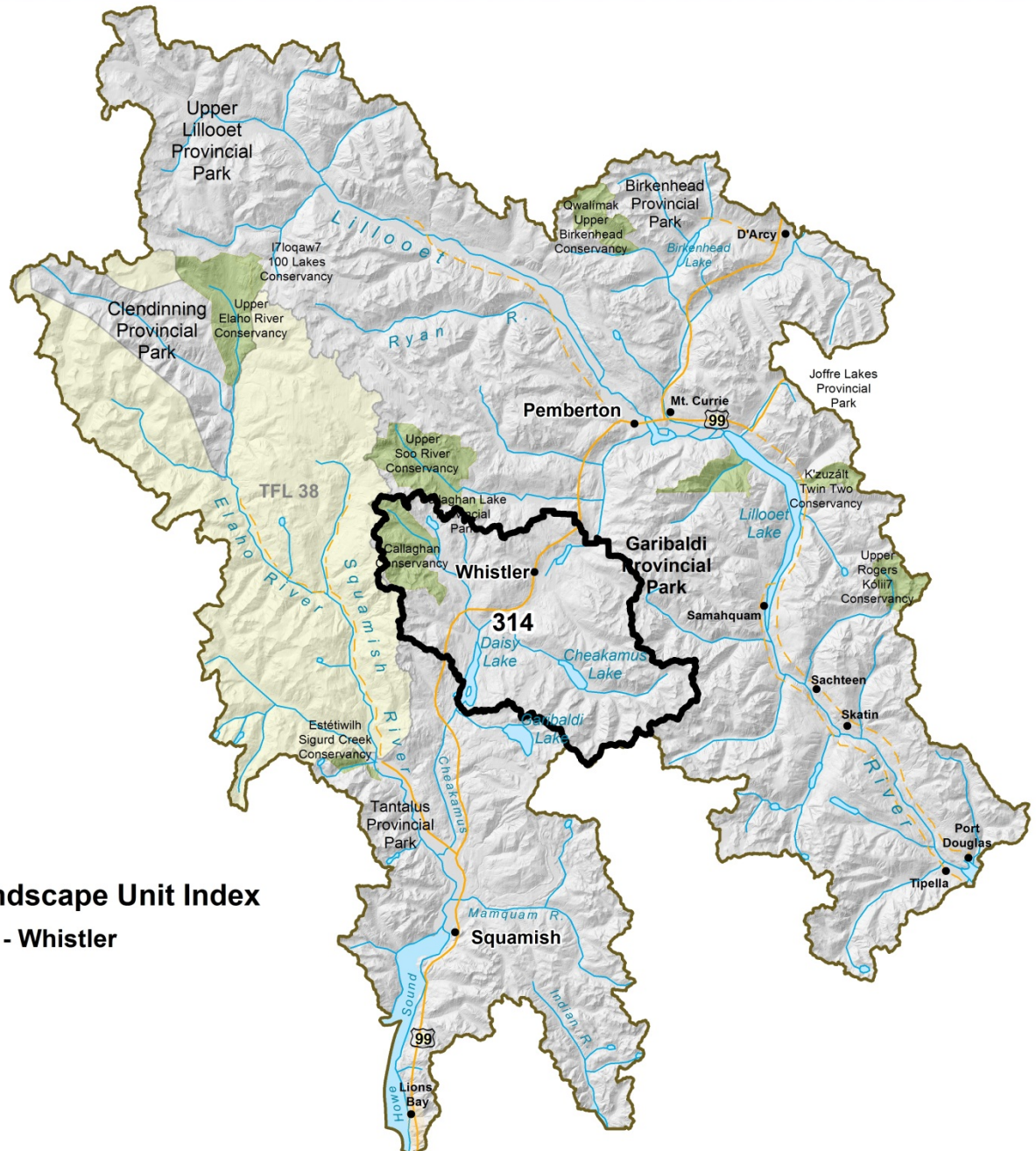


Whistler Landscape Unit Plan for Old-Growth Management Areas



Landscape Unit Index
314 - Whistler

Sea to Sky Natural Resource District
South Coast Region



Executive Summary

This landscape unit plan (LUP) is a companion document to the Ministerial Order to establish Old-growth Management Areas (OGMAs) and land use objectives, enacted through the Land Use Objectives Regulation (LUOR) under Section 93.4 of the *Land Act*, supporting objectives in the *Forest and Range Practices Act* (FRPA).

OGMAs are established to ensure that a targeted amount of old-growth forests in the Crown-managed forested land base are maintained in perpetuity. OGMAs are located throughout each biogeoclimatic ecosystem classification (BEC) subzone variant in each landscape unit.

The Sea to Sky Natural Resource District is subdivided into 21 Landscape Units (LUs). LUs are groups of entire watersheds ranging in size from approximately 50,000 to 100,000 hectares, each containing unique biodiversity features, wildlife habitat, and each with a diversity of resource utilization activities. Minimum targets to retain old-growth are established for each landscape unit through previously determined provincial guidebooks by ministerial order, with actual amounts for designation calculated from an analysis of available Crown Forested Land Base (CFLB). The CFLB includes all forests within the LU, including that which is available for timber harvesting, in addition to forests where timber harvesting is not allowed, such as provincial parks and protected areas, wildlife habitat areas, and First Nations cultural sites. CFLB does not include private land, Indian Reserves and long term recreational leases; old-growth targets and legal objectives do not apply in these areas.

Note: The map associated with this LUP illustrates the general location of OGMAs in the Whistler Landscape Unit (LU). Please refer to Schedule A of the Ministerial Order to view the legal map, or download geo-referenced shape files contained in the B.C. Geographic Warehouse¹ for precise location information.

Legal objectives contained in the Ministerial Order describe the management provisions to retain old-growth forests. These objectives, which must be addressed by *Forest Act* tenure holders in forest stewardship plans and cutting permits, specify incursion limits that are allowed for adjacent forest management activities including forest health, safety, and access (where no other avoidance options are practicable). First Nations traditional uses are exempt from these land use objectives. Proposed impacts to old-growth targets by other *Land Act* tenure holders (e.g. roads, power lines) are considered on a case by case basis through discussions between proponents and Ministry of Forests, Lands and Natural Resource Operations (FLNR).

This plan updates the Crown Forested Land Base (CFLB) with the best available and most current information, and retains forests for biodiversity and old-growth without unduly constraining forest harvesting. OGMAs may be legally designated where existing old-growth forests are constrained by

¹ <http://www.data.gov.bc.ca/>

other land use designations, recognising their contribution to old-growth targets for the Whistler Landscape Unit.

This Whistler Landscape Unit Plan provides specific direction to manage for old-growth forests in the amounts stated in Table 1 below. 41% of the total LU area is comprised of Crown Forested Land Base (CFLB), with 19% of the CFLB spatially identified as Old-Growth Management Areas (OGMA), comprised of mature and old-growth productive forests.

