensive iterative review and discussion with WFP and BCTS staff has taken place to ensure that the intent of this LU plan has been conveyed and that impacts on future planned development are minimized.

### 3.2 Mining Tenure Holders

There are currently no mineral tenures within the area bounded by the Naka LU. It should be noted, however, that exploration and development activities are permitted in OGMA's. The preference is to proceed with exploration and development in a way that would be sensitive to the old growth values of the OGMA. If exploration and development proceed to the point of significantly impacting old growth values, then the OGMA status would be moved and re-designated elsewhere.

## 4.0 Significant Resource Values

### 4.1 Fish, Wildlife and Biodiversity

Wildlife resources of general management concern in the Naka LU include black tailed deer, cougars, bald eagles and black bear. The population of Roosevelt elk is small, but some have been observed. Anadromous fisheries values are considered low in general due to in-stream natural barriers on Peel, Naka, Teissum and Cedarstedt Creeks. Dolly Varden, *Salvelinus malma* are present throughout the system.

The primary species at risk that is recognized as "Identified Wildlife"<sup>4</sup> that would be found within the Naka LU is the marbled murrelet, *Branchyrampus marmoratus*. Although this species is currently not explicitly managed for in the Naka LU, the steep forested terrain in the CWH vm2 combined with several unharvested riparian CWH vm1 ecosystems provides suitable potential marbled murrelet nesting habitat, both in designated OGMA's as well as in inoperable areas. Protection of potential marbled murrelet nesting habitat also occurs in the adjacent Tsitika Landscape Unit which has a

---

<sup>4</sup> Volume 1 of the *Identified Wildlife Management Strategy* includes a list of 36 wildlife species and 4 plant communities that are considered to be at risk. These species or plant communities require special management of critical habitat to maintain or restore populations or distributions. Critical habitat is protected within Wildlife Habitat Areas. See the *Identified Wildlife Management Strategy Volume 1 February 1999* for more information.

network of recognized reserves including most of Robson Bight Provincial Park. In the Adam-Eve Landscape Unit situated to the east of the Naka LU, marbled murrelet habitat protection has been explicitly identified in the OGMA planning process to address a specific Vancouver Island Land Use Plan (VILUP) Higher Level Plan conservation objective.

Many other species occur in the Naka Landscape Unit including numerous forest birds, raptors, small mammals, amphibians and furbearers, but their habitat requirements are generally managed within a mixture of forested seral stages distributed across the landscape.

Old growth Riparian Reserve Zones established as per the *Forest and Range Practices Act (FRPA) Forest Planning and Practices Regulation*<sup>5</sup> adjacent to riparian ecosystems will help maintain a significant amount of riparian old forest habitat. These riparian areas provide opportunities to conserve additional old growth values and have extensively been incorporated into OGMA retention. Riparian forest recruitment is also another significant feature of the Naka Landscape Unit plan in areas which were previously harvested along Peel, Naka and Teissum.

## 4.2 Timber Resources

The timber harvesting land base (THLB) in the Naka LU is currently estimated to be about 9,350 ha, while the amount of productive forest in uneconomic/inoperable status is about 3,700 ha. The harvest operability is 72% of the forested area, and establishes the importance of localized timber resource values. In addition, the Naka LU under the Vancouver Island Land Use Plan is designated as an Enhanced Timber Zone, which speaks to its relative value for continued timber extraction. Whereas 42% of the THLB has already been harvested, continued access to commercially valuable timber, including future second growth, is a significant economic and social interest. Relatively low-impact, first pass harvesting of accessible old growth timber will continue for the foreseeable future.

The most common commercially valuable tree species in the Naka LU are western red cedar, western hemlock and yellow cedar. Amabilis fir, Mountain hemlock, Douglas fir and Pacific yew are also present. Based on forest cover information, Table 2 shows the age class distribution of old forest within productive landbase of the Naka LU. Nearly one half of the forested land base currently exists as remaining old growth forest in the Naka LU. The combined mature seral plus old seral constitutes nearly three quarters of the productive forest.

