



Stewardship Pemberton Society

# Village of Pemberton Community Agricultural Parks Master Plan Final



July 26, 2016

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## Acknowledgements

The Pemberton Agricultural Parks Master Plan was developed by:



With the assistance of:



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Thanks to Dave Steers for contributing photographs for this report.

## Acronyms

AAP	Agricultural Area Plan
ALC	Agricultural Land Commission
ALR	Agricultural Land Reserve
APMP	Agricultural Parks Master Plan
BDL	Below Detection Limit
BMPs	Best Management Practices
CEQG	Canadian Environmental Quality Guidelines
CFOW	Community Foundation of Whistler
CSA	Community Supported Agriculture
OCP	Official Community Plan
OMRR	Organic Matter Recycling Regulation
PFI	Pemberton Farmers Institute
PVTA	Pemberton Valley Trails Association
REFBC	Real Estate Foundation of BC
RGS	Regional Growth Strategy
SD48	School District 48
SLRD	Squamish-Lillooet Regional District
SPS	Stewardship Pemberton Society
UGB	Urban Growth Boundary
VOP	Village of Pemberton

## Executive Summary

The Village of Pemberton, in partnership with Stewardship Pemberton Society (SPS), has created an *Agricultural Parks Master Plan* (the “Plan”). The Plan includes four publicly-owned (or tenured) parcels of land both in and outside of the Agricultural Land Reserve (ALR) totaling 27.5 hectares (approximately 67 acres).

Visioning for the Plan began in 2014 when Village of Pemberton staff was given support from Council to explore how the community could benefit from certain opportunities to farm the following properties:

- Lot A - Airport lands (20 hectares in the ALR);
- Lots 8 & 20 - at end of Harrow Road (approximately 6 hectares in the ALR); and
- Lot13 - next to Signal Hill Elementary School (1.5 hectares outside the ALR).

The long term vision for the Plan is:

*The unique parcels within the Agricultural Parks Master Plan will be managed by and for the community for enhanced agricultural production, under the guidance of the Village of Pemberton.*

The services of Upland Agricultural Consulting and KSalin Land Planning were retained to assess the parcels for their suitability for community supported agricultural activities<sup>1</sup> that are consistent with the *Agricultural Land Commission Act*. The scope of the Plan includes an agricultural feasibility assessment to identify specific uses that can lead to viable food production opportunities that are connected to community needs. The Plan will inform the Village of Pemberton’s future review of its Official Community Plan and Zoning Bylaw and is an exemplary collaborative initiative between local government, non-profit organizations, and the community at large.

The Plan was developed through four phases:

- 1) Site-based soil analysis;
- 2) Agricultural suitability assessment;
- 3) Connections to the broader community; and
- 4) Agricultural Parks Master Plan report.

The Plan has been developed with input and feedback from members of the community regarding the potential of these parcels for future food production. This engagement included meetings with stakeholders and an open house to showcase the draft Plan and associated site design drawings. Through this assessment and engagement, the best agricultural uses of the parcels were determined to be:

### Site A (Airport): Community Supported Agriculture - Vegetables & Flowers Program (20 hectares or 49 acres)

This parcel is located adjacent to a paved runway at the Pemberton aerodrome, within the ALR, and has been used for hay production for the last several years. There is limited public access to the site due to aviation-related security requirements. There is a strong public interest in a Community Supported Agriculture (CSA) model being derived from this site (garlic and onions, perennial flowers, and food-grade grains are of particular

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<sup>1</sup>Community Supported Agriculture (CSA) is defined as “an alternative, locally based economic model of agriculture and food distribution”. A CSA also refers to a particular network or association of individuals who have pledged to support one or more local farms, with growers and consumers sharing the risks and benefits of food production. CSA members or subscribers pay at the onset of the growing season for a share of the anticipated harvest; once harvesting begins, they periodically receive shares of produce. In addition to produce, some CSA services may include additional farm products like honey, eggs, dairy, and meat.

interest). There is also the potential for lavender to be cultivated at this site, which could be used to create soaps and other value-added products. It is preferable that a long-term lease, at least 10 – 15 years, be negotiated with a farmer in order to provide the confidence needed to invest in crop planning and infrastructure (such as irrigation) to optimize yields. It is assumed that access will be coordinated with Village staff to ensure safety.

