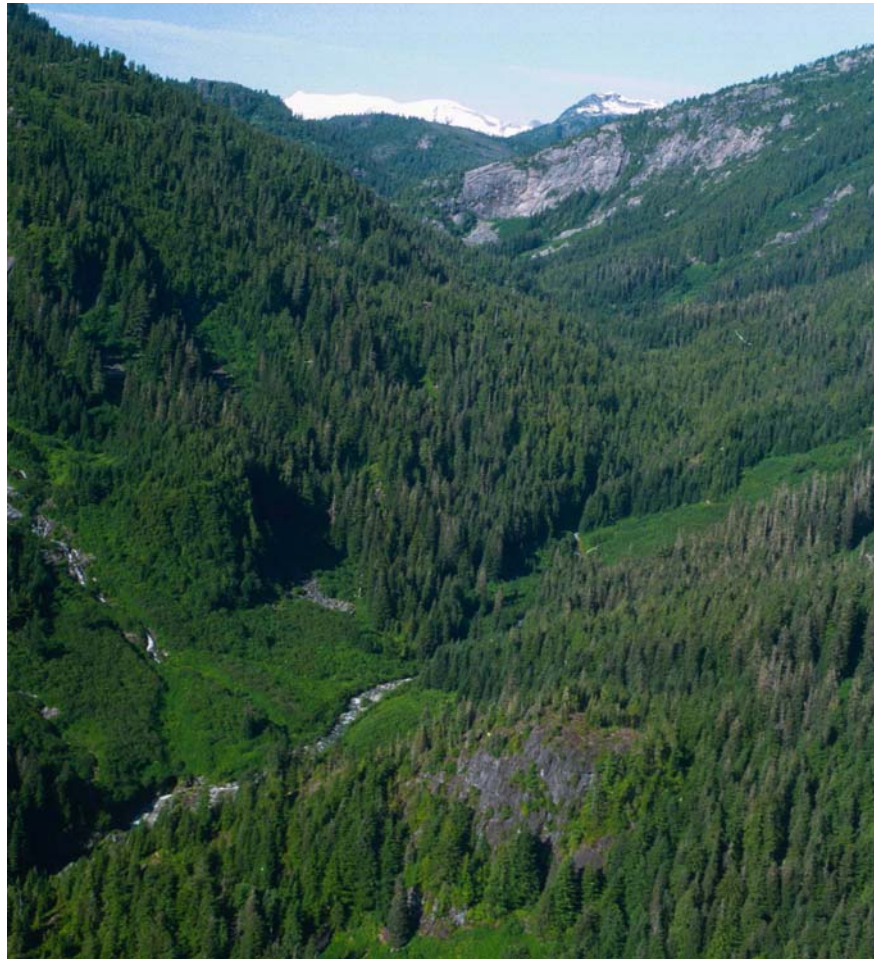


Sustainable Resource Management Plan

Biodiversity Chapter for Birkenhead Landscape Unit



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1.0 Introduction

This report provides background information used during the preparation of the Sustainable Resource Management Plan and associated proposed legal objectives for the Birkenhead Landscape Unit (LU). Specifically, this report will form the biodiversity conservation chapter of the plan. A description of the planning unit, discussion on significant resource values, and an Old Growth Management Area (OGMA) summary and rationale are provided.

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 them’*¹. British Columbia is the most biologically diverse province in Canada. In British Columbia, 115 species and subspecies of known vertebrates and 364 vascular plants are listed for legal designation as threatened or endangered². 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 for OGMA and Wildlife Tree Patch (WTP) biodiversity values is recognized as a high priority for the province. LU planning is an important component of the *Forest Practices Code of BC Act (FPC)* which allows legal establishment of objectives to address landscape level biodiversity values. Implementation of this 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 management, protection of water quality and preservation of other natural 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 Squamish Forest District has completed draft LU boundaries and assigned draft Biodiversity Emphasis Options (BEO) in accordance with the direction provided by government. There are 20 LUs within the Squamish Forest District. Through a ranking process the Birkenhead was rated as a High BEO, which requires that priority biodiversity provisions, including the delineation of Old Growth Management Areas and wildlife tree retention (WTR), be undertaken immediately. This work was completed by the Ministry of Sustainable Resource Management (MSRM), in cooperation with BC Timber Sales Program, their consultants, and International Forest Products Ltd. Funding was provided by the Forest Investment Account and MSRM.

Input from First Nations was gathered during consultation (prior to going public) between MSRM and individual First Nations. Comment from the public and other agencies will

1. This definition comes from the Biodiversity Guidebook (1995)

2 BC Species and Ecosystems Explorer. 2003. Victoria, British Columbia. Available at: <http://srmapps.gov.bc.ca/apps/eswp/>

be sought during the 60 day public review and comment period. Refer to the attached map for location of OGMA's and old growth representation from protected areas.

Supporting documentation regarding government policy, planning processes and biodiversity concepts are provided in the 1995 *Biodiversity Guidebook*, the 1999 *Landscape Unit Planning Guide* (LUPG), the *Vancouver Forest Region Landscape Unit Planning Strategy (1999)*, as well as *Sustainable Resource Management Planning Framework: A Landscape-level Strategy for Resource Development*.

2.0 Birkenhead Landscape Unit Description

2.1 Biophysical Description

The Birkenhead LU is located north to north-east of Pemberton and Mt. Currie. Forests are considered transitional between coastal and interior types, with some forest stands exhibiting dry characteristics. The southern half of the LU is located within the Eastern Pacific Ranges Ecoregion (Pacific Ranges Ecoregion) while the northern half is within the Leeward Pacific Ranges Ecoregion (Interior Transition Ranges Ecoregion). The main stream system (Birkenhead River) is tributary to the Lillooet River at the north end of Lillooet Lake. Its climate can best be described by elevational gradients. At low elevations summers are warm and dry, while winters are cool and relatively moist with moderate snowfall. Mid elevations are characterized by moist, cool winters with relatively heavy snowfall and cool but relatively dry summers. High elevation climate is characterized by long, cold winters with heavy snowfall and short, cool summers.