---

<sup>5</sup> <http://www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/forplanprac/fppr.htm>



**Table 2.** Distribution of Productive Forest within the Naka LU

BEC Variant	Early Seral 1 - 60 yrs	Mid Seral 61 -120 yrs	Mature Seral 121 - 224 yrs	Old Seral 225 + yrs
CWH vm1	1880	312	918	1663
CWH vm2	977	68	961	2454
MH mm1	229	25	1471	1888
CMA unp	7	0	114	85
<b>Total</b>	<b>3094</b>	<b>405</b>	<b>3464</b>	<b>6090</b>

Forest management activities occur throughout all phases of forest development. Operational work includes pre-harvest planning, harvesting and stand regeneration, while post harvest activities include planting, brushing, and fertilization.

### 4.3 Private Land

There is no private land within the LU area.

### 4.4 Recreation

This small LU provides limited, but focused recreation opportunities. Although the coast does not provide sheltered bays or protected anchorages, some opportunity exists for small boats, i.e., kayaks, being hauled out, particularly at the Naka Creek dryland sort. The coastal area also provides significant whale watching opportunities. Since this LU exists along the inside passage, management of visual quality is an important factor to consider in order to minimize impacts to the tour ship industry.

## 5.0 Existing Higher Level Plans

### 5.1 Legally Binding Direction

Legally binding Higher Level Plan (HLP) objectives are one provision that enable specific forest resource management objectives to direct operational planning. Hierarchically, landscape unit objectives must be consistent with established Higher Level Plan Resource Management Zone (RMZ) objectives.

The HLP objectives which apply to the Naka Enhanced Forestry Zone (Resource Management Zone 27) are summarized below and specific details provided in Appendix 1, Section D:

- Increase the short term availability of timber by the application of larger cut block sizes, and modified green-up requirements; and
- Apply modified silvicultural stocking practices where appropriate

#### 5.1.3. Resource Management Zone 27 Location and Values

The entire landscape unit is designated as Resource Management Zone 27 under the VILUP HLP Order. The size of the RMZ is almost 15,000 ha and the overall management direction recognizes the opportunity for enhanced timber production while maintaining fisheries values and watershed integrity. Further details regarding primary and secondary management objectives are provided for this Enhanced Forestry Zone in the Vancouver Island Summary Land use Plan.

## 5.2 Non-binding HLP Direction

The Vancouver Island Summary Land Use Plan (VISLUP) includes additional direction for the Naka LU. Recommended objectives are provided which recognize both timber and non-timber resource values.

### 5.2.1 RMZ 27

Primary management objectives are listed which are considered as policy guidance to address the following values in the Naka LU: timber, visual and fish resources. Secondary objectives are for access, water, recreation, tourism, wildlife, biodiversity, and cultural/heritage resources.

## 6.0 First Nations

The Naka LU is located within the shared traditional territory of three First Nation groups:

- The Tlowitsis First Nation
- The Wei wai kum First Nation (Campbell River)
- The We wai kai First Nation (Cape Mudge) and

## 7.0 OGMA Methodology

### 7.1 Integrating other values in OGMA selection

The Naka LU contains a broad distribution of old seral forest habitats from which to select for old growth representation. This consists of a variety of forest types distributed across the landscape unit. Because of the “Lower” Biodiversity Emphasis Option (BEO) assigned to the Naka LU, the minimum amount of old growth required for OGMA is one third of the full target which equates to approximately 620 ha. By policy direction, more old growth may be mapped as OGMA provided it can be found outside of the Timber Harvesting Land Base (THLB).