Sites B & C (Lots 8 & 20, Harrow Rd.): Enhanced Community Garden and Orchard (6 hectares or 14.83 acres)

These two lots are located adjacent to one another just off of the Lillooet River, near Harrow Rd. It is recommended that Lot 20 (Site B) remain undeveloped in order to provide optimal ecological goods and services through wetland protection. Lot 8 (Site C), which is 4 hectares in size, will be developed into an enhanced community garden, including a community fruit and nut tree orchard, a variety of raised beds, and berries. While equestrian uses were considered for this site, it would appear that both the size and location of the parcel(s) are not ideal for an equestrian riding ring. However, the possibility of developing a multi-user trail through Lot 8 to link Harrow Rd. to the Fraser Urdal Connector remains, and could be explored during the implementation phase.

Site D (Lot 13, Signal Hill): Active Learning Farm (1.23 hectares or 3.04 acres)

Lot 13 has a good opportunity to be managed as an Active Learning Farm. This lot is a long thin piece of land located underneath BC Hydro towers adjacent to Signal Hill Elementary School. Lot 13 will focus on an education and community garden model. Examples of activities may include interpretive gardens, farm to school food programs, pollinator gardens, and outdoor science classes. A learning farm, or learning garden, is usually operated by a non-profit society and provides programming for various sectors of the public, including school children.

Rooted in sound science, the lasting legacy of the *Pemberton Agricultural Parks Master Plan* will be the creation of unique, sustainable community agriculture parks under one cohesive umbrella. The Plan was funded by the Real Estate Foundation of BC (REFBC), the Community Foundation of Whistler (CFOW), and the Village of Pemberton. Organizations and governments wishing to create a similar *Agricultural Parks Master Plan* may use this project as a case study and template. The findings will be shared on the Village of Pemberton and Stewardship Pemberton Society websites, through our funders, as well as social media.



Figure 1. Pemberton Youth and Family Pull Your Own Potato event (photo credit Dave Steers).

## 1) Introduction

On July 22, 2014, at the Village of Pemberton (VoP) Committee of the Whole Meeting No. 119, staff presented a report in which it was recommended that Staff explore with the community certain opportunities to farm the following properties, which are owned or tenured by the VoP:

- DL 766 - Airport lands (20 hectares or 49 acres);
- Lots 8 & 20, DL 883 - at the end of Harrow Road (6 hectares or 14.83 acres); and
- Lot 13, DL 203, Plan 7619 - next to Signal Hill Elementary School (1.23 hectares or 3.7 acres).

The intent was to establish a possible course of action in farming these properties in response to community needs. In the report, staff requested support of the Committee of the Whole to recommend to Council initiation of a planning process in partnership with community interest groups for the development of these properties for agricultural purposes. The Committee of the Whole supported this initiative.

Subsequently, Council supported initiating the project at a Special Council Meeting No. 1373, held July 24, 2014, with the following resolution:

*Moved/Seconded*

*THAT the direction Staff is recommending respecting the development of Community Agricultural Parks, as presented in the report to the Committee of the Whole, dated July 22, 2014, be supported.*

*CARRIED*

The project was henceforth referred to as the *Agricultural Parks Master Plan* (the “Plan”). A partnership was formed with the Stewardship Pemberton Society (SPS) to co-manage the Plan’s development. Funding was received by the Real Estate Foundation of BC (REFBC) and the Community Foundation of Whistler (CFOW). In-kind support was provided by SPS and the Village of Pemberton (VoP). Professional Agrologist services were retained through Upland Agricultural Consulting Ltd. and site designs were developed by KSalin Land Planning.



*Figure 2. Active learning garden bedded down for winter at Pemberton Secondary School.*

## 2) Vision and Scope

The long term vision for the Plan is:

*The unique parcels within the Agricultural Parks Master Plan will be managed by and for the community for enhanced agricultural production, under the guidance of the Village of Pemberton.*

The scope of the Plan includes an agricultural feasibility assessment to identify specific uses for the parcels that can lead to viable food production opportunities that are connected to community needs. The Plan will inform the VoP's future review of its Official Community Plan (OCP) and Zoning Bylaw. The Plan is an exemplary collaborative initiative between local government, non-profit organizations, and the community at large. Organizations and governments wishing to create a similar *Agricultural Parks Master Plan* may use this project as a case study and template. The findings will be shared on the VoP website, and the SLRD website, through our funders, as well as social media.