The Birkenhead LU covers a total of 68,008.2 hectares encompassing the entire Birkenhead River watershed, which flows into Lillooet Lake. Of the total area, 24,309.7 hectares (35.7%) are within the Crown forest land base (productive forest). Of this, 8,469.3 hectares (12.5% of the total LU area) are included in the Timber Harvesting Land Base (THLB). The remaining 43,698.5 hectares are non-forested or non-Crown (rock, alpine tundra, water, ice, and private land) and have been excluded from any OGMA contributions and calculations.

There are six biogeoclimatic (BEC) subzones within the Birkenhead Landscape Unit, which fall within four natural disturbance types (NDTs)³. The Interior Douglas-fir wet warm subzone (IDFww) falls within NDT 4; the Coastal Western Hemlock dry submaritime southern variant (CWHds1), CWH moist submaritime southern variant (CWHms1), and Engelmann Spruce Subalpine fir moist warm subzone are within NDT 2, the Mountain Hemlock moist maritime leeward variant (MHmm2) is within NDT 1, and the Alpine Tundra (AT unp) is in NDT 5.

³ NDT4 includes ecosystems with frequent stand-maintaining fires. NDT2 encompasses those ecosystems with infrequent stand initiating events. NDT1 includes ecosystems with rare 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).

2.2 Summary of Land Status

Land status within the Birkenhead LU is summarised in Table 1. The Crown forested land base summary is provided in Table 2.

Table 1. Land Status of the Birkenhead Landscape Unit.

Code	Ownership class	Birkenhead LU (ha)	% total area
40	Private and crown grants	1471.2	2.2
52	Indian Reserves	2792.5	4.1
61	UREPs	935.7	1.4
62	Crown contributing	55106.1	81.0
63	Parks	6255.2	9.2
69	Crown Misc. Reserves	401.7	0.6
75	Christmas Tree Permits	9.5	<0.1 (0.014)
77	Crown and Private Woodlot Licenses	1034.0	1.5
99	Crown Misc. Leases	2.3	<0.1 (0.003)
	Total Area	68008.2	

Table 2. Land status using Crown forest land base classifications.

BEC Unit	Area (ha)	Crown Forested Land Base*			Excluded Land Base
		C	PC	NC	X
CWH ds1	11187.4	2239.3	1563.0	3511.3	3873.8
CWH ms1	7122.0	1643.3	354.1	3449.4	1675.2
ESSF mw	18270.2	563.4	148.2	6586.0	10972.6
IDF ww	8295.0	762.2	1077.1	1498.7	4957.0
MH mm2	1123.8	118.0	0.7	359.0	646.1
AT p	22009.8	0.0	0.0	436.1	21573.7
TOTAL	68008.2	5326.2	3143.1	15840.5	43698.4

* The Crown Forested Land Base is comprised of Contributing (C), Partial Contributing (PC), and Non-Contributing forests. Contributing and Partial Contributing forest make up the Timber Harvesting Land Base. Non-Contributing forest land does not contribute to the Allowable Annual Cut.

3.0 Key Resource Tenure Holders

The general premise applied during the planning process was to identify key resource(s) tenure holdings. This assessment included identification of tenures that are administered by agencies such as the Ministry of Forests (MOF), Ministry of Energy and Mines and Crown corporations such as Land and Water British Columbia. For tenure holders, other than those administered by MOF, the management intent generally is to avoid placement of OGMA's within existing tenures. As for tenures administered by MOF, the management intent is to avoid placement of OGMA's over cutblocks and roads that have received approval status, and to minimize OGMA placement in areas that were identified as future harvest opportunities by licensees.

3.1 Forest Tenure Holders

Within the Birkenhead plan area, volume based tenures exist and have been made available to licensees such as the BC Timber Sales Program (administered by MOF) and International Forest Products Ltd. A Timber Sale License (major) and a few small Woodlot Licenses also exist. The OGMAs selected do not impact any known approved category “A” cutblocks or roads as approved under an FDP. Furthermore, discussions with key licensees have taken place to ensure that the intent of this LU plan is conveyed and impacts on future planned development is minimized.

3.2 Mineral Tenure Holders

There are 10 mineral tenures within the landscape unit, all within the Birkenhead River watershed. Three (3) of these mineral tenures are within the lower portion of the Birkenhead River watershed (2 near the lower reach of Owl Creek and 1 on the east side of Birkenhead River across from Spetch Creek), 5 are within the middle portion of the Birkenhead River watershed (3 near the Poole Creek confluence with the Birkenhead River), and the remaining 2 are located in the upper portion of the Birkenhead River watershed (southwest of Sockeye Creek, near Birkenhead Lake Park). Although the selection of OGMAs followed the intent of avoiding placement over existing tenure holders; 3 OGMAs overlap to some extent with mineral tenures. It is important to note that the establishment of an OGMA will not have an impact on the status of existing mineral and gas permits or tenures. Exploration and development activities are permitted in OGMAs. The preference is to proceed with exploration and development 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 Fish, Wildlife and Biodiversity

Wildlife resources of primary management concern in the Birkenhead LU include: grizzly bear, mountain goat, mule deer, spotted owls, fish and some species at risk that are considered “Identified Wildlife”⁴. Many other species occur including forest birds, raptors, small mammals, amphibians and furbearers (e.g. wolverine) but their habitat requirements are generally managed within habitat provisions provided for primary species. For example, forested habitat for spotted owls in the Birkenhead LU is maintained within a Special Resource Management Zone (SRMZ #18 - Birkenhead) which covers approximately 13,387.9 ha of gross forested area. Approximately 63% (8,390.3 ha) of the gross forested area is suitable owl habitat (>100 years old forest). This owl habitat would support other forest dependent species (e.g. northern goshawk).

⁴ 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.

The Birkenhead LU is also an important area for mule deer and mountain goats. Forested winter range habitat for both species has been identified by Ministry of Environment, Lands and Parks (now called Ministry of Water, Land and Air Protection, MWLAP) based on inventory work completed during the 1990s. Some of the UWR overlaps with Spotted Owl SRMZ and some of each species' habitats have been captured in OGMA. The habitat maintained for ungulates would also benefit other species.

