Chilliwack Forest District – Sustainable Resource Management Plan

Coquihalla Landscape Unit Background Report

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Background Report - Coquihalla Landscape Unit

1.0 Introduction

This report provides background information used during the preparation of the Sustainable Resource Management Plan and associated legal objectives for the Coquihalla 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 or subspecies of known vertebrates and 364 vascular plants are listed for legal designation as threatened or endangered[2]. 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 Chilliwack Forest District has completed draft LU boundaries and assigned draft Biodiversity Emphasis Options (BEO) in accordance with the direction provided by government. There are 24 LUs within the forest district. Through a ranking process the Coquihalla LU was rated as an Intermediate BEO, which requires that priority biodiversity provisions, such as old growth retention be achieved immediately. Approval of this plan will allow legal establishment of the Coquihalla LU and legal objectives; the Coquihalla LU plan will be a Higher Level Plan under the Forest Practices Code. Delineation of old growth management areas and wildlife tree retention levels (WTR), was undertaken by Ministry of Sustainable Resource Management (MSRM) in cooperation with forest licensees. Information was also provided by Ministry of Forests (MOF) and Ministry of Water, Land and Air Protection (MWLAP) staff. Funding was provided primarily by MSRM.

Input from First Nations was gathered during consultation (prior to going public) between MSRM and individual First Nations. A summary of public comments received during the 60 day

[1] FPC Biodiversity Guidebook, September 1995
[2] BC Species and Ecosystems Explorer. 2003. Victoria, British Columbia. Available at: http://srmapps.gov.bc.ca/apps/eswp/

review and comment period is provided in Appendix 2. Refer to the attached map for the location of OGMAs and for 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 Coquihalla Landscape Unit Objectives

Landscape Unit objectives are legally established within the framework of the FPC and as such are Higher Level Plan objectives. Other Operational Plans must be consistent with these objectives.

OGMA and WTR Landscape Unit 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 (e.g. Coquihalla Summit Recreation Area). Throughout this report, old forest representation in protected areas is referred to as OGMAs, however the map differentiates between the two land bases.

To ensure that landscape level biodiversity values were represented across the landscape, OGMAs were established to the target in each BEC variant (see Table 2 in Appendix 1). This follows the coarse filter approach to biodiversity management whereby representative old growth stands are protected to maintain ecosystem processes and wildlife habitat requirements that may be poorly understood.

3.0 OGMA Planning Considerations and Rationale

This section is intended to provide information regarding LU planning considerations and to explain the rationale used during OGMA delineation.

3.1 Ecosystem Management: The Coquihalla LU contains some mature forested habitat provided by existing processes (e.g. spotted owl Special Resource Management Zone [SRMZ]) from which to build on for ecosystem management. The FPC (or equivalent) ungulate winter range process, once completed, will also help provide a foundation for ecosystem management. 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 habitat provided by these various processes together with OGMAs 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, OGMAs, where practical, were placed to improve connectivity between spotted owl SRMZs. In other cases, OGMAs were selected within or adjacent to ungulate winter ranges to overlap constraints and 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. For example, species such as deer are particularly susceptible to mortality in winter, connecting or aggregating OGMAs 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.

3.2 Timber Supply and Mitigation: During delineation of OGMAs, efforts were 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. Since representation must be at the variant level this land base could not always satisfy old forest requirements. Where this occurred, portions of the timber harvesting land base 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.

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 OGMAs following direction outlined in the *Landscape Unit Planning Guide*. To replace this shortfall, alternate candidates for OGMAs were selected from the next oldest age class. Licensees also reviewed the maps and identified future harvesting opportunities so that timber supply impacts could be reduced wherever possible.

3.3 OGMA Age Classes: In the Coquihalla Landscape Unit there was insufficient old forest (age 250+ years) in all BEC variants to meet OGMA targets. Therefore, it was necessary to designate mature stands (i.e. mostly age 141-250 years) as recruitment OGMAs. Where possible, mature stands that had old forest attributes (e.g. snags, multi-layered canopy) or high resource values (e.g. spotted owl, deer winter range) were chosen as recruitment OGMAs.

3.4 OGMA Assessment and Review: Individual OGMA polygons were assessed by forest cover information, aerial photograph interpretation and aerial reconnaissance in an attempt to evaluate stand attributes and biodiversity values/attributes. During helicopter reconnaissance physical parameters such as stocking density, tree size, presence of snags and multi-layered canopies were used to assess the suitability of a given site as OGMA. For example, stands with low stocking were excluded. When reviewing forest cover maps, forest stands labelled as height class 2 (tree heights <20 m) were generally not considered eligible for OGMA because they were not viewed as representative. More hectares than were needed to meet OGMA targets were originally assessed so that unsuitable candidate areas could be deleted from draft maps. Following the helicopter reconnaissance flight and after discussions with licensees and First Nations, candidate areas were adjusted to the approximate OGMA target by variant. See Table 3 in Appendix 1 for a more detailed description of OGMA attributes.

This approach provides some certainty that candidate forest stands include suitable ecological attributes for OGMA purposes, thereby reducing risk to biodiversity from having to establish large amounts of mature stands as recruitment OGMAs.

Some non-contributing forest land such as riparian reserve zones could not be assessed or included in OGMAs at this time. This is because prior to 1995 riparian reserve zones were not required, and as a result harvested riparian areas do not provide old growth attributes in the shortest possible time frame (as per direction for Higher BEO LUs in *Higher Level Plans: Policy and Procedures*). In addition, some forested riparian areas are too small, narrow or fragmented to function for landscape level biodiversity values (i.e. coarse filter). As stand succession proceeds, these stands may be assessed for OGMA inclusion based on stand structure and biodiversity attributes.

3.5 OGMA Amendment Procedures: 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. The procedure has been approved by the Director of the Coast Region and forms an integral part of this LU plan.

3.6 OGMA 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 1:20000 scale TRIM base, which forms the legal standard for measurement.