Table 1. Summary of Crown Forest and Old-Growth Management Areas

LU Name	BEO ²	Total LU Area (ha)	Crown Forest Land Base Area (ha)	# of OGMAs	OGMA Area (ha)	Average Size (ha)
Whistler	Low	94,131	39,039	27	7,061	262

² Biodiversity Emphasis Option

Table of Contents

Executive Summary.....	2
1. Introduction	5
2. Current Condition of the Whistler Landscape Unit	6
2.2. Existing ‘higher-level’ plans.....	6
2.3. Natural Resource Values.....	6
2.4. Parks and Conservancies.....	10
3. OGMA Planning Processes.....	11
3.1. Process Initiation.....	11
3.2. Determining Crown Forested Land Base status.....	13
3.3. Review and comment	18
3.4. OGMA Monitoring	18
4. Landscape Unit Description and Old-Growth Targets	20
4.2. Whistler Landscape Unit.....	21
5. Appendix I – First Nations and Public Review.....	23
6. Appendix II – Acronyms	24
7. Appendix III – Landscape Unit OGMA Summary.....	25

List of Tables

Table 1. Summary of Crown Forest and Old-Growth Management Areas.....	3
Table 2. Wildlife Habitat Areas and Ungulate Winter Range areas in the Whistler LU.....	8
Table 3. Provincial Parks in the Whistler LU.	11
Table 4. Conservancies in the Whistler LU.....	11
Table 5. Land status of the Whistler LU (ha).....	14
Table 6. List of First Nations and their territory area within the Landscape Unit (ha).	14
Table 7. OGMA target summary of BEC variants by CFLB.....	20
Table 8. CFLB summary of BEC variants and OGMA targets.....	21
Table 9. Comments from the 60-day First Nations & Public Review Period.	23
Table 10. List of Acronyms.....	24
Table 11. List of OGMAs in the Whistler LU.....	25

1. Introduction

The purpose of this Landscape Unit Plan is to support the legal designation of Old-Growth Management Areas (OGMAs) in the Sea to Sky Natural Resource District. Planning for OGMAs is essential for implementation of the *Forest and Range Practices Act* (FRPA), which enables legal establishment of objectives for landscape level biodiversity.

OGMAs are legally designated to retain representative forest stands in old forest conditions, spatially distributed across each landscape unit (LU). Old forest retention is important to biodiversity, wildlife habitat, ecosystems, water quality and other values such as First Nations cultural heritage. OGMAs are not established in forest stands where approved blocks are located or where proposed logging or roads are planned. This follows the direction outlined in the Landscape Unit Planning Guide.

21 LUs are established within the Sea to Sky Natural Resource District. Each LU is assigned a Biodiversity Emphasis Option (BEO) of High, Intermediate or Low through a previously completed ranking process. This BEO designation determines the minimum required amount of old forest (as a percent of the Crown Forested Land Base) to maintain biodiversity values in each LU. The Crown Forested Land Base (CFLB) is a term used to define productive forest that remains under Provincial government (FLNR) jurisdiction.

After a lengthy process to identify draft OGMAs, which was led by the Cheakamus Community Forest Board of Directors, First Nations and the general public is invited to review and provide comments back to FLNR for a period of 60 days. OGMA establishment is a resource protection measure and is not intended to impact First Nations territorial rights or title. Although active involvement by First Nations associated business interests may occur where they have forest tenure, the interests of a First Nations licensee, or in this case the First Nations who are partners in the Cheakamus Community Forest, may be unrelated to First Nations constitutional land claims, traditional uses or treaty interests. Correspondence with First Nations licensees and their representatives do not constitute legally defined consultation.

This document should be read in conjunction with the Landscape Unit Planning Guide (LUPG), the Biodiversity Guidebook, the Sea-to-Sky Land and Resource Management Plan (2008), and the Vancouver Regional Landscape Unit Planning Strategy (1999). These documents provide an understanding of government policy, planning processes and biodiversity concepts that are associated with landscape unit planning.

The ministerial order accompanying this plan provides binding resource objectives for those tenured under the *Forest Act* and who must also follow the *Forest and Range Practices Act* (FRPA), but activities permitted by other acts are recommended to this direction in order to ensure old-growth forests can be maintained in perpetuity. Objectives are calculated as a percentage of the CFLB, which means that where the CFLB changes due to CFLB deletions, the target amounts must be changed (reduced) to reflect the true CFLB amount.

2. Current Condition of the Whistler Landscape Unit

The Whistler Landscape Unit boundary is an amalgamation of the Callaghan LU, the Whistler LU and a small portion of Soo LU, so that the Cheakamus Community Forest is totally within the Whistler Landscape Unit. The chapters in this section provides a general summary of biological condition and activities occurring on Crown land, and is not intended to replace more detailed reports.

The total area of the Whistler LU is 94,131 hectares (ha). 39,039 ha (42%) is within the Crown Forested Land Base (CFLB). The CFLB is defined as all Crown forest, regardless of whether it is located in parks or contributes to Allowable Annual Cut (AAC) calculations. The CFLB is what the OGMA targets are based on. These details are discussed in section 4 of the LU Plan.

The Timber Harvesting Land Base (THLB) is a subset of the CFLB and is a determination based on the Timber Supply Review, conducted by the CCF, which is considered in calculating the Allowable Annual Cut (AAC). More information on these details can be found on the CCF website³.

For the purposes of this plan, the Timber Harvesting Land Base (THLB) is not needed because the OGMA targets are calculated from the CFLB. OGMAs are generally not identified within the THLB unless there are significant shortfalls in old-growth forests. The Landscape Unit Planning Guidebook and the Biodiversity Guidebook provide more detail on these processes⁴.

2.2. Existing 'higher-level' plans

The Sea-to-Sky Land and Resource Management Plan (S2S LRMP) is a sub-regional land use plan that covers the entire Sea to Sky Natural Resource District. The S2S LRMP provides strategic direction for planning and management of natural resources, and provides a framework to resolve land use issues. The Sea-to-Sky LRMP is built upon the outcomes of government-to-government discussions between the Province and First Nations, and from recommendations put forward by a public planning forum representing a range of resource sectors and other local stakeholders. Many of the areas legally designated through the S2S LRMP for purposes other than forest harvesting became prime candidates for old-growth target representation as OGMAs.

2.3. Natural Resource Values

The Whistler LU is rich in natural resources, with the vast majority of the significant resource values dependent on undisturbed forests and streams. The intent of defining OGMAs is not to address the individual needs of all natural resource values, such as individual wildlife species, but rather to provide a coarse filter to manage landscape level biodiversity.

³ <http://www.cheakamuscommunityforest.com/>

⁴ <http://www.for.gov.bc.ca/tasb/SLRP/policies-guides/>

Through the conservation of OGMA's at the landscape level the majority of old-growth dependent species are expected to be accommodated. Individual species needs are met through a separate process under the Identified Wildlife Management Strategy (IWMS), through the designation of Wildlife Habitat Areas (WHAs) and Ungulate Winter Ranges (UWRs).

The following sections provide a brief outline of the important environmental and wildlife values in the Whistler LU and are not intended as exhaustive reports. More information on wildlife species and their protective measures may be found online⁵.

2.3.1. Wildlife Habitat Areas and Ungulate Winter Ranges

Twenty wildlife species of specific management concern are known to be, or may occur, in the Sea to Sky Natural Resource District. These include red-listed, blue-listed, and yellow-listed and regionally important species. Effective Landscape Unit planning retains (or recruits) a series of old forest habitat patches across probable movement corridors to allow wildlife dispersal and gene flow. For species such as deer, which are particularly susceptible to mortality in winter, connecting or aggregating OGMA's with areas designated for deer winter range effectively augments deer habitat, in addition to benefiting general biodiversity.