Grizzly bears in the Birkenhead LU are part of the Squamish-Lillooet grizzly bear population unit. Grizzly bears are also an Identified Wildlife species. Provisions exist to protect some critical foraging or security habitat within Wildlife Habitat Areas (WHAs). Other species of Identified Wildlife (e.g. northern goshawk) that may be discovered later may receive habitat protection within WHAs as well. In turn, these WHAs will provide habitat for species not actively managed for.

The Birkenhead River and its major tributaries support resident and anadromous salmonid populations, with sockeye and chinook salmon being key anadromous stocks. Several unique populations of bull trout (Identified Wildlife) are present within this drainage. Riparian reserve zones established (as per the FPC) adjacent to these fish streams will help maintain fish and wildlife habitat. Where riparian areas have been logged, habitat will be provided in the future as forests re-grow.

4.2 Timber Resources

Continued access to commercially valuable timber, including future second growth, is a significant concern for forest licensees operating within this LU. First pass harvesting of accessible old growth timber is still underway.

Commercially valuable tree species in the Birkenhead LU are best described by elevation. At lower elevations Douglas-fir is dominant, with lesser amounts of lodgepole pine, western hemlock, and western red cedar also present. Tree species within mid elevations forests include amabilis fir, Douglas-fir, western hemlock, and western red cedar. Subalpine fir, amabilis fir, and Engelmann Spruce are typical tree species within high elevation forests. Based on forest cover information, Table 3 shows the age composition of forests in the Birkenhead LU.

Table 3. Age distribution of forests within the Birkenhead Landscape Unit.

Age	% of Forested Landbase within Provincial Forest
0-60	14
61-140	30
141-250	33
251+	23

Approximately 12% of the forested sites are poor sites (site index ≤ 10), 68% are medium sites (site index >10 to 20), and 20% are good sites (site index >20).

Forest management activities occur throughout all phases of forest development. Operational work includes pre-harvest planning, harvesting and stand regeneration. Post harvest activities include planting, brushing, juvenile spacing, pruning and thinning. Prescribed burning has been implemented in recent years in order to assist in forest regeneration while also reducing fuel loading and, as a result, fire risk.

4.3 Recreation

The Birkenhead Lake Park is the only protected area in this landscape unit. Situated within the northern portion of the LU, it is a large park that surrounds Birkenhead Lake. Also included within the park is Sockeye Creek, a major tributary to Birkenhead Lake. The lake is used extensively for recreational boating and fishing. A backcountry campground within the park receives moderate use during the summer season. The park generally emphasizes a wilderness experience, several backcountry trails also exist.

Outside of the park area the LU receives substantial recreational use for a variety of different activities, including: heli-skiing, heli-hiking, backcountry skiing, mountaineering, hiking, camping, hunting, rafting/boating, and fishing. Other activities include ATV, 4x4, and snowmobile use. Pine mushroom picking by First Nations and the public is an important activity during the fall. Wildlife viewing/sight seeing also occurs.

There are 3 Ministry of Forests recreation sites within the LU, including: Tenquille Lake; Owl Creek; and Spetch Creek. There are also 2 UREPs within the LU, one at Tenquille Lake and the other at Owl Lake.

4.4 Water

There are two community watersheds within the Birkenhead Landscape Unit, Peq and Rogowski Creeks. Peq Creek is a tributary to the lower reaches of Birkenhead River, just north of Lillooet Lake. A shallow groundwater collection system supplies water from Peq Creek to the Stl'atl'imx First Nation's (Mount Currie) Xit'olacw Village on I.R. No. Rogowski Creek is a tributary to Birkenhead Lake, located near the southern end of this waterbody, which provides a source of water to the residents of Birkenhead Lake estates.

4.5 Private Land

The southern fringe of the Birkenhead LU lies within the Lillooet River valley. A large fertile valley that is important for agriculture and residential development, this portion of the LU is almost entirely privately owned. Lower portions of the Birkenhead River watershed which have similar values are also under private ownership. Most of the private land has been cleared for agricultural or housing purposes. Where ecologically appropriate, OGMA's adjoin private land.

4.6 Mineral Resources

Subsurface resources (minerals, coal, oil, gas and geothermal) and aggregate resources are valuable to the province, but are difficult to characterize due to their hidden nature. The Ministry of Energy and Mines has rated the metallic mineral potential within the majority of this LU as “low to medium”. In addition, a “medium to high” rating applies to southwestern portions of this LU and the metallic mineral potential in the northeastern corner of the LU (i.e. Phelix Creek watershed) has been rated “very high”. The aggregate potential has been rated as “high” immediately along the lower Birkenhead River, including the lower portions of Owl Creek, and at the southern end of Birkenhead Lake. Remaining portions of the LU have generally been rated as “low”, with scattered “medium” ratings present throughout. The geothermal potential within the entire LU has been rated as “medium”. These rankings are based on a qualitative analysis which takes into account the value of known resources, past exploration and production as well as the number of known mineral occurrences and a subjective probability estimate of value by industry experts.

5.0 Existing Higher level Plans

Higher Level Plan objectives are one provision under the FPC that enable specific forest resource management objectives to be made legally binding. Legal objectives established under the Landscape Unit plan will be higher level plan objectives. In part of the Birkenhead LU, the Spotted Owl Management Plan has been approved and is also being considered for higher level plan status with legal objectives. It is important to note that operational plans must be consistent with higher level plan objectives.

6.0 First Nations

The southern part of the Birkenhead LU is located within the traditional territory of the Lil’wat First Nation (Mount Currie), while the northern part is within the traditional territory of the N’Quat’qua First Nation.

Between 1996 and 1997, an Archaeological Overview Assessment model was developed by Millenia Research on behalf of MOF to indicate where archaeological sites are most likely to be located. This was done to minimize potential impacts by forestry operations on culturally important areas. The model was useful in predicting the potential location (i.e. high or moderate potential) of habitation sites, CMTs and trails.