4.0 Other Biodiversity Provisions

The *Landscape Unit Planning Guide* makes reference to comprehensive biodiversity planning, which includes elements, such as: seral stage distribution, landscape connectivity, species composition, and temporal and spatial distribution of cutblocks (patch size). These other elements can be considered during establishment of priority biodiversity provisions only if doing so does not delay the establishment of priority biodiversity objectives and does not impact regional timber supply. Further, these additional provisions should first be tested as draft objectives. In the Chilliwack Forest District, earlier timber supply analysis indicated that there would be an impact to timber supply to implement comprehensive biodiversity provisions. Given that scenario, this phase of LU planning concentrated on priority biodiversity provisions.

Biodiversity elements, such as forest interior habitat and stand structure, are to be met within the framework provided for priority biodiversity provisions.

4.1 Wildlife Tree Retention: The percent required for wildlife tree retention described in Table A of the *Legal Objectives – Coquihalla Landscape Unit* does not have to be fully implemented on a cutblock-by-cutblock basis. Instead, the retention target can 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 for retention 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 LU.

Appendices

Appendix 1 – Coquihalla Landscape Unit
Appendix 2 – Public Consultation Summary

Appendix 1 – Coquihalla Landscape Unit

1.0 Coquihalla Landscape Unit Description

The Coquihalla River together with all its tributary streams is a medium to large sized watershed flowing into the Fraser River at Hope. The Coquihalla LU encompasses a total of 70185 ha and includes the entire Coquihalla River watershed. Of the total area, 40204 ha (57%) is within the Crown forest land base, and 19664 ha of Crown forest land is included in the Timber Harvesting Land Base (THLB). The remaining 29981 ha (43%) are non-forested or non-Crown (e.g. rock, alpine tundra, water, private land) and have been excluded from any OGMA contributions and calculations.

The Coquihalla Landscape Unit is an ecologically transitional area between coastal and interior forests. The majority is situated within the Coast and Mountains Ecoprovince in the Eastern Pacific Ranges Ecosection while a small portion in the north-eastern part and upper Sowaqua Creek lies within the Southern Interior Ecoprovince in the Leeward Pacific Ranges Ecosection. The landscape unit is also quite diverse containing 6 Biogeoclimatic Ecosystem Classification (BEC) subzones/variants ranging from low elevation Coastal Western Hemlock in the valley bottoms to high elevation Alpine Tundra. These 6 variants represent 3 Natural Disturbance Types (NDTs)[3]. The majority of the Landscape Unit is within NDT 2 (61%), with smaller portions in NDT 1 (22%) and NDT 5 (17%).

The Coquihalla has sustained significant levels of disturbance. Much of the lower elevation productive and gentle terrain sites have been disturbed by past forest harvesting, fire or other events. The low level of old seral forest remaining within the Coquihalla LU reflects this disturbance history.

Major habitat types present in the Coquihalla LU include: upland forest, riparian forest, small lakes and wetlands, steep partly forested rocky slopes, sub-alpine forest, and alpine; all of which contribute to the area's complexity. The wildlife and biodiversity values of the Coquihalla LU are significant in a District context.

2.0 Significant Resource Values

The Coquihalla's biodiversity values, the various First Nations, the Coquihalla highway and associated communities affect management of the resources in this LU. The Landscape Unit supports a wide range of significant natural resource values and features, as well as a diversity of social and cultural values and influences. These combinations together with an extensive forest road network add complexity to resource management in this area.

2.1 Fish, Wildlife and Biodiversity: Wildlife resources of primary management concern in the Coquihalla LU include: grizzly bear, spotted owl, mule deer, mountain goats, fish (e.g. wild

[3] NDT 1 encompasses those ecosystems with rare stand-initiating events. NDT 2 includes ecosystems with infrequent stand-initiating events. NDT 5 represents high elevation Alpine Tundra or parkland areas. For a more complete description of NDTs see the *Biodiversity Guidebook* (1995).

summer run steelhead) and some species at risk that are considered "Identified Wildlife"[4]. Many other species occur including forest birds, raptors, small mammals, amphibians and furbearers but their habitat requirements are generally managed within habitat provisions provided for primary species. For example, habitat for spotted owls in the Coquihalla LU is maintained within a Special Resource Management Zone, which covers approximately 7523 ha of gross forested area. At present, about 67% of this is suitable owl habitat (>100 years old forest). This owl habitat would also support other forest dependent species.

The Coquihalla LU is also an important area for mule deer with 2258 ha of deer winter range (Classic, Crown forest only) identified by Ministry of Environment, Lands and Parks (MELP, now called MWLAP). A further 1424 ha of Crown forest within the LU has been confirmed as mountain goat winter range by MWLAP. All or a portion of both species' habitats are being considered for legal establishment as Ungulate Winter Range (UWR) under the FPC (or equivalent) according to a Deer Winter Range Management Plan (Freeman, 2001) and Mountain Goat Winter Range Management Plan (Jex, 2002). Some of the UWR overlaps with Spotted Owl SRMZ and some of both species' habitats have been captured in OGMA. The forested winter range habitat maintained for ungulates would also benefit other species.

Further, most of the Coquihalla River and its major tributaries support resident and/or anadromous salmonid populations. 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 it re-grows.

Grizzly bears in the Coquihalla LU are within the threatened North Cascades grizzly bear population unit for which a Recovery Plan has been drafted. Implementation is expected to occur following public consultation, plan revisions and subsequent approval by government. Grizzly bears are also considered an Identified Wildlife species. Provisions exist to protect some critical foraging or security habitat within Wildlife Habitat Areas (WHA); designation of WHAs may occur as needed or as part of the Recovery Plan (grizzly bear WHA's are in prep.). Other species of Identified Wildlife (e.g. northern goshawk, tailed frog) that are known to occur or may be discovered later may receive habitat protection with WHAs as well. In turn, these WHAs will help provide habitat for species not actively managed for.

Several fish and wildlife inventories have been undertaken in the landscape unit. In 1990, Department of Fisheries and Oceans completed a stream summary catalogue that included the Coquihalla River watershed, this summary confirmed fish presence throughout most of the lower gradient streams in the Coquihalla River watershed. Provincial Fisheries Branch has conducted annual snorkel swim surveys since 1974 to enumerate adult wild summer run steelhead in the Coquihalla River which are considered a regionally significant stock (Caverhill, pers. comm.). In 1996 an FRBC funded fish habitat assessment and restoration project was completed in Karen and Spring Creeks (Whelen & Associates, 1997). MELP district staff conducted mountain goat winter range inventory during winter 1997, 2000 and 2001 (Jex, 2002); and also participated in developing a more comprehensive Deer Winter Range Management Plan (Freeman, 2001). A

[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.

grizzly bear DNA inventory was undertaken in summer 1998 in an attempt to identify individual grizzly bears and their genetic relationship. Finally, spotted owl inventory efforts have occurred periodically since 1989. All of the inventory efforts have helped to identify critical wildlife habitats that have been considered during OGMA delineation.

