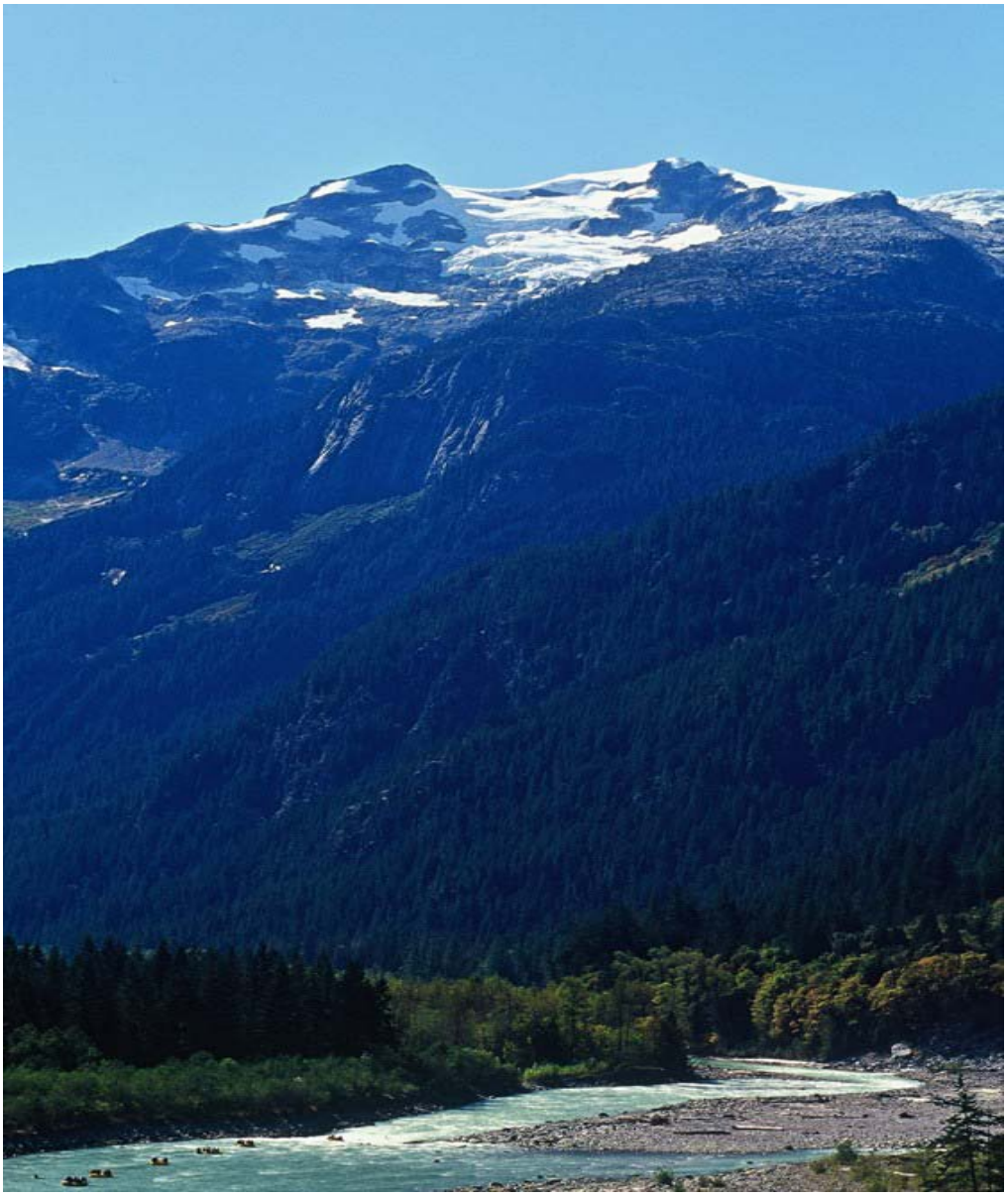
A Component of British Columbia's Land Use Strategy

Sea-to-Sky LRMP
Land and Resource Management Plan

Sea–to–Sky Floodplain Management Plan



BRITISH COLUMBIA
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June 2010

Sea-to-Sky Floodplain Management Plan

The Sea-to-Sky Floodplain Management Plan was developed through consultation with the following organizations and was approved by the South Coast Management Committee in June 2010:

Ministry of Forests and Range

Ministry of Environment

Ministry of Tourism, Culture and the Arts

Ministry of Energy, Mines and Petroleum Resources

Ministry of Agriculture and Lands

Integrated Land Management Bureau

Lil'wat Nation

Squamish Nation

Northwest Squamish Forestry Ltd. (TFL 38)

Squamish-Lillooet Regional District

Sea-to-Sky LRMP Plan Implementation Committee

Sea-to-Sky LRMP Interagency Plan Implementation Team

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1. Introduction

Floodplains and large wetlands associated with major river systems are some of the most biologically diverse and wildlife rich habitats found in coastal ecosystems. These areas are also the focus of activities and land use by a wide range of interests, including recreation and tourism, cultural heritage resources, forestry and mineral resources, energy, and agriculture. The ability of floodplains to retain their unique characteristics and support natural processes and activities is directly related to the ability of land managers to plan for a variety of land uses.

Following a lengthy planning process (2001-2008), with contributions in content from a public planning forum and three First Nations Land Use Agreements, the Sea-to-Sky Land and Resource Management Plan (S2S LRMP) was approved in 2008. The S2S LRMP provided recommendations for land use for the Squamish District, and included the objective to complete a Floodplain Management Plan for the Crown portions of the Green, upper Lillooet, Soo, lower Elaho, and Squamish Rivers.

1.1 Objective

The Sea-to-Sky Floodplain Management Plan (S2S FMP) is provided as direction for land use professionals and managers to assist in decision-making for operational activities on the Crown Land portions of floodplains in the Sea-to-Sky area.

1.2 Purpose

The purpose of the S2S FMP is threefold:

1. To identify critical floodplain management areas[1] in the Squamish Forest District.

2. To provide objectives and management direction for the conservation of floodplain ecosystems and associated wildlife habitat and cultural values.

3. To guide land use decisions during the process of tenuring and permitting in floodplain areas.

1.3 Implementation Clarification

With the floodplain boundaries legally recognized, the S2S FMP becomes a reference document for government agencies in their review of proposed land use activities. Management direction in the S2S FMP identifies land and resource values, help mitigate or manage impacts of potential conflicts, and assists in making determinations for land and resource applications. This management direction comprises the extent of implementation, and no other deliverables are expected. Likewise, monitoring of the S2S FMP will not be necessary.

1.4 Plan Development Process and Approval

The S2S FMP was initiated as a result of the recommendations received from the public planning forum for the LRMP, which were included in the S2S LRMP Consultation Draft, April 14, 2006. Development of the plan has included consultation and review with First Nations, government agencies, and stakeholders.

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[1] Floodplain management areas are distinct from flood hazard management areas, which are identified to reduce or prevent injury, human trauma and loss of life, and to minimize property damage during flooding events.

The final floodplain management plan areas were determined through a technical process using hydrologic criteria and consideration of natural or manmade features that presented rational boundaries for management consistent with the intent of the plan. Private lands (including residential areas) and parks are not included in the areas of the floodplain management plan.

A draft S2S FMP was produced by the Integrated Land Management Bureau (ILMB), based on the recommendations received from the public planning forum for the LRMP. The plan was then distributed to the Ministry of Forests and Range, the Ministry of Environment, the Lil'wat Nation and the Squamish Nation for their review. The final draft version of the S2S FMP was provided for review to the S2S LRMP Plan Implementation Committee (PIC).

2. Description of the Floodplain Management Plan Area

2.1 Hydrology

The Lillooet, Soo, Squamish and Elaho River systems originate from the Lillooet Glacier, Pemberton Icefield and Elaho Glacier respectively. They are fed by many tributaries as they make their way down slope and become tributaries themselves to larger river systems. The Green River originates from Green Lake, which is fed by a large number of tributaries that flow into the Whistler/Pemberton corridor.

By definition, the areas covered by the S2S FMP are under the influence of periodic flooding. They are flat benches, varying in width, on one or both sides of the main river channel. At the site level, floodplains can be classified into "bench sites" based on the relative height above the mean water level in the main channel. Bench sites represent a range of soil nutrient and soil moisture regimes that support a diverse and unique set of plant communities.

High bench sites:
High bench sites are the highest and most infrequently flooded portion of a floodplain. Growing season flooding is of short duration. Soils are sorted silts, sandy loams, or sands, usually coarser at depth. A surface capping of finer sediments is often present. Forest floor is present with developing horizons, but generally only a few centimeters thick.

