



Squamish Valley Agricultural Plan Background Report: Biophysical, Agricultural, & Policy Context

October 2019



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Acronyms

AGRI	BC Ministry of Agriculture
ALC	Agricultural Land Commission
ALR	Agricultural Land Reserve
ALUI	Agricultural Land Use Inventory
AWDM	Agricultural Water Demand Model
BCA	BC Assessment
CD	Census Division
CCS	Census Consolidated Subdivision
CWPP	Community Wildfire Protection Plan
C & E	Compliance and Enforcement
DPA	Development Permit Area
DoS	District of Squamish
FPPA	Farm Practices Protection (Right to Farm) Act
LGA	Local Government Act
OCP	Official Community Plan
RGS	Regional Growth Strategies
SLRD	Squamish Lillooet Regional District
SVAP	Squamish Valley Agricultural Plan
USV	Upper Squamish Valley

1.0 Introduction

The Squamish Valley Agricultural Plan (SVAP) was initiated in December 2018 and will provide a framework for decision-making over the next 10 to 20 years to help Squamish shift towards self-reliance for food production that everyone in the community can access and a greater sense of community and food security.

This *Background Report* provides an overview of the biophysical features of the agricultural sector, including soils, water, and climate and a profile of the agricultural sector.

2.0 Area and Population Context

The SVAP project scope area includes Agricultural Land Reserve (ALR) lands within the District of Squamish and the Squamish-Lillooet Regional District (SLRD) Electoral Area D. The majority of these ALR lands are within the floodplains of the Squamish River and smaller amounts of ALR exist in the floodplains of the Cheakamus River (Figure 1) and within the District of Squamish boundary.

The Squamish Valley lies within traditional territory claimed by the Skwxwú7mesh Úxwumixw (Squamish First Nation), as well as within traditional territory claimed by the Tsleil-Waututh Nation¹. SLRD Electoral Area D is home to a population of 1,057, which is significantly smaller than the District of Squamish's population of 19,953 and includes 418 people residing on Squamish First Nation reserve lands². Together the District of Squamish and SLRD Electoral Area D encompass an area of 3,047 km².

There are 4,066 hectares of land in the Squamish Valley that fall within the ALR, and approximately 1,986 hectares (49%) of these lands are within legally surveyed parcels and are subject to local and/or regional planning decisions³. There are 1,296 ha of ALR zoned lands on Squamish First Nation reserves (Table 1).

Table 1. Proportions of ALR lands in each jurisdiction relevant to this Agricultural Plan.

	Agricultural Land Reserve		Total ALR Area (ha)
	District of Squamish ALR (ha)	SLRD Electoral Area D ALR (ha)	
Private & Crown ALR	499	1,487	1,986
First Nation Reserve ALR	163	1,133	1,296

¹ [Official Community Plan Bylaw](#), 2017, No. 2500.

² [Agricultural Land Use Inventory](#). 2017. District of Squamish & Squamish-Lillooet Regional District Electoral Area D. British Columbia Ministry of Agriculture.

³ 19% or 784 ha is outside of legally surveyed parcels and was not included in the ALUI

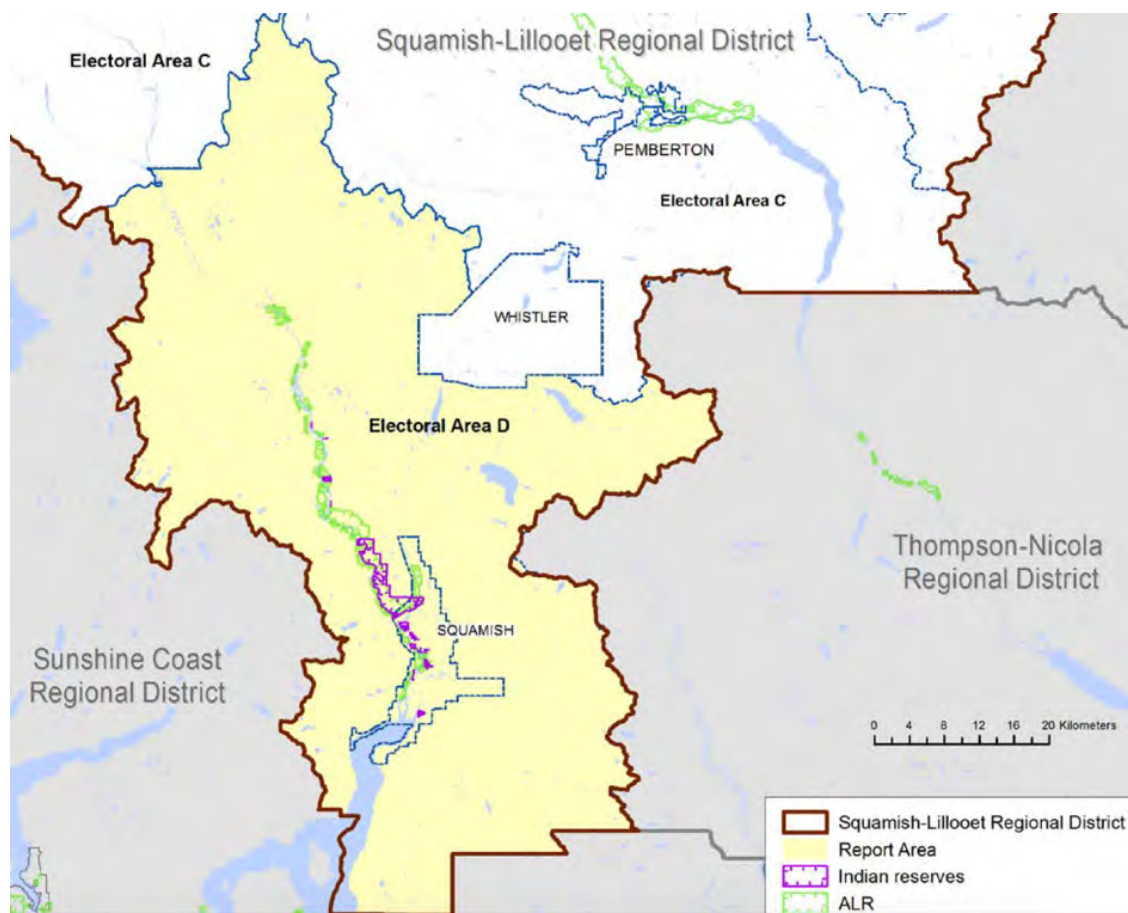


Figure 1. Agricultural Land Reserve lands and the jurisdictions in which they are located (Source: ALUI, 2017).

2.1 Squamish First Nation and Agricultural Land

Within the District of Squamish and the SLRD Electoral Area D, Squamish First Nation (SFN) reserve lands include:

- Ch'iyákmesh (Cheakamus) IR 11,
- Poquiosin & Skamain IR 13,
- Wíwk'em (Waiwakum) IR 14,
- Íkwikws (Aikweks) IR 15,
- Siyí7ch'em (Seaichem) IR 16,
- Kewtín (Kowtain) IR 17,
- Yekw'ápsem (Yeakwapsem) IR 18,
- St'á7mes (Stawamus) IR 24,
- Skowishin IR 7 and
- Skowishin Graveyard IR 10⁴.

⁴ [Official Community Plan Bylaw](#), 2017, No. 2500.

There are 418 members living on-reserve throughout the reserves in the Squamish Valley⁵. Cheakamus reserve has the most ALR on the Nation's lands in the Squamish Valley.

2.2 District of Squamish and Agricultural Land

The District of Squamish is a growing, active and multi-cultural community made up of established neighbourhoods and outlying rural areas spanning almost 15 kilometres south to north. The majority of community gathering places are located within the local floodplains, including the historic town centre of Downtown Squamish⁶. The ALR in the District of Squamish is located primarily along the west bank of the Squamish River in the community of Paradise Valley (see map in Appendix). The majority of the ALR land in the District is in a natural or semi-natural state and located in the floodplain of the Squamish River. The District's 2018 Official Community Plan includes agriculture and food system policies that highlights the desire of the community to support local agriculture and foster a sustainable food system in Squamish.

2.3 Squamish Lillooet Regional District Electoral Area D and Agricultural Land

SLRD Electoral Area D is a large area that encompasses numerous glacial fed rivers, creeks and lakes, coastal waters, flood-plains, steep mountainous terrain, and fertile soil in the flat valley bottoms. In this region there are small pockets of communities and settlement areas, with no one major population centre. The Upper Squamish Valley is home to approximately 167 residents with rural farming and recreational properties⁷ (See Map of SLRD Area D in Appendix 4). There is one main road, the Squamish Valley Road, linking residents in the Upper Squamish Valley with the major population centre of the District of Squamish (approximately 30km south) and the main Highway (Hwy 99) into the Lower Mainland. The majority of the area is located in the active floodplain of the Squamish River, and the one road is prone to flooding⁸. There is no cell service in the valley but landline phones and recent, reliable wireless internet provide the means of communication for residents⁹. Local and regional policies for the SLRD Electoral Area D promote the preservation of agricultural land and support increasing agricultural production and activities in the region.

3.0 Agriculture in the Squamish Valley

3.1 History of Foraging, Fishing, and Agriculture

Squamish First Nation has used and occupied lands within the Squamish valley for fishing, hunting, and plant and herb cultivation and harvesting since time immemorial¹⁰. Squamish place names exist throughout the area and in many instances, many of which describe that place within the context of

⁵ [Our Mandate, Our Service, Our People, Our Connections](#). 2018. Squamish Nations, Intergovernmental Relations, Natural Resource and Revenue.

⁶ [Official Community Plan Bylaw](#), 2017, No. 2500.

⁷ [Community Emergency Plan - Upper Squamish Valley](#). 2017. Squamish Lillooet Regional District

⁸ [Community Emergency Plan - Upper Squamish Valley](#). 2017. Squamish Lillooet Regional District

⁹ [Ashlu Creek Foundation](#). N.d. Upper Squamish Valley Website.

¹⁰ [Our Land](#). Squamish Nation. Accessed March 2019.

Squamish land. Squamish Nation cultural and archaeological sites of significance are located throughout the watersheds in the Squamish Valley¹¹.

The first of the European settlers arrived in the Squamish Valley area in the 1870s. Early settlers trapped game for fur to sell for food, as well as hunted and fished in the area to sustain themselves^{12 13} (Figure 2). As the land was cleared, agriculture became a key driver of the local economy at that time, with hops, potatoes, forage, livestock and vegetables being produced¹⁴. Hop farming began in the 1890s with the major producer being the Squamish Valley Hop Raising Co. (Bell-Irving Ranch). The hops in Squamish were top grade and were shipped to Vancouver in bales wrapped in burlap, then shipped to Britain¹⁵. Other farming activities included hay farms in the area around the Squamish River estuary to feed the horses and other livestock and a twenty-acre potato farm near the site of what is now Garibaldi Estates¹⁶.



Figure 2. The Squamish Valley Hop Raising Co. early 1900s and a fisherman in mid 1900s (Source: Squamish History Archives Website).

3.2 Squamish Valley Agricultural Profile

This section describes the current farming operations in the Squamish Valley and trends in agricultural activities over time.

The agricultural profile explores the following questions:

- How many farms are in the Squamish Valley?
- How big are the farms in the Squamish Valley?
- What is growing in the Squamish Valley?
- How profitable are Squamish Valley farms?

¹¹ [Integrated Flood Hazard Management Plan](#). 2017. Kerr Wood Leidal Associates LTD.

¹² [A Centennial Commentary Upon the Early Days of Squamish, British Columbia](#). 1958. Government of BC.

¹³ [I remember by Ta Kaya](#). Squamish Library Archives.

¹⁴ [Agricultural Land Use Inventory](#). 2017. District of Squamish & Squamish-Lillooet Regional District Electoral Area D. British Columbia Ministry of Agriculture.

¹⁵ [Squamish History Archives](#). Squamish Public Library. Accessed March 2019.

¹⁶ [History of Squamish by Kevin McLane](#). 2006. Squamish Historical Society Website.

- Who is farming in the Squamish Valley?
- How is farmland tenure allocated in the Squamish Valley?

This profile was compiled using existing reports and data sets. The main sources of data regarding agricultural activities were the 2017 Squamish Valley Agriculture Land Use Inventory, the Census of Agriculture (2011 and 2016), and BC Assessment data. There are some clear differences in the way that these data sets are compiled, which can lead to discrepancies when some indicators are compared. Whenever possible, these differences are explained.

3.2.1 Agricultural Profile Data Sources

Agricultural Land Use Inventory

In the summer of 2017, an Agricultural Land Use Inventory (ALUI) was completed by the BC Ministry of Agriculture to take stock of the agricultural activities in the District of Squamish and the SLRD Area D. The ALUI provides a snapshot of agricultural activities occurring on the land base and is helpful in understanding the type and extent of land-based agricultural activities within the ALR and parcels zoned for agriculture in a given area.

Data obtained through an ALUI include:

- How much land is currently used for agriculture;
- Types of agricultural activities occurring on the land;
- How much land is alienated from agriculture (due to topography, flooding, parcel size, existing land cover or land use, etc.);
- How much land may have potential for agricultural expansion; and
- An estimation of water demand with the use of an irrigation water demand model.

It is important to note that the data collected during the ALUI includes information about activities on farmland that may or may not contribute to commercial farming operations. The ALUI is conducted through two primary methods: drive-by observations and visual interpretation of aerial imagery. This results in an inventory that utilizes a parcel coverage approach to determine land use. This means that if five acres of apple trees are noted on the parcel, this is counted as agricultural use. However, this methodology does not account for the fact that the apples may not be sold or brought into the local food system. By contrast, the Census of Agriculture includes data on farms that are self-reported by individuals, specifically those from commercial operations. This is one example of how the data sets can lead to discrepancies in results.

Census of Agriculture

The Census of Agriculture collects information from self-reporting individuals every five years as part of the larger Statistics Canada census collection and the completion is mandatory under the Statistics Act. The Census of Agriculture is a federal data collection initiative, and as such the geographic resolution is

The latest available Census of Agriculture uses 2011 and 2016 data from Statistics Canada for Census Division (CD) 2 – Lower Mainland-Southwest¹⁷. The boundaries for Census Division 2 cover the whole SLRD and include Census Consolidated Subdivision (CCS) 17, representing SLRD Electoral Areas “C” and “D” for the 2016 Census (Figure 3). This differs from the 2011 Census, when SLRD Electoral Area “D” (Squamish Valley) was measured separately from Electoral Area “C” (Pemberton Valley). However, due to low overall numbers and the need to protect privacy, the two Electoral Areas were combined for 2016. This makes comparisons between the five-year period challenging but can provide some insight into indicators not covered by the ALUI, such as farm income and farm capital figures, as well as demographics related to farmers.

British Columbia
2016 Census Divisions and
Census Consolidated Subdivisions

Legend

- Census agricultural region
- Census division
- Census consolidated subdivision
- Population centre

0 750 1,500
Km

Lambert Conformal Conic Projection
Standard parallels: 50° 13' 03" N and 58° 02' 37" N
Central meridian: 120° 31' 36" W
Latitude of origin: 54° 07' 50" N

Map 2B

¹⁸ Statistics Canada. 2011. Frequently Asked Questions

BC Assessment Farm Class Data

The *Assessment Act* is administered by BC Assessment, a provincial Crown Corporation responsible for the classification of properties in for property assessment and tax purposes. Farm classification (Class 9) is a voluntary program providing the benefit of a lowered tax rate for assessed properties. BC Assessment data for the tax roll year of 2015 (the most recent year available) was used for this report.

Even though property may be zoned as agricultural land, or located in the provincial ALR, farm classification will only be granted if the land (or at least a portion of it) is being actively used for agricultural production and it meets the other requirements of the Act. Only land can be classified as farmland, whereas buildings (residences and outbuildings) are classified separately, typically as residential. Farm status properties may or may not be located within the ALR and are valuable for noting the distribution of farmed land in both the urban and rural areas.