To minimize impacts on the THLB, but still achieve the full targets, any shortfalls were made up using younger forests as recruitment OGMAs. The entire target was achieved pretty much exclusively from forested areas outside of the Timber Harvesting Land Base. These included areas such as riparian reserve zones and gully complexes, plus numerous areas recognized as inoperable, uneconomic and/or inaccessible. Candidate areas were selected consistent with VILUP direction that the Naka LU was an Enhanced Forestry, Low Biodiversity Emphasis area. Specific Ungulate Winter Ranges UWRs and Wildlife Habitat Areas (WHAs) have not been previously established through legal mechanisms within this LU area and are therefore not available as building blocks used to assemble the OGMA population. In general, the selection of OGMAs has captured the most productive forested areas from the categories noted previously, i.e., riparian, inoperable etc.

Consistent with the coarse filter approach to ecological representation, selection of the most productive stands afforded the best opportunity to provide habitat for the greatest number of species. In addition, given the constraints on selection, the OGMAs have, nevertheless, been selected to occur throughout the LU area, to be located on various aspects and elevations, and to be comprised of various sizes. Larger patches will provide interior forest conditions. Using this approach combined with operational stand level biodiversity conservation measures will increase the likelihood of sustaining ecosystems and viable wildlife populations well distributed across their natural range.

### 7.2 Assessment and Review

In general, OGMAAs were selected on the basis of providing good ecological representation. Specifically, OGMAAs were selected based on a review of stand attributes through aerial photo interpretation and harvest constraints in an effort to maximize their value for habitat diversity while minimizing timber supply impacts. Specific riparian patches, particularly gully complexes, were selected in order to capture known constrained areas.

### 7.3 Boundary Mapping

OGMA boundaries used natural features wherever possible to ensure they could be located on the ground. OGMAAs were also delineated to include complete forest stands (forest cover polygons) wherever possible to reduce operational uncertainty and increase ease of OGMA mapping. OGMAAs were mapped using a 1:20,000 scale TRIM base that forms the legal standard for measurement. Allowances for permissible activities within OGMAAs are listed in the OGMA objectives and details regarding minor and major alterations are outlined in the Ministry of Agriculture and Lands, Coast Region amendment policy.

### 7.4 OGMA Administrative Adjustment and Amendment Policy

The Integrated Land Management Bureau's Coast Region amendment policy gives direction to proponents (forest tenure holders) when modifications to OGMA objectives are required. This regional policy describes procedures for making administrative adjustments to established OGMAAs as well as describes procedures for amending legally established Old Growth Management Areas (see Appendix 2). Also included is a short description explaining how OGMAAs will be reviewed when certain events or activities occur. Operational procedures to guide activities adjacent to OGMAAs are also described.

### 7.5 Mitigation of Timber Supply Impacts

During delineation of OGMAAs for priority biodiversity provisions, an attempt was made to mitigate the short and long-term impacts on timber supply. OGMAAs were considered first in the non-contributing (NC) forest land base. Due to the reasonable amount of non-contributing old forest that exists within the LU area, the NC was mostly used for the population of OGMAAs selected. In addition, 218 ha of contributing forest ended up being captured within the entire OGMA population. These areas of THLB were added by default as logical components to the OGMAAs which were extensively selected from the non-contributing forested land base and are considered ecologically appropriate to contribute towards meeting the full OGMA target.

OGMAs were chosen in the oldest available age class first, however, old forest stands that were approved or proposed for harvesting on Forest Development Plans (FDPs) were excluded from candidate OGMAs. WFP staff reviewed the first draft OGMA maps, and made suggestions so that timber supply impacts could be reduced wherever possible.

## 8.0 OGMA Analysis

### 8.1 OGMA Targets

The Naka LU was ranked with a “low” Biodiversity Emphasis Option (BEO) through the biodiversity value ranking process completed earlier (see the *Vancouver Forest Region Landscape Unit Planning Strategy*, 1999). This BEO designation along with the BEC variant determines the percentage of the Crown forest land base that should be designated as OGMA. Table 3 outlines the total amount of OGMA required and tallies the available types of Crown forest (i.e. Non Contributing-NC forest versus Timber Harvesting Land Base)<sup>6</sup>. The old growth target figures in Table 3 are derived from Appendix 2 in the *Landscape Unit Planning Guide*.