Mature stands are dominated by conifers, specifically Western Red cedar and Sitka Spruce that are sometimes restricted to elevated microsites. Successional stands are dominated by Red Alder, Cottonwood, or Bigleaf Maple.

Medium bench sites:
Medium bench sites are composed of the intermediate height, frequently flooded (at least every 5 years, often annually) portion of a floodplain. Duration of growing season flooding is significantly longer than on high bench sites. Soils are mainly sorted silts and sands, with coarser gravels at depth. Forest floor is thin and poorly developed, often comprised of just litter. The presence of recent mineral and organic deposits is evident.

Mature stands are dominated by deciduous species (cottonwood and alder). Conifers are absent or restricted to elevated microsites.

Low bench sites:
Low bench sites are the lowest height, annually flooded portion of a floodplain. Flooding is of long duration during the growing season. Soils can be coarse gravels and sands adjacent to high-energy streams, or deep saturated loams and silts adjacent to low-energy streams. Forest floors are absent or comprised of fresh litter.

Stands are dominated by cottonwood and alder, and typically include willow.

2.2 Ecology and Climate

There are four Biogeoclimatic Ecosystem Classification (BEC) variants that occur in the S2S FMP area. The CWH ds1 (Coastal Western Hemlock Southern Dry Submaritime) variant is the most dominant, covering seventy-nine percent of the plan area. The remaining twenty-one percent is split between the CWH ms1 (Coastal Western Hemlock Southern Moist Submaritime) variant at eleven percent, the IDF ww (Interior Douglas Fir Warm Wet) variant at eight percent and the CWH dm (Coastal Western Hemlock Dry Maritime) variant at two percent. Table 1 illustrates the area breakdown by BEC variant and elevation range.

Table 1: Floodplain Management Area Breakdown by BEC Variant and Elevation

Floodplain Management Area	BEC Variants	Area (ha)	Elevation Range
Upper Lillooet River	CWH ds1	2868.3	240-440 m
	IDF ww	671.9	
Lower Green River	CWH ds1	354.2	200-240 m
Soo River	CWH ds1	339.6	600-640 m
	CWH ms1	256.8	
Lower Elaho River[2]	CWH ds1	1167.2	280-340 m
Squamish River	CWH ds1	1639.3	40-160 m
	CWH dm	177.5	

The CWH ds1 variant occurs in valley bottoms below 650 metres elevation. It has a transitional climate between the coast and interior characterized by warm, dry summers and moist, cool winters with moderate snowfall.

The CWH ms1 variant occurs above the CWH ds1, between 650 and 1200 metres in elevation. Like the CWH ds1, this zone has a climate that is transitional between the coast and interior. The CWH ms1 is characterized by moist, cool winters with heavy snowfall (particularly in the upper elevational ranges of the variant) and cool but relatively dry summers.

The IDF ww variant occurs at low elevations in major drainages and has a continental climate that is transitional to a maritime climate. The IDF ww is characterized by warm, dry summers and cool, moist winters with moderate snowfall. This variant represents the wettest and mildest part of the IDF zone and is commonly distributed along southwest-facing slopes between 100 meters and 1200 meters in elevation.

The CWH dm variant occurs at low elevations on mainland coastal regions between sea level and 650 meters elevation. The CWH dm is characterized by warm, relatively dry summers and moist, mild winters with little snowfall.

[2] BEC variants are currently under review and may be subject to change.

2.3 Area coverage and designations

The S2S FMP area covers low elevation wetlands and contiguous riparian areas located in five of the major watersheds within the S2S LRMP area; the Lillooet, Green, Soo, Elaho and Squamish river systems. The plan area covers a total of 7,474.9 hectares of provincial Crown land ranging in elevation from 40 to 640 meters. Private lands, provincial parks and protected areas are excluded from the plan area.

The S2S FMP area is identified on a set of Floodplain Management Area maps; the key map is included in Appendix 1, other maps and/or GIS shape files can be provided on request.

Table 2 illustrates the proportion of each floodplain area that is encumbered by the *Land Act* (OGMAs and cultural sites), the Government Actions Regulation under the *Forest and Range Practices Act* (Grizzly Bear WHA, Moose winter range, MaMu WHA and Deer winter range) and the *Agriculture Land Commission Act* (Agricultural Land Reserve).