Land qualifies for farm classification under the following conditions:

- The land is used for “primary agricultural production”;
- The land is the site of “a farmer’s dwelling”;
- The land is used for training and boarding horses in a horse rearing operation;
- The land otherwise contributes to primary agricultural production such as land used for drainage, irrigation, buffers and windbreaks.

A certain minimum amount of gross income must be produced from the primary agricultural production, and these requirements vary depending on the total land area. Minimum gross income requirements are calculated as follows:

- a) \$10,000 on land less than 0.8 ha (2 acres);
- b) \$2,500 on land between 0.8 ha (2 acres) and 4 ha (10 acres); and
- c) On land larger than 4 ha (10 acres), you must earn \$2,500 plus 5% of the actual value of any farm land in excess of 4 ha.

The higher income ratio threshold is applied to the smallest parcels of land in order to discourage the subdivision of farmland into small lots that would benefit primarily landowners wishing to experience a rural lifestyle while contributing in a very minimal way to agriculture.

3.2.2 Squamish Valley Farm Numbers and Size

Food is also attained by methods other than cultivation within the Squamish Valley region. Recreational fishing in Howe Sound, the Squamish River and its tributaries and various lakes in the region is popular among residents and tourists. Four species of Pacific Salmon, Bull Trout, Cutthroat Trout and Rainbow Trout all occur in the waters of the region, and some lakes are stocked with fish¹⁹. Controlled hunting of animals such as deer, elk and, ducks, geese and grouse also occur in the area²⁰. Some amounts of foraging for mushrooms and native plants may also occur in the forests of the region. It is difficult to quantify the amount of food obtained through fishing, hunting and foraging, however, these activities should be considered to some extent as contributing to overall food security and will be touched upon in the SVAP.

¹⁹ [Fishing](#), Explore Squamish Website.

²⁰ [Hunting and Trapping Regulations, Lower Mainland Region2](#), 2018-2020. Government of BC.

Number and Size of Farms

According to the Census of Agriculture, there were 94 farms in SLRD Areas “C” and “D” in 2016. This includes farms located both within and outside the ALR.

The ALUI for Squamish Valley indicated that there were 11 parcels of land within the ALR with farming occurring in Electoral Area D, or only 7% of ALR parcels. The ALUI identified an additional 11 ha of land outside the ALR being used for agriculture, the majority of which was being used to cultivate hay. Horses and poultry-related activities were also found to be occurring outside the ALR.

BC Assessment roll data includes listings for District of Squamish and “Rural Squamish” (including SLRD Electoral Area D), both within and outside the ALR. This data set indicated 77 properties with Farm class status in 2015.

According to the ALUI, the average ALR parcel is 11.2 ha and the median parcel size is 2.7 ha. At least 65% of the parcels of ALR in the Squamish Valley are 4 ha (10 acres) or less in size (and 40% of those are less than 1 ha (2.5 acres)). Only 20% of the ALR includes parcels greater than or equal to 16 ha (40 acres). This indicates that there is a range of parcels available for farming in the area.

The BC Assessment *Farm Income Summary* data for the rural Squamish area (including SLRD Electoral Area D), 73% of the properties with Farm Class tax status are 4 ha or greater in size. Only 27% of parcels with farm tax status are less than 4 ha. This points to the fact that, over time, the majority of smaller lots do not retain agricultural status.

Agricultural Production on Squamish Valley Farms

According to the Census of Agriculture, horses, hay, beef cattle, and greenhouse production are the most common forms of agriculture in the region. This aligns well with ALUI data, which identifies forage (including hay) and pasture as the most common use of ALR (87%) in the Squamish Valley. Other significant crop types identified by the ALUI include small amounts of hops, vegetables, fruit trees, mixed berries and tomatoes (Figure 4). The number of hectares of irrigated land denoted during the ALUI was 13 ha, about half of which is in forage and being irrigated by sprinklers. There were 3 ha of hops being irrigated by trickle (drip) irrigation.

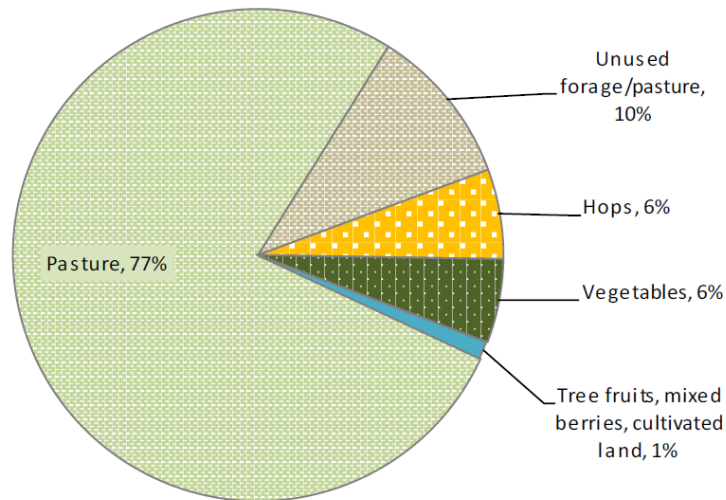


Figure 4. Crop types within the ALR farmed land. Similar proportions of crop types are found in land outside the ALR that is farmed.

Livestock identified by the ALUI included small-scale equine (approximately 260 horses on over 100 parcels), sheep on 41 parcels, hogs on 26 parcels, and poultry on 16 parcels. Beef cattle were found on 13 parcels, with a total of approximately 30 cattle. All livestock production was described as small scale or very small scale (less than 25 animal units per parcel).

Farm Profitability in the SLRD

Squamish Valley producers must offset income with costs for land, labour, chemical and fertilizer inputs and fuel. Many farmers work off-farm either seasonally, or year-round, in order to provide additional investment into equipment and other farm inputs (seeds, feed, soil amendments, etc.) to enhance production levels and grow their farms. The situation in the Squamish Valley is no different. Most farmers struggle with the decision-making around scaling-up their production, particularly those who are first generation farmers.

Farm profitability is difficult to measure or to estimate. The following proxies can be used to determine profitability:

- Farm capital and assets
- Gross margin of farm operations
- Average farm receipts per farm
- Average farm receipts per hectare
- Net revenue margin
- Adjustments for inflation
- Farm income threshold values

Most of these indicators are measured through the Census of Agriculture. However, the figures are only available for Electoral Areas C and D together, which means that it is not possible to decipher figures

specific to the Squamish Valley. These figures are presented here nonetheless, in order to get a general sense of capital and assets.

Farm Capital and Assets in the SLRD

Total farm capital in SLRD Electoral Areas C and D has increased from \$161.1 million in 2011 to \$196.3 million in 2016 (Table 2). Note that the number of farms reporting shifts somewhat, depending on the nature of the farm's activities. For instance, not all farms are raising livestock and poultry, but all own machinery and equipment. Total farm capital includes land and buildings, livestock and poultry, farm machinery, and farm equipment.

Land and buildings represent over 63% of the total capital value, down slightly from 65% in 2011, indicating that land prices, while high to begin with, have not increased substantially during that time frame.

Table 2. Farm Capital (in \$ millions) of Squamish-Lillooet Area farms (Source: Census of Agriculture 2011-2016).

	SLRD Total Area		SLRD Electoral Areas C and D	
	2011	2016	2011	2016
Total farm capital*	\$276.4 (140 farms)	\$240.6 (138 farms)	\$161.1 (92 farms)	\$196.3 (94 farms)
Land and buildings (owned)	\$173.4 (129 farms)	\$154.6 (133 farms)	\$104.3 (84 farms)	\$123.1 (90 farms)
Farm machinery & equipment	\$14.9 (140 farms)	\$13.0 (138 farms)	\$8.9 (92 farms)	\$8.9 (94 farms)
Livestock and poultry	\$3.5 (101 farms)	\$4.9 (107 farms)	\$1.4 (64 farms)	\$2.3 (73 farms)

**Figures reported are in millions \$*

Figure 5 indicates the value of farmland and change in this value on a sub regional basis for British Columbia, using data from Farm Credit Canada. The Squamish Valley is included in the South Coast region, which also includes communities such as Richmond, Delta, and Abbotsford. In 2017-2018, the value of farmland in the South Coast ranged from \$42,000 to \$162,000 per acre. A 2016 study by Vancity indicated that farmland prices within Metro Vancouver were particularly high for small parcels, ranging from \$150,000 to \$350,000 for parcels < 5 acres, and from \$50,000 to \$80,000 per acre for parcels > 40 acres. This speaks to the fact that as farmland parcels are subdivided and become smaller, they also become less affordable. According to Farm Credit Canada, the financial viability of many farm businesses in B.C. becomes challenging when land prices reach \$80,000 per acre. Recent policies and zoning regulations at both the provincial and local levels may help to temper the land speculation associated with investment in agricultural land by non-farmers. It would be interesting to track some of these indicators over time to see what effect these policies have on the price of farmland.

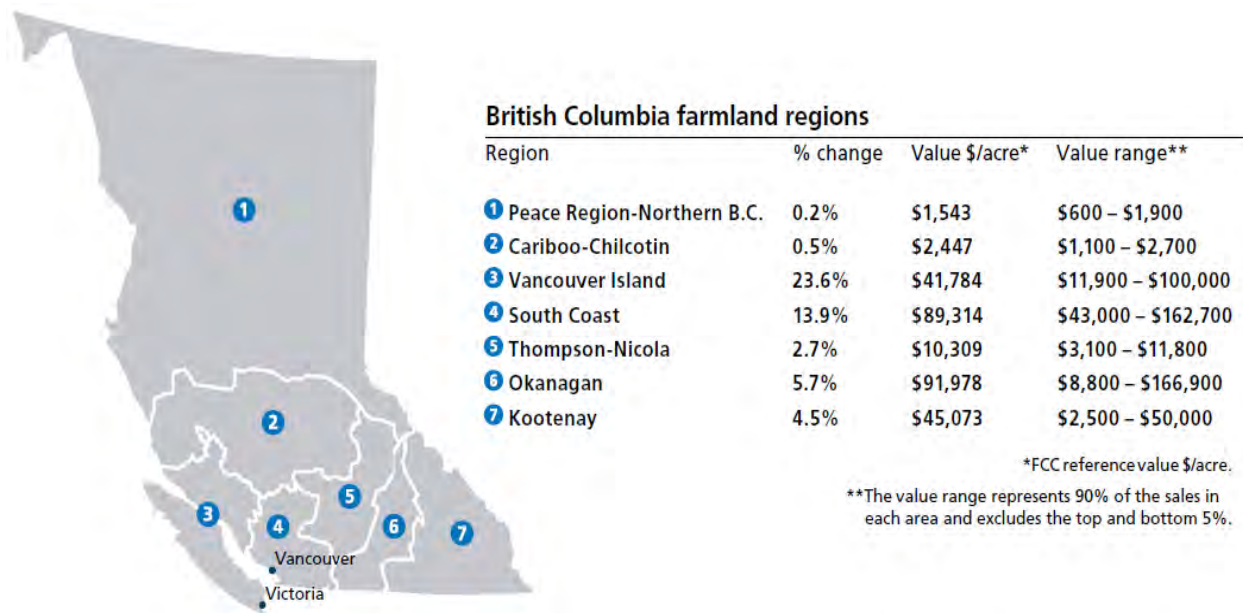


Figure 5. Farmland value changes from 2017 to 2018 (%), value per acre (\$), and value range (\$) (Source: Farm Credit Canada).

Gross Margin of Farm Operations in the SLRD

From 2011 to 2016 the gross margin of farm operations in the SLRD Electoral Areas C and D rose to 22.7%, meaning that for every \$1.00 of sales, the farmer earned \$0.22 of profit (Table 3).

Table 3. Gross margin of farm operations in the SLRD Electoral Areas C and D (Source: Census of Agriculture, 2011 – 2016).

Year	Gross Farm Receipts (\$)	Total Operating Expenses (\$)	Gross Margin
2011	5,852,884	4,825,499	17.6%
2016	7,510,088	5,803,571	22.7%

Farm Receipts and Net Revenue in the SLRD

Sales (receipts) and net revenue can be calculated on a per farm and per hectare basis using Census of Agriculture data. The average revenue per farm and per hectare has increased, indicating an overall increase in farm business success in the SLRD (Table 4).

Table 4. Revenue per hectare of farmland in the SLRD Electoral Areas C and D (Source: Census of Agriculture, 2011 – 2016).

Year	# of Farms	Gross Farm Receipts (\$)	Average per Farm (\$)	Total Land in Crops (Hectares)	Average per Hectare of Land in Crops (\$)
2011	92	5,852,884	\$63,618	1,990	\$2,941
2016	94	7,510,088	\$79,895	1,509	\$4,977

Gross Farm Receipts by Category in the SLRD

When examined by category, there were only 10 operations with more than \$250,000 in gross farm receipts in 2016 while a full 50% reported earning less than \$10,000 in gross farm receipts (Table 5).

Table 5. Gross farm receipts by category in the SLRD Electoral Areas C and D (Source: Census of Agriculture, 2011-2016).

Total Gross Farm Receipts	2011 # of farms (92 total)	2016 # of farms (94 total)
Under \$10,000	50	47
\$10,000-\$24,999	14	12
\$25,000-\$49,999	4	10
\$50,000-\$99,999	5	6
\$100,000-\$249,999	9	9
\$250,000-\$499,999	9	6
\$500,000 - \$999,999	1	4
\$1,000,000 - \$1,999,999	0	0
\$2,000,000 and over	0	0

Farm Demographics in the SLRD

There were 140 farm operators reported for the SLRD Electoral Areas C and D in 2016. The large number of farmers over 55 years of age and the increase in average age of farmers since 2011 indicate that few young people are pursuing farming as a career in the region (Table 6).

Table 6. Farmer demographics in the SLRD Electoral Areas C and D (Source: Census of Agriculture 2011-2016).

	2011	2016
Total Number of operators	140	140
Under 35 years	15	10
35 to 54 years	70	65
55 years and over	60	70
Average Age (years)	52.6	53.9

Farmland Tenure in the SLRD

Land tenure can be an indication of farm stability. Those owning land are more stable than those who lease their land with regard to investments in infrastructure. However, a stable lease arrangement over a long period of time can also provide farm stability. In the SLRD Electoral Areas C and D, approximately 68% of the land was owned in 2016, while 32% of the land was either leased (from government or private landowners) (Table 7).

Table 7. Land tenure in the SLRD Electoral Areas C and D (Source: Census of Agriculture 2011-2016).

Agricultural Land	2011	2016
Area owned (%)	63%	68%
Area leased or rented (%)	37%	32%

3.3 Future Agricultural Potential in the Squamish Valley

There are many angles from which to assess the potential for future agriculture production within the Squamish Valley. Identifying opportunities for agricultural activities starts by knowing the availability of land with the potential for agriculture and the characteristics of that land.

The ALUI identified that 93% (1,851 ha) of the private and crown ALR in the Squamish Valley is covered by natural or semi-natural vegetation. Five hundred and fifty-one hectares of privately-owned parcels in the ALR were classified as “available for farming”. This highlights the opportunity for potential expansion of agricultural activities.

Another important consideration for agriculture potential in the Squamish Valley is to identify parcel size of agriculture land. Larger parcels usually allow farmers greater flexibility to expand or change their type of operation as the economy and markets change. Larger parcels accommodate equipment more efficiently and reduce the need to move farm equipment on public roads. Some types of agriculture can be successful on small parcels, (e.g. intensive market gardens, nurseries, poultry), however, the number of viable farming options generally decreases with a reduced parcel size. Small parcels may also be suitable for start-up farmers and established farmers wanting to expand through leases²¹. Smaller parcels generally cost more per hectare than larger parcels and can easily be disassembled from larger farm units and sold. Furthermore, smaller parcels are more impacted by bylaws designed to reduce potential land use conflicts, such as setbacks from lot lines and road allowances.