## 3) Description of Study Area

The four parcels were assessed as three distinct sites:

- **Site A:** Located adjacent to the Village of Pemberton Airport (aerodrome) landing strip;
- **Sites B & C:** Two adjacent parcels located within SLRD Electoral Area C at the rural-urban interface between the VoP and the Squamish-Lillooet Regional District (SLRD). Site B is also referred to as Lot 20, and Site C is also referred to as Lot 8; and
- **Site D:** Located under BC Hydro powerlines immediately adjacent to Signal Hill Elementary School. Also referred to as Lot 13.

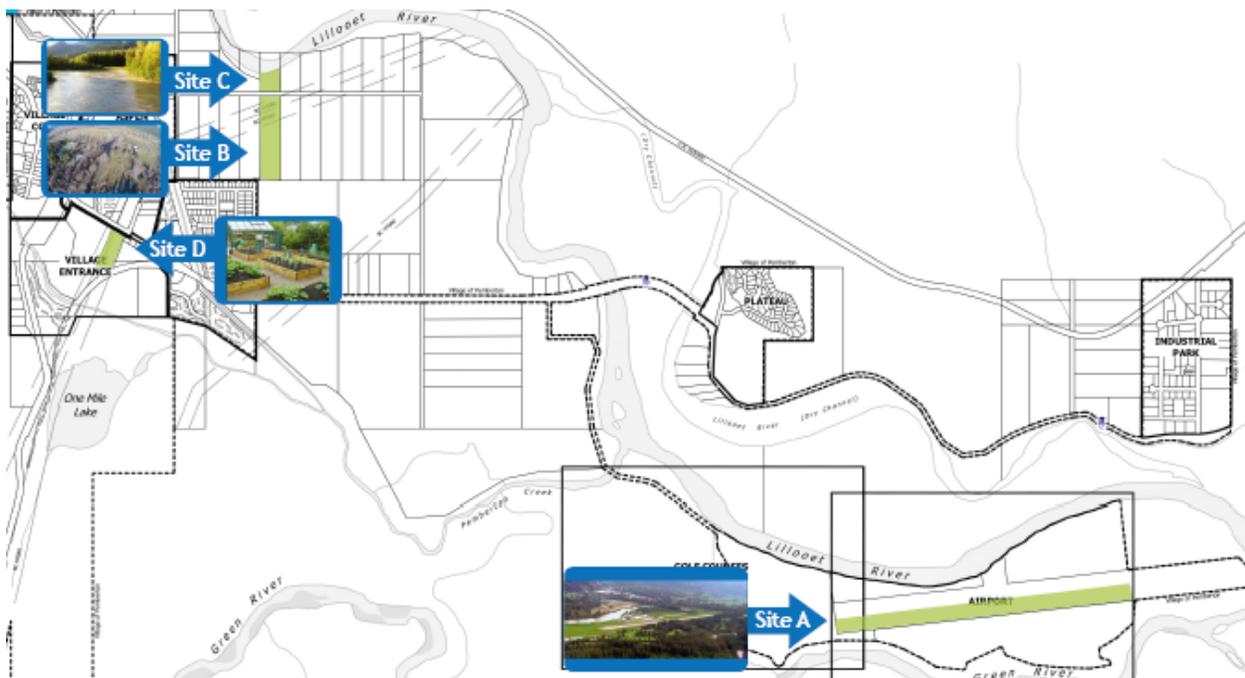


Figure 3. Location of study sites within the Village of Pemberton.

Table 1. Description of study site characteristics.

