

FINAL REPORT

PEMBERTON & AREA SUB-REGIONAL LAND USE PLANNING STUDY



Squamish - Lillooet Regional District Village of Pemberton & Lil'wat Nation

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1. Introduction

Study Purpose

The Squamish-Lillooet Regional District (SLRD) embarked several years ago on public consultation and inter-governmental dialogue leading up to a draft Regional Growth Strategy for the SLRD. That document is intended to provide a broad policy framework for the SLRD, the District of Squamish, the Resort Municipality of Whistler, the Village of Pemberton, and the District of Lillooet in the pursuit of sustainable development and servicing.

However, it was recognized that additional attention should be paid to the Pemberton sub-region. This should consider a collaborative framework for coordinating local area land use policies, community aspirations, jurisdictional and boundary issues, and the land transfers and accommodation agreements between the Crown and the Lil'wat Nation.

The purpose of this sub-regional planning study for the Village of Pemberton, SLRD Electoral Area C and the Lil'wat Nation is to inform overall policy direction within the regional growth strategy for managing long-term urban growth in the Pemberton-Mt. Currie area and to address other areas of interest in Area C.

This direction is also intended to guide future, more detailed planning by the Village of Pemberton, the SLRD and the Lil'wat Nation. The intended outcome of this strategic planning exercise is to be a coordinated land use planning framework among local governments and First Nations based on mutual trust, respect, understanding and recognition of interests and values, including the mutual benefits of comprehensive land use planning.

Study Area

The planning area falls within the Lil'wat traditional territory and includes all land within Electoral Area C, the Village of Pemberton, and Mt. Currie reserve lands. However, the sub-regional planning exercise focuses primarily on the immediate environs of Pemberton (including the Benchlands, Mosquito Lake/Ivey Lake area, and the lower slopes between the Plateau and Mt. Currie) and the lands accessible from Highway 99 from Whistler to Pemberton.

The study area is shown in **Map 1: Study Area**.

Study Process

The planning process followed a logical series of steps. First, potential population growth was determined looking at historical growth rates (including up to the current 2006 Census and population data from the Lil'wat Nation) and other population and demographic studies. Population was forecast over 20 years. Second, these potential population growth rates were reviewed as to the potential requirements for residential and commercial/industrial land in the area. Third, constraint mapping was prepared for the general area (this was done by the SLRD and Lil'wat Nation) and considered such constraints as steep slopes, the Agricultural Land Reserve, floodplains, etc.

Next, some planning scenarios were developed that did or did not accommodate the potential population growth. This growth was allocated to specific geographic areas (such as the proposed Benchlands area, infill in the Village, and other new potential growth areas). Spreadsheets were prepared to

show the projected timing of potential development against potential population scenarios, including potential dwelling shortfalls.

Then, the scenarios were evaluated against a series of planning principles. These principles primarily focused on those principles described in the SLRD's November, 2006 *Draft Regional Growth Strategy*. In addition, some other evaluation criteria were considered.

Through the course of the project, the consultant was advised by a Steering Committee of staff and consultants from the SLRD, the Village, the Lil'wat Nation, and the Ministry of Community Services. There were also two elected officials forums held to discuss the project, present findings, and receive feedback.

The recommendations in this report remain those of Stantec and are not endorsed by any of the Steering Committee participants.

2. Population & Growth

Introduction

As noted in the previous section, one of the key building blocks in the process was to complete a population analysis. Stantec prepared a separate report, *Population Estimates and Implications*, which is summarized here. The objective was to estimate future population for the study area under a range of potential growth rates over 5-, 10- and 20-year horizons, and discuss implications for residential, commercial, and industrial land supply. The methods chosen are appropriate to this level of study.

Population Growth

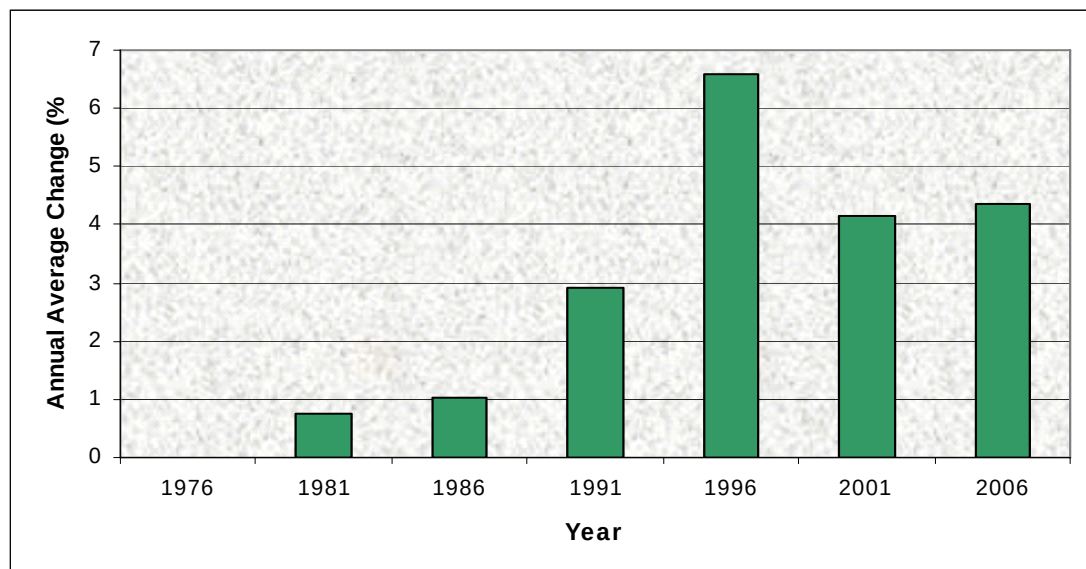
Table 1: Historic Population documents the population for the various sub-areas from 1976 to 2006. **Figure 1: Annual Average % Change** shows the average annual population growth rate calculated from the 5-year census data for the overall area.

Table 1: Historic Population

Year	Population			
	Area C	Pemberton	IR	Total
1976	910	301	904	2,115
1981	1,008	285	904	2,197
1986	1,063	350	900	2,313
1991	1,333	502	834	2,669
1996	1,547	857	1,267	3,671
2001	1,499	1,642	1,360	4,501
2006	1,887	2,192	1,490	5,569

Source: Statistic Canada census data; SLRD 2000; Stratis and Askey, 2005; Lil'wat Nation; INAC and Ecotrust

Figure 1: Annual Average % Change

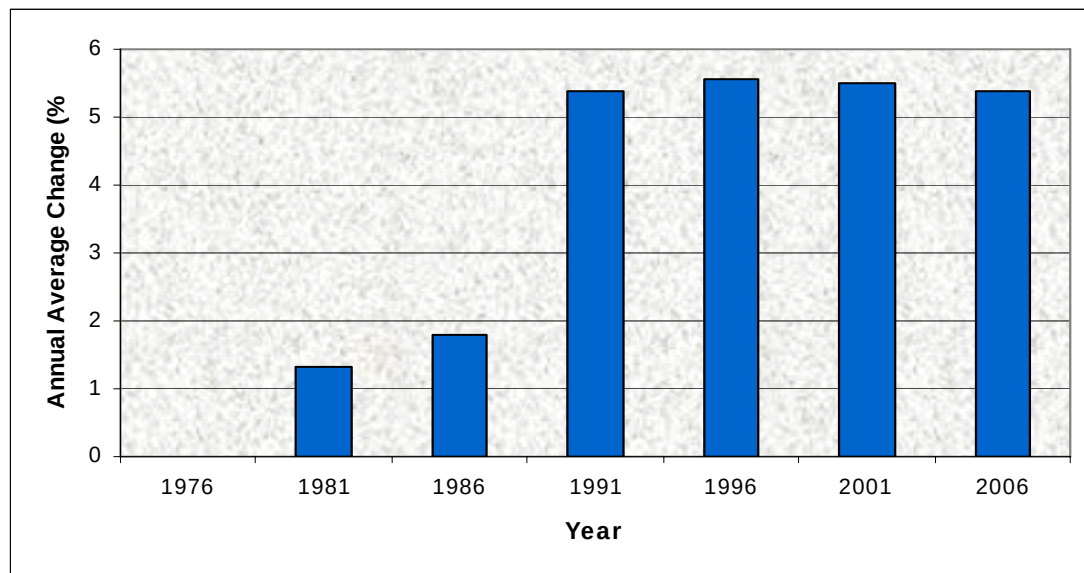


Source: Table 1

The rates shown in **Figure 1** show a 25-year average (from 1981 to 2006) of 3.8%, but higher rates over the more recent past.

The rates in **Figure 1** were recalculated without the Lil'wat Nation population, in order to consider potential off-reserve population growth in the area. These are shown in **Figure 2, Annual Average % Change (Not including Lil'wat Nation)** which reveals an annual growth rate jumping after 1986 and being consistently over 5% since then. The 25-year average population growth was 4.7%, and higher in the short term. For example, the annual average growth was 5.4% in the five years up to 2006.