The maps from the model were reviewed to determine if potential archaeological sites or travel routes were captured in OGMAs. In the Birkenhead LU, there are a number of OGMAs that overlap with forest stands that have a moderate to high potential for habitation sites. In addition, several OGMAs overlap with old forest stands that have a moderate to high potential for CMTs. Most of these areas of overlap are in lower slope or valley bottom locations within the lower reaches of the Birkenhead River. In regards to potential trails, there are a few valley bottom OGMAs within the lower reaches of the Birkenhead River and Phelix Creek that overlap with possible trail/travel routes locations.

7.0 OGMA Methodology

7.1 Existing Planning Processes

Each LU contains varying amounts of mature forested habitat provided by existing processes from which to build on for ecosystem management. For example, the Birkenhead LU overlaps with a spotted owl SRMZ (SRMZ #18 – Birkenhead) and includes a protected area (Birkenhead Lake Park). In addition, Wildlife Habitat Areas that may be established in future will also improve connectivity; and in the long term, re-establishment of riparian reserve zones to old forest will improve upon ecosystem integrity. The habitats provided by these various processes together with OGMA provide the fundamental components to achieve a functioning ecosystem.

An important part of the OGMA planning exercise was to ensure that these separate processes complemented each other. For example, OGMA were placed within or adjacent to ungulate winter range for mule deer and mountain goats to overlap constraints and to increase patch size. These larger patches then allow greater opportunity to improve connectivity between adjacent patches. The intent is to maintain a series of old forest habitat patches across probable movement corridors to allow wildlife dispersal and gene flow. Species such as mule deer are particularly susceptible to mortality in winter. Connecting or aggregating OGMA may help facilitate deer movement in addition to benefiting biodiversity. Using this approach with stand level biodiversity measures will increase the likelihood of sustaining ecosystems and viable wildlife populations well distributed across their natural range.

Forests in the Birkenhead LU are considered transitional between coastal and interior types. This results in some forest stands (mostly on dry, southerly aspects) being considerably drier than true coastal forest and more susceptible to fire disturbance. In some cases, fire suppression over the past century has exacerbated fuel loading such that fuels in some areas are above normal, resulting in increased susceptibility to fire. The BC Timber Sales Program has recognized this problem and attempted to manage these fire dominated areas more closely to their historical fire regime. Considerable work has been done in the Birkenhead area, primarily by fire ecologist Robert Gray of R.W. Gray Consulting Ltd., to better understand where management intervention should proceed to reduce hazards on the highest risk sites. OGMA will be situated within some high risk forest stands and MSRM has acknowledged that some management intervention should be permitted. Management within OGMA will include partial cut timber harvesting, spacing, thinning, and/or prescribed burning. Strategies to direct operations are outlined and accompany the *Legal Objectives*. Treatments are referred to as ecosystem restoration and are intended to sustain biodiversity values.

7.2 Assessment and Review

OGMA were selected based on a review of stand attributes in an effort to maximize their value from a biodiversity standpoint while minimizing timber supply impact. Spatial

distribution of OGMAs throughout the LU was also a selection criterion. In general, opportunities to recruit larger patches to provide for forest interior habitat conditions were favoured over smaller patches. In this search, an effort was extended to minimize the impact on timber supply by combining areas in the non-contributing (parks, inoperable) with areas within the timber harvesting land base. In addition, a few smaller remnant patches containing age class 9 were delineated in conformance with the *Landscape Unit Planning Guidebook* (LUPG). A specific rationale for the selection of each OGMA is shown in Appendix 1.

In the Birkenhead LU there was sufficient old forest (250+ years) in 3 of 5 BEC variant to meet OGMA targets (CWHms1, ESSFmw, and MHmm2). In the IDFww and, to a lesser extent, in the CWHds1 there was an initial shortfall in old forest to achieve the OGMA targets. As a result, in these 2 BEC variants there was a requirement to designate some younger aged mature stands (i.e. mostly age 141-250 years, with some age 101-140 years) as recruitment OGMAs. Although there was sufficient old forest in the other 3 BEC variants to meet the OGMA targets, some recruitment OGMAs were also established within the CWHms1 and ESSmw. In these cases, younger forests were included with full consideration towards specific biodiversity objectives (e.g. interior forest, ungulate winter range) and/or the delineation of more logical OGMA boundaries. Where possible, mature stands that likely have old forest attributes (e.g. snags, multi-layered canopy) and/or high resource values (e.g. spotted owl, ungulate winter range) were chosen as recruitment OGMAs.

7.3 Boundary Mapping

OGMA boundaries used natural features wherever possible to ensure they could be located on the ground. OGMAs were also delineated to include complete forest stands (forest cover polygons) wherever possible to reduce operational uncertainty and increase ease of OGMA mapping. OGMAs were mapped using a 1:20,000 scale TRIM base, which forms the legal standard for measurement. Procedures for operating within OGMAs are discussed in the OGMA Amendment policy.

7.4 Amendment Policy

An MSRM Coast Region policy has been developed and approved to give direction to proponents (forest tenure holders) when applying for amendments to OGMA legal objectives. Amendment procedures cover such things as minor or major amendments for resource development (e.g. roads, bridges, boundary issues, rock quarries & gravel pits) or relocation of OGMAs. The policy also discusses acceptable management activities and review procedures, and forms an integral part of this LU plan.

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. For example, OGMAs

were delineated first in the non-contributing forest land base (almost 63% of the OGMAs are within the NC land base). Since representation must be at the variant level, the non-contributing land base could not always satisfy old forest requirements. Where this occurred, portions of the THLB from most constrained to least constrained were assessed and included as OGMAs. Generally, more THLB was required in lower elevation variants due to a longer disturbance history and lesser amounts of non-contributing forest land. In some cases, areas within the THLB were determined to have lower timber values and/or greater constraints than alternative areas within the NC land base.

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 (FDP) were excluded from candidate OGMAs following direction outlined in the LUPG. Licensees also reviewed the maps and identified future harvesting opportunities so that timber supply impacts could be reduced wherever possible.