2.2 Timber Resources: The presence of a substantial timber harvesting land base establishes the importance of timber resource values. Continued access to commercially valuable timber, including future second growth, is a significant concern to licensees and is important economically. First pass harvesting of accessible old growth timber is nearing completion.

Commercially valuable tree species in the Coquihalla LU include Douglas-fir at low to mid elevations, subalpine fir from mid to high elevations, and Engelmann spruce at higher elevations. Hemlock and western red cedar occur at most elevations in the landscape unit. Scattered deciduous stands occur throughout the Coquihalla drainage. Based on forest cover information, Table 1 shows the age composition of forests in the Coquihalla LU.

Table 1. Age distribution of forests within the Coquihalla Landscape Unit.

Age	% of Crown Forested Landbase
0-60	35.4
61-140	26.4
141-250	17.3
251+	20.9

Since the forests in the Coquihalla LU are in a coastal/interior transitional area, site productivity ranges from low to moderate. The majority of forests within the Crown forested land base are between site indices 15 to 25 (site index is a measure of the projected tree height at age 50).

Currently 5 licensees have forest tenures in this landscape unit. Teal Cedar Products Ltd, formerly J.S. Jones Timber Ltd., operates in Ladner, Deneau and Sowaqua Creeks. Timber from these areas is mainly processed at their sawmill in Boston Bar. International Forest Products Ltd. (Interfor) holds chart areas in Dewdney, Boston Bar, Baldwin and Eleven Mile Creeks. Timber harvested by Interfor is trucked to their sort near Hope where it is processed further. The BC Timber Sales program managed by Ministry of Forests harvests in Peers, Eight Mile, and Karen Creeks. Timber sales are sold to registered Small Business operators. Tamihi Logging Ltd. has chart areas in lower Sowaqua Creek; Tamihi sells their wood on the open market. Northwest Hardwoods harvests deciduous trees in local areas within the landscape unit.

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.

2.3 Private Land: Although only small parcels of private land occur within the Coquihalla LU, mainly adjacent to the town of Hope and along parts of the Coquihalla highway, they remain an important consideration when establishing OGMAs. Some of the private land has been altered from its natural state and this change may influence the ecology of adjacent Crown forest lands.

Where private and Crown land interfaced, these factors were considered during OGMA delineation.

2.4 First Nations: The Coquihalla LU is located within the traditional territory of the Yale, Union Bar, Sto:lo and Nlaka'pamux First Nations.

There is evidence of traditional use in several areas near the lower Coquihalla River and trail systems extend into some of the larger Coquihalla River tributaries. Culturally modified trees have been previously identified in some forested areas. Several Indian Reserves are situated near the town of Hope.

Between 1997 and 1999, an Archaeological Overview Assessment model was developed by MOF to indicate where archaeological sites are most likely located. This was done to minimize potential impacts by forestry operations on culturally important areas. The model was useful in predicting the location of habitation sites at all elevations and high elevation campsites in the sub-alpine. Travel routes were also identified.

The maps produced from the model were reviewed to determine the amount of overlap between potential archaeological sites, travel routes and OGMAs. In the Coquihalla LU, sections of travel routes were captured in OGMAs when they overlapped with areas of old forest usually along lower and mid slopes. Potential archaeological sites located near riparian or lake/wetland areas were also included in OGMAs when old or mature forests were present in the same locations.

2.5 Mining and Mineral Exploration: Subsurface resources (minerals, coal, oil, gas and geothermal) and aggregate resources are significant to the province. Mining and mineral exploration activities in the Coquihalla LU have been substantial. Carolin Mines, although currently not in operation, still exists in Ladner Creek. The mine was active most recently from 1981 to 1984 when it produced gold and some silver. There are many other mineral tenures within the Coquihalla LU. OGMAs have been located to avoid existing tenures wherever possible, although given the extent of tenures some overlap occurs.

It is important to note that establishment of old growth management areas will not impact the status of existing mineral, aggregate and gas permits or tenures; exploration and development activities are permitted. 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 relocated.

2.6 Recreation: The extensive forest road network has increased recreational opportunities for the public. Recreational hunting in the Coquihalla LU is an important annual activity enjoyed by many outdoor enthusiasts; most hunters would target deer or black bear. Winter recreational activities of snowmobiling and backcountry skiing occur along forestry roads and in alpine areas. Stream angling opportunities are limited since the Coquihalla River and its tributaries are closed to fishing for conservation purposes. Lake angling for kokanee is popular in Kawkawa Lake, as is camping. ATV, motorcycle and four wheel drive use of roads and alpine areas occurs to

varying degrees. Trail hiking, berry and mushroom picking and wildlife viewing/sight seeing also occur.

There are a few provincial parks (e.g. Othello, Nicolum, Coquihalla Summit) within the Coquihalla LU, which are popular for day and/or overnight use. Some of the parks contain old or mature forest that will contribute to old forest requirements on a proportional basis. There are no Forest Service Recreation Sites in the Coquihalla LU, and no development plans for the immediate future.

3.0 Coquihalla Landscape Unit Objectives

Legal objectives established under the Landscape Unit plan are Higher Level Plan objectives. In part of the Coquihalla LU the Spotted Owl Management Plan has been approved and is also being considered for Higher Level Plan status with legal objectives. Objectives from both processes are intended to be compatible to the greatest extent possible.

The Coquihalla LU was ranked as an Intermediate BEO through the biodiversity value ranking process completed earlier (see the *Vancouver Forest Region Landscape Unit Planning Strategy*, 1999). This Intermediate designation along with the BEC variant determines the percentage of the Crown forest land base that will be designated as OGMA. Table 2 outlines the total amount of OGMA required and established in each variant and from which Crown forest category (i.e. Non Contributing-NC; Timber Harvesting Land Base)[5]. The old growth target figures in Table 2 are derived from Appendix 2 in the *Landscape Unit Planning Guide*.