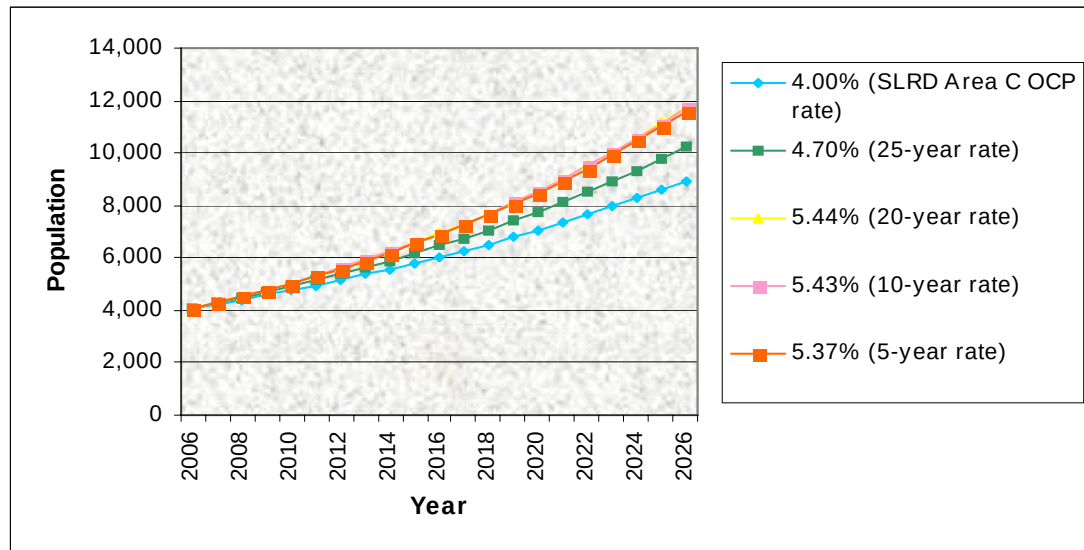
Figure 2: Annual Average % Change (Not including Lil'wat Nation)



Source: Table 1

The growth rate from the SLRD Area C OCP and the 25-, 20-, 10- and 5-year rates from **Figure 2** are compared in **Figure 3: Projected Population (2006-2026)**.

The 2026 projections for off-reserve population range from a high of 11,767 residents using the 20-year rate of 5.4%, equaling 7,688 additional residents, to a low of 8,938 residents using the projected SLRD Area C OCP rate of 4.0%, equaling 4,859 additional residents.

Figure 3: Projected Population (2006-2026)

For comparative purposes, it is useful to look at projected population growth for the SLRD South (this includes Electoral Area C, Electoral Area D, Whistler, and Squamish). The 2003 population of 30,373 is expected to double by 2031 to reach a total of 62,817 residents. This projection involves an increase from the 0.8% rate to in the range of 3.0% per year in the next decade. By 2031 the growth rate will decline to the 2.3% range (Urban Futures, September 15, 2004). This would indicate the need to be cautious about using high population figures of the recent past on a sustained basis in the long term.

Household Size

The 2006 average household size (of total private dwelling units) in both SLRD Electoral Area C and Pemberton was 2.0. This figure is used to calculate the numbers of future dwelling units required. This compares to similar figures for Whistler of 1.1 (over half its units are not permanently occupied) and Squamish of 2.5. According to Census Canada in 2006, Pemberton had 172 dwellings that were not permanently occupied (either vacant or used by people who permanently live elsewhere). For household size of dwellings permanently occupied, Pemberton has 2.3 people/household. Comparable figures are 2.4 for Whistler and 2.7 for Squamish.

Residential Considerations

The SLRD Area C has experienced a steady growth in residential construction, averaging 18 units per year between 1992 and 1996 (SLRD, 2000). Pemberton has experienced a 'spill over' effect from Whistler due to its more affordable housing options, but it is estimated that 1,000 units of employee restricted housing will be built in Whistler in the next few years. This new development may impact housing demand in Pemberton and the 'spill over' effect that has been observed to date. The Olympic Games will have a relatively modest impact at the region-wide and Lower Mainland level. However, the greater

relative impacts will be felt in the SLRD. It is expected that the Whistler-Pemberton community will have a 13% greater population than if the Olympic Games were not held (CMHC, November 2006).

Squamish has room to grow, whereas Whistler is reaching build out. As growth activity moves farther south, there may be implications for Pemberton and the surrounding area. Pemberton has the highest population density per km² as compared to other municipalities in the SLRD. The most concentrated population in Electoral Area C is found immediately adjacent to the boundaries of the Village of Pemberton in the "Pemberton Fringe".

Population and Dwelling Unit Projections

Table 2: Population and Dwelling Units shows the additional off-reserve population for the study area and the required number of additional dwelling units to house that population. The 25-year growth rate of 4.7% was compared to lower (3.5%) and higher (6.0%) rates to illustrate the sensitivity of requirements based on different growth rates. These unit counts will be used to develop different planning scenarios later in this report.

Table 2: Population and Dwelling Units

Year	3.50%			4.70%			6%		
	Population	Additional Population	Dwellings Required	Population	Additional Population	Dwellings Required	Population	Additional Population	Dwellings Required
2006	4,079			4,079			4,079		
2007	4,222	143	71	4,271	192	96	4,324	245	122
2008	4,370	148	74	4,471	201	100	4,583	259	130
2009	4,522	153	76	4,682	210	105	4,858	275	137
2010	4,681	158	79	4,902	220	110	5,150	291	146
2011	4,845	164	82	5,132	230	115	5,459	309	154
2012	5,014	170	85	5,373	241	121	5,786	328	164
2013	5,190	175	88	5,626	253	126	6,133	347	174
2014	5,371	182	91	5,890	264	132	6,501	368	184
2015	5,559	188	94	6,167	277	138	6,891	390	195
2016	5,754	195	97	6,457	290	145	7,305	413	207
2017	5,955	201	101	6,760	303	152	7,743	438	219
2018	6,164	208	104	7,078	318	159	8,208	465	232
2019	6,379	216	108	7,411	333	166	8,700	492	246
2020	6,603	223	112	7,759	348	174	9,222	522	261
2021	6,834	231	116	8,124	365	182	9,776	553	277
2022	7,073	239	120	8,506	382	191	10,362	587	293
2023	7,320	248	124	8,905	400	200	10,984	622	311
2024	7,577	256	128	9,324	419	209	11,643	659	330
2025	7,842	265	133	9,762	438	219	12,341	699	349
2026	8,116	274	137	10,221	459	229	13,082	740	370
Totals		4,037	2,019		6,142	3,071		9,003	4,501

Population statistics for on reserve population are somewhat more problematical. The on reserve population was reported as 904 in 1981, increasing to 1490 by 2006. This represents an annual average growth rate of 2.0%, which would result in a 2026 population of about 2220. The increase in population would average about 35 people per year on reserve. Although these estimates are based on the best available population counts, there is a strong suspicion that these growth numbers are low relative to what could be expected. There is an additional approximately 500 of the Lil'wat Nation living off reserve.

Commercial and Industrial Implications

The Village of Pemberton is currently recognized as the business and service centre for the study area. Other commercial activity centres include a small cluster of commercial activity in Mount Currie, a small parcel zoned resort commercial in Gates Lake and a convenience store in D'Arcy. More informal commercial enterprises are also operating out of private residences. Industrial activity in the study area is primarily in Pemberton (in an industrial outlier) and in the Whistler/Pemberton Corridor.

In total, there are approximately 25 ha of commercial land in SLRD Electoral Area C. These lands are concentrated in the Birken D'Arcy corridor. Pemberton has a total of approximately 26 ha of commercially zoned land.

Industrial land in the study area is located in Pemberton's industrial park, totaling approximately 33 ha¹. Lands zoned for industrial use in Electoral Area C total approximately 23 ha. Resource industrial activity is also occurring south of Pemberton, along the Whistler/Pemberton corridor in the Rutherford area. Industrial land in this area includes the Highway 99 Rutherford Pit (approximately 18 ha), the Durfeld Log sort (approximately 42 ha) and the Rutherford Power Plant (approximately 2 ha), totaling approximately 63 ha.

Future Commercial and Industrial Demand

Table 3: Commercial Demand identifies future commercial demand over 5-, 10- and 20-year periods using the 4.26% (10-year rate).

Considering the amount of commercial area relative to projected population, it is estimated that there is a demand for 10 ha of commercial space by 2011, 17 ha by 2016 and 29 ha by 2026. It is assumed that 100% of commercial land in Electoral Area C is developed. However, in Pemberton, approximately 33% of commercial land is undeveloped, meaning that approximately 9 ha are theoretically available for development. This land should accommodate short-

Table 3: Commercial Demand

Time Period	Commercial Requirements (ha)	Existing Availability (ha)	Shortfall (ha)
5-year	10	9	1
10-year	17	9	8
20-year	29	9	20

term commercial demand, but there will be a shortfall within five years.

Table 4, Industrial Demand identifies future industrial demand over 5-, 10- and 20-year periods using the same growth rate for commercial land.

Table 4: Industrial Demand

Time Period	Industrial Requirements (ha)	Existing Availability (ha)	Shortfall (ha)
5-year	22	29	-7
10-year	40	29	11
20-year	67	29	38

Considering the amount of industrial land relative to projected population, it is estimated that there is a demand for 22 ha of industrial by 2011, 40 ha by 2016 and 67 ha by 2026. While it is assumed that industrial lands in Electoral Area C are fully developed, in Pemberton, approximately 88% of the industrial land (29 ha) is currently undeveloped. This indicates that existing industrial areas will likely accommodate some short-term demand, but will be insufficient over the long-term.

The Lil'wat Nation has not designated any area on its reserve lands for industrial activity at this time and, if they do so, this would add to the potential long term supply.

¹ The calculation of industrial land in Pemberton does not include BC Rail property.

3. Constraints Mapping

Introduction

The SLRD and Lil'wat Nation collaborated to produce a series of maps, in consultation with Stantec. The objective was to provide background on the study area and illustrate the existing geophysical and socio-cultural conditions that may affect potential planning scenarios.

Mapping

As illustrated in **Appendix A: Background Mapping**, the following elements were mapped, as identified in **Map A1** through **A12**:

- energy (major transmission lines, independent power producers, potential hydro sites)
- key wildlife habitats (tailed frog suitable habitat, deer winter range, moose winter range, spotted owl resource management zone)
- hazards ('high' hazard and 'some' hazard areas)
- improvement values (improvement values per hectare)
- riparian areas
- service areas (Pemberton fire service area, Pemberton north water service area)
- transportation (airport, rail, roads)
- vegetation cover (vari age class)
- water management (watersheds, groundwater aquifers, water licenses, designated community watersheds)

As illustrated in **Map 2: Geophysical Development Constraints** and **Map 3: Sociocultural Development Constraints**, geophysical and socio-cultural constraints maps were produced to inform the identification and analysis of future residential, commercial and industrial development areas. Lil'wat cultural sites have been identified but have not been included on **Map 3** at this time.