**Table 3. Land base summary and old growth targets by BEC for the Naka LU**

#### **Naka Landscape Unit Summary**

Total Landscape Unit Area:	14,951 ha
Forested Area:	12,820 ha
Non-Contributing Forest within Forested Area	3,498 ha
Non-Productive Forest	1,240 ha
Timber Harvesting Landbase Area:	9,322 ha
% of productive forest available for Harvest:	73%
% of THLB Harvested:	40%

---

<sup>5</sup> The Timber Harvesting Land Base (THLB) is made up of Contributing (C) forests and a portion of the Partially Contributing (PC) forests. Partially Contributing forests are “constrained” due to one of several factors such as unstable soils or wildlife habitat, but are still partially available for harvest. Contributing forest is unconstrained and available for timber harvest. Non Contributing (NC) forest land does not contribute to the Allowable Annual Cut

**Table 4 OGMA targets**

	Total Ha in Naka LSU by Variant	Naka Total Productive Area	Target %	1/3 minimum old seral target required	Full OGMA Target based on productive area	Total Mapped OGMA
CWHvm1	5087.87	4677.21	13	203	608	710.09
CWHvm2	4599.26	4335.97	13	188	564	574.51
MHmm1	4496.72	3607.71	19	228	685	701.34
	767.25	206.00	NA		NA	16.34
	14951.09	12826.90		619	1857	2002.28

Table 4 and Appendix 3 describe the mapped OGMA's for the Naka LU.

**Table 5. Old Growth Management Areas Summary for entire Naka LU**

Variant	OGMA Target based on mapped productive area	Surplus / Deficit	Area of productive age class 121-224 in OGMA	Area of productive age class 225-250 in OGMA	Productive Forest age 250+ in OGMA	Total Mapped OGMA
CWHvm1	608.04	83.92	220.23	0.00	335.57	710.09
CWHvm2	563.68	10.52	217.23	8.04	295.31	574.51
MHmm1	685.47	8.14	279.56	0.36	374.75	701.34
	NA		8.96	0.00	7.30	16.34
	1857.18		725.99	8.40	1012.94	2002.28

:

## 8.2 Marbled Murrelet Habitat in OGMA

WFP drafted the OGMA's long before a mamu habitat inventory was completed. This "Lower Biodiversity Emphasis Option" landscape unit has a minimum requirement to meet 1/3 of the old seral target. 50% of the old seral target is old growth greater than 225



years of age. The remainder is predominantly 81-224 years of age as recruitment OGMA, consistent with Landscape Unit Planning Guide Policy. The recent mamu habitat inventory revealed there was no Class 1 or 2 mamu habitat present and very little Class 3 (150 ha). 51 ha of Class 3 mamu habitat are conserved in OGMA (34 % of available). 727 ha of Class 4 mamu habitat are captured in OGMA (16% of total Class 4).

Landscape Unit			Potential marbled murrelet nesting habitat conserved in OGMA and Protected Area				
	BEO	Total ha of OGMA with mamu habitat plus Protected Area with mamu habitat	Class 1 % conserved	Class 2 % conserved	Class 3 % conserved	Class 4 % conserved	Total % of mamu habitat protected in LU
Naka	Low	778 + 0 (Class 3-4)	None present	None present	34% (51 ha)	16% (727 ha)	17% (Class 3-4)

Table 6 Marbled murrelet habitat in OGMA

### 8.3. THLB Assessment

. All OGMA have been extensively reviewed by licensees and impacts are summarized in Table 7 below.

Landscape Unit	THLB PC + C (ha)	Harvest Opportunity (ha)
THLB= Timber Harvesting Land Base as rated by GIS analysis		
NC= Non-contributing to THLB		
PC= Partially Contributing Productive Forest		
C= Contributing Productive Forest		
IAFIRM: Impact Accommodated For Integrated Resource Management		
VL= Very Limited		
Naka: Low Biodiversity Emphasis. Full target mapped in 2008 with full consideration of modeled THLB versus real harvest opportunity (only 7 ha).		