Table 2. Old growth management area (OGMA) requirements, Coquihalla Landscape Unit.

BEC Variant & Natural Disturbance Type	Old Growth Target		Estab-lished OGMAs	OGMAs in Non-Contributing (NC)		OGMAs in Partial Contributing (PC)*		OGMAs in Contributing (C)		Old forest contribution from Parks or Protected Areas	
	%	Ha	Ha	%	Ha	%	Ha	%	Ha	%	Ha
CWHds1, 2	>9	646	646.0	60.2	389.1	21.1	136.3	15.9	102.6	2.8	18.1
CWHms1, 2	>9	1825	1826.9	81.0	1479.3	6.0	109.7	12.0	219.1	1.0	18.6
ESSFmw, 2	>9	293	296.8	93.7	278.0	0	0.1	0.2	0.5	6.1	18.2
MHmm2, 1	>19	1796	1800.6	81.9	1474.0	3.4	60.6	5.9	106.5	8.9	159.7
Total		4560	4571.4	79.2	3620.4	6.7	306.8	9.4	428.6	4.7	214.6

Note: any differences in totals are due to rounding.
CWHds1: Coastal Western Hemlock, dry submaritime, southern variant. NDT 2
CWHms1: Coastal Western Hemlock, moist submaritime, southern variant. NDT 2
ESSFmw: Engelmann Spruce-Subalpine Fir, moist warm subzone. NDT 2
MHmm2: Mountain Hemlock, moist maritime, leeward variant. NDT 1
A portion of PC and all of C form the Timber Harvesting Land Base (THLB)
* 186.4 ha of the 306.8 ha total in PC are considered part of the THLB. The remaining 120.4 ha are not part of the THLB.

[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.

To ensure that landscape level biodiversity values were represented across the landscape, OGMAs were established to the target in each BEC variant. The attached Coquihalla LU map shows their distribution.

4.0 Coquihalla OGMA Planning Results

Within the Coquihalla landscape unit a total of approximately 4571 ha of OGMAs are being proposed for establishment. The majority (3620 ha) comes from the non-contributing land base, with 429 ha from the contributing land base, another 307 ha from the partial contributing and 215 ha from parks or protected areas. These figures are further described in Section 4.1.

4.1 Timber Harvesting Land Base Impact: After applying netdown factors for the Partial Contributing, the total amount of OGMA within the timber harvesting land base to achieve old growth retention targets is 615 ha which represents 3.1% of the overall THLB (19664 ha). The 615 ha within the THLB area can be further separated into 186 ha from the partial contributing land base and 429 ha from the contributing land base. The contribution from non contributing (3740 ha) and Parks (215 ha) which equals 86.5% of OGMAs does not represent a timber supply impact.

Efforts to mitigate the impact of establishing OGMAs in the THLB were made during the planning stages. Some of the THLB areas captured in OGMA were considered inoperable by licensees or were remnants after logging (see Table 3 for additional details). Other contributing areas represent riparian reserve zones that are in fact unavailable for harvest. In all situations licensees were made aware of OGMA locations within the THLB. Licensee concerns were addressed wherever possible in an effort to provide harvesting opportunities.

4.2 OGMA Age Classes: In the Coquihalla LU there was insufficient old forest (250+ years) in all BEC variants to meet OGMA targets. Therefore, it was necessary to designate mature stands as recruitment OGMAs. Approximately 57% of OGMAs were established within forests greater than 250 years old with another 40% established in mature stands between 141 to 250 years old. The remaining few percent were located in stands aged 101-140 years, and were chosen because of higher resource values (spotted owl, deer winter range) or to increase patch size.

4.3 OGMA Attributes and Rationale: OGMA attributes together with a rationale for selection of OGMAs is described in Table 3 on the following pages.

Table 3:

Coquihalla Landscape Unit: OGMA Summary and Rationale

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
2	ESSFmw	N	18.1	0.0	Coquihalla Summit park, near Falls Lake		
3	MH mm 2	C	0.3	0.3			
3	MH mm 2	N	29.4	0.0	small part in Coquihalla Summit park		
4	MH mm 2	N	151.9	0.0	Coquihalla Summit park, large patch		forest interior
5	CWH ms 1	N	10.0	0.0	partially in Coquihalla Summit park		
5	CWH ms 1	P	0.4	0.0	partially in Coquihalla Summit park		
5	MH mm 2	N	0.9	0.0	partially in Coquihalla Summit park		
6	CWH ms 1	N	27.0	0.0	partially in Coquihalla Summit park		
6	CWH ms 1	P	0.2	0.0	partially in Coquihalla Summit park		
6	MH mm 2	N	11.8	0.0	partially in Coquihalla Summit park		
7	CWH ms 1	N	4.6	0.0			avalanche chutes adjacent
8	CWH ms 1	N	4.6	0.0			avalanche chutes adjacent
8	MH mm 2	N	0.8	0.0			avalanche chutes adjacent
9	CWH ms 1	N	6.6	0.0			avalanche chutes adjacent
9	CWH ms 1	P	0.1	0.0			avalanche chutes adjacent
10	CWH ms 1	N	8.6	0.0			avalanche chutes adjacent, part MGWR
10	MH mm 2	N	2.3	0.0			avalanche chutes adjacent, part MGWR
14	CWH ms 1	C	0.1	0.1	large patch, forest interior, lake riparian	FDP block adjacent to W side	fish in Jeanne Lake
14	CWH ms 1	N	4.2	0.0	large patch, forest interior, lake riparian	FDP block adjacent to W side	fish in Jeanne Lake
14	MH mm 2	N	80.7	0.0	large patch, forest interior, lake riparian	FDP block adjacent to W side	fish in Jeanne Lake
15	MH mm 2	N	25.4	0.0	#15 & 18 combine for larger patch		
16	MH mm 2	N	6.8	0.0			
18	CWH ms 1	N	2.0	0.0	#15 & 18 combine for larger patch		
18	MH mm 2	N	14.4	0.0	#15 & 18 combine for larger patch		
20	CWH ms 1	C	23.9	23.9	valley bottom to upland link, forest interior	FDP block adjacent	riparian
20	CWH ms 1	N	68.5	0.0	valley bottom to upland link, forest interior	FDP block adjacent	riparian
20	CWH ms 1	P	0.6	0.1	valley bottom to upland link, forest interior	FDP block adjacent	riparian
20	MH mm 2	C	6.0	6.0	valley bottom to upland link, forest interior	FDP block adjacent	riparian
20	MH mm 2	N	112.9	0.0	valley bottom to upland link, forest interior	FDP block adjacent	riparian
20	MH mm 2	P	0.4	0.0	valley bottom to upland link, forest interior	FDP block adjacent	riparian
21	CWH ds 1	N	0.1	0.0	valley bottom to upland link, forest interior		riparian, partial MGWR (mtn goat winter range)
21	CWH ms 1	N	59.9	0.0	valley bottom to upland link, forest interior		riparian, partial MGWR
21	ESSFmw	N	47.2	0.0	valley bottom to upland link, forest interior		riparian, partial MGWR
23	CWH ds 1	N	2.9	0.0	adjacent to #25, valley bottom riparian		
24	MH mm 2	N	47.4	0.0	large patch	cutblock adjacent E bndry	
24	MH mm 2	P	0.4	0.0	large patch	cutblock adjacent E bndry	
25	CWH ds 1	N	12.1	0.0	adjacent to #23, valley bottom riparian		