The intent of defining OGMA's is not to address the individual needs of all these species, but rather to provide a strong foundation for landscape level biodiversity management. The species of specific concern when identifying OGMA's are those species with established legal objectives, namely Mountain Goat, Grizzly Bear, Northern Goshawk, Spotted Owl, Marbled Murrelet, Mule Deer and Moose.

In establishing wildlife habitat areas and ungulate winter ranges, forest types in the District are assessed utilizing Geographic Information System tools to identify forested polygons with characteristics associated with potential habitat requirements. The most important attributes that are considered in these assessments include stand age, tree height, crown closure, site index, and tree volume.

The Sea to Sky Natural Resource District is home to a number of wildlife species that require habitat to be maintained in undisturbed or managed conditions. Habitat becomes legally protected by Ministerial Order through the Government Actions Regulation (GAR).

In the Sea to Sky Natural Resource District more than two hundred WHA polygons and over six hundred UWR polygons are legally designated to protect habitat for wildlife species. Some of the forest habitat requirements of many of these species, e.g. Spotted Owl, Grizzly Bear, may be representative of the characteristics most desirable for OGMA's. WHA areas frequently introduce considerable constraint to the managed forest and are excellent candidates for OGMA locations, where appropriate old forest conditions are present. A summary of the species included in WHA planning are provided in Table 3 below.

⁵ <http://www.env.gov.bc.ca/fw/>

Table 2. Wildlife Habitat Areas and Ungulate Winter Range areas in the Whistler LU.

WILDLIFE HABITAT AREAS	AREA (ha)
Spotted Owl – Managed Future Habitat Areas	7,375.3
Grizzly Bear	1,343.2
Goat Winter Range	800.1
Deer Winter Range	83.2
Total	9,601.8

2.3.1.1. Northern spotted owl

The Northern Spotted Owl (*Strix occidentalis caurina*) is a permanent resident along coastal-interior transitional old-growth forest from southwestern British Columbia to southern California, and along the southern Rocky Mountains from central Colorado to central Mexico.

Nine areas to protect habitat for the Northern Spotted Owl were established in 2013 in the Sea to Sky Natural Resource District. In the Whistler LU WHA areas for spotted owl total 7,375.3 hectares of Crown Land, mostly located in mature and old-growth forests, in Managed Future Habitat Areas that provides general wildlife measure direction for retention of old-growth values. These areas may provide old-growth representation opportunities for OGMA designation.

2.3.1.2. Grizzly bear

The Sea to Sky District contains Grizzly Bear (*Ursus arctos horribilis*) Population Units (GBPU), with 145 WHA’s established to protect Grizzly bear habitat (98 in the Soo TSA and 47 in TFL 38) for a total of 38,047 ha of crown land. The Whistler LU is home to 1,343.2 ha of GBPU. The GBPU are all considered “threatened” meaning the grizzly populations occurring in each unit is well below the 50% population carrying capacity calculated through habitat availability modelling.

Grizzly bears are found in a wide range of habitats including; floodplain, riparian areas, wetlands, avalanche tracks, berry producing areas and high elevation areas and the backs of drainages. Seasonal habitat use depends on food availability.

2.3.1.3. Deer and moose (ungulate) winter ranges

The Sea to Sky Natural Resource District represents a transitional boundary between two subspecies of deer: the mule deer, which is concentrated in the interior of the province, and the Columbian black-tailed deer (*Odocoileus hemionus*) which occurs more frequently in coastal areas. Moose (*Alces alces*) is predominantly an interior ungulate, with infrequent occurrences throughout coastal habitats.

Functional winter range is critical to maintaining deer and moose populations. Old-growth forests provide habitat attributes necessary for winter survival. Retention winter range is composed of forested habitat that usually consists of mature or old-growth forest stands. Rotation winter range is habitat in various stages of succession to provide winter habitat when the distance between retention winter ranges is usually more than 4 kilometres or in areas where there is a lower snow pack and known deer winter use. Some moose winter range zones are identified for the production of winter moose forage. Areas providing appropriate habitat for deer and moose winter range were approved in 2005. These

areas were considered for designation as OGMA where the protected habitat areas met the criteria for old growth forest types.

2.3.1.4. Mountain goat (ungulate) winter range

Forest cover with good snow interception cover adjacent to escape terrain is an important characteristic of Mountain Goat (*Oreamnos americanus*) winter ranges. These areas provide accessible forage during times of deep snow. During very severe winters, snow may make even low-elevation bluffs inaccessible, forcing goats into timbered stands far from preferred escape terrain, occasionally as low as sea level.

Old-growth forests with large diameter trees and multi-layered, closed canopies are most efficient at reducing the depth of snow on the ground. At snow depths greater than 50 cm, forbs and ferns become unavailable and goats forage on conifer leaves and lichens from standing trees and litterfall, and on mosses from substrates not covered by snow. Older forests are generally associated with more abundant arboreal lichens and litterfall. Areas providing appropriate habitat for goat winter range were approved in 2003. Some portions of this habitat were found to have appropriate old-growth characteristics for OGMA designation.

2.3.2. Timber resources

Commercially valuable tree species in the Sea to Sky District consist mainly of Douglas-fir, western hemlock, amabilis fir, and western red cedar in the lower elevations, and sub-alpine fir, mountain hemlock, and yellow cedar at the higher elevations.

Continued access to commercially valuable timber, including stands of second growth, is a significant concern to *Forest Act* licensees, and the CCF in the Whistler LU. The principles guiding OGMA designation, as described in both the Landscape Unit Planning Guide and Biodiversity Guidebook, are intended to ensure representative old-growth stands are distributed across each LU without unduly restricting timber harvesting opportunity. In order to meet biodiversity objectives in areas where prior timber harvesting has significantly reduced old-growth, some restrictions to the timber resources are inevitable.

Timber resources are defined as forest stands found throughout the Sea to Sky District, and are available for economic harvest (“operable”). Timber resources are also described by their contribution to the Allowable Annual Cut, as detailed in Timber Supply Review documents. Timber resources are often measured by operability, or the availability of the resource for timber harvesting based on characteristics such as slope, timber volume and soil stability.

2.3.3. Water

Water bodies provide both aquatic ecosystem habitat and habitat diversity in wetlands and uplands which supports a high degree of biodiversity. OGMAs are often linked to riparian areas to increase the size of the reserves to increase habitat diversity. The riparian areas also provide linkages between other reserves. Lakes, rivers and non-forested riparian ecosystems such as swamps and bogs are not included in the Crown Forested Land Base and do not contribute to OGMA targets.

A number of community watersheds are located close to communities along the corridor and are a source of drinking water for residents. Where Integrated Watershed Management Plans exist, standards for acceptable forest management practices within the watershed are set. Designating OGMA within community watersheds is a preferred practice, where suitable old-growth forests are present.

2.3.3.1. Fish habitat

The scope of OGMA planning is focused on maintaining old-growth forests and terrestrial biodiversity, while recognizing that maintaining water quality for fish habitat is an important strategy for overall forest management practices. OGMA may be situated in riparian areas and along gullies to maintain forest types in sensitive ecosystems, which provide additional protection for fish habitat.