Table 7 THLB impacts and harvest opportunity assessment

## 9.0 Landscape Unit Plan Objectives

OGMA objectives apply only to provincial forest lands. While Protected Areas (parks and ecological reserves) may contribute to old seral representation, OGMA Objectives do not apply to these areas.

This landscape unit plan does not supersede the regulatory authority of statutes of other regulatory agencies, nor the legislated rights of valid existing crown tenure or private land that is not part of any tenure agreement with the Crown.

### **PROVINCE OF BRITISH COLUMBIA**

#### **Ministry of Agriculture and Lands**

##### **Ministerial Order**

Land Use Objectives for Old Growth Management Areas (OGMAs) within the Naka Landscape Unit situated on northeast Vancouver Island within the Campbell River Forest District.

#### Part 1 - Interpretation

1. Pursuant to Section 93.4 of the *Land Act*, the following objectives are established as land use objectives for the purposes of the *Forest and Range Practices Act* and apply to OGMAs within the Naka Landscape Unit shown on the map attached as Schedule 1 (Appendix 1).
2. Nothing in, under or arising out of this order either abrogates or derogates from any aboriginal rights, aboriginal title or treaty rights of any applicable First Nation, nor relieves the Province of any obligation to consult with any applicable First Nation.
3. Where an objective refers to an area shown on a map and the area is also defined by a spatial dataset, the area as defined by the spatial dataset will apply. All spatial datasets are available at <http://www.geobc.gov.bc.ca>.
4. In the event of any inconsistency between the location of an OGMA boundary as described in a spatial data set and the actual location as determined in the field, the latter shall apply.

## Part 2 - Objectives

### 5. Objectives for Old Growth Management Areas

- (1) Maintain or recruit old growth forests in established Old Growth Management Areas, as shown on the map attached as Schedule 1, subject to subsections (2) to (6) below.
- (2) Despite subsection 1, timber harvesting and road or bridge construction are permitted within OGMA, provided that:
  - i) the area of the OGMA that is subject to timber harvesting or road or bridge construction does not exceed the greater of one hectare or 10% of the area of the OGMA,
  - ii) replacement forest is identified which is
    - i. biologically suitable
    - ii. of equivalent age, structure and area, and,
    - iii. situated in order of priority, either immediately adjacent to the OGMA, or adjacent to another OGMA in the same variant and landscape unit as the existing OGMA, and
  - iii) road or bridge construction, if applicable, is required to access resource values beyond or adjacent to the OGMA and no other practicable option for road or bridge location exists.
- (3) For the purposes of subsection (2)(b) and (c), as an alternative to identifying replacement area, a temporary road or bridge site may be permanently deactivated and rehabilitated within four years after construction.
- (4) Within OGMA, the following activities are permitted:
  - a) First Nations traditional use of trees or understory plants.
  - b) Topping or pruning of trees along boundaries to improve wind firmness.
  - c) Sanitation to prevent the spread of insect infestations or diseases that pose significant threat to forested areas outside of OGMA. Salvage within OGMA will be done in a manner that retains as many old growth forest attributes as possible.
  - d) Road maintenance, deactivation, removal of danger trees, or brushing and clearing on existing roads under active tenure within the right-of-way for safety purposes.
  - e) Felling for guyline clearance, tailhold anchor trees, or danger trees along cutblock boundaries or within the right-of-way on new road/bridge alignments to meet safety requirements.
  - f) Silvicultural habitat enhancement in recruitment OGMA.

- g) Trail and site maintenance or development, and silvicultural treatments to address public safety associated with the management and operation of recreation sites and trails.
- (5) OGMA replacement forest is required if the total area of an OGMA that is subject to the activities pursuant to subsection (4) exceeds the greater of one hectare or 10% of the area of the OGMA. Replacement forest must be biologically suitable, of equivalent age, structure and area, and situated, in order of priority, either immediately adjacent to the OGMA, or adjacent to another OGMA in the same variant and landscape unit as the OGMA.