Privately owned parcels in the Squamish Valley ALR present the greatest potential for expanding agricultural activities. There are 58 land parcels in the ALR that are privately owned and have the potential for agricultural activities²². Figure 6 illustrates the existing land uses in the ALR on the privately-owned parcels. Parcels that have no apparent land use may provide the simplest opportunities to increase agricultural use as these parcels generally have little to no development. Most of these parcels available for farming are currently in a natural or semi-natural vegetative state with trees that would need clearing if agriculture requiring cultivation were to occur. More information on the biophysical capability of the land in the Squamish Valley for agriculture is discussed in Section 4.

²¹ [Agricultural Land Use Inventory](#). 2017. District of Squamish & Squamish-Lillooet Regional District Electoral Area D. British Columbia Ministry of Agriculture

²² These parcels have no apparent land use or have an existing land use that is considered compatible with agriculture.

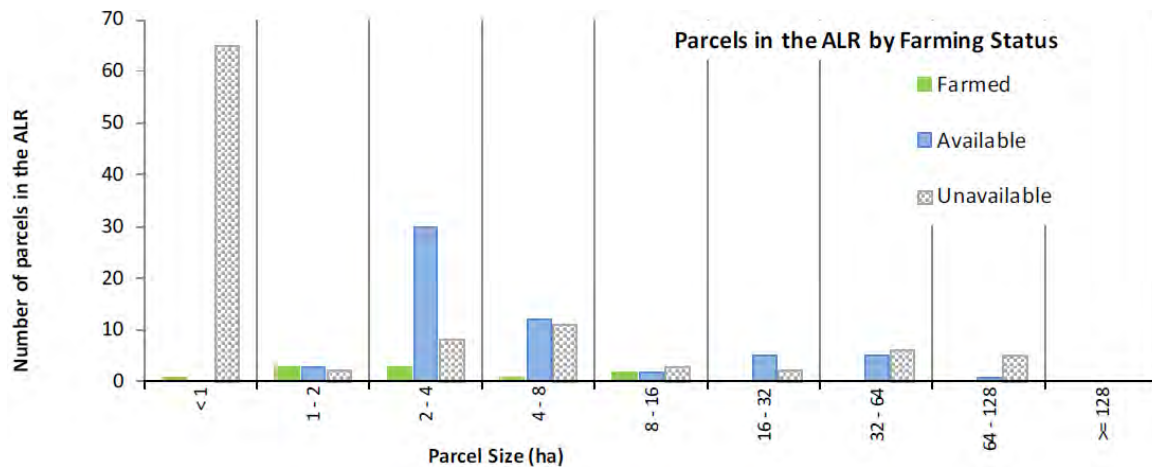


Figure 6. Number and size of parcels available for farming in the ALR.

The parcels identified in the ALUI as available for farming may be providing ecological goods and services such as soil stabilization, water purification, or wildlife habitat. The parcels may also have an unrecorded physical limitation (rocky soils, poor drainage, etc.) that limits some types of agriculture. If these parcels are to be converted to agriculture, more investigation should take place to confirm suitability and trade-off associated with conversion²³.

4.0 Biophysical and Environmental Context

4.1 Weather and Climate

The climate of the Squamish area is typical of southern coastal British Columbia. A strong maritime influence results in relatively cool, dry summers and moist, mild winters with very little snowfall at low elevations, but more snow further into the Squamish Valley. Strong outflow winds often affect the area as extensive snow and ice in mountainous areas above Squamish can quickly cool passing air masses, which then moves downhill under the influence of gravity²⁴.

For the Upper Squamish Valley, the average temperature ranges from 0°C in December and January up to 18°C in July and August. Monthly average precipitation ranges from 300-400mm October through January, dropping to 55-100mm in May through September²⁵.

Other climatic characteristics based on climate normals data from 1981-2010 from weather stations in the in the Upper Squamish Valley and the town of Squamish include²⁶:

²³ [Agricultural Land Use Inventory](#). 2017. District of Squamish & Squamish-Lillooet Regional District Electoral Area D. British Columbia Ministry of Agriculture

²⁴ [Brackendale Eagles Provincial Park – Background Document](#). 1999. Chris Armstrong, Victor Keong, David Vockeroth. BCIT

²⁵ [Historical Weather Data](#). Upper Squamish Valley. Environment Canada. Accessed March 2019.

²⁶ [Historical Weather Data, Downtown Squamish](#). Environment Canada. Accessed March 2019.

Table 8. Weather characteristics in Squamish (Environment Canada, 2018).

	Upper Squamish Valley	Downtown Squamish
Station Elevation (m)	46	3.9
Longitude	123°17'W	123°09' W
Latitude	49°53'N	49° 42' N
Days per year with minimum temperatures <= than 0°C	100.2	66
Days per year with maximum temperatures > than 20°C	109.9	93.1
Days per year with maximum temperatures > than 0°C	353.1	360.3
Days per year of rain	181.4	172.5
Days per year of snow	24.6	13.3
Degree days ²⁷ greater than 10°C	932.4	961.7
Degree days greater than 5°C	1968.1	2113.4
Frost Free days	168	199

Growing Degree Days

Growing degree days (GDD) are a weather-based indicator for assessing crop development. It is a measure of heat accumulation used to predict plant and pest development rates such as the date that a crop reaches maturity. Daily GDD values are added together from the beginning of the season, providing an indication of the energy available for plant growth. Growing degrees (GDs) are defined as the mean daily temperature (average of daily maximum and minimum temperatures) above a certain threshold base temperature accumulated on a daily basis over a period of time. GDD units can be used to assess the suitability of a region for production of a particular crop; estimate the growth-stages of crops, weeds or the life stages of insects; predict maturity and cutting dates of forage crops; estimate the heat stress on crops; plan spacing of planting dates to produce separate harvest dates. The following GDDs are calculated for the Upper Squamish Valley using a base temperature of 10°C²⁸.

Table 9. Growing Degree Day Units for Upper Squamish Valley.

Upper Squamish Valley	
January	0
February	0.1
March	1.6
April	21.7
May	85.4
June	156.3
July	237.9
August	242.7
September	139.8
October	25.3
November	0.1
December	0
TOTAL	910.9

²⁷ Degree-days for a given day represent the number of degrees Celsius that the mean temperature is above or below a given base. Normals represent the average accumulation for a given month or year.

²⁸ http://climate.weather.gc.ca/climate_normals/results_e.html?stnID=342&dispBack=0&month1=0&month2=12

4.1.1 Climate Change Projections

Farmers are accustomed to the weather influencing their activities and weather-dependent decisions are a part of farming life. Adapting to climate change, however, involves a more systematic assessment and response. Agriculture is highly vulnerable to changes in climatic conditions and even small shifts could have significant consequences for farm viability and food production. Despite the challenges of applying broad climate models, some general projections are anticipated in BC between now and 2080. Modelling suggests that climate change in the Squamish Valley will bring about an increase in Growing Degree Days (GDDs), a decrease in spring snowfall, a decrease in summer rains, and an increase in frost-free days (Table 9).

Table 10. Climate Projections for the SLRD in the 2020s, 2050s, and 2080s (PCICS, 2012).

		2020 change from 1961-1990 baseline		2050 change from 1961-1990 baseline		2080 change from 1961-1990 baseline	
Characteristic	Season	Range	Median	Range	Median	Range	Median
Mean Temperature	Annual	+0.5°C to +1.4°C	+1.0°C	+1.1°C to +2.6°C	+1.7°C	+1.6°C to +4.2°C	+2.7°C
Precipitation	Annual	-0% to +7%	+4%	-1% to +11%	+6%	+3% to +16%	+8%
	Summer	-13% to +10%	-6%	-21% to +5%	-12%	-32% to -1%	-10%
	Winter	-2% to +8%	+3%	-4% to +14%	+6%	+2% to +24%	+10%
Snowfall	Winter	-20% to +0%	-6%	-25% to -2%	-15%	-43% to -6%	-20%
	Spring	-59% to -2%	-29%	-72% to -12%	-51%	-87% to -17%	-72%
Growing Degree Days	Annual	+61 to +221 degree days	+135 degree days	+159 to +423 degree days	+273 degree days	+252 to +745 degree days	+461 degree days
Frost-free days	Annual	+8 to +24 days	+15 days	+15 to +40 days	+27 days	+23 to +67 days	+42 days

Note: Growing degree days (GDDs) are a measure of heat accumulation to predict plant development rates. Pacific Climate Impacts Consortium (PCIC). www.plan2adapt.ca.

These changes in climate are likely to bring certain impacts to the Squamish Valley region. Impacts include: increased risk of forest fires, extreme precipitation events and changing river flows²⁹. Agricultural areas in the Squamish Valley are surrounded by forest, which could be threatened by increases in forest fires. Extreme precipitation events and changing river flows can increase flooding risk along the Squamish River, where the majority of agricultural land in the region is located.

Although there is general consensus regarding the impacts of climate change, how these might impact specific microclimates is uncertain - yet critical for agricultural producers concerned with the effects of climate change and precipitation within their specific locale. Warmer temperatures and longer growing seasons can lead to more productivity, and sometimes even the ability for new crops and species to become viable in an area. However, it is likely that increases in variability and extreme events (e.g., droughts, storms and heat waves) will overshadow the possible agricultural benefit of increasing temperatures and longer growing seasons. Warming temperatures also put stress on traditional food

²⁹ [Adapting to Climate Change in Squamish – Backgrounder Report](#), 2016. Dr. Ian M. Picketts and Benjamin Hamilton.

sources, such as salmon, leading to local plant and animal species no longer being suitable for the region. Potential impacts to agriculture in the Squamish Valley from these changing weather and climate conditions are described in Table 10.

Table 11. Potential impacts of climate change on agriculture (adapted from CAIBC, 2012).

Climate Change Condition	Potential Agricultural Impacts
Changing hydrological regime, decrease in summer precipitation	Decrease in productivity and quality of crops and livestock under water stress, increased costs, reduction in water supply (at times of high demand), increase in management complexity
Increasing precipitation and variability of precipitation (especially in winter)	Interruptions to planting, input applications and harvesting, increase in excessive moisture and site-specific flood risk, increase in pressure on drainage and water management, interruptions to pollination, decrease in light levels, increase in nutrient and input leaching, increase in management complexity
Changing crop suitability ranges	Inconsistent productivity, quality & therefore prices; increase in suitability for new varieties of forage and field vegetable crops, increase in suitability of new crops
Changes in pests and diseases	Increase in winter survival rates, increase in number of cycles in a year, introduction of new pests and diseases, increase in management costs, complexity, uncertainty, increase in delays or prevention of pollination
Increase in extreme weather events (storms, wind, extreme heat)	Decrease in productivity and quality, increase in building maintenance and damage costs, decrease in heating costs, increase in cooling and ventilation costs, interruptions to regional infrastructure and supply lines
Climate change impacts to other growing regions	Increase in feed or other input costs, increase in demand for food production/local food

4.2 Water Resources

The Squamish Valley is located within the Squamish River Basin, a watershed of approximately 3,800 km². The Squamish River Basin flows from and through the southern Coast Mountains, flows through the agricultural lands of the Upper Squamish Valley community and then passes by the community of Brackendale and the District of Squamish before reaching Howe Sound³⁰. The Echo River and Ashlu Creek flow into the Squamish River upstream of the Squamish Valley agricultural areas, while the Cheakamus River runs through the agricultural areas of the Paradise Valley community (Figure 7).

4.2.1 Irrigation and Livestock Water Demand

Water demand from agricultural activities (crops and livestock) in the Squamish Valley has recently been studied and compiled in the ALUI and through the BC Ministry of Agriculture's Agriculture Water Demand Model (AWDM). The availability of water delivery infrastructure and good quality water for irrigation are often requirements for growing high-value crops. The ALUI found that irrigation is not overly common in the region with only 24% (13 ha) of the cultivated land being irrigated. Only 15% (7 ha) of the pasture area

³⁰ [Integrated Flood Hazard Management Plan](#). 2017. Kerr Wood Leidal Associates LTD.

is irrigated while all hops and the majority of vegetable and fruit production use sprinkler or drip irrigation³¹. Since the AWDM can calculate future water demands based on climate change scenarios, it can help inform decisions on water use and land use planning³². The AWDM calculated a *potential future demand* for total irrigated acreage in the Squamish Valley of 252.9 ha, predominantly in pasture/grass (121.5 ha) and vegetables (130.8 ha)³³. Approximately 95% of the irrigated area would be supplied by surface water sources and 5% by groundwater. The total annual irrigation demand was calculated at 1.03 million m³ in 2003 and 0.56 million³ in 1997. Livestock water demand for the Squamish Valley region was estimated at 12,792 m³ annually based on calculations using census data and daily animal drinking water requirements. Horses account for 71% of livestock water demand followed by sheep at 8%, beef at 7% followed by swine, goats and poultry.

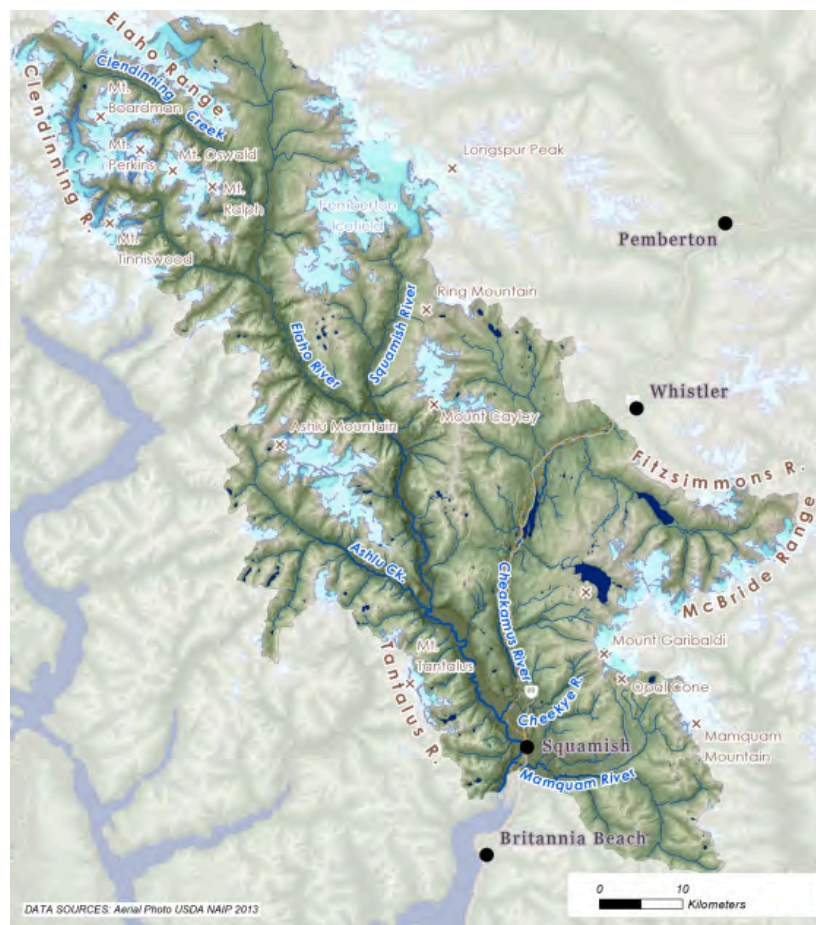


Figure 7. Squamish River Basin (Source: Northwest Hydraulic Consultants Ltd).

³¹ [Agricultural Land Use Inventory](#). 2017. District of Squamish & Squamish-Lillooet Regional District Electoral Area D. British Columbia Ministry of Agriculture

³² [Agriculture Water Demand Model – Irrigation Scheduling Factsheet](#). 2015. British Columbia Ministry of Agriculture.

³³ [Agriculture Water Demand Model: Region-specific Description: Squamish River Valley](#). March 2018. British Columbia Ministry of Agriculture.