Geophysical conditions examined included water bodies, riparian assessment areas, high geotechnical hazard areas, the floodplain and slopes greater than 40%. The greatest geophysical constraint is the floodplain, which extends across the valley, and into the Village of Pemberton and IR lands. The mapping revealed that unconstrained areas exist in the Whistler/Pemberton corridor, in an area just east of the Village of Pemberton, in the area along the eastern boundary of the study area and in a large area in the northern part of the study area. The latter unconstrained area has pockets that are noted to be of high geotechnical hazard where development is not suitable.²

Socio-cultural conditions examined included N'Takmen areas, land in the ALR, railway land, transmission lines, watershed areas and land with an improvement value greater than \$50,000. The ALR covers a significant portion of the study area, indicating that these lands are unsuitable for non-agricultural development. The mapping identified that unconstrained areas are generally located in the Whistler/Pemberton corridor, in a small area just east of the Village of Pemberton, in the area along the eastern boundary of the study area and in a

² Geotechnical hazard data is limited to the Mt Currie - Birken Corridor.

large area in the northern part of the study area where ALR land is not designated.

An overall constraints map, as illustrated in **Map 4: Overall Constraints**, was produced which illustrates all constraints considered in the study. This map was critical to determining where land is, and is not, suitable for future development. Overall, key constraints that impact future development potential in the study area include ALR lands, the floodplain, steep slopes and high geotechnical hazards. The map illustrates that while there are pockets of unconstrained lands (e.g. within the Village of Pemberton and to a greater extent, along the Whistler/Pemberton corridor), the largest unconstrained area is located in the northern part of the study area - in the vicinity of Ivey and Mosquito Lakes and to the east of the Birkenhead River.

4. Principles

Introduction

The terms of reference required that this study address issues and options for long term settlement growth in the study area in relation to smart growth principles, particularly Goal 1 of the draft *Regional Growth Strategy* which addresses compact and sustainable communities.

Draft Regional Growth Strategy

The discussion under this goal includes the following, which sets the context for regional thinking:

The Regional Growth Strategy aims to encourage compact, sustainable communities as the basis for land use planning throughout the region. 'Compact, Sustainable Communities' refers to settlement that takes a long-term view of the quality of life for future generations, promotes the efficient use of land at higher population densities with greater transportation choices, protects agriculture, natural areas and open spaces, and provides an opportunity to live and work in the same community. Focusing settlements into compact, sustainable communities or nodes moves us toward a vision of sustainable, highly liveable communities with accessible services, public spaces, parks, and cultural and recreation amenities.

The Regional Growth Strategy provides a smart growth framework that recognizes a range of opportunities to apply these principles across different settlement types. The purpose of this framework is not to limit development in the region but rather to shape the pattern and quality of development along a more sustainable path.

Key elements of this Goal 1, as described in the draft *Regional Growth Strategy* are:

- developing compact urban form by accommodating major growth within urban boundaries, with appropriate policies for infill and increased population density
- establishing long-term settlement boundaries with the phased extension of urban boundaries to clearly distinguish the urban/non-urban edge
- maintaining nodal development in the Sea to Sky Corridor, concentrating development into compact, well-planned centres separated by natural resource and rural land uses and avoid the potential for continuous or dispersed linear developments
- protecting rural landscapes that have particular physical constraints or values

These key elements are taken into account in evaluating potential land use scenarios.

SLRD Smart Growth Principles

The SLRD and member municipalities collaboratively developed and endorsed Smart Growth principles that are included within a Memorandum of Understanding established to guide the preparation of the draft Regional Growth Strategy (RGS). As such, it is appropriate that they be used to evaluate planning scenarios. The Smart Growth principles for the SLRD include:

- direct urban development towards existing communities (avoiding urban and rural sprawl)
- build compact, mixed-use neighbourhoods
- create walkable communities
- promote a variety of low impact transportation options
- advocate a range of affordable housing options
- foster distinct, attractive, economically sustainable communities with a strong sense of place
- protect and promote responsible stewardship of green spaces and sensitive areas
- ensure the integrity of a productive agricultural and forestry land base;
- endorse energy efficient infrastructure
- ensure early and ongoing public involvement that respects community values and visions
- cultivate a culture of cooperation, coordination and collaboration between local governments, provincial agencies, federal agencies, and First Nations

We also note that the *Lil'wat Land Use Plan: Phase 1*, addressing the overall traditional territory, includes a management direction that land development minimize environmental disturbance by adherence to such concepts as Smart Growth and low impact design and opposing land development that leads to sprawl, inefficient use of land and dependency on motor vehicles. Development should focus on mixed use, pedestrian orientation, and attractive designs.

New Relationships

One of the notable aspects of this process is the active participation of the Lil'wat Nation. This is consistent with the last point in the previous section calling for the collaboration between the various agencies and First Nations. Terms of reference for this study note that *land transfers and accommodation agreements between the Crown and Lil'wat Nation are leading to the Lil'wat Nation's emergence as a major land owner in the Village of Pemberton and Electoral Area C.*

Central to this new relationship is the provincial government's policy, as stated by the Premier that British Columbia is *committed to opening up new dialogue, new understanding and new access to resources – to close the gaps in... economic opportunity.*

In addition, we note that Policy 8.1d of the draft RGS supports consultation between local governments and First Nations, particularly noting the desire to have coordinated land use planning, improve servicing and community liveability.

5. Planning Scenarios

Introduction

Once the potential population was determined, along with the resulting demand for dwelling units and commercial/industrial land, the next logical task was to develop some planning scenarios that might, or might not, accommodate the potential growth.

Establishing the planning scenarios was driven by several factors. First was to simply show a broad range of alternatives that might be considered. Second was to locate new growth and development in areas that were generally unconstrained by factors such as the ALR, flood plains, or steep slopes. Third was to pay attention, as discussed in Section 4, to Goal 1 of the draft Regional Growth Strategy (compact urban form, nodal development, protecting rural landscapes, etc.), the SLRD Smart Growth Principles (and as echoed by the Lil'wat Land Use Plan, and the objective raised in the new relationships discussion.

Some options, such as linear development or additional nodal development along the Whistler/Pemberton corridor were rejected up-front as being contrary to the intent of the objectives noted above (such as avoiding sprawl, building compact communities, creating walkable communities, etc.). These options were not needed to accommodate potential growth. Therefore, they didn't form the basis of any planning scenarios.

An evaluation of the options relative to these principles, and others, will be discussed in **Section 6**.

Residential Scenarios

For the purposes of discussion, five potential residential planning scenarios were developed. This section includes the growth scenarios at an annual average growth rate of 4.7%. The scenarios at a lower growth rate of 3.5% and a higher rate of 6.0% are documented in **Appendix B**. The options are as follows:

- **Option 1 (Benchlands, Infill, and on-reserve)**

This option includes development of approximately 500 units according to the proposed *Pemberton Benchlands Neighbourhood Concept Plan* in the northwest sector of the Village. This development is a mix of single detached housing (93% of dwelling units), which includes both smaller lots and provisions for secondary suites, and town housing. One small site, called Parcel 2A, is included in the area but it is within the ALR. This site is designated an optional fee simple parcel in the land transfer agreement with the Lil'wat Nation.

This option also includes an additional 500 units of infill housing within the existing boundaries of Pemberton, primarily as secondary suites and new multiple housing at higher densities, primarily in the central core area.

This option provides for new development, on reserve on the upper slopes near the existing village, for the internal growth of the Lil'wat Nation.

- **Option 2 (Option 1, plus new low density growth area)**

This option is the same as Option 1, but with a new low density (large parcels, say, of about 2.0 ha to allow on site servicing) growth area of about 400 ha.

This new low density development would be located north of the river on the slopes above the rail line towards the Ivey and Mosquito Lakes area. It is shown on **Map 5: Growth Scenario**.

- **Option 3 (Option 1, plus dispersed growth)**

This option is the same as Option 1, but instead of a concentrated new low density area as in Option 2, it accommodates some new development dispersed into smaller locations throughout the general area where there is better road access. Like Option 2, on site services would likely be anticipated.

- **Option 4 (Option 1, plus new growth area similar to Benchlands)**

This option includes the base case from Option 1 (Benchlands and Pemberton infill), plus the development of the new growth area (approximately 400 ha, as identified in Option 2) as shown on **Map 5: Growth Scenario**, at densities equivalent to that included in the Pemberton Benchlands plan area. This option would have a gross density of about 5.25 units/ha – this density could be allocated in several ways to include a broad range of housing types from some acreage type lots to apartments. This would be serviced with a full range of urban infrastructure (water, sewer, etc.). Total yield would be 2,125 dwelling units.

- **Option 5 (Option 1, plus new higher density growth area)**

This option is the same as Option 4 but at a density of 6.6 dwellings/ha (125% of Option 4). Total yield would be 2,670 dwelling units. This option was developed to show the potential impact on long term supply that might come from higher density.

Sample Scenarios: Need & Capacity

Table 5: Growth Scenarios on the following page shows the housing requirements over 20 years, assuming a household size of 2.0 people/household, for each of the five development options. Dwelling units are assigned by geographic area to balance, where there is capacity, supply with estimated potential requirements. In the early years, housing is mainly assigned to Pemberton infill and development in the Benchlands, primarily because it will take a considerable time to prepare and get approval of a plan, potential boundary adjustments, and servicing. Also noted is the shortfall in some of the options for meeting the 4.7% population growth. **Appendix B** includes the same calculations for the higher and lower population growth rates. Each of the options are discussed below.