Parameter	Site A	Site B & C (Lots 8 & 20)	Site D (Lot 13)
<b>Location</b>	Located adjacent to a small paved landing strip at the Pemberton Airport (aerodrome).	Located at the end of Harrow Rd at the rural-urban interface between VoP and SLRD.	Long thin piece of land running North to South adjacent to Signal Hill Elementary School.
<b>Zoning</b>	Airport (AP-1)	Agriculture, Pemberton Fringe (AG-PF)	Public (P-1)
<b>ALR Status</b>	Within ALR	Within ALR	Non-ALR
<b>Tenure</b>	Village of Pemberton Crown Grant	Village of Pemberton Crown Lease	Village of Pemberton Crown Lease/BC Hydro Right of Way
<b>Size (Ha)</b>	20 hectares	6 hectares	1.5 hectares
<b>Previous agricultural uses</b>	The site has previously been used to cultivate hay and had been recently cut.	Not previously used for agriculture. The site was previously flooded by the Lillooet River.	Not previously used for agriculture. Vegetation is regularly cut back under hydro lines.
<b>Current land cover</b>	Hay/grass, horsetails, clover.	Scrubby vegetation, some trees (older crab apple, alder).	Lots of weeds, secondary growth. Reeds, cattails, and wild roses in wetter areas.
<b>Water and drainage</b>	No active signs of irrigation. Vegetation was green and vigorous suggesting that drainage is relatively good and water is readily available.	Soils appeared sandy and rapidly drained. No indication of irrigation. Potential water source exists adjacent to the site. Surface vegetation appeared dry.	Boggy and wet towards the south end of the site. Adjacent to a drained and irrigated playfield.
<b>Terrain</b>	Flat with some small pockets of undulating terrain.	Flat with slopes towards wetlands along the west and north ends of the site.	Undulating and somewhat stony.
<b>Agricultural Capability Class</b>	2w (1) Class 2 due to excess water (seasonally high water tables). Improvable to Class 1 with proper drainage and/or irrigation.	$2^8w - 4^2w$ ( $1^8 - 2^2w$ ) A mix of Class 2 and 4 due to excess water (seasonally high water tables). Improvable to Class 1 and Class 2 with proper drainage and irrigation.	$5^6m,p - 4^4w$ ( $4^6p,m - 2^4w$ ) A mix of Class 4 and 5 due to moisture issues and stoniness. Improvable to a mix of Class 2 and 4 soils with drainage and/or irrigation.

## 4) Local Supporting Policies and Regulations

### 4.1) Village of Pemberton Official Community Plan

The development of the Community Agricultural Parks Master Plan is directly correlated to Community Planning Directions, Policies, Strategies and Actions contained in the Village of Pemberton Official Community Plan (Bylaw 654, 2011). Section 5.8 of the OCP reads that “Agriculture has been fundamental to the settlement of the Pemberton Valley. The community recognizes the importance of this economic and social generator.” The following policies, strategies and actions puts an increased emphasis on the importance of not only protecting agriculture but also expanding the opportunities in both rural and developed areas.

#### OCP 5.8.1 Agricultural Policies

- Preserve and facilitate the enhancement of productive farmland;
- Promote local food production and sales;
- Accommodate community supported agricultural opportunities and land uses; and
- Support a wide range of agricultural practices and preserve land to build local food protection capacity.

#### OCP 5.8.2 Agriculture Strategies

##### .1 Urban Growth Boundary and Agricultural Land Reserve (ALR)

Section 5.1.2.1 of the OCP identifies an Urban Growth Boundary (UGB). The lands within the UGB contain areas that are designated for urban growth. A fundamental aspect of this policy is the preservation of agriculturally designated lands.

##### .2 Agricultural Land Reserve (ALR)

All lands within the ALR are subject to the provisions of the *Agricultural Land Commission Act*. The Act and regulations generally prohibit or restrict non-farm use and subdivision of ALR lands, unless otherwise permitted or exempted. The Village’s plans and regulations must permit those farm uses and related uses as permitted in the ALR (i.e. *Agricultural Land Reserve Use, Subdivision and Procedure Regulation*).

##### .3 Agricultural Area Plan

The SLRD is currently preparing an Agricultural Area Plan and if adopted by the VoP may inform later amendments to the OCP.

##### .4 Land Use Designations and Development Permit Guidelines

The VoP has designated lands to accommodate agricultural services and processing. In addition, future infrastructure planning in the Village should consider any affordable enhancements that would support agricultural operations’ access to water. Section 7 also introduces Development Permit Guidelines in support of agricultural lands and activities, notably buffering requirements and setbacks to developments that are adjacent to agricultural lands.

##### .5 Permanent Farmers Market and Event Space

Typically the Pemberton Farmers Market has had a temporary location on either public or private lands in the Downtown. A potential location for a permanent location for a Farmers Market has been identified on Frontier Street just north of Birch Street (which will be part of the implementation of the Downtown Enhancement Strategy (refer to 5.2.2.2 of the OCP)).