8.0 OGMA Analysis by Landscape Unit

8.1 Birkenhead Landscape Unit

The Birkenhead LU was ranked as a High biodiversity emphasis option through the biodiversity value ranking process completed earlier (see the *Vancouver Forest Region Landscape Unit Planning Strategy*, 1999). This High designation along with the BEC variant determines the percentage of the Crown forest land base that will be designated as OGMA. Table 4 outlines the total amount of OGMA required in each variant, the amounts established and the extent of overlap with different Crown forest categories (i.e. Non Contributing-NC; Timber Harvesting Land Base)⁵. The old growth target figures in Table 4 are derived from Appendix 2 in the *Landscape Unit Planning Guide*. See Appendix 1 for OGMA attributes and rationales; and the attached map for location of OGMAs.

⁵ Non Contributing (NC) forest land does not contribute to the Allowable Annual Cut. 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.

Table 4. Old growth management area requirements, Birkenhead Landscape Unit.

BEC Variant	Full OGMA Target	Established OGMAs	OGMAs in Non-Contributing (NC)				OGMAs in Partial Contributing (PC)		OGMAs in Contributing (C)	
			Non - Park		Park		Ha	%	Ha	%
	Ha	Ha	Ha	%	Ha	%	Ha	%	Ha	%
CWHds1	951.0	955.2	333.1	35	177.6	19	375.1	39	69.5	7
CWHms1	708.0	709.9	254.3	36	149.4	21	116.1	16	190.1	27
ESSFmw	949.0	950.2	611.6	65	125.2	13	78.0	8	135.4	14
IDFww	634.0	635.6	224.0	35	179.2	28	206.5	33	24.9	4
MHm2	134.0	138.6	102.7	74	0.0	0	0.0	0	35.9	26
Total	3376.0	3388.5	1525.7	45	631.4	19	775.7	23	455.8	13

Note: Any differences in totals and % totals that do not equal 100% are due to rounding.

CWHds1: Coastal Western Hemlock, dry subarctic, southern variant. NDT 2

CWHms1: Coastal Western Hemlock, moist subarctic, southern variant. NDT 2

IDFww: Interior Douglas-fir, wet warm subzone. NDT 4.

ESSFmw: Engelmann Spruce Subalpine Fir, moist warm subzone. NDT 2.

MHm2: Mountain Hemlock, moist maritime, leeward variant. NDT 1.

As noted in Table 4, approximately 36% the total OGMA area overlaps with the THLB. This includes 23% overlap with the PC land base and 13% overlap with the C land base. The remainder, about 64%, overlaps with the NC land base. This NC land base component consist of approximately 19% within the NC land base associated with Birkenhead Lake Park and approximately 45% within remaining portions of the NC land base.

9.0 Wildlife Tree Retention

Wildlife tree retention is managed at the stand level and maintains structural diversity within managed stands by retaining wildlife trees adjacent to or within cutblocks. The WTR percentage by BEC subzone is described in Table A of the Legal Objectives. Retention percents will meet the targets outlined in the LUPG for each BEC subzone.

The retention percentage does not have to be fully implemented on a cutblock-by-cutblock basis. Instead, the retention target may apply over a larger area (e.g. FDP or equivalent), so long as the retention target is met each 3 year period. The intent is to provide limited flexibility at the cutblock level provided that the legally required percentage is met across the subzone. Since wildlife tree retention is a stand level biodiversity provision, wildlife tree patches are also to be distributed across each subzone and the landscape unit.

10.0 Landscape Unit Objectives

Landscape Unit objectives will be legally established within the framework of the FPC and as such will become Higher Level Plan objectives. Other operational plans must be consistent with these objectives.

OGMA and WTR objectives apply only to Provincial forest lands. While park and Crown forest lands outside of Provincial forest may contribute to old seral representation, LU Objectives do not apply to these areas.

11.0 Appendices

Appendix 1 OGMA Summary and Rationale – Birkenhead LU

Appendix 2 Acronyms

Appendix 3 Public Consultation Summary

APPENDIX 1: OGMA SUMMARY AND RATIONALE – Birkenhead LU

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
2	ESSF mw	N	79.8	0.0	Birkenhead Lake Park (majority), large patch, forest interior, avalanche chute	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
4	CWH ms1	N	49.6	0.0	Birkenhead Lake Park (all), stream riparian (Sockeye Creek)	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
4	ESSF mw	N	39.0	0.0	Birkenhead Lake Park (all), stream riparian (Sockeye Creek)	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
8	CWH ms1	N	1.2	0.0	avalanche chutes	no cutblock overlap	suspect high grizzly bear habitat values in avalanche chutes
8	ESSF mw	N	74.5	0.0	lake riparian (small unnamed lake), avalanche chutes	no cutblock overlap	adjacent to GWR (minor overlap of < 1 ha), suspect high grizzly bear habitat values in avalanche chutes
8	ESSF mw	C	0.4	0.4	avalanche chutes	no cutblock overlap	suspect high grizzly bear habitat values in avalanche chutes
10	CWH ms1	N	99.8	0.0	Birkenhead Lake Park (all), large patch, forest interior, stream riparian (Sockeye Creek)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
10	ESSF mw	N	7.2	0.0	Birkenhead Lake Park (all), large patch	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
14	CWH ms1	N	2.9	0.0	spatially important, large patch, forest interior, x-elevational linkage, stream riparian (Birkenhead River)	no cutblock overlap	high wildlife values
14	CWH ms1	P	7.0	0.7	spatially important, large patch, forest interior, x-elevational linkage, stream riparian (Birkenhead River)	no cutblock overlap	high wildlife values
14	CWH ms1	C	0.6	0.6	spatially important, large patch, forest interior, x-elevational linkage, stream riparian (Birkenhead River)	no cutblock overlap	high wildlife values
14	ESSF mw	N	55.8	0.0	spatially important, large patch, forest interior, x-elevational linkage, stream riparian (Birkenhead River), avalanche	no cutblock overlap	high wildlife values, including grizzly bear habitat values in avalanche chutes