Option 1 (Benchlands, Infill, and on-reserve)

New development in the Benchlands is distributed over a 12-year period (what might result from the 8 phase program outlined in the Benchlands plan) and redevelopment and infill capacity (assumed at 500 units) is spread over a similar time period. With the 4.7 % growth, this scenario starts to create a shortfall by 2010 growing each year. Capacity, even with running an ongoing shortfall with modest supply of housing, is used up by 2018.

Option 2 (Option 1, plus new low density growth area)

This differs from Option 1 by reallocating some of the growth from the infill component to unserviced low density development similar to the large lots in

the Mosquito and Ivey Lakes areas. Because the low density development yields relatively few units, this option only adds a year to the date when capacity is all used.

Table 5: Growth Scenarios

OPTION 1 @ 4.7%

	96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total
Units needed	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	3071
Development Areas	45	45	45	45	45	45	45	45	45	45	45	5									500
Benchlands	51	55	60	60	60	60	60	60	10	10	10	4									500
Pemberton (infill)	96	100	105	105	105	105	105	105	55	55	55	9	0	0	0	0	0	0	0	0	1000
Units assigned	0	0	0	5	10	16	21	27	83	90	97	150	166	174	182	191	200	209	219	229	2071
Shortfall																					

OPTION 2 @ 4.7%

	96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total
Units needed	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	3071
Development Areas	45	45	45	45	45	45	45	45	45	45	45	5									500
Benchlands	31	33	35	38	41	44	47	50	53	56	50	22									500
Pemberton (infill)	17	17	17	17	17	17	17	17	17	17	17	17	13								200
New growth area	76	95	97	100	103	106	109	112	115	118	112	44	13	0	0	0	0	0	0	0	1200
Units assigned	20	5	8	10	12	15	17	20	23	27	40	115	153	174	182	191	200	209	219	229	1871
Shortfall																					

OPTION 3 @ 4.7%

	96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total
Units needed	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	3071
Development Areas	45	45	45	45	45	45	45	45	45	45	45	5									500
Benchlands	31	33	35	38	41	44	47	50	53	56	50	22									500
Pemberton (infill)	10	10	10	10	10	10	10	10	10	10	10										100
Dispersed growth	76	88	90	93	96	99	102	105	108	111	105	27	0	0	0	0	0	0	0	0	1100
Units assigned	20	12	15	17	19	22	24	27	30	34	47	132	166	174	182	191	200	209	219	229	1971
Shortfall																					

Option 4 & 5 @ 4.7%

	96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total
Units needed	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	3071
Development Areas	50	50	50	50	50	50	50	50	50	50	0	0									500
Benchlands	31	33	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	11	500
Pemberton (infill)				35	40	46	51	57	63	70	127	134	141	149	157	166	175	184	194	218	2008
New Growth Area	81	83	75	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	3008
Units assigned	15	17	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Shortfall																					

Option 3 (Option 1, plus dispersed growth)

With this option, there really is no difference in meeting demand, it just provides more flexibility for location.

Option 4 (Option 1, plus new growth area at Benchlands density)

At a density of 5.25 units/ha (same as the Benchlands), this option accommodates all the potential growth at 4.7 %, exhausting supply in 2027. This option would not likely be able to deliver building sites until at least 2010, at the earliest, given the planning, servicing, and restructuring steps (see Section 7) that are required before an area of this magnitude can be brought

on stream.

Option 5 (Option 1, plus new higher density growth area)

For the 20-year period to 2026, Options 4 and 5 are identical. At a density of 6.56 units/ha (125% of the Benchlands), this option accommodates all the potential growth at 4.7 %, but extends the supply for another 3 or 4 years beyond Option 4.

Commercial Scenarios

As noted in **Section 2**, there is some availability of commercial land in the Village of Pemberton but there will be some shortfall in the 20-year time frame. This commercial requirement is driven by growth in the resident population and by other forces such as tourism. The 20-year shortfall has been assumed to be on the order of 20 ha after development of the existing inventory in Pemberton.

Options for new development include higher densities and/or redevelopment in Pemberton or new development in other locations such as at the old Mt. Currie village on the highway, in conjunction with continued development at the upper Mt. Currie village to serve the resident population, in conjunction with a potential new growth, again to serve the resident population, and at various locations along the corridor to serve residents and tourists.

Industrial Scenarios

Similar to the situation for commercial land as noted above, there is some availability of industrial land in the Village of Pemberton but there will be a shortfall in the 20-year time frame. The 20-year shortfall has been assumed to be in the order of 38 ha after development of the existing industrial park. This is somewhat larger than the area of the existing industrial park. Industrial development can not be so easily incorporated with residential development because of the general land use conflicts and the need for larger flatter pieces of land.

Opportunities for industrial development are, therefore, more constrained in the sub-regional area than both residential and commercial development. First, efforts should be made to limit commercial development in the industrial park that could go elsewhere. Second, new opportunities should be identified. These include, for example, sites in the corridor like where the Sea-to-Sky highway barriers are being constructed. A somewhat undesirable option would be to 'twin' the existing industrial park, but this would require flood proofing and exclusion from the ALR.

6. Evaluation

Introduction

Options are shaped by policies, physical features, and the economics of servicing. The land base in the Pemberton sub-regional area is very constrained. There is really very little choice of location for potential new development in the Pemberton sub-regional planning focus area. This limits, to a large degree, the options that are available for growth, particularly when combined with valid policies seeking compact, well-planned growth.

Accommodating Growth

In its discussion of 'what type of growth is desirable' the draft RGS states the following:

For urban communities, there is the need to plan for compact settlement, to ensure there is enough suitable land designated to accommodate expected growth over the next 20 years.

Of course, other policy decisions may be made by local governments such as to limit the timing of growth, the rate of growth, or even whether there is growth or not. However, for our evaluation, we have used the assumption that the population of Pemberton sub-regional area will continue to grow and that we must prudently consider that growth at this time. For this simple reason, and no other reason, the first three options (Options 1, 2, and 3) are not considered viable in the long run under our growth assumptions.

It is also worth noting that the remaining options (Options 4 and 5) can accommodate reasonably high growth rates. However, there is no guarantee that these growth rates will be attained in the long run even if supported by local planning policy.

New Development Option

If the area were unconstrained, one would logically plan for the orderly expansion of the Village of Pemberton onto adjacent lands. However, the ALR and floodplains preclude this. We have assumed that residential development would continue at the Mt. Currie upper village in a contiguous fashion.

In order to accommodate potential long term population over what can be accommodated by infill and the Pemberton Benchlands, there is only one justifiable option and that is the development of a new area on the slopes east of the existing Village of Pemberton. This is the only area large enough to accommodate the potential long-term new growth in way that could meet criteria for smart growth. We recommend that this option be pursued further within an overall growth management framework.

Jurisdictional Issues

Most of the existing development in the sub-regional planning area is either in the Village or on the IR. Options for a new development area would provide for new development on lands now in the SLRD outside of either of the Village or IR. We suggest that it is most logical that the Village boundaries be extended to include the new development area. This will provide an appropriate governance and administrative vehicle for the planning and development of this area in conjunction with the SLRD and Lil'wat Nation, as well as long term

delivery of local services. This area includes much of the Lil'wat Nation's transfer and option lands as well as private holdings. The conceptual new growth area, with relevant jurisdictional and ownership boundaries, is shown on **Map 6: Growth Scenario in Context**.

Evaluation

The option for a new growth area, when combined with logical expansion of the Benchlands, as well as infill, density increases, and redevelopment in the existing village, provides for a long term pattern that is consistent with the draft RGS and other values, for example:

Developing compact urban form: the proposed option of contiguous growth and redevelopment within Pemberton's boundaries and the contiguous expansion of the upper Lil'wat village, is consistent with this principle. Since further contiguous expansion of the Village core area is not feasible, options for a new growth area, in contrast to linear development in the corridor, presents the best option for developing compact form.

Establishing long term settlement boundaries: extending the Village boundaries to include the new growth area would be consistent with this principle of focusing settlement growth in urban areas. In general, this provides a good fit between the form of government and the ability to provide services to urbanized residents.

Maintaining nodal development: this option, instead of having linear development on the corridor towards Whistler, meets the objective of concentrating development into compact, well-planned centres separated by natural resource and rural land uses, avoiding the potential for continuous or dispersed linear development.

Promoting more complete communities: it is only through a multi-pronged effort that also provides commercial and industrial opportunities along with residential development will this principle be met.

Protecting rural landscapes: consistent with the principles above, the development option focuses on development that does not impinge on rural values such as forestry or the ALR.

Smart Growth Principles: the five principles outlined in the draft Regional Strategic Plan outlined above overlap with the SLRD Smart Growth Principles and the land development management direction outlined in the *Lil'wat Land Use Plan: Phase 1*. These smart growth principles include the desire to direct urban development towards existing communities to avoid sprawl, to ensure the integrity of a productive agricultural and forestry land base, and to protect cultural values. The other growth principles are probably best implemented through the planning of new development areas, whether in or out of the Village, on or off the IR. The preferred option will allow the building of compact, identifiable, walkable, mixed use neighbourhoods with transportation and affordable housing options. The planning process should include public involvement and be collaborative between governments, agencies, and the Lil'wat Nation.

New Relationship: Development of the new area would allow the Lil'wat Nation to participate in economic development of the area.

Strategic Alternatives & Timing

Under the current local planning framework with the Pemberton Benchlands as the only major new development option (as opposed to infill), the ability to accommodate new growth is mostly in an 'all the eggs in one basket' situation. If development in the Benchlands does not proceed in the short term because of ownership or other issues (supply side issues, not demand side issues), there will be limited choice. This is due to the potential vulnerability of supply. This may lead to issues of affordability if normal supply and demand balances are greatly constrained.