4.3 Hazards and Emergency Planning

Agricultural land in the Squamish Valley is at risk from natural hazards such as flooding, debris flow, severe storms, forest fires and earthquakes. These hazards and actions to mitigate or adapt to the impacts should be considered for agricultural activities within the Squamish Valley. The Upper Squamish Valley community, where the majority of the agricultural land is found, is particularly at risk due to its more remote location, limited to no cell service, no firefighting services and one road to evacuate the area^{34,35}. As is the case with many isolated communities, these vulnerabilities are balanced with resiliency factors such as a strong sense of community, support for neighbors, and a culture of self-reliance.

4.3.1 Flooding

Flooding is the natural hazard with the highest risk to the communities in the Squamish River Basin³⁶. Much of the ALR land covered by this agricultural plan is located on the floodplain of the Squamish River and its tributaries. Flood hazard mapping and risk assessment studies were completed in 2017 and 2018 by the District of Squamish and the SLRD which cover the Upper and Lower Squamish River,³⁷ and concluded that the agricultural areas in the Squamish Valley are at risk from flooding^{38,39}. Most flooding of the Squamish River is caused by intense multi-day rainstorms that can occur throughout the fall and early winter. The rain falling throughout the watershed can melt a thin, wet layer of snow to create additional runoff into the river systems. The Squamish River channel also migrates back and forth across its floodplain over time by eroding land on one side of the river and depositing sediment on the other. Sediment can build up in the channel, which increases the flood risk. Conflicts and damage can result where development has occurred too close to the river.

There are currently extensive diking systems along the Lower Squamish River (most of which is provincially regulated), but no existing flood protection dikes along the Upper Squamish Valley community. There are some dikes protecting Squamish First Nation Reserves, the community of Brackendale and downtown Squamish. Flooding of the Upper Squamish Valley Road is a semi-regular event, which can create an acute emergency situation for residents of the Upper Squamish Valley, as the road is the only route into and out of the community. Flooding (or wildfire, as discussed below) that results in the road being cut off, even temporarily, affects the movement of people and goods in and out (e.g. supply chain), limits evacuation options, and disrupts access to services.

A 1 in 50-year flood event was modelled for the Squamish River and found that most of the valley floor would be flooded, with typical depths of 1 to 2 m within the inundated area and causing damages to agricultural property and land estimated at a total of \$1.97 million. A 1 in 10-year flood would cost \$134,000 and a 1 in 20-year flood \$957,000 in damages to agricultural activities⁴⁰.

³⁴ [Community Emergency Plan - Upper Squamish Valley](#). 2017. Squamish Lillooet Regional District

³⁵ [Community Emergency Management Plan](#). 2016. District of Squamish.

³⁶ [Community Emergency Plan - Upper Squamish Valley](#). 2017. Squamish Lillooet Regional District

³⁷ There is no consolidated map of the whole valley in this report, only smaller panels for each section of the valley. .

³⁸ [Squamish – Lillooet Regional District Flood Hazard Mapping and Risk Assessment Upper Squamish](#). 2018. Northwest Hydraulic Consultants Ltd. Vancouver, BC.

³⁹ [Integrated Flood Hazard Management Plan](#). District of Squamish, 2017. Kerr Wood Leidal Associates LTD.

⁴⁰ [Squamish – Lillooet Regional District Flood Hazard Mapping and Risk Assessment Upper Squamish](#). 2018. Northwest Hydraulic Consultants Ltd. Vancouver, BC.

In recent years, flooding has occurred in the Squamish Valley. In October of 2003, a major flood of the Squamish River and its tributaries occurred, flooding land in the Squamish Valley and the District of Squamish. A Local State of Emergency was declared in Squamish, and the community of Paradise Valley on the Cheakamus River was evacuated. Although the Squamish River Valley was not evacuated, river levels at the peak (3,140 m³/s) were within 0.45 to 0.60 meters of overtopping the dykes along the lower Squamish River. The subsequent analysis of the event suggested that return period was in excess of 100 years but less than 200 years⁴¹. In 2015, forest service roads in the Upper Squamish Valley were flooding, causing evacuation of campers in the area. During this event, the stream flow in the Squamish River near Brackendale peaked at 1,790 m³/s, a flow rate exceeds the five-year return period flow⁴².



As the climate warms an increase in annual peak flows are expected to occur during the fall rain or rain-on-snow events which are typically larger than spring events.

Flood hazard reports recommend increasing peak design flows to account for the effects of climate change⁴³. Mitigation efforts to reduce the damage from flooding can include raising first floor elevations to or above the recommended flood construction levels⁴⁴. It is also important to note that all new housing development in the floodplain area requires raised foundations and/or earthworks to raise foundations to mitigate flood risk⁴⁵.

Figure 8. Washout along the Squamish Valley Road (Source: Uppersquamishvalley.ca)

4.3.2 Debris Flow, Landslides, and Erosion

There is also a risk of debris flows and debris floods from rivers due to the surrounding steep slopes. The Cheekeye Fan north of Brackendale is a well-studied example of a debris flow hazard area. Smaller creeks throughout the Squamish Valley also have the potential to produce debris flows^{46,47}. Landslides have historically occurred within the basin, leading to blockage of the Squamish River, however, no major, recent landslide events have occurred. Stakeholders mentioned the threat of flooding as a barrier to expanding agricultural activities onto certain portions of their properties.

Squamish Nation reserves lost significant amounts of land to river erosion in the early to mid 1900s. In some cases, the loss was more than half the reserve area⁴⁸. Subsequently dikes were built on the reserves which are located in the lower sections of the Squamish River Valley. The dikes served to keep water out, and keep soil and sediment in.

⁴¹ [District of Squamish Council Meeting](#), September 2007.

⁴² [Campers Rescued as Squamish Valley Floods](#), September 2015. The Squamish Chief.

⁴³ [Squamish – Lillooet Regional District Flood Hazard Mapping and Risk Assessment Upper Squamish](#), 2018. Northwest Hydraulic Consultants Ltd. Vancouver, BC.

⁴⁴ [Squamish – Lillooet Regional District Flood Hazard Mapping and Risk Assessment](#), 2018. Northwest Hydraulic Consultants Ltd. Vancouver, BC.

⁴⁵ [Community Emergency Plan - Upper Squamish Valley](#), 2017. Squamish Lillooet Regional District.

⁴⁶ [Integrated Flood Hazard Management Plan](#), District of Squamish, 2017. Kerr Wood Leidal Associates LTD.

⁴⁷ [Community Emergency Management Plan](#), 2016, District of Squamish.

⁴⁸ [Squamish – Lillooet Regional District Flood Hazard Mapping and Risk Assessment Upper Squamish](#), 2018. Northwest Hydraulic Consultants Ltd. Vancouver, BC.

4.3.3 Wildfire

The Upper Squamish Valley community is located in a semi-wooded environment with a mix coniferous and deciduous trees near residences. Drier summers are likely to result in conditions that increase fire risk to the area⁴⁹. In 2015, the Elaho Fire burned 12,000 hectares for two months in the vicinity of the Upper Squamish Valley before being assessed as 100% contained.

Fires can also be associated with farming. For instance, in April of 2019 a wildfire began on a farm, caused by agricultural activities (e.g. burning of vegetation during land clearing). The fire got out of control, and eventually grew to 68 hectares. Unseasonable hot and dry conditions, and fuel buildup, led to the fire spreading very rapidly up the steep slope, to within a very close proximity (100 m) of a residence⁵⁰.

Longer term impacts of wildfire on the agricultural community includes soil quality impacts and increased flooding risk in areas where vegetation was lost. The lack of multiple routes in and out of the community, as discussed above, further confounds wildfire planning efforts.

Community Wildfire Protection Plans (CWPPs) have been developed for both the DoS and SLRD. CWPPs aim to develop strategic recommendations to assist in improving safety and to reduce the risk of damage to property from wildfires, and provide a framework that can be used to review and assess areas of identified high fire risk.

While the recommendations in the DoS CWPP⁵¹ do not reference agriculture directly, a number of them can be adopted by the farming community, or developed in conjunction with the farming community. These include:

- #4: Use updated threat assessment to identify areas of unacceptable vulnerability to wildfire.
- #10: Consider projected changes in fire season and fire risk in fire management decisions. Consider and incorporate wildfire risk reduction into climate change adaptation projects and strategies.
- #24: Conduct a thorough inventory and review of hazardous infrastructure within the District.
- #33: The District or its Wildfire Working Group should consider leading the establishment of a local interface steering committee to coordinate wildfire risk reduction efforts.
- #40: Participate in regular testing of and updates to the evacuation plan.

The CWPP⁵² developed for the SLRD Area D acknowledges that a significant wildfire would result in an impact on valuable farmland. The plan notes that the Upper Squamish Valley / Paradise Valley area has one of the highest wildfire behaviour threats (high or extreme) in SLRD Area D. The majority of hazardous fuels are on Crown land and a minority on private land. Recommendations within the plan that could pertain to agriculture, or involve members of the agricultural community, include:

- #7: Establish a Wildfire Suppression Group to identify wildfire related issues in the area, resource deficiencies, and to allow for a coordinated and cost-sharing approach to wildfire mitigation.
- #12: Complete FireSmart assessments for critical infrastructure and prioritize FireStart projects by efficacy at reducing fire hazard, cost efficiency, and visibility to the public.
- #14: Identify and map available water sources and areas of poor water availability.

⁴⁹ [Community Emergency Plan - Upper Squamish Valley](#). 2017. Squamish Lillooet Regional District.

⁵⁰ [Wildfire burning in Upper Squamish Valley grows to 15 hectares in size](#). April 1, 2019. CBC.

⁵¹ [Community Wildfire Protection Plan](#). 2017 Update. District of Squamish

⁵² Squamish-Lillooet Regional District Electoral Area D. [Community Wildfire Protection Plan](#). 2016 Update.

- #16: Remove barriers for landowners by providing methods for them to cheaply and easily dispose of the wood and green waste removed from their property.
- #22: Develop study-area specific evacuation plans in coordination with the RCMP to: map and identify safe zones, marshaling points, and alternative (aerial and water) evacuation locations; plan traffic control and accident management; identify volunteers that can assist during and/or after evacuation; and create an education/communication strategy to deliver information. Communication plans may require alternative strategies for areas with limited or unavailable cellular service.

4.3.4 Emergency Planning, Hazard Assessments, and Development Permit Areas

In addition to the Community Wildfire Protection Plans produced by DoS and SLRD, resources such as the SLRD Emergency Commercial Livestock Relocation Guide⁵³ and Community Emergency Plans can be used to help in emergency preparedness planning activities such as identification of evacuation routes and safe zones. The Community Emergency Plan for the Upper Squamish Valley was completed by the SLRD in 2018. The plan highlighted the aforementioned threats and outlined the evacuation protocol for each potential hazard. A community action plan was created for the USV residents to mitigate potential impacts of hazards⁵⁴.

Site specific hazard assessments are recommended to be conducted prior to developing any agricultural activities in the Squamish Valley, and in many cases these assessments are required through regional or local government bylaws. Agricultural operators should also be aware of what development permit requirements are in place.

Similarly, within the DoS, a Flood Development Permit (DPA2) may be required prior to development on lands within areas designated as Primary Floodways, Secondary Floodways and Debris Flow Hazard Areas as well as parcels abutting areas designated as Secondary Floodways. Wildfire and steep slope development permit area designations and guidelines are also under development.

In SLRD Area D, Comprehensive Development Permit requirements and guidelines are in place to address hazardous conditions such as wildfire and riparian areas. The SLRD Electoral Area D OCP identifies the Squamish River Floodplain as a natural hazard. On lands in Development Permit Areas (DPAs), a development must be approved by the SLRD before a building permit can be obtained. It is recommended that agricultural operators review the SLRD Electoral Area D OCP, as well as SLRD online mapping to ensure awareness of any development permit requirements that are in place for the parcels on which they are operating.

The following DPAs are applicable to lands within the plan area:

- Riparian Protection Development Permit Area,
- Wildfire Protection Development Permit Area,
- Comprehensive Development Permit Area, and
- Medical Marihuana Production Facility Development Permit Area.

The Riparian Protection DPA is applicable to all lands within Electoral Area D. However, agricultural development activities on land used, or proposed to be used, for a farm operation are defined in the *Farm Practices Protection Act*, except where such activities are done in conjunction with, or in preparation for, non-farm uses are exempted from the Riparian Protection DPA.

⁵³ Squamish-Lillooet Regional District. [Emergency Commercial Livestock Relocation Guide](#).

⁵⁴ [Community Emergency Plan - Upper Squamish Valley](#). 2017. Squamish Lillooet Regional District.

The Wildfire Protection DPA is applicable to all lands within Electoral Area D that have a wildfire risk rating of 'moderate' or greater (see [SLRD online mapping](#)).

The Comprehensive DPA applies to all lands within Electoral Area D. However, a Comprehensive Development Permit is not required for agricultural uses and buildings on properties classified as farm under the *BC Assessment Act*. If agricultural uses are being conducted on properties that are not classified as farm, the Comprehensive DPA is applicable and an application will need to be made to the SLRD. The following are examples of uses that would require a Comprehensive DP application and may be applicable to agricultural operations:

- Removal, alteration, disruption, or destruction of vegetation in relation to a non-farm use within the ALR;
- Removal, alteration, disruption, or destruction of vegetation on land with slopes of 20% or greater and land within 20 m of land with slopes 20% or greater;
- Disturbance of soils;
- Construction or erection (or additions to existing) of buildings and structures;
- Creation of non-structural impervious or semi-pervious structures;
- Flood protection works;
- Construction of roads, trails, bridges;
- Provision and maintenance of sewer and water services;
- Development of drainage systems;
- Development of utility corridors;
- Subdivision within 300 m of the ALR;
- Clearing, grading, blasting, preparation for or construction services.

The Medical Marihuana Production Facility DPA applies to all lands within Electoral Area D.

A DP is not required in order to resolve emergency situations that present an immediate danger related to flooding, erosion, or other immediate threats to life or property. Land within the ALR is also subject to the *Agricultural Land Commission Act* and associated regulations.

4.4 Soils and geology

The Squamish Valley is made up of fertile valley bottoms of the Squamish River and the Cheakamus River. The area is underlain by Cretaceous granite and granodiorite bedrock (between 90 to 100 million years old) of the Jurassic to Tertiary Coast Plutonic Complex. Resting on this granitic bedrock are depositions of surficial material deposited by glacial, landslide, and river activities⁵⁵. At the end of the last ice age (approximately 10,200 years ago) much of the present Squamish River Valley was rapidly filled in with large amounts of sediment brought down by rivers of glacial meltwater and by the significant presence of glacial material.

Soils in the Squamish area are generally Ferro-Humic Podzols and Folisols⁵⁶. Due to high precipitation in the area, soils are generally moist to wet. The soil temperature regime is mild (the mean annual soil temperature fluctuates from 8 to 15 Celsius). A high level of moisture has resulted in generally poorly

⁵⁵ [Brackendale Eagles Provincial Park – Background Document](#), 1999. Chris Armstrong, Victor Keong, David Vockeroth. BCIT.

⁵⁶ The Soil Landscapes of British Columbia.1986. B.C. Ministry of Environment.

drained soils⁵⁷. A full description of soils and agricultural capability, including maps and a description of soil types, is provided in the Appendix.

4.5 Agricultural Capability

A large proportion of the Upper Squamish Valley agriculture land is rated Class 2 land, meaning the soils are deep and hold moisture well. Under good management they are high in productivity for a fairly wide range of crops. Limitation of these soils in the Valley are mostly due to excessive water, likely due to proximity to the Squamish River and runoff from surrounding areas. Class 4 and 5 lands occur in the Paradise Valley area along the Cheakamus River, with limitations of stoniness and reduced moisture retention. However, it is possible to improve Class 4 and 5 lands through clearing, fertilizing and water control to produce perennial forage crops⁵⁸. Much of the agricultural land in the Squamish Valley is covered in natural or semi-natural vegetation. Land clearing of trees and other vegetation may be needed to provide sufficient area for some crop production.