Table 3:

Coquihalla Landscape Unit: OGMA Summary and Rationale

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
25	CWH ms 1	N	10.0	0.0	adjacent to #23, valley bottom riparian		
26	CWH ds 1	N	14.5	0.0	valley bottom riparian	FDP block adjacent on W, E & S sides	
26	CWH ms 1	C	0.3	0.3	valley bottom riparian	FDP block adjacent on W, E & S sides	
26	CWH ms 1	N	50.9	0.0	valley bottom riparian	FDP block adjacent on W, E & S sides	
26	CWH ms 1	P	0.4	0.0	valley bottom riparian	FDP block adjacent on W, E & S sides	
27	MH mm 2	N	50.8	0.0	large patch, important spatially		
27	MH mm 2	P	11.0	1.1	large patch, important spatially		
28	CWH ms 1	N	4.6	0.0	large patch		adjacent to MGWR
28	MH mm 2	N	37.8	0.0	large patch		adjacent to MGWR
29	CWH ms 1	C	18.8	18.8	large patch, some forest interior		
29	CWH ms 1	N	5.3	0.0	large patch, some forest interior		
29	MH mm 2	C	3.4	3.4	large patch, some forest interior		
29	MH mm 2	N	59.5	0.0	large patch, some forest interior		
32	CWH ms 1	N	3.6	0.0	adjacent to #29		avalanche chutes adjacent
32	MH mm 2	N	1.3	0.0	adjacent to #29		avalanche chutes adjacent
36	CWH ms 1	N	9.6	0.0			avalanche chutes adjacent
38	CWH ds 1	C	2.7	2.7	riparian		
38	CWH ds 1	N	20.6	0.0			
38	CWH ds 1	P	0.2	0.0			
38	CWH ms 1	N	7.0	0.0			avalanche chutes adjacent
39	CWH ms 1	C	1.7	1.7			
39	CWH ms 1	N	12.7	0.0	remnant after wildfire		valley bottom riparian
40	CWH ms 1	C	4.4	4.4	large patch, forest interior	FDP block adjacent to W side	
40	CWH ms 1	N	10.0	0.0	large patch, forest interior	FDP block adjacent to W side	
40	CWH ms 1	P	2.4	0.2	large patch, forest interior		
40	MH mm 2	C	14.1	14.1	large patch, forest interior	FDP block adjacent to W side	
40	MH mm 2	N	86.7	0.0	large patch, forest interior	FDP block adjacent to W side	
40	MH mm 2	N	0.1	0.0	shown as AT p on map, forested		
40	MH mm 2	P	24.5	2.4	large patch, forest interior		
41	CWH ms 1	N	8.2	0.0			suitable bear habitat, avalanche chutes adj.
42	CWH ms 1	C	3.6	3.6	remnant after harvest		partial MGWR
42	CWH ms 1	N	5.7	0.0			partial MGWR
42	CWH ms 1	P	2.1	0.2	remnant after harvest		partial MGWR
43	CWH ds 1	C	0.8	0.8	large patch	FDP block adjacent on E side	spow FMA (spotted owl forest mgmt area)
43	CWH ds 1	N	11.4	0.0	large patch	FDP block adjacent on E side	avalanche chutes adjacent, spow FMA
43	CWH ms 1	N	52.6	0.0	large patch	FDP block adjacent on E side	MGWR, avalanche chutes adj, spow FMA
43	MH mm 2	N	14.3	0.0	large patch	FDP block adjacent on E side	MGWR, avalanche chutes adj, spow FMA

Table 3:

Coquihalla Landscape Unit: OGMA Summary and Rationale

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
44	CWH ds 1	N	12.3	0.0	large patch, forest interior		spow LTOH (long term owl habitat)
44	CWH ms 1	N	154.1	0.0	large patch, forest interior		lake/wetland riparian complex, spow LTOH
44	CWH ms 1	P	2.0	2.0	large patch, forest interior		lake/wetland riparian complex, spow LTOH
45	CWH ms 1	C	4.5	4.5			
45	CWH ms 1	N	8.3	0.0			
45	CWH ms 1	P	5.4	0.5			
47	CWH ds 1	C	0.3	0.3	large patch		spow LTOH and FMA
47	CWH ds 1	N	23.2	0.0	large patch		spow LTOH and FMA
47	CWH ms 1	N	40.3	0.0	large patch		spow LTOH and FMA, MGWR
47	MH mm 2	N	6.3	0.0	large patch		spow LTOH and FMA, MGWR
49	CWH ds 1	N	29.5	0.0	large patch, some forest interior		avalanche chutes adj, spow LTOH, DWR
49	CWH ms 1	N	46.5	0.0	large patch, forest interior, avalanche chutes adj		MGWR, spow LTOH, partial DWR
49	MH mm 2	N	2.7	0.0	large patch, some forest interior		MGWR, avalanche chutes adjacent
53	CWH ds 1	C	12.3	12.3	valley bottom riparian		spow FMA
53	CWH ds 1	N	25.3	0.0	valley bottom riparian to upland link, lrg patch		spow LTOH, forest interior
53	CWH ds 1	P	67.7	35.6	valley bottom riparian to upland link, lrg patch	inop, licensee recommended	spow LTOH, forest interior
53	CWH ms 1	N	110.6	0.0	valley bottom riparian to upland link, lrg patch		spow LTOH, forest interior
53	CWH ms 1	P	31.5	30.9	valley bottom riparian to upland link, lrg patch	inop, licensee recommended	spow LTOH, forest interior
53	MH mm 2	C	5.4	5.4	valley bottom riparian to upland link, lrg patch	inop, licensee recommended	spow LTOH, forest interior
53	MH mm 2	N	111.1	0.0	valley bottom riparian to upland link, lrg patch		spow LTOH, forest interior
53	MH mm 2	P	15.2	15.1	valley bottom riparian to upland link, lrg patch	inop, licensee recommended	spow LTOH, forest interior
55	MH mm 2	C	0.8	0.8			
55	MH mm 2	N	20.4	0.0			
56	CWH ds 1	N	21.7	0.0	large patch, forest interior	FDP block adjacent on S side	spow LTOH, DWR
56	CWH ds 1	P	3.1	3.1	large patch, forest interior	some inop, licensee suggestion	spow LTOH, DWR
56	CWH ms 1	N	170.7	0.0	large patch, forest interior	FDP block adjacent on S side	spow LTOH, DWR, mostly MGWR
56	CWH ms 1	P	0.7	0.7	large patch, forest interior		spow LTOH, DWR, mostly MGWR
56	MH mm 2	N	33.7	0.0	large patch, forest interior		spow LTOH, MGWR, avalanche chutes
59	MH mm 2	C	9.8	9.8			
59	MH mm 2	N	39.1	0.0			
59	MH mm 2	N	0.2	0.0	shown as AT p on map, forested		
59	MH mm 2	P	6.1	0.6			
61	CWH ds 1	C	1.3	1.3			
61	CWH ds 1	N	16.9	0.0			spow LTOH, DWR
61	CWH ds 1	P	13.6	13.6			spow LTOH, DWR
61	CWH ms 1	N	23.3	0.0			spow LTOH, DWR
65	MH mm 2	N	40.7	0.0	headwaters riparian		suitable grizzly habitat

Table 3:

Coquihalla Landscape Unit: OGMA Summary and Rationale

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
67	CWH ds 1	N	9.4	0.0	riparian to upland link, forest interior		DWR
67	CWH ds 1	P	1.8	0.2	riparian to upland link, forest interior		DWR
67	CWH ms 1	C	4.7	4.7	riparian to upland link, forest interior		DWR
67	CWH ms 1	N	69.0	0.0	riparian to upland link, forest interior,	**applied 2 ha reduction factor for varied NP**	DWR
67	CWH ms 1	P	0.7	0.1	riparian to upland link, forest interior		DWR
67	ESSFmw	N	89.2	0.0	riparian to upland link, forest interior	**applied 2 ha reduction factor for varied NP**	
69	CWH ms 1	N	3.2	0.0	adjacent to #56		avalanche chutes adj, MGWR, spow LTOH
69	MH mm 2	N	0.1	0.0	shown as AT p on map, forested		avalanche chutes adj, MGWR, spow LTOH
69	MH mm 2	N	5.1	0.0	adjacent to #56		avalanche chutes adj, MGWR, spow LTOH
70	CWH ds 1	C	46.5	46.5	large patch	licensee recommended	partial spow FMA, valley bottom riparian, DWR
70	CWH ds 1	N	15.5	0.0	large patch		DWR
70	CWH ds 1	P	1.0	0.1	large patch		DWR
70	CWH ms 1	C	4.7	4.7	large patch	lic. recommended, FDP block adj to S bndry	DWR
70	CWH ms 1	N	17.4	0.0	large patch		DWR
72	CWH ms 1	N	3.1	0.0			partial spow LTOH
72	CWH ms 1	P	9.7	1.0		inop, licensee agreement	partial spow LTOH
72	MH mm 2	N	22.5	0.0			partial spow LTOH
72	MH mm 2	P	2.2	0.2		inop, licensee agreement	partial spow LTOH
75	CWH ms 1	N	6.2	0.0	#75, 77, 78, 81 form larger complex		avalanche chutes adj
75	ESSFmw	N	5.7	0.0	#75, 77, 78, 81 form larger complex		avalanche chutes adj
77	CWH ms 1	C	1.1	1.1	#75, 77, 78, 81 form larger complex		avalanche chutes adj
77	CWH ms 1	N	13.8	0.0	#75, 77, 78, 81 form larger complex		avalanche chutes adj
77	ESSFmw	N	0.3	0.0	#75, 77, 78, 81 form larger complex		avalanche chutes adj
78	ESSFmw	N	7.3	0.0	#75, 77, 78, 81 form larger complex		avalanche chutes adj
81	CWH ms 1	N	0.8	0.0	#75, 77, 78, 81 form larger complex		avalanche chutes adj
81	ESSFmw	N	0.3	0.0	shown as AT p on map, forested		avalanche chutes adj
81	ESSFmw	N	16.2	0.0	#75, 77, 78, 81 form larger complex		avalanche chutes adj
91	CWH ms 1	C	49.5	49.5	large patch, bisects Hudson's Bay Trail	licensee recommended	avalanche chutes adjacent to SE
91	CWH ms 1	N	27.0	0.0	large patch, bisects Hudson's Bay Trail		avalanche chutes adjacent to SE
91	CWH ms 1	P	8.1	0.8	large patch, bisects Hudson's Bay Trail	licensee recommended	avalanche chutes adjacent to SE
91	MH mm 2	C	8.8	8.8	large patch, bisects Hudson's Bay Trail	licensee recommended	avalanche chutes adjacent to SE
91	MH mm 2	N	32.7	0.0	large patch, bisects Hudson's Bay Trail		avalanche chutes adjacent to SE
91	MH mm 2	P	0.2	0.0	large patch, bisects Hudson's Bay Trail		avalanche chutes adjacent to SE
98	CWH ms 1	N	3.7	0.0	valley bottom/headwaters riparian, lrg patch		suitable grizzly habitat, spatially important
98	ESSFmw	N	70.1	0.0	valley bottom/headwaters riparian, lrg patch		suitable grizzly habitat, spatially important
99	CWH ds 1	C	2.4	2.4	large patch		DWR, spow LTOH
99	CWH ds 1	N	49.8	0.0	partial Coquihalla Canyon Park, large patch		DWR, spow LTOH