Table 2: Floodplain Management Area Land Base Designation Breakdown

Floodplain	Total Area	Land Base Designations (ha)[3]								
		THLB	ALR	OGMA[4]	Cultural Sites[5]	Grizzly WHA	Moose WR	MaMu WHA	Bald Eagle[6]	Deer WR
Upper Lillooet	3540.1	1803.5	609.0	227.8	392.0	628.8	3197.7	0.0	0.0	3.6
Lower Green	354.2	162.0	290.4	0.0	30.0	0.0	228.4	0.0	0.0	0.0
Soo	596.5	187.2	0.0	22.3	20.2	0.0	539.8	0.0	0.0	0.0
Lower Elaho	1167.2	736.7	0.0	119.2	0.0	382.1	1167.1	0.0	0.0	0.0
Squamish	1816.8	1112.6	553.6	84.2	0.0	363.9	0.0	90.5	1625.5	1.2
Total	7474.9	4002.0	1453.0	453.5	442.2	1374.8	5133.0	90.5	1625.5	4.8

[3] These areas are not mutually exclusive, overlaps may exist between one or more land base designations.

[4] Includes draft OGMAs in the Elaho and Upper Squamish landscape units.

[5] Does not include Squamish Nation Village Sites in the Squamish River floodplain area.

[6] Bald Eagle over-wintering habitat boundaries were obtained from the TFL 38 Bald Eagle Over-Wintering Habitat Management Strategy, 2003 (non-legal).

3. Relevant Strategic Plans, Agreements and Policies

The following strategic plans, agreements and policies provide additional management direction, and associated legal objectives for the S2S FMP, both individually and incrementally where there are overlaps in boundaries. The objectives and strategies in the FMP are intended to support or be incremental to the objectives and guidelines established through other approved plans within the FMP area (e.g. S2S LRMP, Wildlife Habitat Areas, Ungulate Winter Ranges, Old Growth Management Areas, etc.). If there are any conflicts between the S2S FMP management direction and the direction in approved plans then those in the latter will take precedence.

3.1 Sea-to-Sky Land and Resource Management Plan

The approved S2S LRMP provides general land and resource management direction for different resource values or uses that may be present in the floodplain areas. The S2S LRMP also provides area specific direction for distinct zones and areas that may overlap with floodplain areas, including: Frontcountry, Special Cultural Management Areas, Wildlife Focus Areas, and First Nations Cultural Places, including cultural sites and village sites.

Where indicated, S2S FMP objectives or other direction may also be included in the S2S LRMP or associated First Nation Land Use Agreements.

The approved S2S LRMP is available on the ILMB website at the following URL address: http://ilmbwww.gov.bc.ca/slrp/lrmp/surrey/s2s/plan/lrmp.html.

3.2 Established Wildlife Habitat Areas

The S2S FMP areas contain in whole or in part the following nineteen approved Wildlife Habitat Areas (WHAs) for Grizzly Bear (*Ursus arctos*) and Marbled Murrelet (*Brachyramphus marmoratus*) established by Order by the Deputy Minister of Environment under the authority of sections 9(2) and 10(1) of the *Government Actions Regulation* (B.C. Reg. 582/04); 2-179, 2-182, 2-183, 2-310, 2-311, 2-327, 2-328, 2-329, 2-330, 2-331, 2-332, 2-334, 2-335, 2-336, 2-337, 2-338, 2-339, 2-340 and 2-341. These approved WHAs are available on the Ministry of Environment website at the following URL address:
http://www.env.gov.bc.ca/wld/frpa/iwms/wha.html

3.3 Established Ungulate Winter Ranges

The S2S FMP areas contain in whole or in part the following five Ungulate Winter Ranges (UWRs) for Moose (*Alces alces*), Blacktail Deer (*Odocoileus hemionus*) and/or Mountain Goat (*Oreamnos americanus*) established by Order by the Deputy Minister of Environment under the authority of Sections 9(2) and 12(1) of the *Government Actions Regulation* (B.C. Reg. 582/04); U2-002, U2-005, U2-007, U2-008 and U2-010. These approved UWRs are available on the Ministry of Environment website at the following URL address:
http://www.env.gov.bc.ca/wld/frpa/uwr/approved_uwr.html

3.4 Established Landscape Unit Plans

There are five approved Landscape Unit Plans and two draft Landscape Unit Plans within the S2S FMP area. The approved plans consist of the Upper Lillooet, Meager, Railroad, Ryan and Soo Landscape Units while the draft plans are for the Elaho and Upper Squamish landscape units. The approved plans are available on the ILMB website at the following URL address: http://ilmbwww.gov.bc.ca/lup/srmp/coast/squamish/index.html.