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
					chutes		
14	ESSF mw	P	51.8	5.2	spatially important, large patch, forest interior, x-elevational linkage, stream riparian (Birkenhead River), avalanche chutes	no cutblock overlap	high wildlife values, including grizzly bear habitat values in avalanche chutes
14	ESSF mw	C	26.9	26.9	spatially important, large patch, forest interior, x-elevational linkage, avalanche chutes	no cutblock overlap	high wildlife values, including grizzly bear habitat values in avalanche chutes
17	CWH ds1	N	12.0	0.0	avalanche chute	no cutblock overlap	SRMZ (majority), SRMZ overlap is LTOH, some grizzly bear habitat values in avalanche chute
17	CWH ds1	P	1.0	1.0	avalanche chute	no cutblock overlap	SRMZ (all), SRMZ overlap is LTOH, some grizzly bear habitat values in avalanche chute
17	ESSF mw	N	3.2	0.0	avalanche chute	no cutblock overlap	SRMZ (partial), SRMZ overlap is LTOH, some grizzly bear habitat values in avalanche chute
18	ESSF mw	N	0.9	0.0	combines with OGMA 14 to create a large patch, avalanche chutes	no cutblock overlap	suspect high grizzly bear habitat values in OGMA and avalanche chutes
20	CWH ds1	N	12.1	0.0	x-elevational linkage	no cutblock overlap	SRMZ (majority), all SRMZ overlap is LTOH, DWR (partial), GWR (partial)
20	CWH ds1	P	55.2	50.3	x-elevational linkage	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, DWR (partial), GWR (partial)
20	ESSF mw	N	13.7	0.0	x-elevational linkage	no cutblock overlap	SRMZ (partial), all SRMZ overlap is LTOH, GWR (partial)
20	IDF ww	N	27.1	0.0	Birkenhead Lake Park (partial), x-elevational linkage	no cutblock overlap	SRMZ (majority), all SRMZ overlap is LTOH, DWR

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
							(partial), GWR (partial)
20	IDF ww	P	43.5	19.3	x-elevational linkage, stream riparian (Phelix Creek),	no cutblock overlap	SRMZ (majority), all SRMZ overlap is LTOH, DWR (majority), GWR (majority)
23	ESSF mw	N	6.6	0.0	avalanche chutes	no cutblock overlap	GWR (partial), suspect high grizzly bear habitat values in avalanche chutes
24	ESSF mw	N	43.7	0.0	stream riparian (Headquarters Creek), avalanche chutes	no cutblock overlap	GWR (partial), high wildlife values (including grizzly bear habitat values in avalanche chutes)
24	ESSF mw	P	4.7	0.5	stream riparian (Headquarters Creek), avalanche chutes	no cutblock overlap	high wildlife values (including grizzly bear habitat values in avalanche chutes)
24	ESSF mw	C	7.8	7.8	na	no cutblock overlap	high wildlife values (including grizzly bear habitat values in avalanche chutes)
27	ESSF mw	N	8.7	0.0	avalanche chutes	no cutblock overlap	GWR (partial), suspect high grizzly bear habitat values in avalanche chutes
29	CWH ds1	N	71.3	0.0	Birkenhead Lake Park (partial), large patch, lake riparian (Birkenhead Lake), stream riparian (Phelix Creek), rec. use	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
29	CWH ds1	P	28.0	22.7	large patch, stream riparian (Phelix Creek), rec. use	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
31	CWH ds1	N	2.6	0.0	large patch, forest interior, x-elevational linkage	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
31	CWH ds1	P	116.0	116.0	large patch, forest interior, x-elevational linkage, stream riparian (Phelix Creek)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
31	CWH ms1	N	27.2	0.0	large patch, forest interior, x-elevational linkage	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
31	CWH ms1	P	18.7	18.6	large patch, forest interior, x-elevational linkage	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
31	ESSF mw	N	4.0	0.0	large patch, forest interior, x-elevational linkage	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
32	ESSF mw	N	2.6	0.0	avalanche chutes	no cutblock overlap	GWR (partial), suspect high grizzly bear habitat values in avalanche chutes
36	CWH ds1	N	38.7	0.0	Birkenhead Lake Park (all), large patch, lake riparian (Birkenhead Lake), stream riparian (Sockeye Creek), rec. use	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
36	IDF ww	N	63.7	0.0	Birkenhead Lake Park (all), large patch, stream riparian (Sockeye Creek), rec. use	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, GWR (partial)
49	CWH ds1	N	80.4	0.0	Birkenhead Lake Park (majority), large patch, x-elevational linkage, lake riparian (Birkenhead Lake), rec. use	no cutblock overlap	SRMZ (all), SRMZ overlap is primarily LTOH with some FMZ
49	IDF ww	N	80.7	0.0	Birkenhead Lake Park (majority), large patch, x-elevational linkage, lake riparian (Birkenhead Lake), rec. use	no cutblock overlap	SRMZ (all), SRMZ overlap is primarily LTOH with some FMZ
50	CWH ds1	N	2.0	0.0	stream riparian (Tenquille Creek)	no cutblock overlap	na
50	CWH ds1	P	6.5	0.7	stream riparian (Birkenhead River and Tenquille Creek)	no cutblock overlap	na
50	CWH ds1	C	19.2	19.2	stream riparian (Tenquille Creek)	no cutblock overlap	na
50	CWH ms1	P	3.8	0.4	stream riparian (Birkenhead River)	no cutblock overlap	na
50	CWH ms1	C	0.2	0.2	na	no cutblock overlap	na
52	CWH ms1	N	25.1	0.0	large patch, forest interior, x-elevational linkage, stream riparian (Tenquille Creek), wetland riparian, avalanche chutes, rec. use	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
52	CWH ms1	C	152.2	152.2	large patch, forest interior, x-elevational linkage, stream riparian (Tenquille Creek), wetland riparian, avalanche chutes, rec. use	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
52	ESSF mw	N	54.1	0.0	large patch, forest interior, x-elevational linkage, stream riparian (Tenquille	no cutblock overlap	GWR (partial), some grizzly bear habitat values in