Table 3:

Coquihalla Landscape Unit: OGMA Summary and Rationale

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
100	CWH ms 1	N	4.5	0.0	#100 & 102 adj to #91		suitable grizzly habitat, avalanche chutes adj
100	MH mm 2	N	0.4	0.0	#100 & 102 adj to #91		suitable grizzly habitat, avalanche chutes adj
101	CWH ms 1	N	3.5	0.0			suitable grizzly habitat, avalanche chutes adj
101	MH mm 2	N	4.0	0.0			suitable grizzly habitat, avalanche chutes adj
102	CWH ms 1	N	2.1	0.0	#100 & 102 adj to #91		suitable grizzly habitat, avalanche chutes adj
102	MH mm 2	N	4.5	0.0	#100 & 102 adj to #91		suitable grizzly habitat, avalanche chutes adj
103	CWH ms 1	C	5.0	5.0		agreed to by licensee	suitable grizzly habitat
103	CWH ms 1	N	6.8	0.0	adjacent to #105		suitable grizzly habitat
103	CWH ms 1	P	0.1	0.0			suitable grizzly habitat
103	MH mm 2	N	10.5	0.0	adjacent to #105		suitable grizzly habitat
105	CWH ms 1	N	0.7	0.0	adjacent to #103		suitable grizzly habitat
105	MH mm 2	N	1.5	0.0	adjacent to #103		suitable grizzly habitat
114	CWH ms 1	N	20.4	0.0	larger patch		
114	MH mm 2	N	14.9	0.0	larger patch		
116	CWH ds 1	C	2.0	2.0	large patch	inop, licensee agreement	
116	CWH ds 1	N	9.3	0.0	large patch		
116	CWH ms 1	C	25.1	25.1	large patch	inop, licensee agreement	
116	CWH ms 1	N	49.9	0.0	large patch		
116	MH mm 2	C	0.3	0.3	large patch	inop, licensee agreement	
116	MH mm 2	N	19.8	0.0	large patch		
117	CWH ms 1	C	3.8	3.8			
117	CWH ms 1	N	7.4	0.0			MGWR
117	MH mm 2	N	8.0	0.0			MGWR
118	CWH ds 1	C	0.2	0.2	valley bottom to upland link		
118	CWH ds 1	N	4.8	0.0	valley bottom to upland link		
118	CWH ms 1	N	26.9	0.0	valley bottom to upland link		
118	MH mm 2	N	46.6	0.0	valley bottom to upland link		
119	CWH ms 1	N	4.1	0.0	immediately adj to #117		MGWR
119	MH mm 2	N	0.1	0.0	immediately adj to #117		MGWR
129	MH mm 2	N	7.5	0.0			
130	MH mm 2	C	1.4	1.4	left after harvest		
130	MH mm 2	N	19.1	0.0			
131	CWH ms 1	N	12.5	0.0	remnant after wildfire		Immed adj to proposed Grizzly WHA (foraging)
132	MH mm 2	C	0.5	0.5	left after harvest		
132	MH mm 2	N	11.5	0.0			
133	CWH ds 1	C	19.8	19.8	riparian strip	licensee agreement	
135	CWH ms 1	C	3.2	3.2	remnant after wildfire		immed adj to proposed Grizzly WHA (foraging)

Table 3:

Coquihalla Landscape Unit: OGMA Summary and Rationale

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
135	CWH ms 1	N	3.9	0.0	#135 & 141 combine for larger patch		immed adj to proposed Grizzly WHA (foraging)
135	CWH ms 1	P	1.5	0.1	#135 & 141 combine for larger patch		immed adj to proposed Grizzly WHA (foraging)
135	ESSFmw	N	0.5	0.0	#135 & 141 combine for larger patch		immed adj to proposed Grizzly WHA (foraging)
136	MH mm 2	N	28.6	0.0			
139	CWH ms 1	N	18.2	0.0			
139	ESSFmw	N	2.1	0.0			
141	ESSFmw	N	14.6	0.0	#135 & 141 combine for larger patch		suitable grizzly habitat, adj to productive alpine
146	CWH ms 1	C	0.7	0.7	left after wildfire & harvest, riparian headwaters		
146	CWH ms 1	N	0.2	0.0	left after wildfire & harvest, riparian headwaters		
146	MH mm 2	C	3.0	3.0	left after wildfire & harvest, riparian headwaters		
146	MH mm 2	N	13.4	0.0	left after wildfire & harvest, riparian headwaters		
147	CWH ds 1	C	8.7	8.7	riparian gully	inop, licensee recommended	
147	CWH ms 1	C	8.6	8.6	riparian gully	inop, licensee recommended	
149	CWH ms 1	N	2.1	0.0	forms larger complex with #139		
150	CWH ms 1	C	6.7	6.7	large patch, riparian to upland link		
150	CWH ms 1	N	12.9	0.0	large patch, riparian to upland link		
150	MH mm 2	C	6.2	6.2	large patch, riparian to upland link		
150	MH mm 2	N	40.5	0.0	large patch, riparian to upland link		
153	CWH ms 1	C	6.7	6.7	left after fire, combines with #161		part riparian gully
153	CWH ms 1	N	0.1	0.0	left after fire, combines with #161		part riparian gully
153	MH mm 2	C	8.6	8.6	left after fire, combines with #161		part riparian gully
153	MH mm 2	N	15.9	0.0	left after fire, combines with #161		part riparian gully
154	CWH ms 1	C	0.1	0.1		licensee agreement, FDP block adj to S & N	Immed adj to proposed Grizzly WHA (foraging)
154	MH mm 2	C	4.4	4.4		licensee agreement, FDP block adj to S & N	Immed adj to proposed Grizzly WHA (foraging)
154	MH mm 2	N	5.0	0.0			Immed adj to proposed Grizzly WHA (foraging)
155	ESSFmw	C	0.5	0.5			suitable grizzly habitat
155	ESSFmw	N	23.6	0.0			suitable grizzly habitat
155	ESSFmw	P	0.1	0.0			suitable grizzly habitat
157	CWH ms 1	N	3.1	0.0	#157 & 158 form larger complex		avalanche chutes adjacent
157	MH mm 2	N	3.7	0.0	#157 & 158 form larger complex		avalanche chutes adjacent
158	CWH ms 1	N	0.6	0.0	#157 & 158 form larger complex		avalanche chutes adjacent
158	MH mm 2	N	6.9	0.0	#157 & 158 form larger complex		avalanche chutes adjacent
161	MH mm 2	N	0.1	0.0	shown as AT p on map, forested		
161	MH mm 2	N	6.3	0.0	combines with #153 for larger complex		
162	CWH ms 1	N	2.6	0.0	large patch		
162	MH mm 2	C	0.6	0.6	large patch		
162	MH mm 2	N	57.4	0.0	large patch		