2.3.4. Recreation and tourism

The Sea to Sky District contains many well-developed outdoor recreation opportunities, ranging from motorized activities such as snowmobiling, motorcycling and ATV use to non-motorized activities such as hiking and camping, back country ski touring, mountain biking, climbing, and rafting. Most recreation activities occur along Highway 99, accessed by other connecting roads developed by the forest industry. Other provincial parks and recreation sites provide access and use for other opportunities such as boating, camping and angling.

Outdoor recreation activities range in type and intensity depending on the availability of natural features and accessibility. Most camping sites and recreation trails are most commonly maintained by a combination of provincial resources and partnerships with First Nations or local community groups. Where recreation features are known and old-growth forests are located in the same area, OGMA may be established to recognize the contribution of old-growth forests to the user experience and to ensure old-growth forest structure is maintained over the long-term.

2.4. Parks and Conservancies

There are twelve Class A Provincial Parks and six conservancies within the Sea to Sky Natural Resource District. These designations prohibit the extraction of natural resources such as timber harvesting and mineral extraction, and they also restrict additional designation of Crown land tenures that could impact the intended management goals of these areas. The Ministry of Environment - BC Parks is responsible for parks and conservancies. Table 3 and Table 4 summarize these areas.

Forests within parks and conservancies are classed as non-contributing Crown Forested Land Base since they are still on Crown Land but are not considered part of the Timber Harvesting Land Base (THLB) and do not contribute to Allowable Annual Cut calculations. These forests are included within LU areas and contribute to OGMA targets. OGMA may be located in parks and conservancies; however they do not receive legal status under the Land Use Objectives Regulation (LUOR) since they are already fully protected.

Table 3. Provincial Parks in the Whistler LU.

PROTECTED LANDS NAME	AREA (ha)
CALLAGHAN LAKE PARK	2,313.0
BLACKCOMB GLACIER PARK	220.9
BRANDYWINE FALLS PARK	417.1
Total	2,951.0

Table 4. Conservancies in the Whistler LU.

CONSERVANCY AREA NAME	AREA (ha)
UPPER SOO CONSERVANCY	25.4
CALLAGHAN CONSERVANCY	7,963.8
Total	7,989.2

3. OGMA Planning Processes

3.1. Process Initiation

The planning process for OGMA begins by identifying Crown land tenures that may be impacted by OGMA designation, since timber harvesting is not allowed in OGMA. *Forest Act* tenures are administered by the Ministry of Forests, Lands and Natural Resource Operations (FLNR). For tenure holders other than those administered by FLNR, such as mineral claims, the intent is to avoid placement of OGMA within existing tenures where possible. Other tenures, such as commercial recreation, are evaluated on the basis of their need to remove living trees for future infrastructure. Often tenure holders provide information to evaluate these areas.

Each LU contains varying amounts of a range of forest types, including mature and old forested habitat, which are constrained by the management of other values that are utilized for old seral representation. For example, Wildlife Habitat Areas in the district contribute many areas for old-growth representation. Opportunities to co-locate OGMA in old-growth forests already identified as WHAs assist in reducing the cumulative impact to forest licensees.

The location of OGMA is also intended to ensure that separate planning processes complement each other. For example, OGMA placed within or adjacent to Spotted Owl or Marbled Murrelet Wildlife Habitat Areas (WHAs) overlap constraints and increase OGMA patch size. These larger areas restricting forest harvesting may improve connectivity between patches of adjacent wildlife habitat.

Suitable forest stands are identified adjacent to high value wildlife and recreational features such as wetland, lakes and streams wherever possible to enhance these values. Environmentally Sensitive Areas (ESAs) are included in OGMA where they provide old or mature forest representation. Younger forest

stands may be included within OGMA boundaries, reflecting operational constraints related to forest management while recruiting additional area. This approach increases the likelihood of sustaining ecosystems and well-distributed wildlife populations across their natural range.

3.1.1. Assessment and review of candidate forest stands

Within the list of candidate areas distributed across the land base, OGMAs are 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 each LU is also an important selection consideration. Larger patches of forest are selected as OGMAs to provide forest interior habitat conditions, although this is not possible in some BEC variants where the size of remaining old-growth areas is limited by other development activities. Smaller patches with natural edges containing old forest are also included.

OGMAs are distributed spatially and not concentrated in a particular area or mapsheet. This is in keeping with the “coarse filter” approach of biodiversity management, whereby representative old-growth stands are protected in order to maintain ecosystem processes and specific wildlife habitat requirements.

A review of the satellite imagery and inventory data confirmed alignment of forest cover attributes and suitability of each stand for OGMA inclusion. Numerous draft OGMAs that were identified through past efforts were checked in the field or by aerial surveys to verify the presence of desirable characteristics.

OGMA planning ensures that a targeted amount of old-growth forests located throughout each LU are identified to contribute to old-growth and biodiversity. OGMAs placed within or adjacent to wildlife management areas may effectively overlap constraints to timber harvesting on the land base and may increase OGMA size. These larger patches may then improve connectivity between habitats favourable to wildlife.

OGMAs 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. In general, opportunities to recruit larger patches to provide for forest interior conditions were favoured over smaller patches. In searching for appropriate OGMAs, impact on the timber supply was minimized by combining areas in the non-contributing land base (parks, ecological reserves) with the timber harvesting land base, which is generally comprised of more productive and more accessible forests. In addition, smaller remnant patches containing age class 9 (greater than 250 years old) were also combined with larger stands, as suggested by the Landscape Unit Planning Guidebook (LUPG).

3.1.2. Mitigation of Timber Supply Impacts

This plan is intended to maximize the effectiveness of biodiversity requirements while minimizing impacts to the Soo Timber Supply Area. Impact to timber supply may be unavoidable because old-growth levels are already low due to extensive wildfire and harvesting history, and relatively low operability (ability to access timber). Specific measures adopted to minimize THLB impacts from OGMAs included the following:

1. Co-location of OGMA with other protected values. Areas identified as Environmentally-Sensitive Areas (ESA) and areas where access is difficult were included within OGMA where possible and where compatible with biodiversity strategies. Riparian management areas and stands within the floodplain containing backwater channels and wet areas were included where possible. OGMA were also placed in legally established wildlife habitat where there was appropriate old-growth, such as in parts of mountain goat habitat, deer winter range, and long-term spotted owl habitat.
2. Operability. During the LU planning process, careful consideration was made to ensure that timber access was not cut off by OGMA delineation. Where possible, access corridors were left out of OGMA with boundaries delineated to enable management of adjacent stands.
3. Age Class. Many non-contributing areas (Crown Forested Land Base but not Timber Harvesting Land Base) are not included in OGMA, typically due to their young age class and absence of old-growth structural characteristics. As stands in these areas mature they may become suitable as an OGMA replacing those within the THLB. Riparian management over the course of many years may speed the progress of some stands to develop old-growth structural attributes. In order to assess this, periodic review and possible revision of OGMA will be necessary.
4. Timber Supply Review Direction. Local licensees consulted during OGMA selection for their operational knowledge helped ensure that impacts to their AAC would be minimized. The FLNR Timber Supply Review (2011) produced maps of timber harvesting land base and non-contributing forest that are not intended to be accurate at the small scale of OGMA delineation. Involvement of licensee staff familiar with their chart areas ensured that impacts were minimized, as per TSR determination direction.