##### .6 Community Agriculture

The Village supports the inclusion of community gardens and greenhouses to encourage residents to grow their own food.

##### .7 Equestrian Land Use

The use of lands for equestrian purposes is supported by the Village, provided they are consistent with the requirements of the ALR.

#### OCP 5.8.3 Agricultural Actions

.1 Facilitate the development of a permanent location for the Farmers Market in the downtown through the implementation of the Downtown Enhancement Strategy;

- .2 Work with the agricultural community to ensure that existing uses accommodate farm related activities;
- .3 Encourage food growing within the community (small gardens, landscaping, greenhouses etc.) through the introduction of productive land use requirements and approval processes;
- .4 Determine those agricultural related uses that may be permitted in accordance with the Agricultural Land Reserve Use, Subdivision and Procedure Regulation;
- .5 Investigate bylaw amendments to encourage more farm uses in the Village;
- .6 Review the land use regulations to ensure that opportunities and locations for food processing can be maximized; and
- .7 Identify a location for a permanent equestrian facility for eventing.

#### 4.2) SLRD Electoral Area C Agricultural Area Plan

The Community Agricultural Parks Master Plan also complements the goals and objectives of the SLRD Electoral Area C *Agricultural Area Plan (AAP)*, which was completed in 2012. Specifically, the Agricultural Parks Master Plan will assist the SLRD in meeting the following goals of their Area C AAP:

1. Maintain the integrity of the ALR;
2. Develop mechanisms to maintain the agricultural land base for working agriculture;
3. Coordinate with other users to ensure that the natural advantages of the Pemberton Valley are protected;
4. Diversify agriculture and comply with Seed Potato Regulations;
5. Improve the economic viability of farming;
6. Increase community awareness of, and support for, agriculture; and
7. Attract new farmers and engage new workers.

#### 4.3) SLRD Regional Growth Strategy

The Community Agricultural Parks Master Plan is in harmony with many of the goals and strategic directions of the SLRD *Regional Growth Strategy (RGS)*, adopted in 2010. The RGS is intended to provide a broad policy framework describing the common direction that the regional district and its member municipalities will follow in promoting development and services which are sustainable, recognizing a long term responsibility for the quality of life for future generations.

The development of the Plan will assist the SLRD in meeting the following sections of their RGS:

##### Goal 4 – Achieve a Sustainable Economy

- The SLRD and the member municipalities agree to undertake various investment strategies (industrial, tourism, agriculture, etc.) at a regional and sub-regional level that complement sustainable economic development and diversification and assist the transition from traditional resource industries.
- The SLRD and the member municipalities agree to implement adopted Agricultural Area Plans for Lillooet sub-region and the Pemberton Valley in conjunction with First Nations, Ministry of Agriculture and the Agricultural Land Commission.
- Further, the SLRD RGS will be the subject of a five (5) year review in 2016 and there will be increased focus on rural–urban interface issues in terms of food security and production as part of this analysis.

#### 4.4) Other Local Projects and Initiatives

This Plan also supports larger regional movements toward sustainability, food security and resiliency occurring in the Sea to Sky area. The SLRD’s Energy Resiliency Task Force found that many residents in the region were interested in farming but were constrained by land prices and the availability of agricultural land for lease. Pemberton is already home to a very successful community garden with 75 plots and a long wait-list. Members of the community garden have longed for the opportunity to enhance their gardening skills and partake in community supported agriculture.

This project also supports agri-tourism in Pemberton and Area C. The Pemberton Valley currently supplies produce to some of the best restaurants in Whistler and Vancouver and is becoming renowned as a destination for “foodies”, with award-winning restaurants like Pemberton’s Mile One Café serving up Pemberton Natural Beef burgers and salads made with local produce, and events like the Pemberton’s Slow Food Cycle Sunday that showcase the incredible array of organic and traditionally-grown farm produce, as well as Pemberton’s historic fame as a virus-free Seed Potato mecca. All of these elements are putting this small agricultural community on the map, and having a network of community-supported agricultural parks, led by the VoP and made available to its residents, is a natural addition to Pemberton and its emerging brand as an agricultural leader.



Figure 4. Visitors and residents enjoying the Pemberton Downtown Community Barn (photo credit: Dave Steers).