3.5 Lil'wat Nation and British Columbia Agreement on Land Use Planning

An agreement on land use planning was signed between the Lil'wat Nation and the Province of British Columbia on April 11, 2008 and contains specific reference to floodplain management planning in Section 8.8.2 and Schedule F. A copy of the agreement is available on the ILMB website at the following URL address:
http://ilmbwww.gov.bc.ca/slrp/lrmp/surrey/s2s/plan/g2gagreements.html

3.6 Squamish Nation and British Columbia Agreement on Land Use Planning

An agreement on land use planning was signed between the Squamish Nation and the Province of British Columbia on July 26, 2007. The agreement area covers that portion of the Squamish First Nation's traditional territory that overlaps with the S2S LRMP. A copy of the agreement is available on the ILMB website at the following URL address:
http://ilmbwww.gov.bc.ca/slrp/lrmp/surrey/s2s/plan/g2gagreements.html

3.7 Mineral Exploration and Mining Two-Zone Policy

The Ministry of Energy, Mines and Petroleum Resources' two-zone policy and supporting legislation opens all Crown land outside of protected areas to mineral tenure acquisition, mineral exploration and mine development, including suitable access required to undertake these activities. Consistent with the two-zone policy and legislation, the objectives and strategies in this plan are not intended to unduly delay, restrict or prohibit responsible mineral exploration and mining activities. The two-zone system is described on the Ministry of Energy, Mines and Petroleum Resources website at the following URL address:
http://www.empr.gov.bc.ca/Mining/Exploration/Documents/Two_Zone_Brochure.pdf

3.8 Sea-to-Sky Coordinated Access Management Plan (CAMP)

The S2S CAMP was approved in the spring of 2009. This plan provides policy guidance for the management of resource roads and access control points in the district for a number of non-forestry values, including Grizzly Bear habitat, recreation, minerals and mining values, energy infrastructure development, and other public uses. The plan may be found at the following URL address:
http://ilmbwww.gov.bc.ca/slrp/lrmp/surrey/s2s/docs/S2S_CAMP_Approved_May2009.pdf

3.9 Pemberton Wetlands Wildlife Management Area Management Plan

The Pemberton Wetlands Wildlife Management Area (WMA) is located in the upper Lillooet River and a segment of the Green River. Like parks and conservancies, the WMA is administered by the Ministry of Environment. Where overlaps exist between the S2S FMP and the WMA, the direction provided for the WMA will supersede the direction contained in the S2S FMP.

4. Floodplain Management Direction

The FMP areas in the Squamish Forest District exemplify a rich and diverse vegetation mosaic reflecting the influence of a transitional maritime and continental climate, a rich soil nutrient regime and a moist to wet soil moisture regime. They contain habitat, travel corridors, and home ranges for a large number of wildlife species.

Floodplains have historically been associated with high cultural use values for First Nations. Floodplains provide key habitat for salmon and other fish species that are critical to First Nations culture. Resource development, not only within floodplains but also within adjacent upland areas, has the potential to negatively affect wildlife, biodiversity and cultural use values through both direct and cumulative impacts. This plan provides incremental management direction to what is contained in the S2S LRMP.

4.1 Goal of Floodplain Management

The primary goal of the S2S FMP is to conserve fisheries, wildlife, ecological, and First Nations cultural values within the major floodplain areas in the Squamish Forest District.

The goal of the S2S FMP is to ensure that tourism, recreation, timber harvesting, agriculture, mining and aggregates, power generation and transmission, and other industrial land uses, are consistent with the objectives and management direction as provided below.

4.2 Objectives and Management Direction

A significant amount of work has already been completed towards conserving and protecting wildlife habitats, biological diversity and cultural values within the major floodplain areas of the Squamish Forest District. As outlined in section 3.0, this work includes the establishment of Grizzly Bear Wildlife Habitat Areas, Marbled Murrelet Wildlife Habitat Areas, Moose Ungulate Winter Ranges, Deer Ungulate Winter Ranges, Old Growth Management Areas, the Pemberton Wetlands Wildlife Management Area, and the S2S LRMP.

The following objectives and corresponding management direction apply to areas within the floodplain management plan boundaries as shown on the attached map in Appendix 1. These should be considered as supporting the objectives and guidelines established through the other plans identified above. If there is any conflict between the objectives and management direction with those in the approved plans and agreements then the latter will take precedence.