Short and long-term impacts on timber supply were addressed by first delineating OGMA in the non-contributing forest land base; however, the non-contributing land base could not always satisfy old forest requirements and portions of the timber harvesting land base from most constrained to least constrained were assessed and included as OGMA. Generally, more THLB was required to meet minimum targets in lower elevation variants due to a longer disturbance history and lower amounts of non-contributing forest land.

3.2. Determining Crown Forested Land Base status

Crown Forested Land Base (CFLB) is determined by calculating the amount of forested land (in hectares) where legal jurisdiction to manage the forest resources rests with the Crown (provincial government). Private Land is excluded from the Crown Forested Land Base and does not contribute to the OGMA targets.

Determining the actual amount of CFLB requires a complete knowledge of the land base, with access to the various layers that help inform the calculation. Some examples of land that are excluded from the CFLB calculation includes private land, Indian Reserves, municipal land, woodlots, long term Crown leases (e.g. resort development) and right-of-way tenures for infrastructure such as roads and power

lines. Non-forested areas are excluded from CFLB calculations, and therefore do not contribute in the calculation for OGMA targets. Detailed information on the process to calculate the CFLB can be found in the Landscape Unit Planning Guide (1999).

As illustrated by Table 5 below, 39,039 ha (42%) of the total Whistler LU area of 94,131 ha is within the Crown Forested Land Base (CFLB). 23,744 ha of the CFLB (61%) contributes to the Timber Harvesting Land Base (THLB), while 15,294 ha (39%) does not contribute to THLB, due to inoperability, and location in parks or other long-term leases (e.g. Whistler Olympic Park). The remaining 55,092 ha (58%) of the Whistler LU is non-forested (e.g. rock, alpine tundra, water) and non-Crown (e.g. private land, Indian Reserve) and is excluded from any OGMA contributions and calculations.

Table 5. Land status of the Whistler LU (ha)

Landscape Unit	C	N	CFLB Total	Excluded	Total Area
Whistler					
Crown – Active Timber Licence in TSA	630.0	141.0	771.0	127.0	897.0
Crown – Community Forest Schedule B	20266.0	4780.0	25046.0	7966.0	33011.0
Crown - Ecological Reserve	112.0	37.0	149.0	1.0	151.0
Crown – Forest Management Unit	2717.0	472.0	3190.0	3754.0	6943.0
Crown – misc lease >100ha	1.0	0.0	1.0	8.0	9.0
Crown - Plantation Forest Reserve > 100ha	10.0	0.0	10.0	295.0	304.0
Crown – Provincial Park Equivalent or Reserves	0.0	1582.0	1582.0	6386.0	7968.0
Crown – Provincial Parks	0.0	8283.0	8283.0	33229.0	41511.0
Crown - Schedule B Land TFL	0.0	0.0	0.0	333.0	333.0
Crown - UREP <100ha	9.0	0.0	9.0	11.0	20.0
Private – Crown Grant	0.0	0.0	0.0	2983.0	2983.0
Whistler Total	23,744.0	15,294.0	39,039.0	55,092.0	94,131.0

3.2.1. First Nations

A number of First Nations hold traditional territory throughout the Sea to Sky Natural Resource District, with land management for several of these First Nations being guided by one or more agreements with the Provincial government. Table 6 lists each First Nation with territory located within the Whistler LU, and the affected territory area (in hectares). This amount is more than the total area of the Whistler LU due to shared territory.

Table 6. List of First Nations and their territory area within the Landscape Unit (ha).

First Nation – Agreement reference	Territory Area within LU (ha)
Lil’wat – FCRSA, LUPA	87,650.2
Squamish Nation – FCRSA, LUPA	90,033.8

The Cheakamus Community Forest Limited Partnership was awarded April 2009. The three equal partners in the Cheakamus Community Forest are the Resort Municipality of Whistler, the Squamish Nation and the Lil'wat Nation.

The completed Land Use Planning Agreements with First Nations establish cultural areas on Crown land, through various legal tools (e.g. Land Use Objectives Regulation, *Land Act*), which set aside and restrict resource development on Crown Land. Many of these areas are considered good candidates for OGMA establishment as they often include old-growth forests, remain Crown land, with clear direction to restrict activities such as logging or access. Provisions in the legal orders designating these sites specifically exclude timber harvesting or other tenures, while allowing harvesting of non-timber forest products and other First Nations traditional cultural uses to be maintained.

3.2.2. Resource tenure holders

The planning process includes identification of tenures that are administered by agencies such as FLNRO and Ministry of Energy and Mines. The management intent is to avoid placement of OGMAs within existing tenure areas where resource extraction may impact old-growth structural characteristics.

3.2.2.1. Cheakamus Community Forest Limited Partnership

The Cheakamus Community Forest (CCF), an equal partnership between the Resort Municipality of Whistler, Squamish Nation and Lil'wat Nation, is the only *Forest Act* tenure holder in the Whistler LU, receiving a 25 year tenure in April 2009. The total area of their tenure, wholly located within the Whistler LU, is 33,018 ha. Following approval of the CCF Management Plan in March 2015, the Allowable Annual Cut (AAC) is now 21,000 m³.

OGMAs are selected where they cause the least impact to approved or planned blocks and roads. Potentially affected resource tenure holders, including forest licensees, are involved in the OGMA location process to ensure that the intent of this LU plan is conveyed, and any impacts to planned development activities are minimized.

The Cheakamus Community Forest is responsible to manage for resource objectives, which includes managing objectives to maintain old-growth forests through Forest Stewardship Plans.

The CCF is managed under an Ecosystem-Based Management (EBM) plan as approved in its Forest Management Plan. In the plan, EBM is defined as:

*An adaptive management approach to managing human activities that seeks to ensure the coexistence of healthy, fully functioning ecosystems and human communities. The intent is to maintain those spatial and temporal ecosystems such that component species and ecological processes can be sustained and human well-being supported and improved.*⁶

⁶ Based on Coast Information Team definition, see <http://www.citbc.org/>

A focal point in this definition is the direct connection between ecological function and human well-being. EBM acknowledges the role of humans as an integral part of the ecosystem. Alterations to ecosystems are accepted as necessary to produce the things that people value; however, human uses and alterations must be within the limits of what the ecosystem can produce and sustain without loss of diversity or functions. The CCF obtained public input into the OGMA process at a workshop in October 2012, two open houses in 2013, and one in April 2014. The OGMA maps were prepared by Ecotrust Canada and B.A. Blackwell and Associates, with a final version prepared by Cascade Environmental Resource Group (CERG) in spring 2014. The CCF formed an OGMA subcommittee in January 2014 with a representative from the RMOW, Squamish Nation and Lil'wat Nation which met regularly with CERG to review the draft OGMAs as they were being prepared. In addition, Richmond Plywood's RPF was also included in the review process. All sides reached consensus on the OGMAs included in the Whistler LU plan.