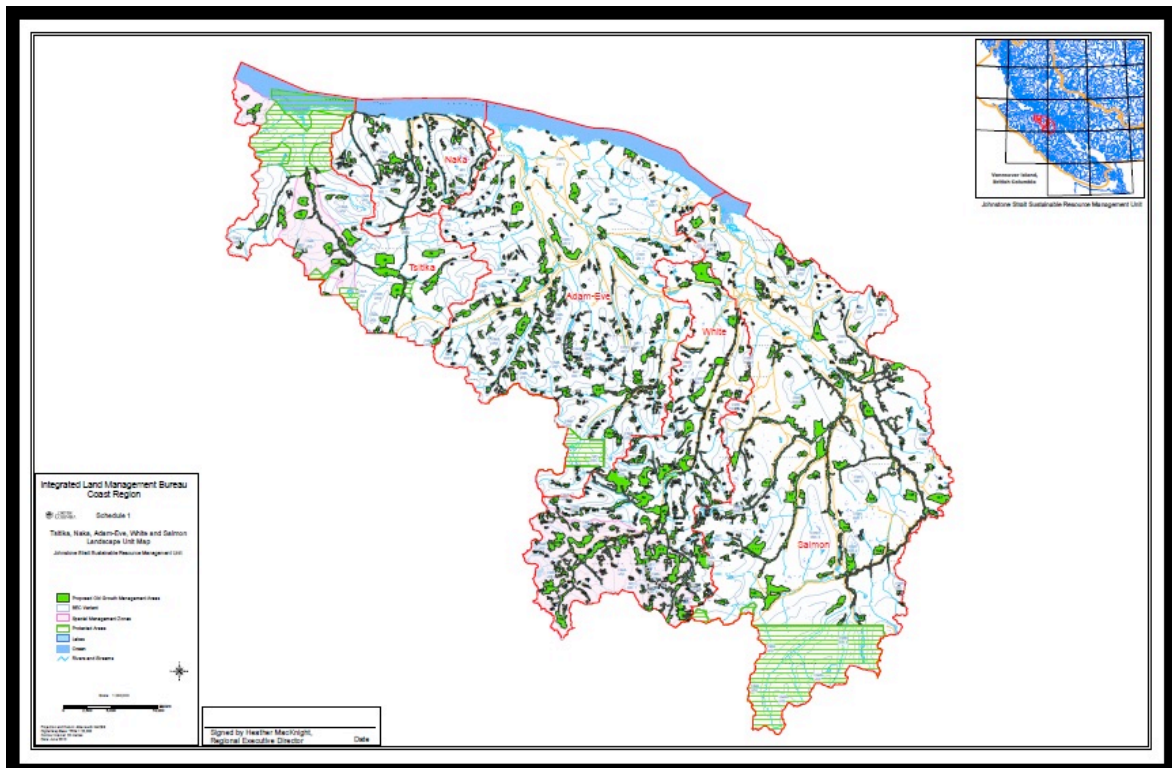
Where the total area of established OGMA exceeds the minimum old seral requirement for the respective biogeoclimatic variant, OGMA replacement forest is not required, provided that the total area of old seral forest maintained in OGMAs, along with the recognized contributing old seral forest in Protected Areas, meets or exceeds the targets in Table A.

- (6) OGMA adjustments and replacements made in accordance with subsections (2) to (5) must be documented and submitted as digital spatial data to the delegated decision maker at the end of each calendar year.

### Part 3 - Effective Date and Transition

- 6. Application of this order
  - (1) This order and the land use objectives in this order take effect on the date that notice of this order is published in the Gazette.
  - (2) The period of time under section 8 of the *Forest and Range Practices Act* is two years.