For that reason, we suggest that the planning and servicing studies for the new growth area commence fairly soon. At the earliest, it would likely be 2010 until lands in the new growth area would be ready.

The other strategic issue relative to smart growth is the issue of timing. If development in the Benchlands is limited by demand side issues (from slow growth), we would assume that the development of the new area would also be held back. Under conditions of higher growth and development in both areas, there could be overlap of development between the two areas (Benchlands and infill vs. new growth area).

The choice has to be made taking risk, uncertainty, costs, economic and smart growth principles, etc., into account, between having potentially no areas and two areas for new growth.

The question has been raised regarding potential problems that might surface if both areas are being developed at the same time, particularly related to the delivery of municipal services and infrastructure spending simultaneously in different areas. The implications of this, relative to risk, supply, principles, etc., will have to be carefully reviewed before irreversible commitments are made. The next section outlines further steps that will help to address this question in more detail.

7. Next Steps

We have recommended that the option of a new growth area be pursued in conjunction with other planning initiatives such as policies to support the intensification of the existing village area. This will involve continuing dialogue between the main study participants (SLRD, Village, and Lil'wat Nation) and the community. A planning process requires the following:

1. Protect New Development Area

The draft RGS should designate the general location of the potential new growth area and protect it for future urban settlement growth. In addition, a more detailed comprehensive planning framework could be laid out in the official community plan. This is just the first step leading to new development only if the following steps prove out the desirability of new development.

2. Servicing and Development Analysis

Further analysis should be done of the potential new planning area to delineate site constraints and opportunities at a more detailed level, including establishing plan area boundaries. This will also have to address Lil'wat cultural sites. Analysis will have to be detailed enough to inform the servicing review.

In conjunction with the site analysis noted above, there needs to be a comprehensive servicing analysis to determine how the new growth area can best be economically serviced with utility infrastructure. This should consider the long term servicing for existing and new development in the existing village area, new and future development on the IR, and other new industrial areas. This servicing analysis should include best environmental practices and an analysis that addresses the economic implications of capital funding, development timing and rates, and risk. In particular, this should take into account the staging of services under various growth scenarios.

3. Boundary Expansion

Pending the outcome of the comprehensive servicing analysis, it seems logical that, if the new area is developed to urban densities with urban infrastructure, the Village of Pemberton would be best suited to deliver these urban services. We recommend that a restructure study be done to determine the desirability of expanding the village boundaries to include the new development area. This will, of course, require following the typical restructure (boundary expansion) review process, with community and stakeholder participation, to confirm this is the best course of action.

4. Future Planning

The area planning process for the new growth area can be led by the Village of Pemberton (assuming boundary expansion) in consultation with the SLRD and Lil'wat Nation. This planning process will be driven by policies of the Village (smart growth density, timing and rate of development, etc.), but should recognize the economic development aspirations of the Lil'wat Nation. This will not only require site specific planning for the new area, but complementary changes to the RGS, the official community plans, and zoning bylaws.

It is anticipated that these steps would be completed over the course of the

next two to three years. A program, including sequencing and funding for studies, etc., will have to be worked out but would have to include the local governments, residents, and landowners, including the Lil'wat Nation. The Province plays an important role in the restructuring process. Development possibly could be started while development of the Benchlands is finishing and redevelopment in the existing village area continues should this be affordable within reasonable levels of risk.

Appendix A: Mapping

Maps

- A1. Percent Slope
- A2. Key Wildlife Habitat
- A3. Riparian Assessment Areas
- A4. Water Management
- A5. Natural Hazards
- A6. Vegetation Cover
- A7. Recreation
- A8. First Nations Culture
- A9. General Land Use Zones
- A10. Energy Production and Transmission
- A11. Transmission Lines (Pemberton
- A12. Transportation
- A13. Value of Improvements
- A14. Improvement Value/ha

Appendix B: Scenarios

OPTION 1 @ 3.5%

Units needed		71	74	76	79	82	85	88	91	94	97	101	104	108	112	116	120	124	128	133	137	Total
Development Areas		Year																				2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands		40	41	41	41	41	41	41	41	41	41	41	50									500
Pemberton (infill)		31	33	35	38	41	44	47	50	53	56	60	12									500
Units assigned		71	74	76	79	82	85	88	91	94	97	101	62	0	0	0	0	0	0	0	0	1000
Shortfall		0	0	0	0	0	0	0	0	0	0	0	42	108	112	116	120	124	128	133	137	1019

OPTION 1 @ 4.7%

Units needed		96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total
Development Areas		Year																				
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands		45	45	45	45	45	45	45	45	45	45	45	5									500
Pemberton (infill)		51	55	60	60	60	60	60	60	10	10	10	4									500
Units assigned		96	100	105	105	105	105	105	105	55	55	55	9	0	0	0	0	0	0	0	0	1000
Shortfall		0	0	0	5	10	16	21	27	83	90	97	150	166	174	182	191	200	209	219	229	2071

OPTION 1 @ 6%

Units needed		122	130	137	146	154	164	174	184	195	207	219	232	246	261	277	293	311	330	349	370	Total	
Development Areas	Year																						
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		
Benchlands		50	50	50	50	50	50	50	50	50	50											500	
Pemberton (infill)		65	65	65	65	65	65	65	35	5	5											500	
Units assigned		115	115	115	115	115	115	115	85	55	55	0	0	0	0	0	0	0	0	0	0	1000	
Shortfall		7	15	22	31	39	49	59	99	140	152	219	232	246	261	277	293	311	330	349	370	3501	

OPTION 2 @ 3.5%

Units needed		71	74	76	79	82	85	88	91	94	97	101	104	108	112	116	120	124	128	133	137	Total	
Development Areas		Year																					2019
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands		40	41	41	41	41	41	41	41	41	41	41	41	3	3	3							500
Pemberton (infill)		21	23	25	28	31	34	37	40	43	46	40	40	40	40	12							500
New growth area (low density)			15	15	15	15	15	20	20	20	20	20	20	40	43								200
Units assigned		61	79	81	84	87	95	98	101	104	107	101	101	43	43	15	0	0	0	0	0	0	1200
Shortfall		10	-5	-5	-5	-5	-10	-10	-10	-10	-10	0	3	65	69	101	120	124	128	133	137	819	

OPTION 2 @ 4.7%

Units needed		96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total	
Development Areas		Year																					
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		
Benchlands		45	45	45	45	45	45	45	45	45	45	45	5										500
Pemberton (infill)		31	33	35	38	41	44	47	50	53	56	50	22										500
New growth area (low density)			17	17	17	17	17	17	17	17	17	17	17	13									200
Units assigned		76	95	97	100	103	106	109	112	115	118	112	44	13	0	0	0	0	0	0	0	0	1200
Shortfall		20	5	8	10	12	15	17	20	23	27	40	115	153	174	182	191	200	209	219	229	1871	

OPTION 2 @ 6%

Units needed		122	130	137	146	154	164	174	184	195	207	219	232	246	261	277	293	311	330	349	370	Total
Development Areas		Year																				
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands		50	50	50	50	50	50	50	50	50	50											500
Pemberton (infill)		41	43	45	48	51	54	57	60	63	38											500
New growth area (low density)			20	20	20	20	20	20	20	20	20	20										200
Units assigned		91	113	115	118	121	124	127	130	133	108	20	0	0	0	0	0	0	0	0	0	1200
Shortfall		31	17	22	28	33	40	47	54	62	99	199	232	246	261	277	293	311	330	349	370	3301

OPTION 3 @ 3.5%

Units needed		71	74	76	79	82	85	88	91	94	97	101	104	108	112	116	120	124	128	133	137	Total	
Development Areas		Year																					2019
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands			40	41	41	41	41	41	41	41	41	41	41	3	3	3							500
Pemberton (infill)			21	23	25	28	31	34	37	40	43	46	40	40	40	12							500
Dispersed growth				8	8	8	8	8	8	10	10	10	11	11									100
Units assigned			61	72	74	77	80	83	86	91	94	97	92	92	43	43	15	0	0	0	0	0	1100
Shortfall			10	2	2	2	2	2	2	0	0	0	9	12	65	69	101	120	124	128	133	137	919

OPTION 3 @ 4.7%

Units needed		96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total
Development Areas		Year																				3071
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
	Benchlands	45	45	45	45	45	45	45	45	45	45	45	5									500
	Pemberton (infill)	31	33	35	38	41	44	47	50	53	56	50	22									500
	Dispersed growth			10	10	10	10	10	10	10	10	10	10									100
Units assigned		76	88	90	93	96	99	102	105	108	111	105	27	0	0	0	0	0	0	0	0	1100
Shortfall		20	12	15	17	19	22	24	27	30	34	47	132	166	174	182	191	200	209	219	229	1971

OPTION 3 @ 6%

Units needed		122	130	137	146	154	164	174	184	195	207	219	232	246	261	277	293	311	330	349	370	Total	
Development Areas	Year																						4501
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		
Benchlands		50	50	50	50	50	50	50	50	50	50											500	
Pemberton (infill)		41	43	45	48	51	54	57	60	63	38											500	
Dispersed growth			12	12	12	12	12	12	12	12	16											100	
Units assigned		91	105	107	110	113	116	119	122	129	88	0	0	0	0	0	0	0	0	0	0	1100	
Shortfall		31	25	30	36	41	48	55	62	66	119	219	232	246	261	277	293	311	330	349	370	3401	

OPTION 4 @ 3.5%

Units needed		71	74	76	79	82	85	88	91	94	97	101	104	108	112	116	120	124	128	133	137	Total	
Development Areas		Year																					2019
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands			40	41	41	41	41	41	41	41	41	41	41	3	3	3							500
Pemberton (infill)			21	23	25	28	31	34	37	40	43	46	40	40	40	12							500
New growth area (5.25 units/ha)					10	10	10	10	10	10	10	10	20	23	65	69	101	120	124	128	133	137	998
Units assigned			61	64	76	79	82	85	88	91	94	97	101	104	108	112	116	120	124	128	133	137	1998
Shortfall			10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20