OGMAs legalized by Ministerial Order through the Land Use Objectives Regulation replace the 2008 Provincial Non-spatial Old-Growth Order to manage for old-growth by setting targets for each LU in the Province. The Cheakamus Community Forest's Forest Stewardship Plan (describing how forestry practices intend to achieve management objectives) must be amended within two years in recognition of the legally established OGMAs.

3.2.2.2. Mining tenure holders

Subsurface resources (minerals, coal, oil, gas and geothermal) and aggregate resources are valuable to the province, but are difficult to quantify due to their hidden nature. The Ministry of Energy and Mines (MEM) rate the industrial and metallic mineral potential across the district, based on a qualitative analysis which takes into account the values 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.

Mineral tenures are located throughout the Sea to Sky District; when locating OGMAs these tenures are avoided where possible. Mineral tenure holders must apply to FLNR for a master license to cut to remove trees during mineral exploration or development of a mine site.

When established over an existing mineral and gas permit or tenure, an OGMA will not impact their status and will not prevent exploration and development activities. A tenure holder may 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.

3.2.2.3. Other tenure holders

Other tenures on Crown land that could impact forest designated as OGMA may include Land Act tenures such as power line rights of way, hydro power projects, and other infrastructure developments where forest areas are impacted. During the process to locate OGMAs, existing tenures and pending applications are avoided where possible.

3.2.1. Boundary mapping

OGMA selection follows a procedure as outlined in the Landscape Unit Planning Guide. OGMA's are first selected from forest stands considered non-contributing to timber harvesting (NC), then if the OGMA target is not met, inoperable or constrained Timber Harvesting Landbase (THLB) and, finally, unconstrained THLB may be designated. To identify the OGMA's, all suitable forest types within the entire landscape unit are identified by a combination of satellite imagery and Vegetation Resource Inventory (VRI) information interpretation.

Old-growth forest stands were selected to ensure that OGMA's represent a range of forest types, including productivity indicators such as site index, volume, and species composition. Stands targeted as OGMA's may also be chosen to include other attributes, such as a significant component of 'veteran' trees or other old-growth structures, oldest available stands, mature stands in ecosystem complexes, or important wildlife habitat. Such stands were first selected from NC lands.

OGMA boundaries utilized natural features wherever possible to ensure they could be located on the ground. OGMA boundaries were delineated to include complete forest stands (forest cover polygons identified using the Vegetation Resource Inventory, or VRI) wherever possible. Georectified orthophotos and satellite imagery ensured that all boundaries followed clearly identifiable forest type features; these have been mapped at a range of scales to ensure accuracy to +/- 0.5 hectares. Due to the slight inaccuracies of the VRI boundaries compared to the actual stand boundaries as observed via satellite imagery, the reporting of OGMA seral structure may include small residual components of adjacent stand types, including wildlife tree patches and other inoperable areas. As young stands in NC forest progress in age and structure to become suitable old-growth candidates, they may be designated as an OGMA to replace a current OGMA within the THLB.

The selected polygons are evaluated for distribution by biogeoclimatic variant boundaries, and the resulting areas were reviewed by forest licensees operating in those areas. Licensees indicated which areas identified as OGMA-suitable were operable stands in order to select OGMA's that would minimize impacts to the THLB. OGMA-suitable area was then reduced to meet the representation targets. In many cases the amount of area selected for OGMA representation exceeds the minimum legal objective for biodiversity. This is intentional and is meant to account for potential mapping errors.

3.2.2. OGMA analysis

A broad range of information is available for analysis and reporting on forest characteristics and other features within OGMA's, such as tree species composition, seral stage (age class) distribution, site index (productivity), and crown closure. Where OGMA's overlap with other existing land value designations that limit forest harvesting (e.g. parks, wildlife habitat areas, First Nations cultural sites) these are reported in Appendix III – Landscape Unit OGMA Summary. Other overlapping land interests such as recreation and tourism values such as camping sites and trails can be measured and reported. This information helps inform stakeholders where their interests may be of concern because of potential impact to OGMA's, and also assist land managers in making informed decisions that consider all affected interests. Please note that detailed analysis information described above does not appear in this plan.

3.3. Review and comment

A key element of the planning process includes the opportunity for First Nations and the general public to review and provide feedback to land managers on the proposed OGMA. This opportunity is provided during a sixty-day period after potential land and resource impacts are reviewed with tenure holders. Once the First Nations and public review and comment period has ended, any additional information brought forward that can inform and improve the OGMA locations, Landscape Unit plan and the Ministerial Order is considered prior to approval of the final version.

The First Nations and Public review was held from April 23 to June 25, 2015. Advertising was placed in three local media publications, and a notice posted in the BC Gazette inviting Public review and comment. First Nations with traditional territory in the Whistler LU were sent letters inviting them to review and comment. Over the course of this period one comment was received, from a First Nations organization. No changes to OGMA, the LUP or legal order were necessary as a result of this comment.

3.4. OGMA Monitoring

Ongoing improvements to land and resource information, including forest inventory and biodiversity data informed by scientific research and field sampling conducted by the Forest and Range Evaluation Program (FREP), are monitored by FLNR staff and may result in updates to the OGMA dataset over time. Any incursions that may occur will also be tracked by the Sea to Sky Natural Resource District office, to maintain landscape-level biodiversity and old-growth targets. Other policy developments at the regional and provincial levels may help inform and improve practices to manage OGMA, and these changes will be communicated to licensees in a timely manner.

The Sea to Sky Natural Resource District office is responsible for monitoring OGMA incursions from non-forestry tenures such as power lines and transportation. Statutory updates to the OGMA database is to occur periodically; forest licensees will be notified when OGMA boundaries have changed.

Changes include OGMA incursions from the CCF that are allowed through the ministerial order for safety, forest health, or to facilitate necessary operational activities where there is no other practicable option. Incursions specified in the Ministerial Order are governed by professional reliance and do not require approval from the District Manager as long as the CCF adheres to the provisions listed in the Ministerial Order and the activities are consistent with their approved Forest Stewardship Plan (FSP).

A process to monitor these incursions is necessary to ensure old-growth targets continue to be met, and consists of steps taken by the CCF and by the district office. A general description of these steps is provided below:

Steps taken by the CCF (harvesting or road construction that impacts an OGMA):

- 1) Notify the Sea to Sky Natural Resource District Office and provide a brief rationale that supports the need for the OGMA incursion. Must be consistent with the Ministerial Order.
- 2) Summarize the forest types within incursion area and show that the proposed replacement area (if necessary) provides equal or better old-growth qualities and quantity.

- 3) Provide GIS shape files of the incursion area and replacement area.

Steps taken by the Sea to Sky Natural Resource District Office (to monitor OGMA incursions and administer database):

- 1) File the incursion notice.
- 2) Confirm the incursion and replacement areas are within the Crown forest and meet requirements for landscape-level old-growth and biodiversity.
- 3) Update the district OGMA database as soon as possible, and notify licensees.
- 4) Update the legal layer in the BC Geographic Warehouse.