## Appendix 1 OGMAs for the Naka Landscape Unit, Johnstone Strait Sustainable Resource Management Plan Area







## Appendix 2. Landscape Unit Planning Policy: Administrative Adjustments, Amendments and Operational Procedures for Old Growth Management Areas

This regional advice is provided for those practitioners needing to make alterations to approved Old Growth Management Areas (OGMAs) and has been developed to:

- 1) Describe procedures for adjusting, or amending OGMAs; and
- 2) To provide operational advice to anyone working adjacent to, or within OGMAs.

This policy does not authorize violation of any other federal or provincial statute or legal objective and does not constitute approval on behalf of any other agency with jurisdiction in this matter. Approval of all amendment proposals submitted to the Integrated Land Management Bureau (ILMB) will be at the discretion of the delegated decision maker.

### 1.0 General Procedures for Administrative Adjustments, Minor Amendments and Significant Amendments

#### 1.1 Administrative Adjustments

Administrative adjustments to OGMAs are those allowed by the established legal objectives and will not require agency approval. In general, they allow small boundary adjustments to be made based on ground-truthing and layout design of adjacent harvest operations. The proponent prescribing an adjustment to an OGMA must address the principle of *no net loss* by adding suitable replacement forest area to the OGMA, or to a nearby OGMA, in the same variant and landscape unit. These adjustments need to be submitted to ILMB annually before December 31<sup>st</sup> of each year. Ideally, multiple administrative adjustments should be combined into a single submission annually. All administrative adjustments will be reviewed in January-February for completeness. An acknowledgement of receipt by ILMB will be sent to the licensee by fax or e-mail once completeness is confirmed. Completed adjustments will be sent to GeoBC for subsequent upload into the GeoBC Geographic Warehouse (former Land and Resources Data Warehouse) in March-April. The Coast Region OGMA administrative adjustment form should be used for all submissions.

Amendments are not required for correcting mapping errors. For example, proposed harvesting or road development may show potential OGMA overlap or encroachment at a 1:20,000 scale, but is deemed not to occur based on field engineering. The site or operating plan should clearly indicate that there is no overlap between proposed development and an adjacent OGMA. In other instances, the intended OGMA boundary (e.g. along a stream) may be shown to be in the wrong location on the original approved legal map as proven by subsequent field engineering. If this occurs, the prescribing/planning forester should record the discrepancy. Corrections would then be summarized and submitted to ILMB annually.

## 1.2 Minor Amendments

A minor amendment is one that does not materially change the original order, or its affect on forest and range tenure holders. The consideration of “materially change” applies to the landscape unit’s entire suite of OGMA’s considered as a whole, not to each individual one. In general, a minor amendment will apply to any proposed adjustment to a single OGMA where there would be a net loss of more than 10 per cent to the original OGMA. This would also include the proposed deletion of a single OGMA, even if an equivalent area can be added as a new OGMA, or to an existing OGMA in the same variant and landscape unit. A minor amendment would also be required if a proposed adjustment does not result in a net loss to the original OGMA of more than 10 per cent of the area, but where a suitable replacement area requires designation of a new OGMA because a suitable replacement area cannot be found adjacent to an existing OGMA in the same BEC variant and landscape unit.

Proponents should submit their requests for amendments in a timely manner so that review/approval can occur without delaying operations. Proponents should recognize that OGMA’s may overlap with other legal designations, most notably Ungulate Winter Ranges and Wildlife Habitat Areas and it is their responsibility to ensure compliance with all legal requirements.

If a replacement OGMA is necessary, it must be identified by the proponent and submitted with the amendment application. The replacement OGMA should be in the same biogeoclimatic variant and must have similar or more suitable ecological attributes for conserving biological diversity. These attributes may include: tree species and sub-canopy complexity, tree height and diameter, stand age, stocking and site index, slope, aspect, elevation, patch size, forest interior habitat and connectivity. The replacement area could also be critical habitat for species at risk. The presence of old forest attributes such as multi-layered canopies, vets and moderate to high value wildlife trees in the replacement area will further increase its suitability. Attributes of both the proposed replacement OGMA and original OGMA need to be clearly summarized and submitted with the amendment application. This information must be clearly presented to aid in the review. Complete and accurate submissions will allow faster processing.