OPTION 4 @ 4.7%

Units needed		96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total	
		Year																				3071	
Development Areas		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands		50	50	50	50	50	50	50	50	50	50												500
Pemberton (infill)		31	33	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	11	500
New growth area (5.25 units/ha)						35	40	46	51	57	63	70	127	134	141	149	157	166	175	184	194	218	2008
Units assigned		81	83	75	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	3008	
Shortfall		15	17	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62

OPTION 4 @ 6%

Units needed		122	130	137	146	154	164	174	184	195	207	219	232	246	261	277	293	311	330	349	370	Total
Development Areas	Year																					4501
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands		65	65	65	65	65	65	65	45													500
Pemberton (infill)		41	43	45	48	51	54	57	60	63	38											500
New growth area (5.25 units/ha)					33	38	45	52	79	132	169	219	232	246	261	277	293	51				2127
Units assigned		106	108	110	146	154	164	174	184	195	207	219	232	246	261	277	293	51	0	0	0	3127
Shortfall		16	22	27	0	0	0	0	0	0	0	0	0	0	0	0	0	260	330	349	370	1374

OPTION 5 @ 3.5%

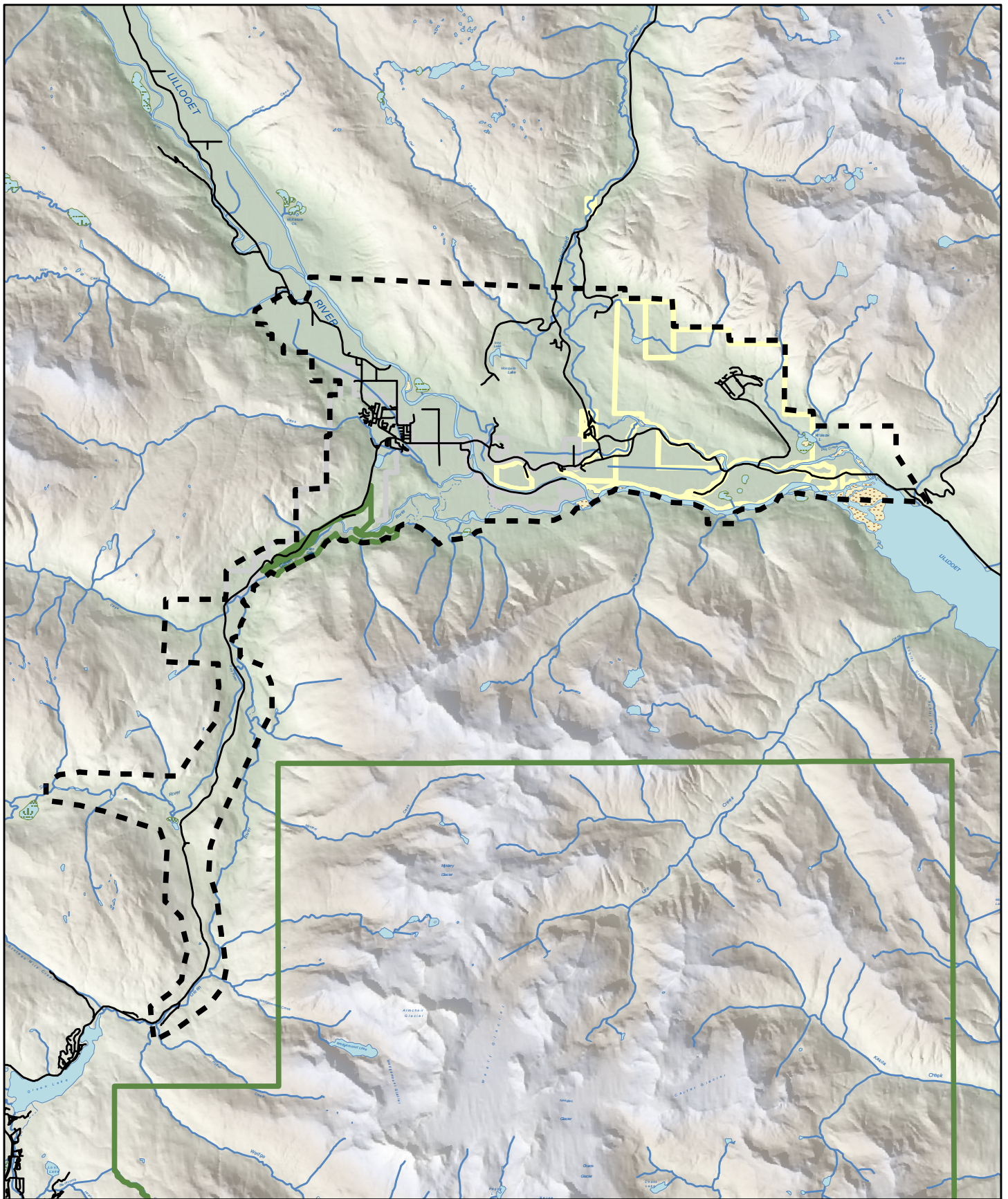
Units needed		71	74	76	79	82	85	88	91	94	97	101	104	108	112	116	120	124	128	133	137	Total	
		Year																					2019
Development Areas		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands			40	41	41	41	41	41	41	41	41	41	41	41	3	3	3						500
Pemberton (infill)			21	23	25	28	31	34	37	40	43	46	40	40	40	40	12						500
New growth area (6.56 units/ha)					10	10	10	10	10	10	10	10	20	23	65	69	101	120	124	128	133	137	600
Units assigned			61	64	76	79	82	85	88	91	94	97	101	104	108	112	116	120	124	128	133	137	1998
Shortfall			10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20

OPTION 5 @ 4.7%

Units needed		96	100	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	Total	
		Year																				3071	
Development Areas		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands		50	50	50	50	50	50	50	50	50	50	50											500
Pemberton (infill)		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	500
New growth area (6.56 units/ha)					30	35	40	46	51	57	63	70	127	134	141	149	157	166	175	184	194	204	2024
Units assigned		75	75	105	110	115	121	126	132	138	145	152	159	166	174	182	191	200	209	219	229	3024	
Shortfall		21	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46

OPTION 5 @ 6%

Units needed		122	130	137	146	154	164	174	184	195	207	219	232	246	261	277	293	311	330	349	370	Total
Development Areas	Year																					4501
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Benchlands		65	65	65	65	65	65	65	45													500
Pemberton (infill)		31	33	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	11	500
New growth area (6.56 units/ha)				47	56	64	74	84	114	170	182	194	207	221	236	252	268	286	255			2710
Units assigned		96	98	137	146	154	164	174	184	195	207	219	232	246	261	277	293	311	280	25	11	3710
Shortfall		26	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	324	359	791

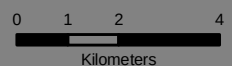


Subregional Planning Study

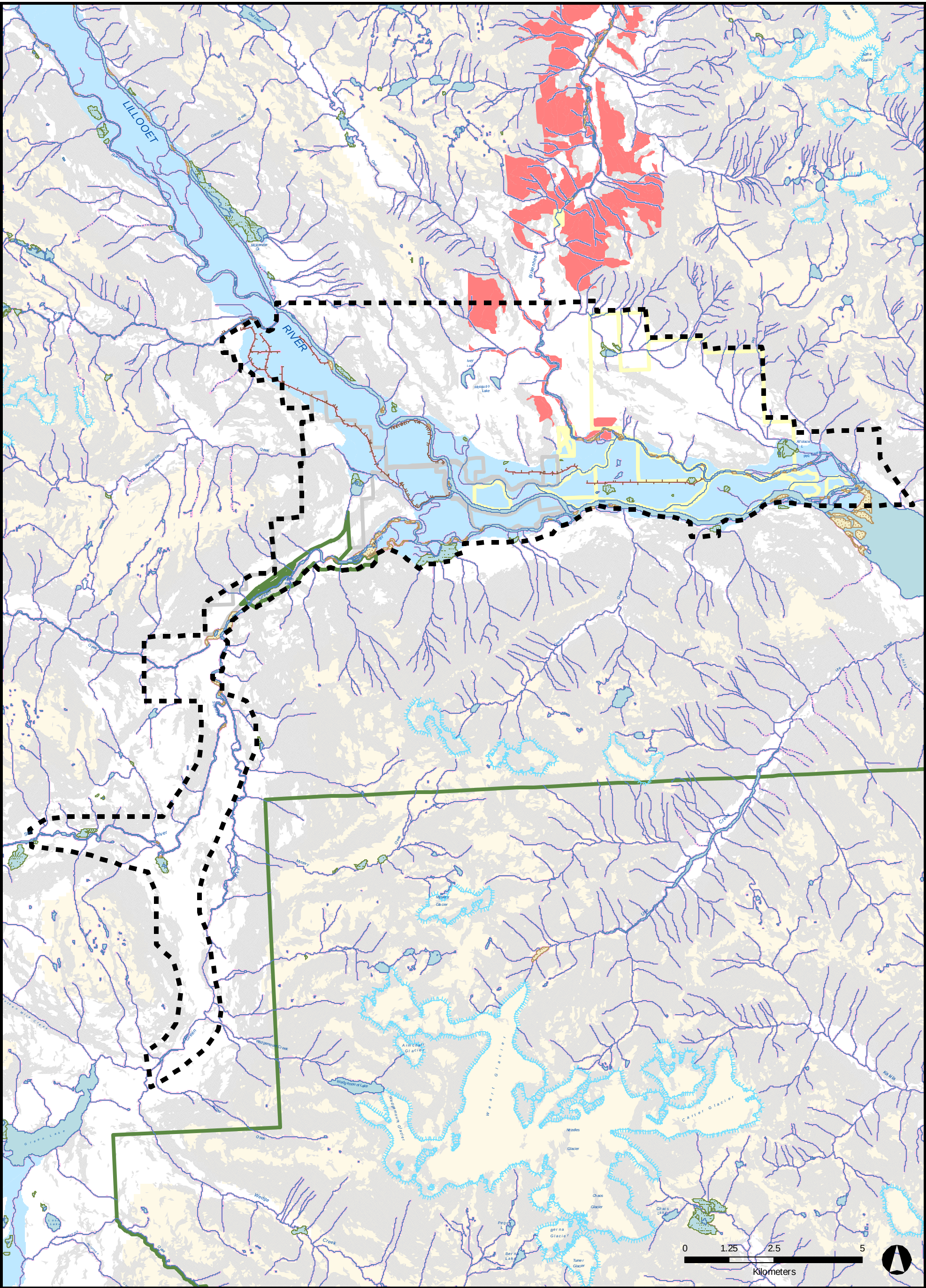
Study Area

Legend

- Road
- Study Area
- BC Provincial Park
- Lake/River
- Mudflat/Sandbar
- Wetland
- River/Stream
- Indefinite Stream
- Village of Pemberton
- Mount Currie Indian Reserve