4.2.1 Forestry Resource Values

As described in the S2S LRMP, forestry “comprises a significant portion of the Sea-to-Sky economy, particularly in Squamish and rural areas.” However, “less than half of the forested land contributes to, and is available for, long term timber supply as part of the timber harvesting land base.” Forestry is permitted within the floodplain areas, but only where activities follow relevant regulatory processes and requirements to conserve other overlapping values, and where management recognizes the following objectives and management direction. Within the S2S FMP area, opportunities for forestry operations are to be maintained, while managing for the functional integrity of floodplain ecosystems.

Objective:
1. Maintain the functional integrity of floodplain ecosystems.
Management Direction
• Limit the forest harvest area available for timber harvesting to a maximum of 20% of each floodplain management area[7]. • Retain a fully representative suite of forest types, plant communities and wildlife habitats within each floodplain management area, where practicable. • Timber harvesting should be restricted to small openings and/or retention harvesting systems. • Harvest areas should be re-stocked with ecologically suitable species consistent with the natural range of variation.

4.2.2 Cultural Heritage Values

Floodplains within the Sea-to-Sky area are located within the traditional territories of the Lil'wat Nation and Squamish Nation. Commitments to protect Cultural Heritage Values were identified during development of land use agreements for each nation. Some of the values identified in these agreements overlap with floodplains.

Objective:
2. Maintain opportunities for First Nations to carry out cultural uses in floodplain areas.
Management Direction:
• Maintain 100% of forested area of floodplains that are located in Lil'wat Nation Category A and B A7Ax'ulmecw (Spirited Ground) Areas[8] and Squamish Nation Síiyamín ta Skwxwú7mesh Cultural Sites[9]. • Manage the area of floodplains that are located in Squamish Nation úxwumixw Village Sites to protect cultural heritage values[10].

[7] Section 4.5.2 in the S2S LRMP

[8] Section 8.8.3 and schedules E, F, H and I of the Lil'wat Nation and British Columbia Agreement on Land Use Planning

[9] Section 18-22 and schedules G and H of the Squamish Nation and British Columbia Agreement on Land Use Planning

[10] Appendix 2 – Management Direction for Squamish Nation úxwumixw Village Sites

4.2.3 Moose Winter Range

Objective:
3. Maintain stable Moose populations within the historic range by protecting key habitat features and natural processes within floodplains.
Management Direction
• Follow the General Wildlife Measures for Moose Core Winter Range and Moose Forage Management Zones identified in approved Ungulate Winter Ranges within the plan area. • Retain woody forage species (e.g. willow, dogwood, highbush cranberry, elderberry, etc.) within harvest areas without unreasonably inhibiting free growing requirements. • Maintain a conifer visual screen along roads to reduce the vulnerability of moose in the winter. • Maintain cover for security, visual screening, thermal cover and snow interception within the identified key Moose winter range habitats. • Locate roads away from natural openings. Timber development planning should emphasize the use of temporary roads and deactivation plans consistent with forestry objectives. • Maintain mature groups of conifers (> 5 stems) in deciduous dominated stands.

4.2.4 Grizzly Bear Forage Habitat

Objective:
4. Maintain identified Grizzly Bear forage habitats within floodplain management areas. 5. Manage for the recovery of Grizzly Bear populations to within the historic range by protecting key habitat features and natural processes.
Management Direction
• Follow the General Wildlife Measures for Grizzly Bear identified in approved Wildlife Habitat Areas within the plan area. • Maintain or decrease the number of actively used roads located adjacent to critical Grizzly Bear habitat. • Inform in-stream recreation users of the need to stay away from the west bank of the upper Squamish River above Ashlu Creek from August 1 to November 30 to minimize disruption of Grizzly Bears feeding on salmon.

4.2.5 Bald Eagle Over-wintering Habitat

Objective:
6. Maintain key Bald Eagle over-wintering habitat elements, including foraging, perching and communal night roosting sites.
Management Direction
• Limit disturbance to Bald Eagle over-wintering habitat during the winter season. • Maintain or increase Bald Eagle populations by protecting key habitat features and natural processes. • Restrict commercial recreation use in over-wintering habitat to minimize disturbance of Bald Eagles. • Follow the TFL 38 Over-wintering Bald Eagle Habitat Management Strategy in identified Bald Eagle Over-wintering Habitat within the plan area.[11]

4.2.6 Fish Habitat

Objective:
7. Maintain fish habitat (riparian vegetation, stream integrity, water quality and quantity).
Management Direction
• Avoid modification of fish habitat when working in and around streams. • Eliminate the introduction of fine sediment into floodplains from road construction, road maintenance and resource development activities. • Where work is required in or directly adjacent to fisheries sensitive streams (e.g. culvert or bridge maintenance, road deactivation, etc.), implement appropriate filtration, diversion and/or settling techniques to minimize sediment input to streams. • Use best management practices to ensure that the cumulative effect of water licensing retains appropriate base flows to support fish.