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
					Creek), wetland riparian, avalanche chutes, rec. use		avalanche chutes
52	ESSF mw	C	56.4	56.4	large patch, forest interior, x-elevational linkage, stream riparian (Tenquille Creek), wetland riparian, avalanche chutes, rec. use	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
52	MH mm2	N	53.6	0.0	large patch, forest interior, x-elevational linkage, stream riparian (Tenquille Creek), avalanche chutes, rec. use	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
52	MH mm2	C	35.9	35.9	large patch, forest interior, x-elevational linkage, stream riparian (Tenquille Creek), avalanche chutes, rec. use	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
57	CWH ds1	N	42.2	0.0	large patch, forest interior, x-elevational linkage	no cutblock overlap	SRMZ (all), all SRMZ overlap is FMZ
57	CWH ms1	N	16.1	0.0	large patch, forest interior, x-elevational linkage	no cutblock overlap	SRMZ (majority), all SRMZ overlap is FMZ
60	CWHds1	N	3.8	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is FMZ
60	IDF ww	N	7.9	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is FMZ
60	IDF ww	C	1.9	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is FMZ
65	CWH ms1	N	10.3	0.0	important spatially, avalanche chute	no cutblock overlap	some grizzly bear habitat values in avalanche chute
65	MH mm2	N	5.6	0.0	important spatially, avalanche chute	no cutblock overlap	some grizzly bear habitat values in avalanche chute
67	IDF ww	N	18.2	0.0	important spatially	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
68	CWH ds1	P	0.2	0.0	stream riparian (Birkenhead River)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, DWR (all)
68	IDF ww	P	25.9	2.6	stream riparian (Birkenhead River)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, DWR (all)
69	CWH ds1	N	3.3	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
69	CWH ds1	P	2.5	2.5	stream riparian (Birkenhead River)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
69	IDF ww	N	12.2	0.0	stream riparian (Birkenhead River)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
69	IDF ww	P	1.8	0.9	stream riparian (Birkenhead River)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
70	CWH ms1	N	0.5	0.0	important spatially, stream riparian (Place Creek)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
70	ESSF mw	N	60.0	0.0	important spatially, stream riparian (Place Creek), avalanche chutes	no cutblock overlap	SRMZ (partial), all SRMZ overlap is LTOH, some grizzly bear habitat values in avalanche chutes
71	CWH ds1	N	80.6	0.0	large patch, forest interior, x-elevational linkage	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, GWR (partial)
71	CWH ds1	P	58.3	58.3	large patch, forest interior, x-elevational linkage, stream riparian	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, GWR (partial)
71	CWH ms1	N	17.9	0.0	large patch, forest interior, x-elevational linkage	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, GWR (partial)
71	CWH ms1	P	77.0	77.0	large patch, forest interior, x-elevational linkage, stream riparian	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, GWR (partial)
71	ESSF mw	N	92.9	0.0	large patch, forest interior, x-elevational linkage, lake and stream riparian	no cutblock overlap	SRMZ (partial), all SRMZ overlap is LTOH, GWR (partial)
71	ESSF mw	P	16.3	16.3	large patch, forest interior, x-elevational linkage, stream riparian	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
71	ESSF mw	C	19.3	19.3	large patch, forest interior, x-elevational linkage, stream riparian	no cutblock overlap	na
71	IDF ww	N	52.5	0.0	large patch, forest interior, x-elevational linkage, stream riparian	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
71	IDF ww	P	37.7	37.0	large patch, forest interior, x-elevational	no cutblock overlap	SRMZ (all), all SRMZ

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
					linkage		overlap is LTOH
74	CWH ms1	N	18.5	0.0	important spatially	no cutblock overlap	na
74	CWH ms1	C	30.2	30.2	important spatially, wetland riparian	no cutblock overlap	na
74	ESSF mw	N	1.2	0.0	important spatially	no cutblock overlap	na
82	ESSF mw	N	37.9	0.0	na	no cutblock overlap	GWR (partial)
83	CWH ms1	N	63.6	0.0	lake riparian, wetland riparian	no cutblock overlap	na
83	ESSF mw	N	14.9	0.0	na	no cutblock overlap	Na
84	CWH ds1	P	9.0	5.5	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
84	IDF ww	P	54.0	44.9	na	Some overlap with Interfor cutblock G-6 ("I" block – Interfor in agreement with OGMA)	SRMZ (all), all SRMZ overlap is LTOH
88	CWH ms1	N	33.4	0.0	wetland riparian	no cutblock overlap	SRMZ (majority), all SRMZ overlap is LTOH, adjacent to GWR (minor overlap of < 1 ha)
88	ESSF mw	N	1.6	0.0	na	no cutblock overlap	na
90	ESSF mw	N	27.9	0.0	lake riparian	no cutblock overlap	na
91	CWH ds1	N	1.5	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
91	IDF ww	N	34.6	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
92	CWH ds1	N	20.8	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH, GWR (partial)
92	CWH ds1	P	19.5	19.5	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
92	IDF ww	N	7.9	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
92	IDF ww	P	0.5	0.5	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
93	CWH ds1	N	31.4	0.0	na	no cutblock overlap	SRMZ (partial), SRMZ overlap is all LTOH
93	CWH ds1	P	18.1	17.6	na	no cutblock overlap	SRMZ (all), SRMZ overlap is primarily LTOH with some FMZ
93	CWH ds1	C	3.3	3.3	na	no cutblock overlap	SRMZ (all), SRMZ overlap is all FMZ
93	CWHms1	N	0.5	0.0	na	no cutblock overlap	na
93	IDF ww	N	7.9	0.0	na	no cutblock overlap	SRMZ (partial), SRMZ overlap is all LTOH
93	IDF ww	P	37.5	27.2	na	no cutblock overlap	SRMZ (majority), SRMZ overlap is all LTOH
95	ESSF mw	N	38.6	0.0	avalanche chute	no cutblock overlap	some grizzly bear habitat values in avalanche chute
95	ESSF mw	C	6.3	6.3	avalanche chute	no cutblock overlap	some grizzly bear habitat values in avalanche chute
103	CWH ds1	N	15.1	0.0	important spatially	no cutblock overlap	DWR (all)
103	CWH ds1	P	15.3	4.7	important spatially	no cutblock overlap	DWR (all)
103	CWH ds1	C	40.3	40.3	important spatially	no cutblock overlap	DWR (all)
103	IDF ww	N	23.6	0.0	important spatially	no cutblock overlap	DWR (all)
103	IDF ww	C	5.4	5.4	important spatially	no cutblock overlap	DWR (all)
104	CWH ds1	N	8.3	0.0	na	no cutblock overlap	GWR (partial)
104	IDF ww	N	4.5	0.0	na	no cutblock overlap	na
106	CWH ms1	N	13.8	0.0	large patch, forest interior	no cutblock overlap	na
106	ESSF mw	N	59.5	0.0	large patch, forest interior, avalanche chutes	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
106	ESSF mw	C	17.6	17.6	large patch, forest interior, avalanche chutes	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
106	MH mm2	N	43.5	0.0	large patch, forest interior, avalanche chutes	no cutblock overlap	some grizzly bear habitat values in avalanche chutes
107	CWH ds1	P	22.3	2.3	stream riparian (Birkenhead River)	no cutblock overlap	SRMZ (partial), all SRMZ overlap is FMZ