Map 1



Subregional Planning Study

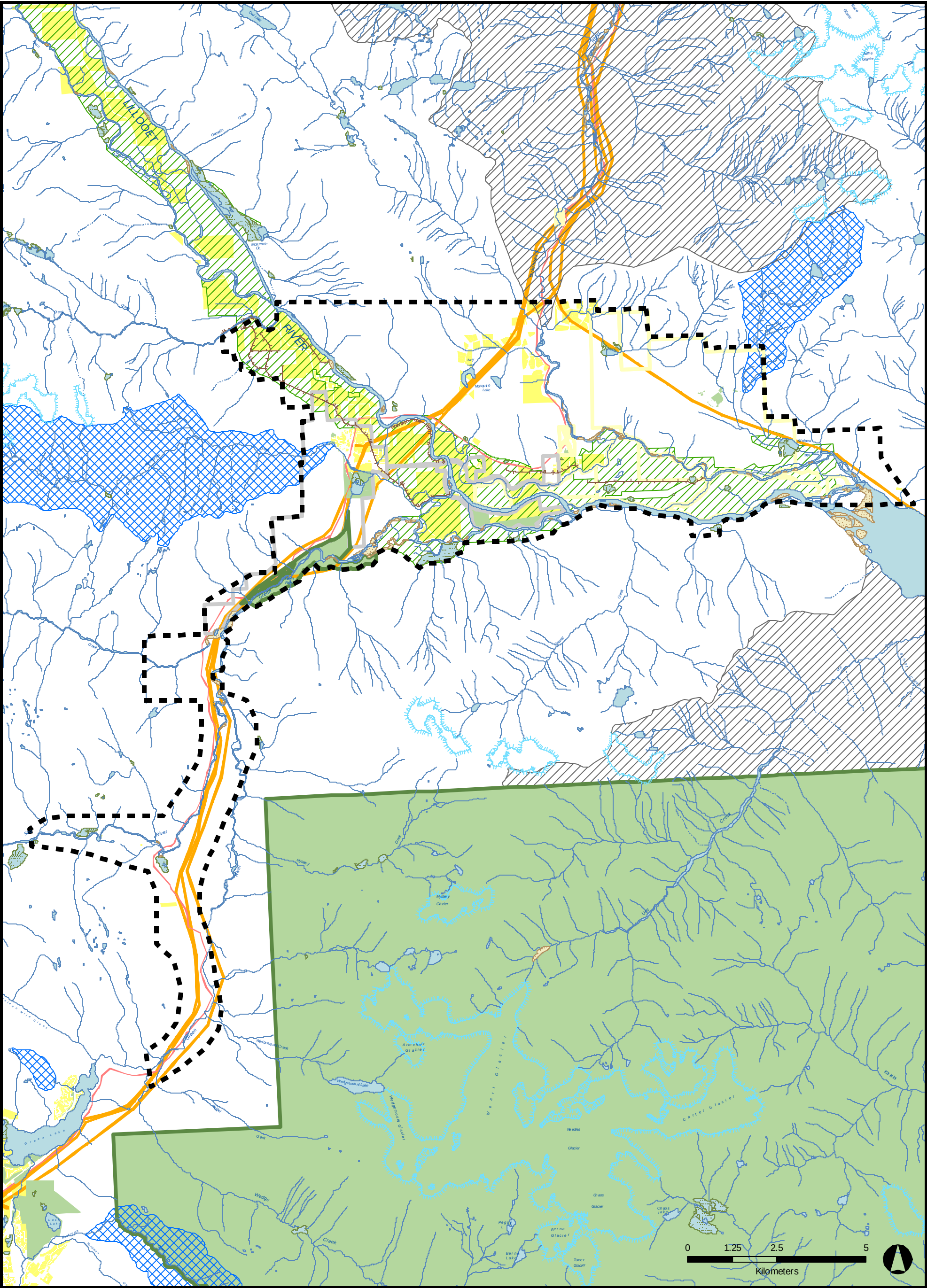
Geophysical Development Constraints

Map produced April 23, 2007. Lil'wat Nation Land & Resources Department.

Legend

- | | |
|-----------------------------|----------------------------|
| Study Area | Elevation above 1200m |
| Village of Pemberton | Slope Over 40% |
| Mount Currie Indian Reserve | Flood Plain |
| BC Provincial Park | High Geotechnical Hazard* |
| Lake/River | Riparian Assessment Area |
| Wetland | No Geophysical Constraints |
| Sand/Gravel Bar | |

Map 2

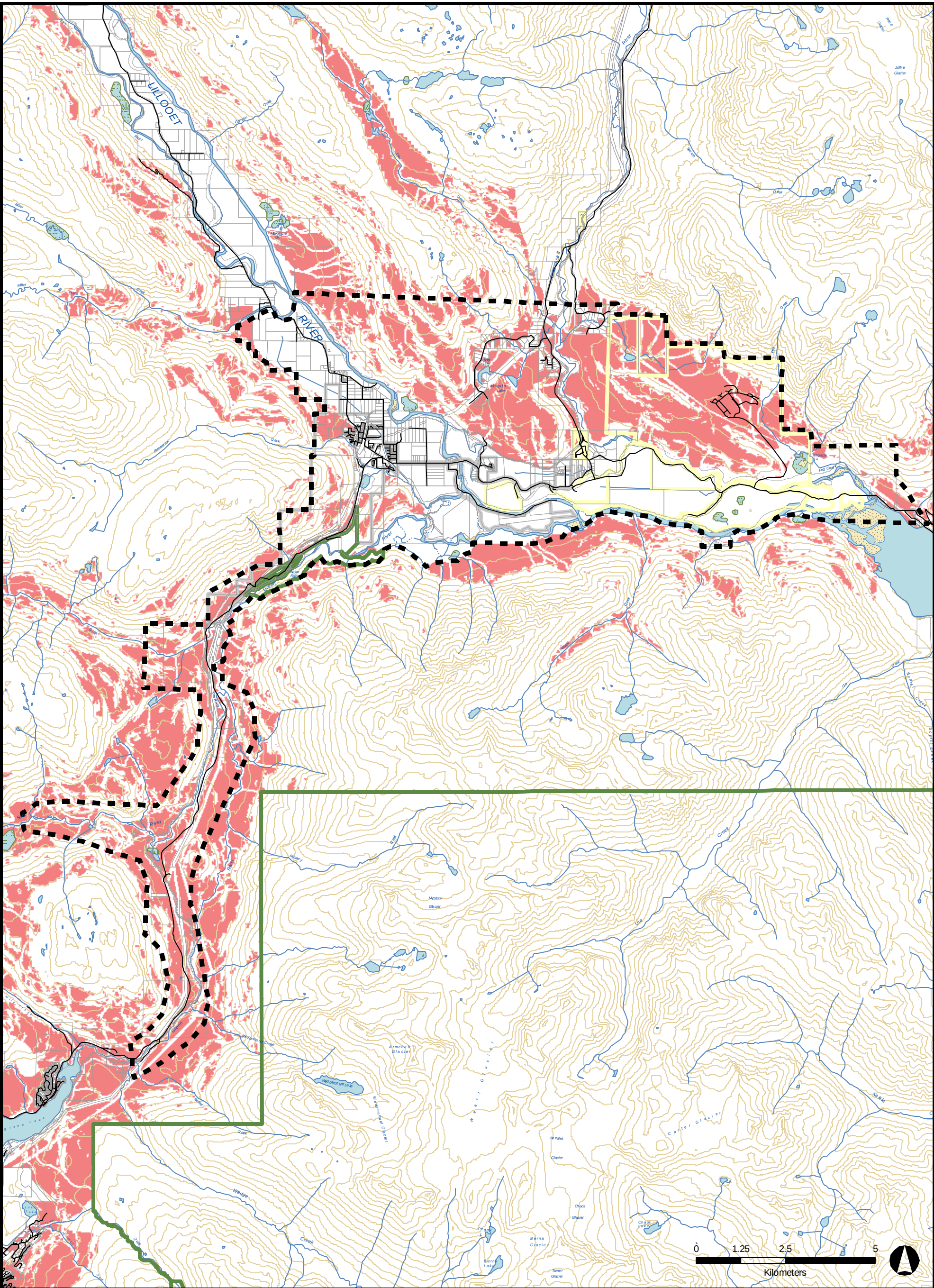


Subregional Planning Study

Sociocultural Development Constraints

Legend

- Study Area
- Village of Pemberton
- Mount Currie Indian Reserve
- BC Provincial Park
- Lake/River
- Wetland
- Sand/Gravel Bar
- Lil'wat Nt'akmen Area
- Parks & Protected Areas
- Agriculture Land Reserve
- Community Watershed
- Improved Land (< \$50,000)
- Transmission Line
- Railway
- No Socio-Cultural Constraints*