In addition to the incursions described above, there may also be exceptional circumstances where the CCF finds that an established OGMA unintentionally restricts access or harvesting opportunity. This may occur where OGMA placement at the landscape scale does not reflect land features identified at the scale of operability; if the CCF finds that the OGMA is unduly restrictive, and equivalent or better structural biodiversity characteristics are present nearby, they may apply to the District Manager to amend the OGMA. Proposals for these types of incursions lead to a decision to either amend the ministerial order and legal data layer, or to refuse the request. For such requests, the following steps are provided as an example of the process to be taken by the CCF and the Sea to Sky Natural Resource District:

Process steps in proposal to harvest within an OGMA, requiring decision by the District Manager:

- 1) CCF requests OGMA amendment. Application includes:
 - a. Supporting rationale to amend the ministerial order, e.g. no other practicable options to locate a road to access forest resources.
 - b. Analysis of forested areas supporting the requirement that the replacement area provides equal or better old-growth and biodiversity characteristics than the original OGMA.
 - c. GIS shape files of proposed amendment to the OGMA boundary.
 - d. Photos, field notes, or other supporting documentation.
- 2) District staff reviews application and may need to discuss application with CCF. Review includes:
 - a. Consider landscape-level biodiversity requirements; this may include analysis of CFLB to determine actual OGMA target amount and the current amount of established OGMA.
 - b. Review forest types and determine whether OGMA features provide unique or irreplaceable old-growth biodiversity characteristics, and whether impact to those features can be mitigated, or replaced by a new OGMA.
 - c. Review other resource values or Crown land status for impediments that might restrict the proposed change.
 - d. Site visit if necessary to view current and proposed OGMA areas.
 - e. Compile information and provide options for District Manager consideration.
 - f. If approved, update the local database and legal data layers.

Past regional policies provide administrative direction similar to the above for CCF when they may apply to amend an OGMA. These policy documents provide good general directions but may not always be

applicable given unique circumstances and landbase changes since the Ministerial Order was written. When in doubt, if the CCF wishes to amend an OGMA they must contact the Sea to Sky Natural Resource District office.

4. Landscape Unit Description and Old-Growth Targets

This section provides summaries for each Landscape Unit, including Crown land ownership, contributions to old-growth targets from the Crown Forested Land Base, and a summary table reporting Old-Growth Management Area distribution among BEC variants. Key maps, analysis and reports of overlaps with other values are provided for each OGMA in Appendix III – Landscape Unit OGMA Summary.

Landscape Units (LUs) in the Sea to Sky Natural Resource District lie within the Southern Pacific Ranges Ecoregion. Climate here is best described by elevational gradient. At low elevations summers are warm and dry, while winters are mild and moist with short-lived or intermittent snow packs. Mid elevations are characterized by cool and relatively dry summers and cool moist winters with moderate snowfall. Higher elevations have long moist, cold winters with high snowfall and short, cool, moist summers.

For the Whistler LU, OGMAs are located in the following three BEC units: Coastal Western Hemlock, southern dry subarctic (CWHds1); Coastal Western Hemlock, southern moist subarctic (CWHms1); and Leeward Moist Maritime Mountain Hemlock Variant (MHmm2). Table 7 provides a summary of OGMAs by these three BEC units, with the amount targeted from 19% of the CFLB.

Table 7. OGMA target summary of BEC variants by CFLB

	Crown Forested Land Base (CFLB)			
	CFLB Area (ha)	OGMA Target (ha)	OGMA Area (ha)	Surplus Area (ha)
BEC Variant				
CWHds1	345	65	125	60
CWHms1	21,811	4,144	4,154	10
MHmm2	14,645	2,782	2,782	0
MHmmp2	1,781	0	0	
CMAunp	457	0	0	
Whistler Total	39,039	6,992	7,061	69

These three BEC units are categorised into Natural Disturbance Types (NDTs), with MHmm2 in the NDT 1, CWHds1 and CWHms1 in NDT 2 (infrequent stand-initiating events). Alpine tundra and subalpine parkland ecosystems are classed as NDT5.

Forests in NDT1 historically were generally multi-storied and uneven-aged, with regeneration occurring in gaps created by the death of individual trees or small patches of trees. Approximately 32% of the

planning area is within NDT1. NDT2 forest ecosystems are influenced by infrequent stand-initiating events and historically were usually even-aged, but extended post-fire regeneration periods produced some stands with uneven-aged characteristics. Approximately 36% of the District is within NDT2. Ecosystems in the NDT5 are not considered productive forest since they occur above or immediately below the alpine tree line and are characterised by short and harsh growing seasons. Approximately 30% of the District is within NDT5. NDT4 types are typically forest stands originating from wildfires, and make up approximately 3% of the District.

Substantial timber harvesting has occurred in the valleys and lower elevations (CWHdm, CWHds1, CWHms1 and CWHvm1). In addition, the fire history associated with the drier Landscape Units has resulted in significant old seral deficits (relative to the minimum targets) in the CWHdm and CWHvm1 BEC variants. Recruitment OGMA targets have been delineated in these areas. Otherwise, sufficient old-growth representation targets in the other BEC variants can be met predominantly from the non-contributing land base.

4.2. Whistler Landscape Unit

The Whistler Landscape Unit covers 94,131 hectares, largely surrounding the Resort Municipality of Whistler. The Mamquam LU is adjacent to the south side, with the Soo LU to the north. The Whistler LU is ranked as a low Biodiversity Emphasis Option, meaning biodiversity values are lower than average compared with other LUs in the district. Retention targets for old growth would also be lower than average, however the target for old & mature protection was set to 19%, as described in the approved Sea-to-Sky Land and Resource Management Plan (2008). Table 7 provides a summary by hectares of the CFLB, by BEC variant, and the OGMA target amounts associated for each.

Table 8. CFLB summary of BEC variants and OGMA targets

BEC Variant	Crown Forested Land Base (ha) ⁷			OGMA Target %	OGMA Target (ha)
	C	N	CFLB Total		
CWHds1	269	76	345	19	65
CWHms1	16,753	5,058	21,811	19	4,144
MHm2	6,196	8,449	14,645	19	2,782
MHmmp2	511	1,271	1,781	0	
CMAunp	16	441	457	0	
Whistler LU Total	23,744	15,294	39,039		6,992

As illustrated by Table 8 below, a portion of the CFLB for Whistler LU is considered non-contributing to the timber harvesting land base with significant amounts located outside of the CCF boundary, and within LRMP-designated Wildland Zones, conservancy and Provincial Park. These areas are generally reflected by higher elevation ecosystems. The distribution of CFLB age classes among OGMA targets is

⁷ C indicates Contributing, N indicates Non-Contributing; forest in calculations for the timber harvesting land base.

distributed primarily among old and mature seral stage forests, a positive reflection of OGMA selection considering the extensive harvesting activity that occurred prior to setting targets to maintain old-growth forests. A summary of the OGMA age class distribution is provided in Appendix III, showing they are comprised of 88% old, 11% mature, 0% mid, and 1% early age class categories.

5. Appendix I – First Nations and Public Review

As directed by the Land Use Objectives Regulation, First Nations and the general public were notified of the draft OGMA's and associated documents, and the intent to legally establish these areas to protect old-growth and biodiversity. Comments were invited during a 60-day review period; from April 23 to June 25, 2015. The notification was worded as follows:

Notice of public review: proposed land use objectives for Old-Growth Management Areas (OGMA's) in the Sea to Sky Natural Resource District.