While soils vary from site to site, general recommendations for improvements to local soils for the purposes of agriculture include:

- Ground levelling (areas should be individually evaluated in regard to erodibility and machinery limitations);
- Applications of nutrients (fertilizers, manures, compost);
- Stone picking;
- Increasing organic matter content by adding animal manure, green manure, and/or compost; and
- Irrigating, often at frequent short intervals.

⁵⁷ [Brackendale Eagles Provincial Park – Background Document](#). 1999. Chris Armstrong, Victor Keong, David Vockeroth. BCIT.

⁵⁸ [Squamish – Canada Land Inventory, Soil Capability for Agriculture](#). 1975.

5.0 Policy Context - Key Plans and Policies

Agricultural land and associated uses are regulated and influenced by policy, legislation and regulation at the local, provincial and federal government levels. Some regulations are wide in scope and far-reaching, such as national and international trade agreements, while others are site-specific or issue-specific, such as zoning or meat processing regulations. As a result, no one piece of legislation has the capacity to address agricultural issues in an integrated and holistic manner.

Awareness of jurisdictional responsibilities and authority can be useful in defining policy, strategies, actions and pilot projects that can be taken by local government and those that require broader collaboration for specific issues.

This section summarizes some of the more influential policies and regulations⁵⁹.

5.1 Federal

Federal government regulation addresses several areas related to agriculture including trade practices, public health and the protection of the natural environment. They also support agriculture through a number of funding programs.

Canada Agricultural Partnership

The *Canada Agricultural Partnership* is a five year \$3 billion partnership between federal and provincial partners. It is designed to help the agricultural industry position itself to respond to future opportunities and to realize its full potential as a significant contributor to the economy.

Canada-BC Agri-Innovation

Provides cost-shared funding to support promising new products, practices, processes and technologies that have the potential to generate a benefit to the agriculture sector.

Canada-BC Environmental Farm Plan (EFP) Program

The EFP is a voluntary program that assists farmers in developing an environmental action plan for their farm that enhances natural resources and reduces the possibility of accidental harm to soil, air, water and biodiversity values. Those who enroll in the program become eligible for cost-share funding for certain on-farm Best Management Practices projects through the ARDCorp program.

Canada Agricultural Products Act

The *Canada Agricultural Products Act* regulates the import, export and inter-provincial trade and marketing of agricultural products. The Canadian Food Inspection Agency (CFIA) administers many of the

⁵⁹ [Capital Regional District Agricultural Legal & Policy Scan](#). 2009. Curran, D.

agricultural import and export activities. This Act standardizes agricultural grading and inspecting procedures across Canada.

Additional Federal Legislation Affecting Agriculture

Additional federal legislation that influences various aspects of the agriculture industry include:

- *Canada Grain Act*
- *Consumer Packaging and Labelling*
- *Excise and Import Permits Act*
- *Farm Income Protection Act*
- *Farm Products Agencies Act*
- *Feeds Act*
- *Fertilizers Act*
- *Fisheries Act*
- *Health of Animals Act*
- *Pest Control Products Act*
- *Plant Protection Act*
- *Seeds Act*
- *Transportation of Dangerous Goods Act*

5.2 Provincial

The Province of BC primarily regulates agriculture through the Agricultural Land Commission (ALC), who oversees the Agriculture Land Reserve (ALR); and the Ministry of Agriculture. A number of regulations and initiatives are in place to support agriculture and protect the natural environment.

Buy BC Partnership Program

The Buy BC Partnership program provides up to \$2M in funding per year over the next three years to increase the competitiveness of B.C.'s agrifood and seafood industry in the domestic market. The Program includes both cost-shared funding as well as Buy BC logo licensing.

BC Land Matching Program

This program, in partnership with Young Agrarians, provides land matching and business support services to new farmers looking for land to farm as well as landowners interested in finding someone to farm their land.

BC Indigenous Agriculture Development Program

The B.C. Indigenous Agriculture Development Program identifies and supports the development of agriculture and agri-foods opportunities within Indigenous Communities, Tribal Councils, and Economic Development Corporations.

BC Agri-Business Planning Program

The B.C. Agri- Business Planning Program offers two distinct streams of support for agri-businesses:

- **Specialized business planning** to enable producers and processors to make more informed decisions and strengthen their business

- **Disaster recovery planning** to help producers implement an immediate and long-term disaster recovery plan

Eligible applicants can access up to \$5,000 for individuals and \$30,000 for groups for business planning services from a Qualified Business Consultant.

Hazelnut Renewal Program

The Hazelnut Renewal Program provides funding to remove infected trees to mitigate the spread of Eastern Filbert Blight and to incentivize the planting of new disease-resistant hazelnut trees in British Columbia.

BC Tree Fruit Replant Program

Provides financial help for growers to replace fruit trees with varieties that will meet consumer demands for high-value, high-quality B.C. fruit.

BC Agrifood and Seafood Market Development

Provides funding to support businesses to develop marketing skills, purchase market research, create marketing plans and expand export sales.

Agricultural Land Commission Act

In response to the continual loss of agriculture land, the Agricultural Land Commission (ALC) was created in 1973 with the following mandate:

- To preserve agricultural land;
- To encourage farming on agricultural land in collaboration with other communities of interest;
- To encourage local governments, first nations, the provincial government and its agents to enable and accommodate farm use of agricultural land and uses compatible with agriculture in their plans, bylaws, and policies.

The ALC administers the *ALC Act* and is responsible for the ALR, a provincial zone in which agriculture is recognized as the priority use. The purpose of the ALR is to ensure that the province's agricultural land base is preserved and available for farm uses both now and in the future. The *ALC Act* takes precedence over, but does not replace, other legislation and bylaws that may apply to the ALR. Local and regional governments, as well as other Provincial agencies, are expected to plan in accordance with the Provincial policy of preserving agricultural land. At the time of writing, Bill 52 had been recently brought into legislation, which would reinforce the priority and focus of decision making mandate around the integrity of the ALR and removes economic and social factors from decision-making consideration of the Commissioners.

Agricultural Land Reserve General Regulation

The Agricultural Land Reserve General Regulation, B.C. Reg. 171/2002, identifies the procedures for submitting applications and notices of intent.

Agricultural Land Reserve Use Regulation

The Agricultural Land Reserve Use Regulation, B.C. Reg. 30/2019 specifies land uses permitted in the ALR.

Agricultural Environmental Management Code of Practice - Environmental Management Act

On February 28, 2019, the Code of Practice for Agricultural Environmental Management replaced the Agricultural Waste Control Regulation (AWCR). The regulation was developed to help ensure agricultural practices are consistent with the protection of clean, safe drinking water and clean air. It provides clearer, straightforward and environmentally sustainable requirements for the storage and use of manure, other nutrient sources and agricultural material. The regulation applies to agricultural operations in British Columbia, from small hobby farms to large commercial operations. The new regulation has been built with the understanding that not all agricultural operations are the same, and not all regions of the province are the same. Various rules will apply to different agricultural operations depending on the location, size and type of activity.

Meat Inspection Regulation

The *Meat Inspection Regulation* (MIR) (2004) establishes requirements for all provincially licensed slaughter facilities in BC. A graduated licensing approach includes several levels of slaughter operation for provincially licensed facilities.

Farm Practices Protection Act

The intent of the *Farm Practices Protection (Right to Farm) Act* (1996) is to protect farms, using “normal farm practices”, from unwarranted nuisance complaints involving dust, odour, noise and other disturbances. The Farm Industry Review Board (FIRB) deals with complaints that arise from the Act and determines whether the issue results from normal farm practices. The FPPA protects farms both in and outside of the ALR, although those outside the ALR must obtain Class 9 (Farm) status from BC Assessment.

Local Government Act

Certain provisions of the *Local Government Act* address farming activities through community planning; zoning; nuisance regulations; removal and deposit of soil; weed and pest control; water use and drainage.

Land Title Act

The *Land Title Act* gives Approving Officers the power to assess potential impacts of proposed subdivisions on farmland. The Approving Officer is responsible for all subdivision application within the municipal boundaries.

BC Assessment Act

Section 23 of the *Assessment Act* and BC Reg 411/95, the *Classification of Land as a Farm Regulation* (the “Farm Class Regulation”), set out the requirements that must be met for land to be classified as “Farm” for assessment and tax purposes. Land classified as Farm must be used all or in part for primary agricultural production.

Water Sustainability Act

The *Water Sustainability Act* (WSA) provides for the licensing of activities including use, diversion, and storage of water. The WSA provides local governments the ability to undertake Water Sustainability Plans, which may include a designation for “dedicated agricultural water”, also known as agricultural water reserves. This allows the water sustainability planning process to prioritize or establish unique rules for

agriculture, which will be particularly useful when considering how reductions in water use will be handled through drought planning and management.

5.3 Local and Regional

Community planning off-reserve occurs within a context of enabling provincial legislation such as the *Local Government Act* that provides for policy plans, regulations in zoning or land use bylaws, and processes such as development permits. While the Province has largely delegated authority over land use and development to local governments, it has retained authority over agricultural land, forest land, riparian areas, heritage sites, Electoral Area subdivision and the Provincial road network. Across the SLRD and the District of Squamish, the promotion of the local agricultural industry is supported through various high-level policy documents and regional initiatives which acknowledge and address the importance of protecting agriculturally viable land, planning for local food security, and encouraging/facilitating local economic development opportunities. These high-level policy documents and regional initiatives are listed in Table 12.

How agriculture is considered at the policy level through land use plans in the Regional Growth Strategy (RGS) and Official Community Plans (OCPs), and subsequently through land use regulations in the zoning bylaws, is indicative of a regional government's priorities in terms of supporting future agricultural activity. The RGS and OCPs provide a long-term strategy for land use, development and servicing, and they contain development guidelines, which respond to broad community objectives and values. In contrast, a zoning bylaw provides detailed land use regulations according to specific land use categories called zones. Zoning bylaws can influence agricultural land in several ways, including through the setting of minimum parcel sizes and maximum building foot prints, setting parameters around secondary dwellings, setbacks, and establishing the potential for subdivision of agricultural lands, to name a few.

A number of local and regional plans and regulations documents help to shape policy affecting agricultural activities in the Squamish Valley region. The following documents were reviewed and inform the content of this report (Table 11).

Table 12. Relevant Local and Regional Planning and Policy Documents.

Document Title	Status	Year
District of Squamish Official Community Plan Bylaw No. 2500	Adopted	2018
District of Squamish Zoning Bylaw No. 2200	Adopted	2011
SLRD Area D OCP Bylaw No. 1135	Adopted	2013
SLRD Area D Zoning Bylaw No. 1360	Adopted	2016
SLRD Regional Growth Strategy Bylaw No. 1062, Amendment Bylaw No. 1562-2018	In Review	2008, 2019
XAY TEMIXW (SACRED LAND) LAND USE PLAN		2001

A discussion summarizing some of the specific items in the zoning and policies that may be applicable to the *Squamish Valley Agricultural Plan* is provided in Appendix 2.

5.3.1 District of Squamish Official Community Plan and Zoning Bylaw

The District of Squamish OCP was adopted on June 5, 2018. The OCP includes a section on Food Systems which aims to enhance awareness and promotes policies to foster a more sustainable food system in Squamish. Through the plan, the District acknowledges its role in preserving the community's agricultural land base and creating a positive regulatory environment for food and farming.

Under Policy 29.19 the OCP established a new stand-alone Land Use Designation for *Agriculture* as: Applies to lands and facilities intended for agriculture and food production including, but not limited to, those within the Agricultural Land Reserve (ALR). This designation applies to a wide range of agricultural activities, and may also include associated food processing and distribution. All uses within the ALR are subject to the *Agricultural Land Commission Act* (ALCA) and Regulation.

Policy 32.2 outlines the direction to develop Development Permit Area Requirements for Farming Activities (through a future OCP amendment) and ensure development activities in proximity to ALR lands do not unduly detract from farming as protected under provincial statute:

- Development permits affecting ALR lands and licensed aquaculture areas shall not unduly infringe on the ability to farm in accordance with the provincial *Agricultural Land Commission Act* (ALCA) and Regulation and the *Farm Practices Protection (Right to Farm) Act* (FPPA) legislation.
- A future OCP amendment to establish a DPA for the protection of farming will be brought forward to establish requirements for screening, landscaping, fencing, and siting of buildings or structures, in order to provide buffering or separation of development from farming on adjoining or adjacent land.

The District of Squamish's zoning bylaw does not include a distinct stand alone Agriculture Zone. However, agriculture activities are permitted in many existing zones. Some areas of the ALR are zoned in a manner that may preclude and/or detract from agricultural activities within the zoning bylaw. This will require better alignment between local zoning and provincial regulations . In 2019/20 this will be addressed in the District of Squamish comprehensive zoning bylaw review. District of Squamish zoning details are provided in Appendix 2.

5.3.2 SLRD Area D Official Community Plan

The SLRD Electoral Area D OCP was adopted in 2013 and includes an Agricultural land designation. All of the lands designated Agriculture in the OCP are within ALR. Section 5.5 of the OCP specifically focuses on Objectives and Policies related to Agriculture:

Objectives:

- To achieve a healthy, sustainable, and stable food supply by working with food producers, citizens, First Nations, municipalities, senior government, Health Authorities, and other stakeholders to support local and regional food security.
- To recognize, preserve, improve, and expand the agricultural land base in the plan area.
- To encourage diversification, small farm development, and ecological and economic sustainability of the farming community.

- To minimize the potential negative effects from non-agricultural development occurring at the edge of farming areas and within agricultural lands.
- To accommodate housing that meets the needs of farmers and minimizes the negative effects on farm land.

Policies within the OCP as they relate to agriculture are divided into the following sections:

- Agricultural Land Base (Land Use)
- Economic Sustainability
- Agriculture Interface
- Housing
- Environmental Protection
- Food Security
- Decision making criteria for lands designated Agricultural

Highlights relevant to the Squamish Valley Agriculture Plan include:

- 5.5.7. The use of tools and approaches such as Agricultural Land or Farmland Trusts, and the Community Farms Program (administered by Farm Folk/City Folk in collaboration with The Land Conservancy of BC) is supported.
- 5.5.13. The owners of agricultural lands are encouraged to facilitate the use of the land for agriculture by actively farming, leasing or loaning their lands to persons that would undertake active farming.
- 5.5.14. The Board encourages economic diversification initiatives accessory to and compatible with farming that add value to locally produced farm products
- 5.5.21 Lists criteria that shall be used when making decisions, recommendations, setting conditions of approval, application requirements and setting policy for Zoning Bylaws and Development Permit Area guidelines including but not limited to permitted uses, non-farm uses, parcel size, subdivision, Development Variance Permits and Temporary Use Permits in Electoral Area D.
- 5.5.22 Agricultural Impact Assessments should be considered to measure the impacts of a proposed major rezoning, subdivision or non-farm use on the ALR or farmed lands. Mitigation should be required for identified impacts. An Agricultural Impact Assessment prepared by a qualified professional.

The SLRD Electoral Area D Zoning Bylaw was adopted in August 2016. There are two agriculture zones: Agriculture 1 Zone and Agriculture 2 Zone. Almost all of the agriculture land within Area D is zoned 'Agriculture 1 Zone'.

5.3.3 SLRD Regional Growth Strategy Bylaw

A RGS is a broad policy framework describing the common direction the regional district and member municipalities will follow in promoting human settlements that are social, economically, and environmentally healthy and making efficient use of public facilities and services, land and other resources. The Regional Board is currently reviewing an amendment to "SLRD Regional Growth Strategy – Bylaw No. 1062, 2008" - Amendment Bylaw No. 1562-2018.

The SLRD RGS, 2018 calls for several specific policy directions related to land use, which ultimately supports agriculture and food security, which are described in the following table:

Table 13. SLRD Regional Growth Strategy - strategic directions relevant to agriculture and food.