[11] This strategy was developed cooperatively with the Ministry of Forests and Range and the Ministry of Environment.

4.2.7 Rare Plants and Plant Communities

Objectives:
8. Maintain red and blue-listed plant communities. 9. Maintain rare stands of unique forest types.
Management Direction:
• Have a qualified registered professional complete a red and blue-listed plant community site assessment, where development is likely to impact the site. • Mitigate impacts to any red and blue-listed plant communities found in the site assessment. • Retain locally unique “pocket” forest types (i.e. remnant floodplain stands of large Western Red Cedar or large Sitka Spruce).

4.2.8 Overall Biodiversity Values

Objectives:
10. Maintain healthy floodplain ecosystems and wildlife habitats. 11. Maintain the natural range of seral stages. 12. Ensure that sufficient areas have forest interior conditions 13. Maintain an area of forested floodplain in the approved Old Growth Management Areas that is representative of the percentage of the forested floodplain area within the landscape unit.
Management Direction:
• Follow the Legal Objectives to sustain biological diversity at the landscape level identified in the approved Old Growth Management Areas within the plan area. • Retain coarse woody debris in the full range of diameters to capture habitat requirements for a range of species. • Ensure site level wildlife assessments are completed by a qualified registered professional for all planned resource development activities within the Floodplain Plan Area. • Avoid disturbing all previously known and newly discovered wildlife features such as bear dens and nest sites. • Apply a coarse-filtered approach to manage for the habitat requirements of other wildlife species by maintaining a well-distributed representation of natural ecosystem types.

4.2.9 Access Roads and Utility Corridors

Objective:
14. Limit the number of permanent access roads and utility corridors within the plan area.
Management Direction:
• Locate new roads off the floodplains where practicable. • When constructing new roads and bridges within the plan area, consideration should be given to using temporary structures whenever practical. • Temporary roads and bridges should be deactivated within 5 years of construction and the road bed should be fully rehabilitated. • Where funding is available, rehabilitate old roads that are no longer needed within the plan area, based on a priority listing of cost-to-ecological benefit analysis.

4.2.10 Recreation and Tourism

Objective:
15. Limit the impact on floodplains from recreation and tourism facilities and activities
Management Direction:
• Motorized recreation activities should be discouraged within floodplain areas. • Recreation and tourism development and activities occurring within floodplain areas should follow the objectives and implementation direction contained within the S2S LRMP. • When renewing commercial recreation tenures that overlap with floodplains, amend management plans, if necessary, to manage any impact to floodplain areas.