Replacement area proposals must be submitted in digital format to the following preferred minimum data standards to expedite the review and approval process: ARC Export file (E00), 1:20000 scale, TRIM base, ALBERS projection, and NAD 83 datum. ILMB will make every effort to process minor amendments within 10 working days and no greater than 30 days

## 1.3 Significant Amendments

A significant amendment is required where one or more OGMA alterations will result in consequential and substantive variations to the order; for example, a proposed alteration, or deletion of one or more OGMA’s that would have a material effect on forest or range tenure holders, public access opportunity, First Nations traditional use, or disturbance to

significant ecological values. For significant amendments, it will be necessary for ILMB to undertake public review and comment, including First Nations and inter-agency consultation and provide the demonstrated achievement of the criteria laid out in regulation to the delegated decision maker. Demonstrated achievement is essentially the rationale for approval relative to the tests in the Land Use Objectives Regulation accompanied by the licensee's supporting documentation.

ILMB will make every effort to review major amendments within 120 calendar days. A 60-day public review and comment period will normally be required for major amendments and is included in the 120 day time period. ILMB will review all amendments and notify the submitter as soon as possible if the amendment is considered a significant one requiring advertisement and public review.

## 2.0 OGMA Operational Procedures

The following clarifies how OGMA's will be reviewed when certain events or activities occur. Operational procedures to guide activities adjacent to OGMA's are also described.

### 2.1 Periodic review

The distribution of OGMA's may be reviewed periodically to ensure their ecological suitability through time. This would occur at the delegated decision maker's discretion, or as the result of an event that significantly altered the OGMA's, or the total area of productive Crown forested land (e.g. catastrophic fire, landslides, windthrow, disease, insect outbreaks). In the event that the natural disturbance is considered a threat to forested areas outside OGMA's (as determined by a qualified person and brought to the attention of the SDM), control measures may be implemented and relocation of the OGMA may occur.

### 2.2 OGMA boundaries and ground-truthing

OGMA boundaries do not have to be legally surveyed. To deal with a discrepancy between an OGMA boundary and actual on-the-ground development, the following may be proposed to accommodate areas that may be left between harvest boundaries and the OGMA. Where approved or proposed developments are located in close proximity to established OGMA's (e.g. within 50 m) and the final development results in a forested leave area (suitable for OGMA) adjacent to the OGMA boundary, the leave area could be added to the OGMA. The SDM should be notified regarding an opportunity to amend the OGMA boundary.

### 2.3 Right-of-Ways

The cleared portion of the right-of-way for new road or new bridge construction within an OGMA must be as narrow as possible with due regard for all safety issues.

## 2.4 Wildlife trees and safety requirements

When a conflict arises between operational activities and high value wildlife trees in an OGMA, the preference is where practicable to retain high value wildlife trees by establishing no work zones or by altering the road/bridge alignment. Any danger trees that are felled as a result of exemptions from the legal objectives or amendments are to be left on the ground to provide a source of coarse woody debris, unless safety dictates otherwise.

## 2.5 Changes to the Crown Forest Land Base

Significant changes to the available Crown Forest Land Base (CFLB) within a landscape unit will trigger the requirement to update the OGMA layer to reflect the change since the OGMAs are based on a percentage of the CFLB. For example, removal of CFLB for urban development, mining or some other uses which results in the land being permanently alienated or altered to a non-forested state. Changes in ownership of the land such as First Nations treaty settlements will also trigger updates.

## Appendix 3 OGMA Data



Microsoft Office Excel  
97-2003 Worksheet

## Appendix 4 Public Consultation Summary

The plan was made available for a 60 day review period commencing January 15, 2010 and ending March 16, 2010. No comments were received from the public

Landscape Unit	Comment	Action taken
Naka	None specific to this LU	
Johnstone Straits aggregate	Impacts acceptable. Licensees in agreement. Campbell River Forest District comment.	None required