RGS Strategic Direction	Reference	Description
Achieve a sustainable economy: Support the economic viability of the local agricultural sector	Part 3, Goal 4 Strategic Directions 4.1.i.	This will be pursued by developing regulations that strengthen the capacity of local farmers to produce and reach their markets and highlighting/recognizing the importance of agriculture to the region's economy in decision-making.
Achieve a sustainable economy: Support the development of a comprehensive, locally relevant, /place-based approach to agritourism	Part 3, Goal 4 Strategic Directions 4.1.j	This will be pursued by consulting with the local agricultural community, Indigenous communities and First Nations, Ministry of Agriculture and the Agricultural Land Commission to ensure local government plans, policies and strategies reflect the provincial regulations and local needs/opportunities.
Protect and Enhance Food Systems	Part 3, Goal 10	The RGS: i. Supports a regional food system that is healthy, accessible and resilient. ii. Promotes growth and development in the local agricultural sector. iii. Supports the protection and preservation of farmland and sustainable agriculture as the highest and best use of the Agricultural Land Reserve.

Appendix 1

Soil Resources

Surficial Geology

In general, the Squamish area is underlain by Cretaceous granite and granodiorite bedrock (between 90 to 100 million years old) of the Jurassic to Tertiary Coast Plutonic Complex. Resting on this granitic bedrock are depositions of surficial material deposited by glacial, landslide, and river activities⁶⁰. At the end of the last ice age (approximately 10,200 years ago) much of the present lower Squamish River Valley was rapidly filled in with large amounts of sediment brought down by rivers of glacial meltwater and by the significant presence of glacial material.

Soil Types

Soil types are categorized based on distinguishing characteristics and criteria that dictate soil management techniques. Soil classification facilitates the organization and communication of information about soils, as well as the understanding of relationships between soils and environmental factors. Differences in soils are the result of the interaction of many factors: climate, organisms, parent material, topography and time.

Soils in the Squamish area are generally Ferro-Humic Podzols and Folisols overlying igneous intrusive rock⁶¹. Intrusive rocks are quite weather resistant and soil development has been relatively slow. Over time, however, physical and chemical weathering has produced a coarse-textured acidic soil. Due to high precipitation in the area, soils are generally moist to wet. The soil temperature regime is mild (the mean annual soil temperature fluctuates from 8 to 15 Celsius). A high level of moisture has resulted in generally poorly drained soils⁶².

The processes of soil development in the Podzol order include an accumulation of organic material (mainly coniferous litter) with iron and aluminum dominating in the B horizon. They are characterized by Mor humus forms. Fluvial gravels and sands occur on terraces and floodplains of the Squamish River. These areas are prone to flooding and displacement. Vegetation establishment is often temporary⁶³.

Agricultural Capability Ratings

The Agriculture Capability rating system is a method designed to enable consistent and objective assessment of land based on inherent limitations for crop production (Department of Regional Economic Expansion, 1969). It was developed in the 1960s as part of the Canada Land Inventory (CLI). Agriculture

⁶⁰ [Brackendale Eagles Provincial Park – Background Document](#). 1999. Chris Armstrong, Victor Keong, David Vockeroth. BCIT.

⁶¹ The Soil Landscapes of British Columbia. 1986. B.C. Ministry of Environment.

⁶² [Brackendale Eagles Provincial Park – Background Document](#). 1999. Chris Armstrong, Victor Keong, David Vockeroth. BCIT.

⁶³ [Brackendale Eagles Provincial Park – Background Document](#). 1999. Chris Armstrong, Victor Keong, David Vockeroth. BCIT.

Capability ratings are based on soil, landscape, and climate properties, not crop yield data, and limitations may or may not be altered by management (ALC, 2010). Agriculture Capability ratings can be used to help determine appropriate crop choices, realistic target yields and assess and mitigate site-specific risks such as flooding, stoniness, steep slopes, or nutrient loss.

In this classification, mineral and organic soils are each grouped into seven classes on the basis of soil and climate characteristics according to their potential for agricultural use. Lands in Classes 1 to 4 inclusive are considered capable of sustained agricultural production of most crops. Class 5 lands are considered capable of producing forage crops or specially adapted crops. Class 6 lands are capable of providing only pasture for livestock. Class 7 lands generally are incapable of use for either crops or livestock (they are usually rocky outcrops or wetlands). However, it is important to note that many successful farms in BC are located on Class 7 soils, indicating that some crops may be suited to sites that many others are not. In particular, cranberries and vineyards can often do well in Class 6 and 7 soils. *Unimproved* ratings are based on the conditions that exist at the time of the survey, without irrigation or other management systems in place. *Improved* ratings indicate the potential capability after existing limitations and/or hazards have been adequately alleviated. Improvements may include land grading, drainage, irrigation, diking, stone removal, salinity alleviation, subsoiling, and/or the addition of fertilizers or other soil amendments.

Other important assumptions that are made based on the classification system (BC Ministry of Agriculture and Food, 1983) include:

- Soils will be managed and cropped under a largely mechanized system.
- Water is available for irrigation.
- The following are not considered in the classification: distance to market, available transportation facilities, labour, location, farm size, type of ownership, cultural patterns, skill or resources of individual operators, and hazard of crop damage by storms.
- The classification does not include capability ratings for trees, fruit orchards, vineyards/grapes, ornamental plants, recreation, or wildlife.

In BC, most soils were mapped for agricultural capability ratings in the 1980s, and these maps remain in use throughout the province. The associated Computer Assisted Planning, Assessment, and Map Production (CAPAMP) system (Kenk and Sondheim, 1987) has since been translated into Geographic Information System database files.

Squamish Valley Agricultural Capabilities

A large proportion of the Upper Squamish Valley agriculture land is rated Class 2 land, meaning the soils are deep hold moisture well and under good management they are high in productivity for a fairly wide range of crops (Figure 9). Limitation of these soils in the Valley are mostly due to excessive water, likely due to proximity to the Squamish River and runoff from surrounding areas. Class 4 and 5 lands occur in the Paradise Valley area along the Cheakamus River, with limitations of stoniness and reduce moisture retention. However, it is possible to improve Class 4 and 5 lands through clearing, fertilizing and water control to produce perennial forage crops⁶⁴.

⁶⁴ [Squamish – Canada Land Inventory, Soil Capability for Agriculture](#). 1975.

Appendix 2

Local and Regional Plans, Agricultural Context

District of Squamish Official Community Plan

The District of Squamish OCP was adopted on June 5, 2018. The OCP includes a section on Food Systems which aims to enhance awareness and promotes policies to foster a more sustainable food system in Squamish. Through the plan, the District acknowledges its role in preserving the community's agricultural land base and creating a positive regulatory environment for food and farming.

The following Objectives and Policies relevant to the *Squamish Valley Agricultural Plan* are listed below:

Table 14. District of Squamish agriculture and food policies and associated documents.

Policy	Reference
Sustainable Food Systems – The District will promote a healthy, just and resilient food system in Squamish and increase local food security and self-sufficiency.	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.1
Agriculture / Food Lands – The District will: <ul style="list-style-type: none">• Inventory, protect and enhance the agricultural land base within Squamish and the region.• Maximize agricultural land availability and access to retain and attract new farmers in the agriculture sector and drive increased local food production.• Increase the value of the local agri-food economy.	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.3. a-c
ALR lands outside of primary floodways and Squamish Nation reserve lands are designated Agriculture on OCP Schedule B and intended for agriculture and related uses in accordance with the ALCA and Regulation. The District will update the Zoning Bylaw with agriculture-specific zoning for ALR lands to be better aligned with the ALCA and Regulation.	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.4. b, c
The District will: <ul style="list-style-type: none">• Recognize and protect the needs and activities of farming operations when considering and planning for compatible uses along ALR boundaries. Wherever possible, preserve contiguous agricultural areas and avoid or minimize unnecessary fragmentation.• Develop DPA guidelines for protection of farming that reduce land use conflicts and mitigate impact of urban development on farming practices (appropriate setbacks and buffers) in accordance with the Ministry of Agriculture Guide to Edge Planning: Promoting Compatibility Along Agricultural-Urban Edges.• Apply learnings from the joint District of Squamish - SLRD (Area D) Agricultural Land Use Inventory, and work with the Regional District and the Ministry of Agriculture to maximize land potential and long-term practicality for agriculture. Develop recommendations to support agricultural opportunities within and adjacent to the ALR.• Analyze current and projected agricultural conditions in Squamish and consider how agricultural opportunities may shift under climatic changes within the region (e.g. changes in growing-degree days and frost-free days). Identify impacts to agricultural lands in related risk assessments (e.g. sea level rise and flood mapping).• Explore community farmland trusts and/or regional land matching programs with the SLRD, School District 48, corridor communities, and the Young Agrarians network to connect existing and new farmers to land.	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.4.d-h

The District will support initiatives that increase local food production and agricultural activities and provide opportunities for the sale of local food products throughout the community.	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.6.a
<p>The District will:</p> <ul style="list-style-type: none"> • Continue to refine and expand municipal regulations to encourage and integrate opportunities for sustainable urban agriculture (including gardens, small plot farming, greenhouses, and gardening to support pollinators and foraging on municipal lands, park spaces and vacant lands); and accessory retail sales (e.g. farm stands and food co-ops) while responsibly managing wildlife attractants. • Support agriculture models that demonstrate environmentally responsible growing practices, e.g. soil building, carbon capture, water conservation, growing organic, and supporting the surrounding ecology. • Designate appropriate land for agricultural purposes and foraging. Integrate food related uses across all land use designations where appropriate and without unacceptable hazard risk or impact to environmentally sensitive areas. Look for opportunities to incorporate food production uses in designated limited use and flood-prone areas. • Explore and consider local property tax and other agricultural incentives to encourage food land preservation and production. 	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.6.b-f
<p>The District will:</p> <ul style="list-style-type: none"> • Encourage facilities for local food processing at both the commercial and neighbourhood level and consider linkages with those in the corridor and greater Southwest BC bioregion. Support appropriately scaled processing and distribution infrastructure (e.g. abattoirs, processing facilities and small-scale trucking). • In the case of ALR lands, for certainty, food processing, distribution and storage uses, and activities are subject to the ALCA and Regulation and will be referred to the ALC for review. • Explore local opportunities for marine harvesting, processing and distribution of sustainable seafood and work with agencies to ensure that any aquaculture production in Howe Sound exemplifies sustainable practices. 	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.8 a-c
The District will explore and support social enterprise models such as community food hubs and cooperatives that create a central gathering place for food-based services and activities, education events, and celebrations (e.g. community kitchens with food production, storage, processing and composting facilities).	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.14
<p>The District will:</p> <ul style="list-style-type: none"> • Support regional food production and distribution and set community targets for local and sustainable food procurement. • Work with the Squamish-Lillooet Regional District, local stakeholders and partner organizations on an Agriculture Area Plan, including, but not limited to, policies that support the industry with improving land-use compatibility and long-term agricultural sustainability. 	District of Squamish Official Community Plan – Bylaw No. 2500, Policy 26.16. a,b

District of Squamish Zoning Bylaw

Within the District of Squamish Zoning Bylaw 2200, 2011, Urban Agriculture is permitted in all zones.

Currently Agriculture is permitted as a principal use in Rural Residential zones within the community (RL-1 and RL-2 Zones). As noted in the body of this Background Report, this zoning does not capture all of the designated ALR lands within the District boundary. A comprehensive ALR land and municipal zoning review to address and align agricultural lands and uses is being planned.

Definitions

AGRICULTURE means a use providing for the growing and rearing of livestock, including dogs, poultry, fowl, swine, horses, cattle, other livestock, and bees; growing, producing, and harvesting of agricultural products; includes the storage, processing, and sale of individual farm products harvested, reared, or produced on that farm and the storage of farm machinery, implements, and supplies and repairs to farm machinery and implements used on that farm; specifically excludes all manufacturing, processing, storage and repairs not specifically included in the definition, processing of livestock and poultry not produced on the site, piggery use, feed lots, and mink farms.

AGRICULTURE, URBAN means the act of growing food on a lot. In addition to produce grown in a garden, this also includes community gardens, fruit and nut tree production, the keeping of hens and/or bees, and agricultural retail sales limited to 30 m² in gross floor area and provided that at least 75% of goods for sale are produced on site. Urban agriculture is an accessory use on parcels that are zoned residential.

Zoning General Regulations

Section 4.33 'URBAN AGRICULTURE' sets regulations for community gardens, coops for keeping hens and beekeeping regulations.

Section 4.36 AGRICULTURAL BUILDINGS: Despite any provision of this Bylaw, where Agriculture is permitted as a principal use, there will be no limit on the number of buildings used for agricultural purposes.

Section 4.4 (h) Notwithstanding any Section of the Bylaw, where agriculture is permitted as a principal use, there will be no limit on the number or gross floor area of accessory buildings used solely for agricultural purposes. Lot coverage provisions continue to apply to this section.

Section 4.4 (i) Notwithstanding any Section of the Bylaw, greenhouses shall be exempt from maximum number of buildings, area and gross floor area restrictions and will be permitted to exceed the maximum lot coverage provisions by an additional 20% of the total lot area.

The Zones detailed in this table are the majority of the Zones that overlap with the ALR Land in the DOS.

Table 15. Current District of Squamish zoning and considerations for adjustments.

Bylaw or Zone	Permitted Uses	Min Lot Size	Dwellings	Accessory	Retail	Considerations
4.4 ACCESSORY BUILDINGS, STRUCTURES AND USES	<p>(b) One accessory building or structure is permitted per lot in all zones, except as otherwise provided for in this Bylaw. The gross floor area of the accessory building on a lot shall not exceed in total: (i) 60m² in the RS, RMH and RL-1, C, UC and RE zones;</p> <p>(ii) 140m² in the RM, RL-2 and I zones; or (iii) except as otherwise provided for in this Bylaw;</p> <p>(h) Notwithstanding any Section of this Bylaw, where agriculture is permitted as a principal use, there will be no limit on the number or gross floor area of accessory buildings used solely for agricultural purposes. Lot coverage provisions continue to apply to this section.</p>					<p>Fill for all structures is a maximum of 1,000 m²</p> <p>(or else requires ALC application)</p>

RESOURCE (RE)	<p>22.1</p> <p>The following principal uses and no others are permitted:</p> <p>(a) agriculture;</p> <p>(b) airport;</p> <p>(c) aquaculture;</p> <p>(d) child care facility, residential;</p> <p>(e) forestry, excluding log sort operations;</p> <p>(f) gravel, rock, and earth removal;</p> <p>(g) interpretive centre;</p> <p>(h) kennel;</p> <p>(i) single-unit dwelling, including a mobile home; and</p> <p>(j) telecommunication tower.</p> <p>(k) horse stable; (Bylaw 2235, 2012) (l) Municipal Solid Waste and Resource Management Facility (Bylaw 2433, 2016) The following accessory uses and no others are permitted:</p>	<p>22.2</p> <p>8 Hectares</p>	<p>22.5</p> <p>Except as otherwise permitted through Section 4.2, no more than one principal building shall be located on a lot.</p>	N/A	<p>22.6 Accessory retail shall be limited to the selling of agricultural produce and products grown on the lot or another lot operated as part of the same operation not to exceed an area of 92.9 square metres.</p>	<p>22.1 f: May require application to the ALC</p> <p>22.1 i: Mobile home, if in addition to primary residence, requires application to the ALC</p> <p>22.1 m: No longer permitted by the ALC without application</p> <p>22.2: Larger is preferred</p> <p>22.5: Wording should align with ALC Act</p> <p>22.6; 22.5: Wording should align with ALC Act</p>
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	<p>(m) caretaker dwelling, subject to Section 4.3; and</p> <p>(n) accessory uses, including accessory retail, subject to Section 22.6.</p>					
<p>RURAL RESIDENTIAL 1 (RL-1)</p>	<p>15.1</p> <p>The following principal uses and no others are permitted:</p> <p>(a) agriculture;</p> <p>(b) single-unit dwelling, excluding a mobile home;</p> <p>(c) two-unit dwelling; (d) bed and breakfast;</p> <p>(e) child care facility, residential;</p> <p>(f) home occupation, residential subject to Section 4.18;</p> <p>(g) horse stable; and (Bylaw 2235, 2012) (h) kennel, subject to Section 15.5(b).</p> <p>(i) pet daycare (Bylaw 2303, 2013)</p> <p>The following accessory uses and no others are permitted:</p>	<p>15.2</p> <p>0.8 Hectares</p>	<p>15.6</p> <p>No more than one principal building shall be located on a lot.</p>	<p>15.9</p> <p>All accessory buildings shall comply with the requirements of Section 4.4 (a), 4.4 (d)(i), 4.4(f) and 4.4 (h) of this bylaw.</p>	<p>15.10 Accessory retail shall be limited to the selling of agricultural produce and products grown on the lot or another lot operated as part of the same operation not to exceed an area of 92.9 sq. m.</p>	<p>15.1 c: May require application to the ALC</p> <p>15.2: Minimum lot size is Very Small</p> <p>16.6: Add that maximum house size is in keeping with the ALC Act</p> <p>15.9: No longer allowed under the ALC Act</p> <p>15.10: Should be revised to simply fall in line with ALC Act</p>