## 5) The Agricultural Parks Master Plan Process

The Plan was developed through four phases:

- 1) Site-based soil analysis;
- 2) Agricultural suitability assessment;
- 3) Connections to the broader community; and
- 4) Agricultural Parks Master Plan report.

### 5.1) Phase 1 Results Summary: Soil Technical Report

The main deliverable for Phase 1 was a Soil Technical Report, which detailed results from site visits, soil sampling, and laboratory analyses. The four parcels were visited on August 26<sup>th</sup> 2015 so that the parcels could be ground-truthed and soil samples could be collected. Soil samples were analyzed by a third-party laboratory for the following parameters:

- Physio-Chemical: pH, CEC, organic matter, and particle size analysis (soil texture).
- Nutrients: Percent base saturation, available Phosphorus (P), Nitrate (NO<sub>3</sub>-N), and available micronutrients.
- Trace metals: Comparison of potentially toxic elements (e.g. Arsenic (As), Mercury (Hg), Lead (Pb)) to published soil quality guidelines.

Results indicate that the sites are a combination of loams, silty clay loams, and clay loams with good to excellent agricultural capability. Main challenges to capability relate to seasonally high water tables, which could be managed through proper drainage and irrigation. There is also some degree of stoniness at Site D (Lot 13, Signal Hill). While organic matter, phosphorus, and nitrogen levels are relatively low, this is not uncommon for sites that have not been previously cultivated, or (as suspected in the case of Site A, Airport), may have had repeated crop production with little to minimal levels of fertilizers applied. All pH and micronutrient levels are generally favourable. None of the trace metal results indicated any levels of toxicity concern when compared to two published guidelines: BC's Organic Matter Recycling Regulation (OMRR) Land Application Guidelines for Class A Compost and the Canadian Environmental Quality Guidelines (CEQG) soil quality guidelines for human health.

Table 2. Soil laboratory results: trace metals (BDL: below detection limit).

Parameter	Detection Limit	Site						Guidelines	
		Site A (Airport)		Site B & C (Lots 8 & 20)		Site D (Lot 13)		OMRR	CEQG
		Sample A1	Sample A2	Sample BC1	Sample BC2	Sample D1	Sample D2	Class A Compost	Soil Quality Guidelines for Human Health
Arsenic	1	2.9	2.2	1.2	1.1	BDL	BDL	13	12
Barium	1	107.9	116.9	55.2	57.5	72.6	71.8		750
Beryllium	1	BDL	BDL	BDL	BDL	BDL	BDL		4
Cadmium	1	BDL	BDL	BDL	BDL	BDL	BDL	3	1.4
Cobalt	1	11.2	11.9	7.4	7.3	7.9	8.0	34	40
Chromium	1	14.1	14.8	12.7	15.6	7.0	9.0	100	64
Copper	1	31.8	33.3	18.0	18.7	21.7	26.8	400	63
Mercury	0.1	BDL	BDL	BDL	BDL	BDL	BDL	2	6.6
Molybdenum	1	1.6	1.9	1.3	1.1	BDL	BDL	5	5
Nickel	1	9.9	10.5	8.1	9.2	4.5	5.5	62	50
Lead	1	12.6	13.6	14.3	16.1	10.8	11.0	150	70
Selenium	1	BDL	BDL	BDL	BDL	BDL	BDL	2	1
Zinc	1	51.7	57.3	54.4	58.7	33.8	36.4	500	200

In summary, the sites were assessed for agricultural potential and minimal constraints were found. It is expected that these constraints can be overcome through a combination of installing drainage and irrigation systems, and amending soil with organic matter and organic fertilizers. Continued soil testing and monitoring is recommended to provide detailed nutrient application recommendations if crop production is chosen at a future time.

## 5.2) Phase 2 Results Summary: Agricultural Suitability Assessment

The main deliverable for Phase 2 was a report that detailed the results for an assessment of suitable agricultural activities for each site. A table was presented that ranked all of the possible uses, as listed under the ALC Act, based on biophysical (water, soil, climate) needs as well as relative cost and feasibility of implementing and managing the activity. A detailed discussion of the results is provided in the Appendix and a summary is presented here. Additionally, research into appropriate crop-based Best Management Practices (BMPs) and an exploration into possible governance models for managing the sites were provided as components of Phase 2 deliverables. Relevant results are incorporated into the Plan in subsequent sections of this report.