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
107	CWH ds1	C	6.7	6.7	stream riparian (Birkenhead River)	no cutblock overlap	SRMZ (partial), all SRMZ overlap is FMZ
108	ESSF mw	N	2.5	0.0	avalanche chutes	no cutblock overlap	suspect grizzly bear habitat values in OGMA and avalanche chutes
109	CWH ms1	N	14.6	0.0	stream riparian (Fowl Creek)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
109	CWH ms1	P	9.1	9.1	stream riparian (Fowl Creek)	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
109	ESSF mw	N	4.3	0.0	stream riparian (Fowl Creek)	no cutblock overlap	SRMZ (majority), all SRMZ overlap is LTOH
109	ESSF mw	P	5.2	5.2	stream riparian (Fowl Creek)	no cutblock overlap	SRMZ (majority), all SRMZ overlap is LTOH
109	ESSF mw	C	0.9	0.9	stream riparian (Fowl Creek)	no cutblock overlap	SRMZ (majority), all SRMZ overlap is LTOH
110	CWH ms1	C	6.9	6.9	avalanche chutes	no cutblock overlap	suspect high grizzly bear habitat values in OGMA and avalanche chutes
111	CWH ms1	N	4.7	0.0	avalanche chutes	no cutblock overlap	suspect high grizzly bear habitat values in OGMA and avalanche chutes
111	CWH ms1	P	0.1	0.0	avalanche chutes	no cutblock overlap	suspect high grizzly bear habitat values in OGMA and avalanche chutes
112	CWH ms1	N	4.1	0.0	avalanche chutes	no cutblock overlap	suspect high grizzly bear habitat values in OGMA and avalanche chutes
112	CWH ms1	P	0.4	0.0	avalanche chutes	no cutblock overlap	suspect high grizzly bear habitat values in OGMA and avalanche chutes
113	CWH ds1	N	9.7	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
113	IDF ww	N	22.6	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
114	IDF ww	C	17.6	17.6	stream riparian (Owl Creek)	no cutblock overlap	na
115	CWH ds1	N	56.0	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
115	CWH ds1	P	5.1	4.9	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
115	IDFww	N	12.5	0.0	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
115	IDFww	P	5.5	4.4	na	no cutblock overlap	SRMZ (all), all SRMZ overlap is LTOH
116	IDF ww	N	27.3	27.3	stream riparian (Birkenhead River)	no cutblock overlap	na

Summary of acronyms/abbreviations

DWR deer winter range
GWR goat winter range
FMZ forest management zone (within spotted owl SRMZ)
LTOH long-term owl habitat area (within spotted owl SRMZ)
SRMZ special resource management zone (for spotted owls)
rec. use recreation use
x-elevational cross-elevational

Appendix 2: Acronyms

AAC	Allowable Annual Cut
BCTS	BC Timber Sales, administered by MOF
BEC	Biogeoclimatic Ecosystem Classification
BEO	Biodiversity Emphasis Option
C	Contributing
CMT	Culturally Modified Tree
CWS	Community Watershed
DDM	Delegated Decision Maker
FPC	Forest Practices Code of British Columbia Act
GBPU	Grizzly Bear Population Unit
IWMS	Identified Wildlife Management Strategy
LU	Landscape Unit
LUPG	Landscape Unit Planning Guide
MELP	Ministry of Environment, Lands and Parks, now called MWLAP
MEM	Ministry of Energy and Mines
MOF	Ministry of Forests
MSRM	Ministry of Sustainable Resource Management
MWLAP	Ministry of Water, Land and Air Protection
NC	Non-contributing
NDT	Natural Disturbance Type, see Biodiversity Guidebook
OGMA	Old Growth Management Area
PC	Partially Contributing
RRZ	Riparian Reserve Zone
THLB	Timber Harvesting Land Base
UREP	Use, Recreation and Enjoyment of the Public Reserve
UWR	Ungulate Winter Range
WHA	Wildlife Habitat Area
WTP	Wildlife Tree Patch
WTR	Wildlife Tree Retention

Appendix 3: Public Consultation Summary

The Birkenhead and Gates LU's were advertised for public review and comment for 60 days from August 19 2004 to October 20 2004

Prior to the public consultation period, MSRM met with the local forest licensees and First Nations. Meetings were also held with B.C. Timber Sales and Ministry of Water, Land and Air Protection. Mineral tenure holders were also advised of OGMA placement. Comments received were addressed.

The only comments that were received were from the Squamish Forest District and B.C. Timber Sales

A summary of comments received pertaining to Landscape Unit Planning and how they were addressed is as follows:

Recommend that the OGMA's may be placed wherever possible in the Long Term Owl Habitat (LTOH) rather than the Forest Management Area within the SRMZ's.

We worked with the Squamish Forest District, B.C. Timber Sales and the Ministry of Water, Air and Land Protection to relocate the OGMA's so that there was more of an overlap with the constraints in the LTOH.

Recommend that one OGMA should be redesigned so that pockets of timber are not isolated.

The boundary of this OGMA was modified to allow for access.

Recommend that additional OGMA be established in the IDF in Birkenhead Park.

In order to minimize the timber supply impact we relocated approximately 60 hectares into the Birkenhead Park.

The above decisions were agreed to by MSRM, WLAP, MOF and B.C. Timber Sales