5. References

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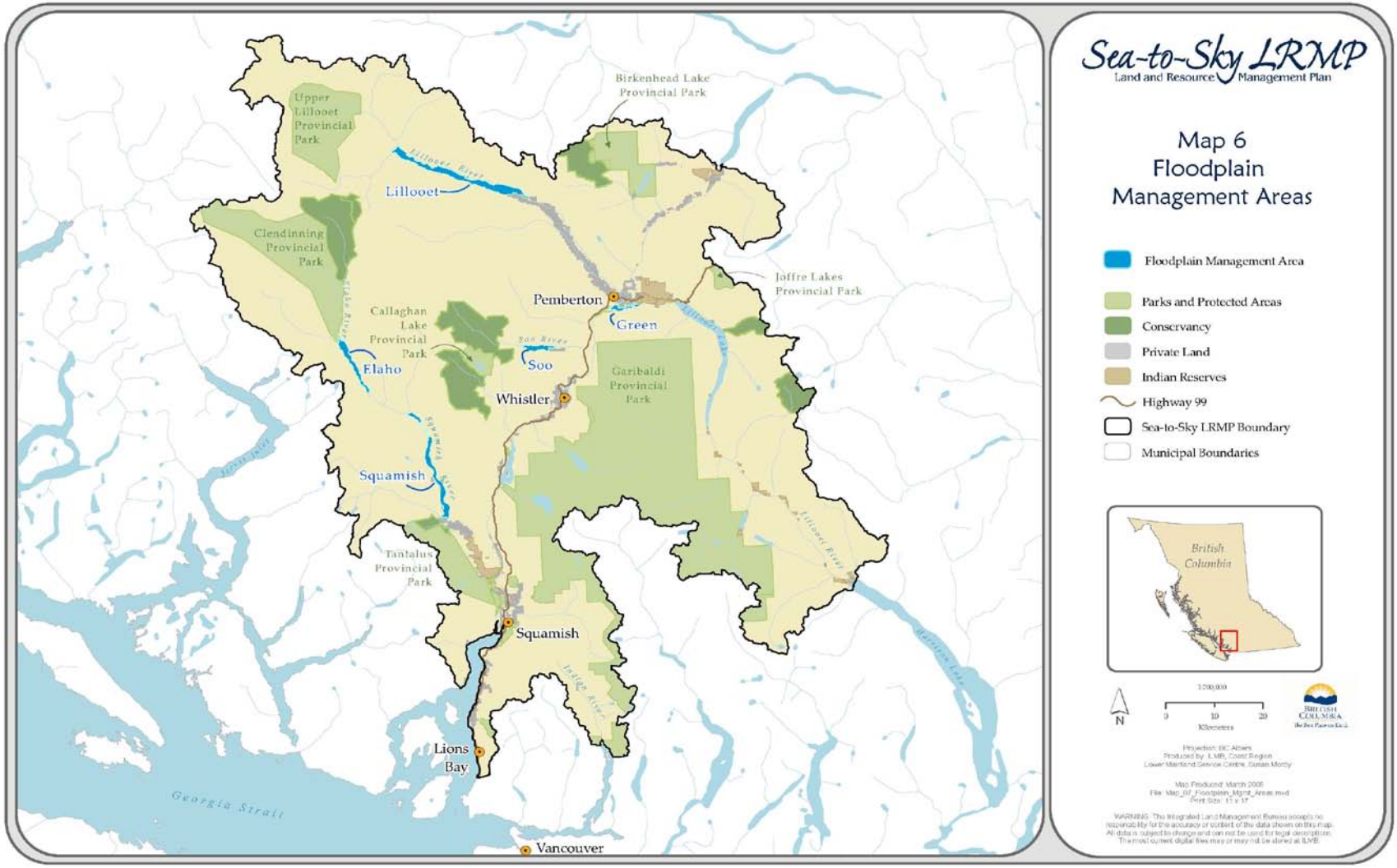
Appendix 1: Floodplain Management Areas Key Map



Appendix 2: Management Direction for Squamish Nation úxwumixw Village Sites

In Schedule H of the LUA[12], three Úxwumixw Village Sites were identified for protective measures with the following direction: *Subject to confirmation of village site boundaries, additional implementation direction may be agreed to by the Squamish Nation and the Province*. Ground truth mapping by Squamish Nation refined the Úxwumixw Village Site point locations more accurately with polygons for the three new Úxwumixw Village Sites: P'uy'am, Chekchekts, and Yelhi'xw. Subsequently, ILMB initiated agency referrals in order to review potential land use conflicts and develop implementation direction that would be acceptable to Squamish Nation and the Province.

New areas are identified as "Úxwumixw Village Sites - A", while the portions of each village site that overlaps with the original cultural site are identified as "Úxwumixw Village Sites – B".

Úxwumixw Village Site	Forestry (MFR)	Commercial Tenures (ILMB)	Public Recreation (MTCA)	Mining Tenures (MEMPR)
P'uy'am (A)	SCMA[13] Forest Management	Designated Use Area (Tenures limited to commercial recreation[14] use, No other tenure type allowed.)	Grandparent existing recreation sites	Grandparent existing tenures. Conditional Registration Reserve
P'uy'am (B)	No Harvesting			
Chekchekts (A)	SCMA Forest Management			
Chekchekts (B)	No Harvesting			
Yelhi'xw (A)	SCMA Forest Management			

[12] Agreement on Land Use Planning between the Squamish First Nation and The Province of British Columbia (2007)

[13] Special Cultural Management Area (SCMA) Forest Management, as described in the LUA (Schedule F)

[14] This designation enables existing rafting commercial recreation use (For a total of four tenures at any one time). Squamish Nation will have the opportunity to discuss with proponents and the province the specific locations of put-ins and take-out sites, as well as any other access through the village sites.