Pursuant to Section 93.6 of the *Land Act*, notice is hereby given that public review of proposed objectives by minister's order is initiated, for draft OGMA's in the Whistler Landscape Unit. The areas to which the proposed land use objectives apply are set out in Schedule A of the proposed ministerial order. OGMA's identify forested areas to be retained for the protection of biodiversity and old-growth forests.

The proposed Ministerial Order containing land use objectives, in addition to the Schedule A map and the associated Whistler Landscape Unit Plan may be viewed at the Sea to Sky Natural Resource District office in Squamish (Suite 101, 42000 Loggers Lane). These PDF documents and digital shape files may also be downloaded from the following website location: <https://www.for.gov.bc.ca/tasb/SLRP/legal-direction/>

The public is invited to comment on the objectives for a 60-day review period, commencing from the date of this notice, ending on June 25.

Written comments may be sent to Frank DeGagne, RPF, Sea to Sky Natural Resource District, Ministry of Forests, Lands & Natural Resource Operations, Suite 101, 42000 Loggers Lane, Squamish BC V8B 0H3, email: frank.degagne@gov.bc.ca.

The notice was published in three local publications: The Squamish Chief (April 23), The Whistler Question (April 21), and the Whistler Pique (April 23). A notice was published the BC Gazette on April 23. Letters were sent by email to the Lil'wat Nation and the Squamish Nation Chief & Council on April 20.

Comments received during this period are summarized in the table below.

Table 9. Comments from the 60-day First Nations & Public Review Period.

No.	Stakeholder category	Comment	Response
1	First Nations	Assertion of inherent aboriginal title to traditional territory; no specific comment to OGMA establishment decision.	Acknowledged receipt of letter

6. Appendix II – Acronyms

Table 10. List of Acronyms

AAC	Allowable Annual Cut
BEC	Biogeoclimatic Ecosystem Classification
BEO	Biodiversity Emphasis Option
CFLB	Crown Forested Land Base
CWHds1	Coastal Western Hemlock Dry Submaritime
CWHms1	Coastal Western Hemlock Southern Moist Submaritime
MHmm2	Mountain Hemlock Leeward Moist Maritime
MHmmp2	Mountain Hemlock Moist Maritime Parkland
CMAunp	Coastal Mountain-heather Alpine, Undifferentiated and Parkland
CMA	Cultural Management Area
FDP	Forest Development Plan
FPC	Forest Practices Code of British Columbia Act
FRPA	Forest and Range Practices Act
ILMB	Integrated Land Management Bureau
IWMS	Identified Wildlife Management Strategy
LU	Landscape Unit
LUOR	Land Use Objectives Regulation
LUPG	Landscape Unit Planning Guide
MOE	Ministry of Environment
FLNR	Ministry of Forests, Lands and Natural Resource Operations
NDT	Natural Disturbance Type, see Biodiversity Guidebook
OGMA	Old-Growth Management Area
RLUP	Regional Land Use Plan
S2S LRMP	Sea-to-Sky Land and Resource Management Plan
SRMP	Sustainable Resource Management Plan
TEM	Terrestrial Ecosystem Mapping
THLB	Timber Harvesting Land Base
UWR	Ungulate Winter Range
WHA	Wildlife Habitat Area

7. Appendix III – Landscape Unit OGMA Summary

This section provides a tabular summary of Old-Growth Management Areas (OGMAs). A detailed map of OGMA locations are attached to the Ministerial Order as Schedule A, and are also available as shape files for use in GIS software in addition to Google Earth.

The following table summarize each OGMA area by distribution among BEC variant, by forest age class category, and by legally established protected values (e.g. WHAs, parks) that are located within each OGMA. These are identified in each table summary as ‘constraints’ because they are a restriction to forestry activities such as logging.

Table 11. List of OGMAs in the Whistler LU

Whistler LU	BEC Variant (Ha)			Total	Forest Seral Age Class (Ha)					Constraint Comment	Constrained (Ha)	Constrained Area (%)	Unconstrained Crown Forest (Ha)	OGMA Area (Ha)
	CWHds1	CWHms1	MHm2		Early	Mid	Mature	Old	Old %					
SRY_314_001	0	543	109	652	0	0	125	527	81%	PARK-CONS	652	100%	0	652
SRY_314_002	0	114	0	114	0	0	0	114	100%	PARK-CONS	114	100%	0	114
SRY_314_003	125	252	30	408	7	0	157	244	60%	UWR PARK-CONS	103	25%	305	408
SRY_314_004	0	0	321	321	0	0	23	298	93%	PARK-CONS	321	100%	0	321
SRY_314_005	0	189	368	556	0	0	93	463	83%	PARK-CONS	172	31%	384	556
SRY_314_006	0	19	49	67	0	0	0	67	100%		0	0%	67	67
SRY_314_007	0	81	0	81	0	3	3	76	93%		0	0%	81	81
SRY_314_008	0	171	0	171	0	0	0	171	100%	PARK-CONS	171	100%	0	171
SRY_314_009	0	231	14	245	0	0	0	245	100%	PARK-CONS	211	86%	33	245
SRY_314_010	0	16	0	16	0	0	16	0	0%	PARK-CONS	16	98%	0	16
SRY_314_011	0	37	0	37	0	0	0	37	100%		0	0%	37	37
SRY_314_012	0	39	0	39	0	0	39	0	0%	PARK-CONS	39	100%	0	39
SRY_314_013	0	296	124	420	0	0	81	339	81%	PARK-CONS	330	79%	90	420
SRY_314_014	0	30	0	30	0	0	0	30	100%	PARK-CONS	4	13%	26	30
SRY_314_015	0	89	51	140	0	0	0	140	100%	WHA	17	12%	123	140
SRY_314_016	0	26	0	26	7	2	0	16	63%		0	0%	26	26
SRY_314_017	0	19	0	19	0	0	0	19	100%		0	0%	19	19
SRY_314_018	0	108	275	382	0	0	25	358	94%	UWR PARK-CONS	188	49%	194	382

Whistler LU	BEC Variant (Ha)			Total	Forest Seral Age Class (Ha)					Constraint Comment	Constrained (Ha)	Constrained Area (%)	Unconstrained Crown Forest (Ha)	OGMA Area (Ha)
	CWHds1	CWHms1	MHmm2		Early	Mid	Mature	Old	Old %					
SRY_314_019	0	872	430	1,302	13	0	6	1,284	99%	PARK-CONS	827	64%	475	1,302
SRY_314_020	0	107	66	172	0	0	0	172	100%	PARK-CONS	168	98%	4	172
SRY_314_021	0	18	0	18	0	0	14	4	20%		0	0%	18	18
SRY_314_022	0	161	917	1,078	37	0	0	1,041	97%	PARK-CONS	632	59%	446	1,078
SRY_314_023	0	184	6	190	0	0	114	76	40%	UWR	74	39%	116	190
SRY_314_024	0	135	2	137	0	0	41	96	70%		0	0%	137	137
SRY_314_025	0	83	0	83	0	0	53	29	35%		0	0%	83	83
SRY_314_026	0	102	17	119	0	0	0	119	100%		0	0%	119	119
SRY_314_027	0	233	4	237	0	0	4	233	98%	PARK-CONS	237	100%	0	237
Whistler LU TOTAL	125	4,154	2,782	7,061	64	5	794	6,199	88%		4,276	61%	2,785	7,061