*Table 3. Summary of agricultural feasibility assessment results.*

Permitted Use	Activity	Site		
		Site A (Airport)	Site B&C (Lots 8 & 20)	Site D (Lot 13)
Horticulture	Root vegetables (e.g. garlic, onions, carrots, radishes, beets)	High	High	High
	Green vegetables (e.g. lettuce, celery, cabbage, broccoli, spinach, herbs, kale)	High	High	High
	Field flowers	High	Moderate	High
	Squash (e.g. pumpkins, squash, melons)	High	Moderate	High
	Tomatoes, sweet peppers, eggplants	Low	Moderate	High
	Fruit trees and nut trees	Low	High	Moderate
	Blueberries	Moderate	High	Moderate
	Strawberries	Moderate	High	Moderate
	Raspberries	Moderate	High	Moderate
	Corn	Moderate	Moderate	Low
	Cereal grains and hay	High	Moderate	Low
	Grapes (for wine)	Low	Low	Low
Livestock, horses, bees	Honey bees	High	High	High
	Poultry (broilers, layers, turkeys)	Low	Moderate	Low
	Equestrian activities	Low	Moderate	Low
	Cows (beef or dairy)	Low	Low	Low
	Pigs, sheep, goats	Low	Low	Low
	Llamas, alpacas	Low	Low	Low
Greenhouse production	Hoop houses (cloth or plastic)	Moderate	High	High
	Poly houses (plastic)	Low	Moderate	Moderate
	Green houses (glass)	Low	Low	Low
Other	Farm retail sales	Low	High	High
	Agri-tourism	Low	High	High
	Biodiversity conservation	High	High	High
	Open land park	Low	High	High
	Education & research	Moderate	High	High
	Botanical garden	Low	High	Moderate
	Storing, packing, preparing, processing	Low	Moderate	Low
	Large scale compost operations	Low	Moderate	Low
	Petting zoo, pet breeding, and/or kennel	Low	Low	Low

### 5.3) Phase 3 Results Summary: Connections to the Broader Community

A consultation plan was developed by the VoP to guide engagement activities throughout the Plan process. The consultation plan called for various one-on-one and group meetings with invited stakeholders to be held throughout December 2015. A special government-to-government meeting was held with Lil'wat Nation in March 2016, and a public Open House was held in April 2016.

The following groups / sectors of the population were invited to participate:

- Pemberton Farmers Institute
- Pemberton Creek Community Garden
- Pemberton Farmer's Market
- Equestrian Community PACA/Equi-fest
- Airport Users Group
- SLRD / Electoral Area C Agricultural Advisory Committee
- SD48 / Signal Hill Elementary School / Pemberton Secondary School
- Pemberton Youth Centre
- Pemberton Seniors Society (Men's Tool Shed)
- Stewardship Pemberton Society
- Small/Medium Commercial Farmers and Market Gardeners - Ice Cap Organics, Bathtub Gardens, Willowcraft Farms, Rootdown Farms, North Arm Farm, Helmer's Organics, Across the Creek Organics, JD Hare Farms, etc.
- Apiarists (bee keepers)
- Conservation Officer Services representative
- BC Hydro representative

VoP staff prepared information on the Open House for the Village e-News, Round-about Sign, VoP Website, and Facebook page. Approximately 45 individuals attended the Open House held on April 28<sup>th</sup> 2016 at the Village Offices (White Building) to provide feedback on the draft Plan.



Figure 5. Agricultural Parks Master Plan Open House on April 28, 2016.

## 6) Agricultural Plan for Site A - Airport

### 6.1) Current Uses

Site A, located adjacent to a paved runway at the Pemberton aerodrome, is the largest site in the Plan, measuring 20 hectares (49.4 acres). It is owned and managed by the Village of Pemberton and is located within the ALR. It has been historically used for hay production for several years. The site is flat, shaded by mountains during the winter but exposed to sun during summer months, and the soils are well-suited to a range of production. The main constraint to agricultural activities is the limited ability to access the site due to aviation-related security requirements.



Figure 6. Aerial image of Site A boundaries (approximate).



Figure 7. Left photo: field view of Site A. Right photo: aerial view showing field location along the left side of landing strip.