	(j) accessory boarding; and (k) accessory uses, including accessory retail, subject to Section 15.10. (Bylaw 2235, 2012)					
RURAL RESIDENTIAL 2 (RL-2)	<p>The following principal uses and no others are permitted:</p> <p>(a) agriculture;</p> <p>(b) single-unit dwelling, excluding a mobile home;</p> <p>(c) two-unit dwelling; (d) bed and breakfast;</p> <p>(e) child care facility, residential;</p> <p>(f) home occupation, residential subject to Section 4.18 and Section 16.12;</p> <p>(g) horse stable; and (Bylaw 2235, 2012) (h) kennel, subject to Section 16.5 (b).</p> <p>(i) pet daycare (Bylaw 2303, 2013)</p> <p>The following accessory uses and no others are permitted:</p>	16.2 4 hectares	16.4 (a) Maximum building area for a principal dwelling shall be 557 m ² ; (Bylaw 2235, 2012) (b) Maximum building area for all accessory buildings shall be 372 m ² . (Bylaw 2235, 2012)	16.10 (a) Accessory residential unit may be detached from the main dwelling provided: (i) the lot is 2.035 hectares or larger; (ii) the accessory dwelling does not exceed a maximum of 139.35 square metres; and (iii) the accessory residential unit does not exceed the size of the	16.12 Accessory retail shall be limited to the selling of agricultural produce and products grown on the lot or another lot operated as part of the same operation not to exceed an area of 92.9 sq. m.	<p>16.1 c: May require application to the ALC</p> <p>16.4 a: Principal dwelling exceeding 500 m² requires application to the ALC</p> <p>16.1 j; 16.10 a: No longer permitted without application to the ALC</p> <p>16.2: Still small from an agricultural perspective</p>

	<p>(j) accessory residential unit, subject to Section 16.10;</p> <p>(k) accessory small-scale manufacturing, subject to Section 16.11;</p> <p>(l) accessory uses; and</p> <p>(m) accessory retail, subject to Section 16.12.</p>			<p>principal building.</p> <p>(b) Only one (1) caretaker dwelling is permitted per lot.</p>		<p>16.4: Wording should be changed to align with ALC Act</p> <p>16.10: This is no longer allowed under the ALC Act</p> <p>16.12: Should be revised to simply fall in line with ALC Act</p>
COMPREHENSIVE DEVELOPMENT ZONE 58	<p>40BBB.1</p> <p>Blocks “A” and “C”</p> <p>(i) Agriculture;</p> <p>(ii) Fish Hatchery;</p> <p>(iii) Educational and Research activities.</p> <p>Block “B”</p> <p>(i) School;</p> <p>(ii) Agriculture;</p> <p>(iii) Assembly;</p>	<p>40BBB.3</p> <p>No lot shall be created by subdivision that is less than 160 hectares.</p>	<p>40BBB.6</p> <p>SITING REQUIREMENTS</p> <p>(a) Front Lot Line Setback: No principle or accessory building shall be located within 7.62 metres of a front lot line;</p> <p>(b) Interior Side Lot Line Setback: No principle or</p>	<p>40BBB.9</p> <p>All accessory buildings shall comply with the requirements of Section 4.4 of this unless otherwise identified by this zone (CD-58).</p>	N/A	<p>40BBB.2: Any future changes (additions, renovations) to accessory sleeping units and/or dwellings (e.g. caretaker dwelling) may require an application to the ALC)</p> <p>40BBB.9: Will require an</p>

	<p>(iv) Educational and Research activities; (v) Accessory Sleeping Unit;</p> <p>(vi) Accessory Use; (vii) Accessory Residential dwelling subject to Section 4.3, including subsection (b).</p> <p>40BBB.2</p> <p>(ii) Accessory Sleeping Units may only be utilized in association with an educational program or group assembly activity.</p> <p>(iii) An Accessory Residential dwelling is permitted in to provide accommodation for ongoing maintenance and security of the property</p>		<p>accessory building shall be located within 7.62 metres of a side lot line;</p> <p>(c) Exterior Side Lot Line Setback: No principle or accessory building shall be located within 7.62 metres of an exterior side lot line;</p> <p>(d) Rear Lot Line Setback: No principle or accessory building shall be located within 7.62 metres of a rear lot line.</p>			application to the ALC
COMPREHENSIVE DEVELOPMENT ZONE 22	<p>40U.1</p> <p>The use of land and buildings is restricted to: (a) accessory residential dwelling subject to Section 4.3; (b) accessory uses; (c) campground; (d)</p>	N/A	<p>40U.2</p> <p>No principal building shall exceed a height of 10.68 metres or three storeys,</p>	<p>40U.9</p> <p>(a) All accessory buildings shall comply with the requirements of</p>	N/A	Agriculture should be included as a permitted use on all lands within the ALR

	recreational vehicle park; and (e) restaurant.		whichever is less. 40U.4 There may be more than one principal building per lot.	Section 4.4 of this Bylaw; (b) Notwithstanding Section 4.4(b), a maximum of four buildings or structures shall be permitted.		Any changes to dwellings, accessory buildings, agri- tourism accommodation, or other development may require application to the ALC.
ECOLOGICAL RESERVE (P-4)	19A.1 The following principal uses and no others are permitted in the P-4 zone: (a) habitat protection, management and enhancement The following accessory uses and no others are permitted: (a) trails (b) educational and interpretive signage and displays	N/A	N/A	N/A	N/A	Agriculture should be included as a permitted use on all lands within the ALR

Outside of the ALR - Food manufacturing/processing/selling zones and allowances

Zones that allow Light Industrial or Industrial

I-1, I-8, I-10

LIGHT INDUSTRIAL means a use providing for the processing, fabricating, assembling, leasing, warehousing, transporting, distributing, wholesaling, testing, servicing, or repairing of goods or materials, where the primary activity of such a use is carried out within or exterior to a building, which may be serviced with a railway spur. Includes cannabis production and indoor food production.

INDUSTRIAL means a use providing for the processing, fabricating, assembly, storing, transporting, distributing, wholesaling, testing, servicing, repairing, wrecking, or salvaging of goods, materials, or things; includes without limitation the operation of truck and shipping terminals, docks, railway service spur, passenger depots, marinas, heliport and seaplane facilities, auction and liquidation sales, sawmill, pulp mill and log booming. Includes cannabis production and indoor food production. The use excludes bulk gas and fuel loading and storage facilities.

INDOOR FOOD PRODUCTION means an industrial use where plants are grown inside a building that is connected to District services, including sewer, water, and drainage. May include food processing. Plants may be grown for biomedical purposes but does not include cannabis production. (Bylaw 2303, 2013)

Zones with other food/agriculture related activities

- CD – 37 Comprehensive Development: permits Farmers’ markets
- CD - 88 Comprehensive Development: permits Food Banks
- MUD – 2 Creative Mixed Use District: permits Farmers’ Markets and community gardens
- Section 4.34: Portable Food Vending is allowed

SLRD Area D Official Community Plan

The Electoral Area D OCP Bylaw 1135 was adopted in 2013. The OCP, in Section 5.5., designates Agricultural lands. All of the lands designated Agriculture in the OCP are within the Agricultural Land Reserve (ALR) and as such, they are regulated by the Agricultural Land Commission (ALC).

Section 5.5 of the OCP specifically focuses on Objectives and Policies related to Agriculture:

Objectives:

- To achieve a healthy, sustainable, and stable food supply by working with food producers, citizens, First Nations, municipalities, senior government, Health Authorities, and other stakeholders to support local and regional food security.
- To recognize, preserve, improve, and expand the agricultural land base in the plan area.
- To encourage diversification, small farm development, and ecological and economic sustainability of the farming community.

- To minimize the potential negative effects from non-agricultural development occurring at the edge of farming areas and within agricultural lands.
- To accommodate housing that meets the needs of farmers and minimizes the negative effects on farm land.

Policies within the OCP as they relate to agriculture are divided into the following sections:

- Agricultural Land Base (Land Use)
- Economic Sustainability
- Agriculture Interface
- Housing
- Environmental Protection
- Food Security
- Decision making criteria for lands designated Agricultural

Highlights relevant to the Squamish Valley Agriculture Plan include:

5.5.7. The use of tools and approaches such as Agricultural Land or Farmland Trusts, and the Community Farms Program (administered by Farm Folk/City Folk in collaboration with The Land Conservancy of BC) is supported.

5.5.13. The owners of agricultural lands are encouraged to facilitate the use of the land for agriculture by actively farming, leasing or loaning their lands to persons that would undertake active farming.

5.5.14. The Board encourages economic diversification initiatives accessory to and compatible with farming that add value to locally produced farm products by:

- Supporting the development of farm outlets for the sale of local agricultural products;
- Permitting roadside stands for farm gate sales of agricultural products;
- Permitting bed and breakfasts in agricultural areas and guest houses/small scale agritourism operations that feature farm vacations and farming related activities; and,
- Supporting home occupations that produce value added products from locally produced agricultural products.

5.5.20 Food security should be supported through community gardens and agricultural land trusts, public edible landscaping, responsible composting and animal rearing, preservation and appropriate use of the Agricultural Land Reserve, support of local food growers and community kitchens, good distribution and cooking programs for food and nutrition education.

5.5.21 The following criteria shall be used when making decisions, recommendations, setting conditions of approval, application requirements and setting policy for Zoning Bylaws and Development Permit Area guidelines including but not limited to permitted uses, non-farm uses, parcel size, subdivision, Development Variance Permits and Temporary Use Permits in Electoral Area D:

- What is the agricultural potential of subject & adjacent parcels and how would it be affected?
- What is the Agriculture capability rating (CL) of the land?
- Does the proposal, decision or action benefit / support / restrict farming on the property?

- Does the proposal, decision or action benefit / support / restrict farming on neighbouring properties?
- What is the Impact on existing or potential farm uses?
- What is the potential for conflict between farm and non-farm uses?
- What are the good and bad examples of similar applications? What might the precedence be of those related applications, and/or of this application?
- Does it conform to regional & community planning objectives?
- Is there an alternate location outside ALR where a use or activity could be located?
- What alternative sites outside the ALR have been explored?
- What are the cumulative negative effects on agriculture of the proposal in conjunction with other development occurring in the area?

5.5.22 Agricultural Impact Assessments should be considered to measure the impacts of a proposed major rezoning, subdivision or non-farm use on the ALR or farmed lands. Mitigation should be required for identified impacts. An Agricultural Impact Assessment prepared by a qualified professional should address the following:

- Loss of ALR land and existing agricultural use, and consequential impacts on existing farm operations as a result of the development proposal;
- Severance or separation of ALR lands and areas of existing agricultural use from the main body of the ALR, or from the main portion of operating farms;
- Loss or alteration of access to ALR lands and existing agricultural use;
- Disturbance of drainage and aquifers affecting ALR lands and existing agricultural use;
- Disturbance of on-farm irrigation systems or other utilities;
- Disturbance of fencing and other works used for livestock control and property security;
- Increased noise near noise-sensitive agricultural operations;
- Increased public access and consequential problems (e.g. littering, vandalism, theft, interference with livestock etc.); and
- Disturbance of existing livestock and machinery movements, either on-farm or between farm properties.

SLRD Area D Zoning Bylaw

The SLRD Electoral Area D Zoning Bylaw was adopted in August 2016. There are two agriculture zones: Agriculture 1 Zone and Agriculture 2 Zone. Almost all of the agriculture land within Area D is zoned 'Agriculture 1 Zone'.

Definitions:

AGRICULTURE means the use of land, buildings, and structures for the growing, producing, raising or keeping of animals and plants, including apiculture, and the primary products of those plants or animals. It includes the harvesting, processing, storing, and wholesale of agricultural products produced from the same parcel or same farm, farm retail sales, the repair of farm machinery and related equipment used on the same farm. It also includes agroforestry, horse riding, training, and boarding, greenhouse and nursery uses, but **does not** include kennels, pet breeding, or a cannabis production facility.

AGRITOURISM ACTIVITIES means:

(a) The following activities:

- (i) an agricultural heritage exhibit displayed on the farm.
- (ii) a tour of the farm, an educational activity or demonstration in respect of all or part of the farming operations that take place on the farm, and activities accessory to any of these.
- (iii) cart, sleigh, and tractor rides on the land comprising the farm.
- (iv) subject to Section 2(2)(h) of the ALR Use, Subdivision, and Procedure Regulation, activities that promote or market livestock from the farm, whether or not the activity also involves livestock from other farms, including shows, cattle driving, and petting zoos.
- (v) dog trials held at the farm.
- (vi) harvest festivals and other seasonal events held at the farm for the purpose of promoting or marketing farm products produced on the farm.
- (vii) corn mazes prepared using corn planted on the farm.
- (viii) services that are ancillary to (i) through (vii) and that are in compliance with the *ALC Act*, and the ALR Use, Subdivision, and Procedure Regulation.

(b) The activities identified in (a)(i)-(viii):

- (i) must be carried out on land that is classified as a farm under the *Assessment Act*.
- (ii) must be to which members of the public are ordinarily invited, with or without a fee.
- (iii) must not use, construct, or erect any *permanent facilities*. No existing *permanent facilities* may be used, or converted for use, without an approved non-farm use application and a valid building permit for assembly use.
- (iv) must be in compliance with the Agricultural Land Commission Act, and the ALR Use, Subdivision, and Procedure Regulation.
- (v) must be *accessory* to and related to the *principal use* of the property, which is farming.
- (vi) must be *temporary and seasonal, and promote or market farm products* grown, raised, or processed on the farm.
- (vii) must not include any accommodation.

The majority of the ALR land in the SLRD Area D is zoned Agriculture 1

Page 52-59 of [the Bylaw](#) sets out very detailed requirements for activities in zone AGRI 1. Referring to the ALC Act for most requirements. Some regulations may have changed based on recent changes to the Act.

Table 16. SLRD Area D zoning and considerations for adjustments.