Subregional Planning Study

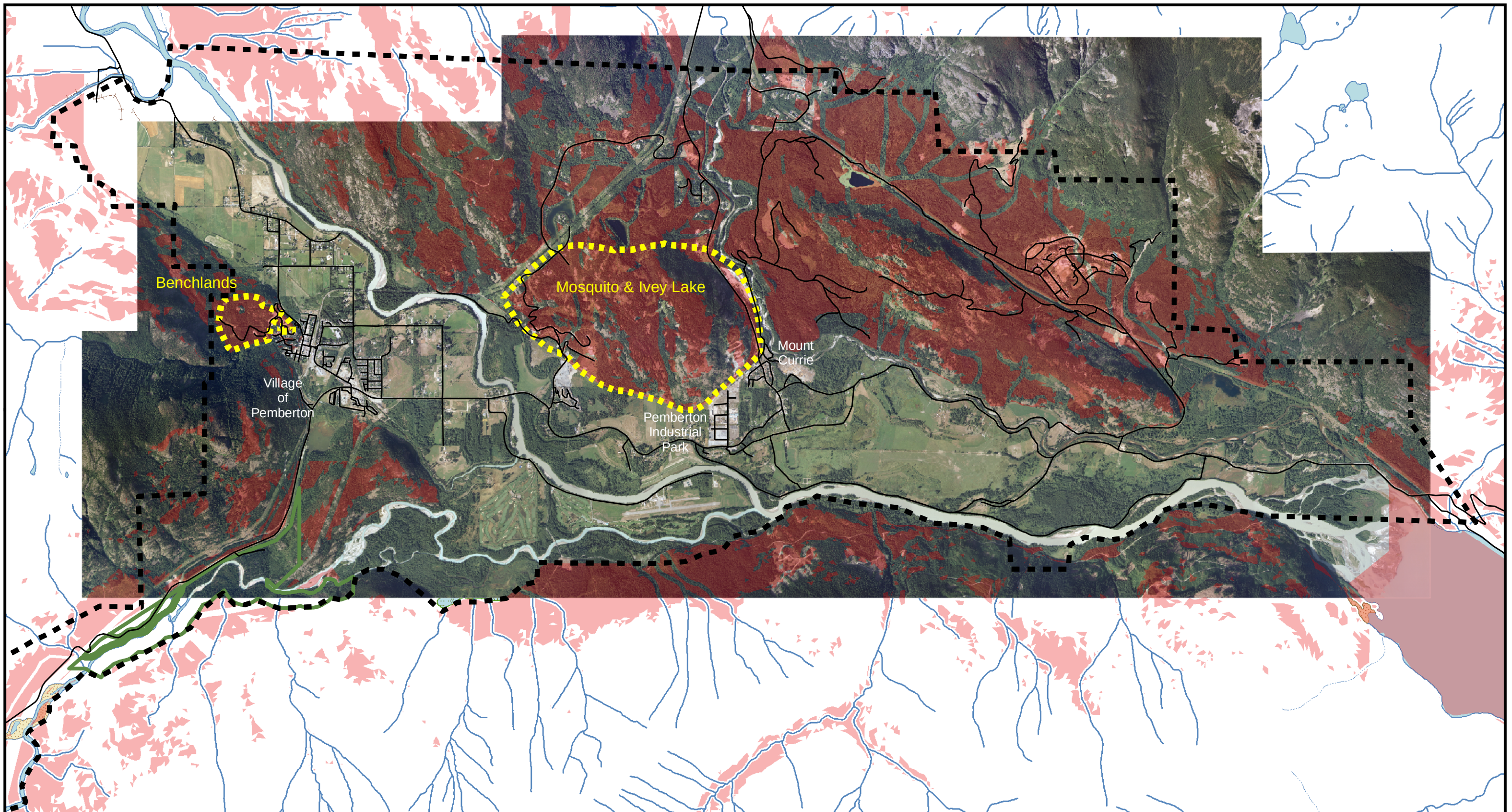
Overall Constraints

Legend

- Study Area
- Village of Pemberton
- Mount Currie Indian Reserve
- BC Provincial Park
- ICI Parcel
- Unconstrained Areas for Development

- Road
- Index Contour (100m)
- Lake/River
- Mudflat/Sandbar
- Wetland

Map 4



Subregional Planning Study Growth Scenario

Map produced April 23, 2007. Lil'wat Nation Land & Resources Department.

Legend

- Study Focus Area
- Potential New Growth Area
- Unconstrained Areas
- BC Provincial Park
- Road

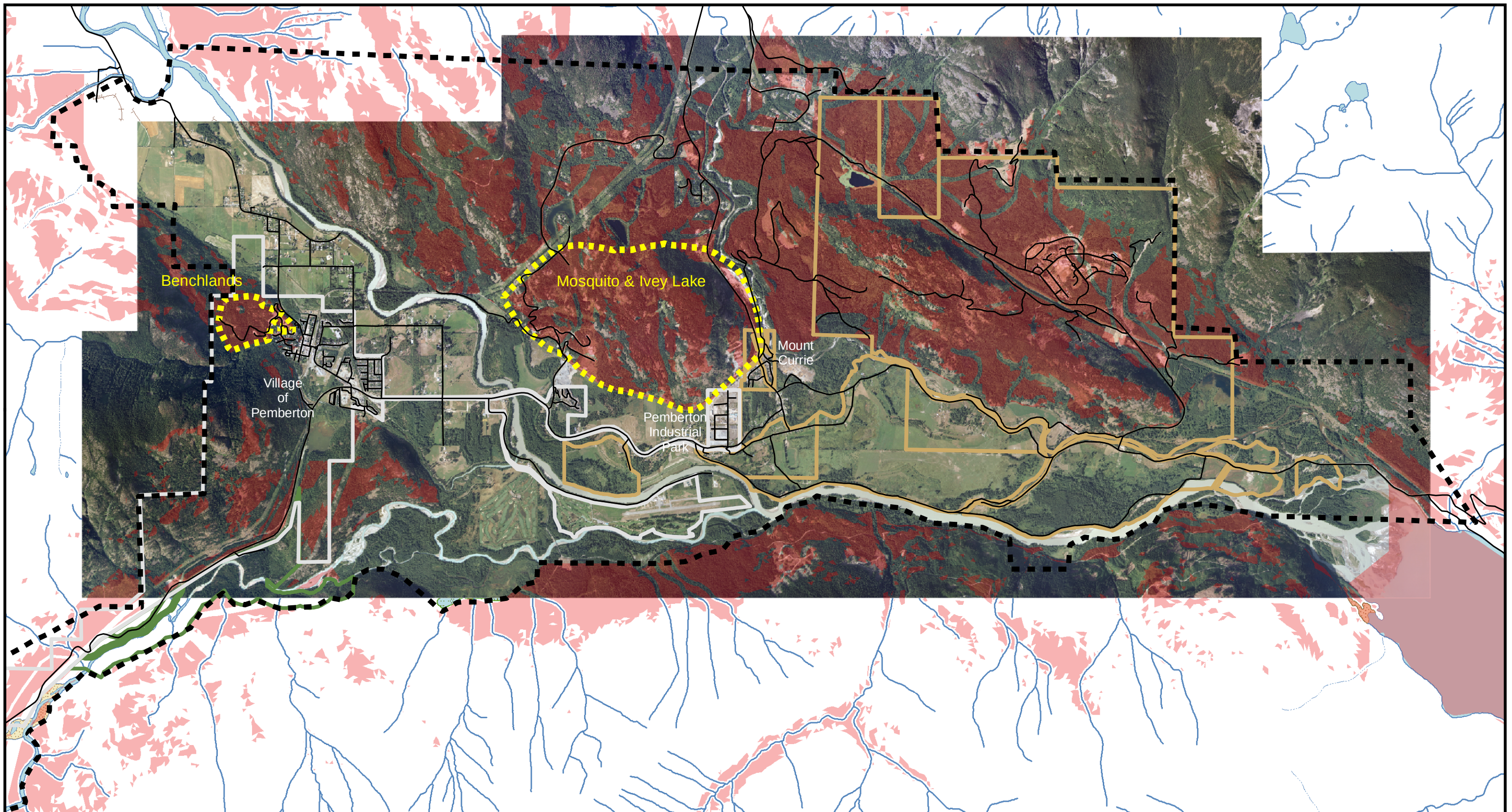
Orthophotography taken August 2006.
50cm resolution.

Constraints to development include:
Land designated as Park, Recreation or Reserve
Railway Right of Ways
Hydro Right of Ways
Agricultural Land Reserve
Community Watersheds
Riparian Assessment Areas
Areas with High Geotechnical Hazard
Flood Plain
Improved Land (Value/Ha > \$50,000)
Slopes over 40%
Elevation above 1200m



0 0.5 1 2
Kilometers

Map 5



Subregional Planning Study

Growth Scenario in Context

Map produced April 23, 2007. Lil'wat Nation Land & Resources Department.

Legend

- Study Focus Area
- Potential New Growth Area
- Unconstrained Areas
- Village of Pemberton
- Mount Currie Indian Reserve

- BC Provincial Park
- Road

*Private lands could be derived from the ICI Cadastre however boundaries are not confirmed and the accuracy of information is unknown therefore they are not included on this map.
 **Orthophotography taken August 2006. 50cm resolution.

Constraints to development include:
 Land designated as Park, Recreation or Reserve
 Railway Right of Ways
 Hydro Right of Ways
 Agricultural Land Reserve
 Community Watersheds
 Riparian Assessment Areas
 Areas with High Geotechnical Hazard
 Flood Plain
 Improved Land (Value/Ha > \$50,000)
 Slopes over 40%
 Elevation above 1200m



0 0.5 1 2
 Kilometers

Map 6