Table 3:

Coquihalla Landscape Unit: OGMA Summary and Rationale

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
163	MH mm 2	C	0.5	0.5	#163 to 165 & 168 form larger complex		
163	MH mm 2	N	16.0	0.0	#163 to 165 & 168 form larger complex		
164	MH mm 2	C	0.3	0.3	#163 to 165 & 168 form larger complex		
164	MH mm 2	N	6.5	0.0	#163 to 165 & 168 form larger complex		
165	CWH ms 1	C	0.1	0.1	#163 to 165 & 168 form larger complex		
165	CWH ms 1	N	0.8	0.0	#163 to 165 & 168 form larger complex		
165	MH mm 2	C	0.4	0.4	#163 to 165 & 168 form larger complex		
165	MH mm 2	N	14.4	0.0	#163 to 165 & 168 form larger complex		
167	MH mm 2	N	31.9	0.0			
167	MH mm 2	P	0.1	0.0			
168	MH mm 2	N	6.4	0.0	#163 to 165 & 168 form larger complex		
170	MH mm 2	C	11.3	11.3	large patch, left after harvest		Immed adj to proposed Grizzly WHA (foraging)
170	MH mm 2	N	83.4	0.0	large patch		Immed adj to proposed Grizzly WHA (foraging)
171	MH mm 2	C	0.6	0.6	remnant after harvest or wildfire		
171	MH mm 2	N	9.4	0.0	remnant after harvest or wildfire		
172	CWH ms 1	N	0.5	0.0	combines with larger complex		
172	ESSFmw	N	1.4	0.0	combines with larger complex		
173	CWH ds 1	C	0.2	0.2	riparian management area		
173	CWH ds 1	N	24.1	0.0	riparian management area		
173	CWH ds 1	P	0.5	0.1	riparian management area		
173	CWH ms 1	C	2.0	2.0	riparian management area		
173	CWH ms 1	N	6.9	0.0	riparian management area		
174	CWH ds 1	N	2.0	0.0	riparian management area		DWR
174	CWH ms 1	N	6.9	0.0	riparian management area		DWR
175	CWH ds 1	C	5.3	5.3	riparian management area		
175	CWH ds 1	N	11.1	0.0	riparian management area		
175	CWH ds 1	P	15.5	1.5	riparian management area		
176	CWH ms 1	N	11.8	0.0	Coquihalla Summit Park		
178	CWH ms 1	C	1.1	1.1	178, 179, 180, 181, 182, 183 form complex	licensee agreement	some grizzly habitat value
178	CWH ms 1	N	0.8	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
178	MH mm 2	C	16.9	16.9	178, 179, 180, 181, 182, 183 form complex	licensee agreement	some grizzly habitat value

Table 3:

Coquihalla Landscape Unit: OGMA Summary and Rationale

OGMA #	BEC VARIANT	CONTRIB. CLASS	OGMA AREA	THLB AREA	COMMENTS	FDP	WILDLIFE
178	MH mm 2	N	3.6	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
178	MH mm 2	P	0.1	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
179	MH mm 2	C	0.8	0.8	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
179	MH mm 2	N	8.3	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
179	MH mm 2	P	0.3	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
180	MH mm 2	N	2.1	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
181	MH mm 2	N	3.5	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
182	MH mm 2	N	2.6	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
183	MH mm 2	C	2.1	2.1	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
183	MH mm 2	N	5.0	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
183	MH mm 2	P	0.1	0.0	178, 179, 180, 181, 182, 183 form complex		some grizzly habitat value
185	CWH ms 1	N	46.6	0.0	part of larger complex		part MGWR, mostly spotted owl LTOH
185	MH mm 2	N	14.0	0.0	part of larger complex		part MGWR, mostly spotted owl LTOH
186	CWH ds 1	N	90.4	0.0	large patch		mostly MGWR, DWR, spotted owl LTOH
186	CWH ds 1	P	32.9	32.1	large patch	licensee agreement	mostly MGWR, DWR, spotted owl LTOH
186	CWH ms 1	N	166.9	0.0	large patch		mostly MGWR, DWR, spotted owl LTOH
186	CWH ms 1	P	43.8	43.6	large patch	licensee agreement	mostly MGWR, DWR, spotted owl LTOH
186	MH mm 2	N	0.3	0.0	shown as AT p on map, forested, lrg patch		mostly MGWR, DWR, spotted owl LTOH
186	MH mm 2	N	50.2	0.0	large patch		mostly MGWR, DWR, spotted owl LTOH
187	CWH ms 1	C	38.6	38.6	Gibson Meadows, spatially important	Licensee recommended	Proposed Grizzly WHA (foraging)

Appendix 2 - Public Consultation Summary

The Coquihalla LU plan was advertised for public review and comment for 60 days from November 28, 2003 to January 27, 2004. Only one response from one forest licensee was received.

In general, their comments requested changes to the Spotted Owl Management Plan to release equivalent areas of Long Term Owl Habitat for harvesting since other Spotted Owl Replacement Habitat Areas were captured in OGMAs. MSRM was not able to make these changes since the Spotted Owl Management Plan falls under MWLAP authority. In addition, the areas captured in OGMA were predominantly from the Non-contributing land base and according to the Timber Supply Review do not cause a timber impact. The licensee's letter was forwarded to MWLAP for their consideration.