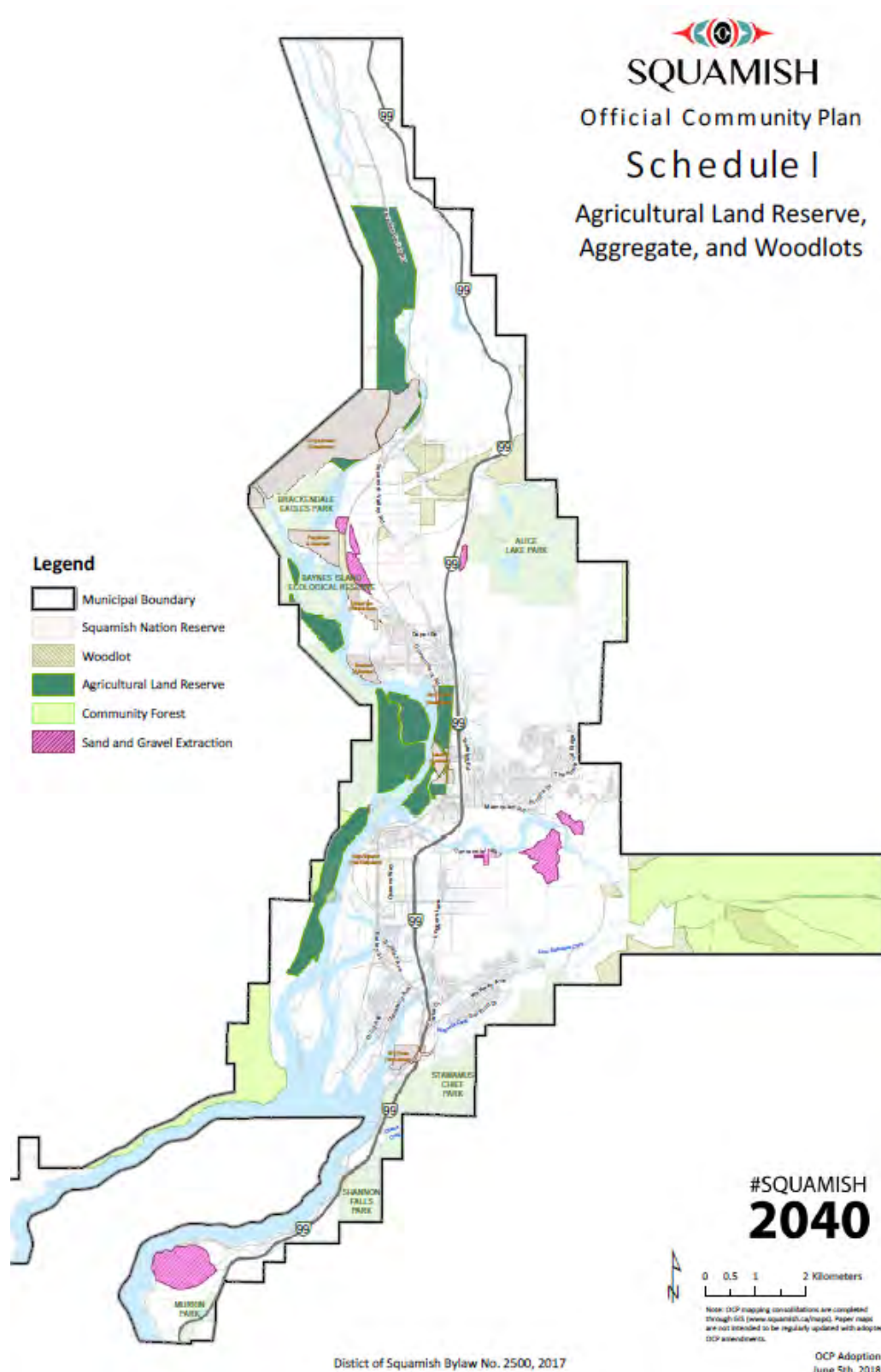
Component of Zone AGR1	Current	Considerations
Intent	To provide for agricultural development and to protect the agricultural integrity of the land within the ALR.	
Permitted Uses	<p>6.1.2 In the AGR1 Zone the use of land, buildings and structures is subject to the Agricultural Land Commission Act (ALCA) and the Agricultural Land Reserve Use Subdivision and Procedure Regulation (Regulation), and restricted to:</p> <p><i>agriculture, including intensive agriculture</i></p> <p>aquaculture</p> <p>forestry practices, including silviculture and harvesting, but not including processing or manufacturing</p> <p>brewery, cidery, distillery, meadery, or winery subject to the <i>Liquor Control and Licensing Act</i></p> <p><i>farm residence</i>, subject to Section 6.1.4</p> <p><i>agritourism activities</i>, subject to Section 4.4</p> <p><i>farm retail sales</i>, subject to Section 6.1.5</p> <p><i>gathering for an event</i>, subject to Section 6.1.8</p> <p>secondary suite</p>	<p>The ALRUSP is now split into 2 regulations:</p> <p>ALR General Regulation</p> <p>ALR Use Regulation</p> <p>New considerations based on ALC Act and may require application to the ALC for the following uses:</p> <ul style="list-style-type: none"> - secondary suite - <i>farm employee residence</i>, subject to Section 6.1.4 - <i>temporary farm worker housing</i>, subject to Section 6.1.6 - <i>accessory buildings and accessory uses</i>

	<p>bed and breakfast</p> <p><i>home office</i></p> <p>home craft</p> <p><i>farm employee residence</i>, subject to Section 6.1.4</p> <p><i>temporary farm worker housing</i>, subject to Section 6.1.6</p> <p><i>accessory buildings and accessory uses</i></p> <p>.1 On <i>parcels</i> of 2 ha or greater, the additional permitted <i>uses</i> are:</p> <p>Operation of a temporary sawmill if at least 50% of the volume of the timber is harvested from the farm or <i>parcel</i> on which the sawmill is located.</p> <p>.2 On <i>parcels</i> of 60 ha or greater, the additional permitted <i>uses</i> are:</p> <p><i>Cannabis production facility</i></p>	<p>Local governments can prohibit growing cannabis within buildings that are not soil-based (e.g. concrete indoor or greenhouse facilities).</p>
Minimum parcel size	40 ha	ALC Act and Regs are silent on minimum parcel size
Maximum dwellings per parcel	<ul style="list-style-type: none"> on <i>parcels</i> less than 4 ha: 1 <i>farm residence</i> in accordance with s. 6.1.4 on <i>parcels</i> 4 ha or greater, 1 <i>farm employee residence</i> may be permitted in accordance 	<p>Maximum dwelling rules have changed under the new ALR Regulations. Secondary dwellings must be only approved if necessary for farm worker and no mobile</p>

	<p>with s. 6.1.4 and subject to the following conditions:</p> <ul style="list-style-type: none"> the property has farm class under the BC Assessment Act, and an application on the prescribed form has been submitted to, and approved by, the SLRD, in consultation with the Ministry of Agriculture, that provides evidence that there is a demonstrated need for a <i>farm employee residence</i> commensurate with the present level of agriculture occurring on the property. on parcels 4 ha or greater, <i>temporary farm worker housing</i> may be permitted in accordance with s. 6.1.4 & s. 6.1.6 	<p>homes are permitted for family members. All secondary dwellings must be approved by the ALC.</p> <p>Farm employee residence no longer permitted without an application to the ALC.</p> <p>Temporary Farmworker Housing may require an application to the ALC.</p>
Maximum gross floor area for farm residence	350 m2	
Maximum gross floor area for farm employee residence	180 m2	Development of a building for farm employee residence would need to be approved by ALC and local government.
Section 6.1.4 Farm residential footprint, farm residence, farm employee residence	Maximum farm residential footprint is 2,000 m2 which can be increased to 2,500 m2 if there is also a farm employee residence or farm worker housing.	

Appendix 3

District of Squamish Maps





SQUAMISH

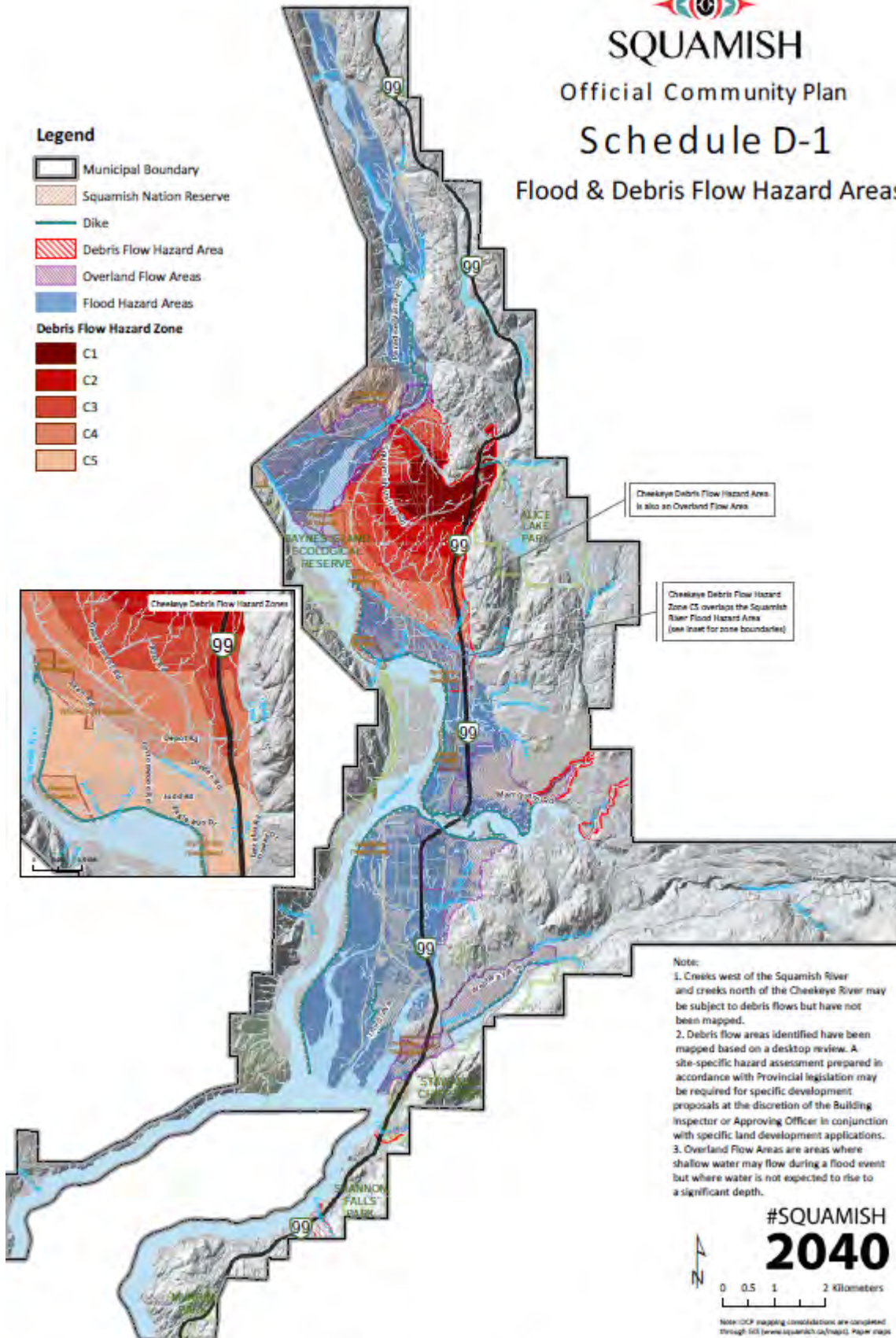
Official Community Plan

Schedule D-1

Flood & Debris Flow Hazard Areas

Legend

- Municipal Boundary
 - Squamish Nation Reserve
 - Dike
 - Debris Flow Hazard Area
 - Overland Flow Areas
 - Flood Hazard Areas
- Debris Flow Hazard Zone**
- C1
 - C2
 - C3
 - C4
 - C5



Note:

1. Creeks west of the Squamish River and creeks north of the Cheekye River may be subject to debris flows but have not been mapped.
2. Debris flow areas identified have been mapped based on a desktop review. A site-specific hazard assessment prepared in accordance with Provincial legislation may be required for specific development proposals at the discretion of the Building Inspector or Approving Officer in conjunction with specific land development applications.
3. Overland Flow Areas are areas where shallow water may flow during a flood event but where water is not expected to rise to a significant depth.



0 0.5 1 2 Kilometers

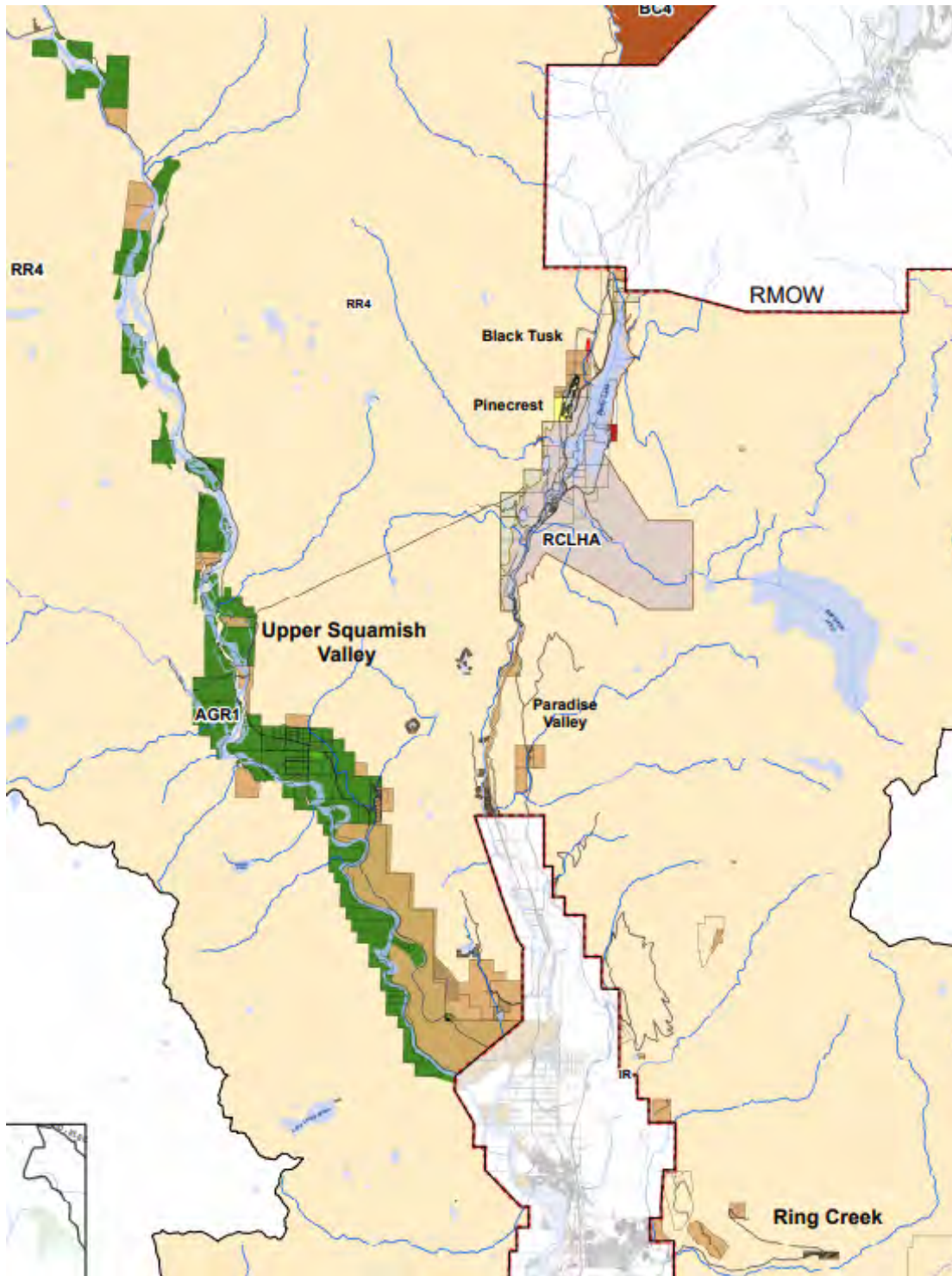
Note: OCP mapping considerations are completed through GIS (www.squamish.ca/gis/). Paper maps are not intended to be regularly updated with adopted OCP amendments.

OCP Adoption
June 5th, 2018

Distict of Squamish Bylaw No. 2500,2016

Appendix 4

SLRD Agricultural Land Reserve Map



Agriculture land in the SLRD Area D, zoned AGR1 in dark green⁶⁵.

⁶⁵ [Squamish-Lillooet Regional District Zoning Bylaw](#) No. 1350-2016. Schedule B.