## 6.2) Recommended Agricultural Uses

Activities on Site A will focus on one or two crops being grown on a medium-large scale. Based on feedback from the community there are some obvious constraints to the use of this parcel; however, there is interest in a Community Supported Agriculture (CSA) model being derived from this site. In particular, enhanced hay production, alliums (garlic and onions), perennial flowers, and food-grade grains are of interest. There is also the potential for lavender to be cultivated at this site. Although not a direct food product, the lavender could be used to create soaps and other value-added products. A portion of the revenues generated from these products could be re-incorporated into the Agricultural Parks system to support programming on other sites. The site will need to be managed by a small number of farmers (one or two) with a minimum amount of large equipment, in order to not interfere with aviation requirements. It is assumed that access will be coordinated with Village staff to ensure safety. Crops have been chosen that, once established, require minimal to moderate amounts of care and maintenance prior to harvest.

Table 4. Recommended agricultural uses for Site A (Airport).

Agricultural Uses		Considerations
	Garlic and onions	<ul style="list-style-type: none"> <li>• Can seasonally rotate plantings: onions in spring, garlic in fall.</li> <li>• Soil amendments for organic matter required.</li> <li>• Mulching, compost, and weeding will be required but overall fairly low maintenance.</li> <li>• No large equipment needed.</li> <li>• Irrigation will be required during hot dry summer – could be hoses, drip irrigation, or sprinklers.</li> <li>• Pest management: aphids, rodents.</li> </ul>
	Bulb flowers	<ul style="list-style-type: none"> <li>• Good drainage required.</li> <li>• Susceptible to predation by slugs, deer, other wildlife. Lack of fence may be a challenge.</li> <li>• May attract birds and insects, other pollinators.</li> <li>• Cutting / harvesting will need to be frequent in summer months.</li> </ul>
	Cereal grains or improved hay	<ul style="list-style-type: none"> <li>• Efforts could be made to enhance the quality of the hay that is currently being cultivated.</li> <li>• Strong demand for high quality hay for local horses.</li> <li>• Grains may attract bears or other animals.</li> <li>• May require addition/mixing of organic matter or fertilizer for improved yields.</li> <li>• Fairly low maintenance once established but planting and harvest equipment is large.</li> </ul>
	Lavender	<ul style="list-style-type: none"> <li>• Lavender prefers hot sunny weather (8 hours a day). This may be a challenge in winter.</li> <li>• Irrigation will be required during hot dry summer – could be hoses, drip irrigation, or sprinklers.</li> <li>• Raised beds or hills may be required for production to be feasible as lavender does not like wet soils.</li> <li>• May require liming as lavender likes pH in range of 6.7 – 7.3.</li> <li>• May require netting or other bird deterrents.</li> <li>• Fairly low maintenance – pruning in spring.</li> </ul>

### 6.3) Best Management Practices

This parcel is located adjacent to the landing strip at the Pemberton aerodrome, therefore the Best Management Practices (BMP) will reflect constraints related to the location. It is assumed that no fences or buildings will be installed on the site and that no livestock will be included in the farm plan. It is also expected that irrigation system design will need to be developed according to the availability of existing water sources and final crop plans will need to be vetted by the Village and airport users. The most relevant BMPs for Site A are provided in the following table.

Table 5. Relevant BMPs for Site A (Airport).

Issues	Description of BMPs
Terrestrial habitat protection and wildlife management	<p>Wildlife will continue to be deterred from entering the airport runway area. While the majority of the site is fenced, it is possible for bears and deer to access the site from time to time and for smaller mammals to access the fields on a regular basis.</p> <p>Fencing around the growing area is not an option at this site, therefore other deterrents will need to be used. These include:</p> <ul style="list-style-type: none"> <li>• Netting above plants (onions, garlic) and flowers.</li> <li>• Noise cannons to deter birds.</li> <li>• Mulch around plants to deter moles, mice, rats, voles, and other small mammals.</li> </ul>
Invasive plants and noxious weeds	<p>Noxious weeds should further be prevented from becoming established. Noxious weeds are listed in the <i>Weed Control Regulation</i>. Weeds reduce crop growth and affect the ability of crops to effectively use nutrients. Orange hawkweed, one eye daisy, spotted and diffuse knapweed, and purple loosestrife are common invasive plants in Pemberton. To minimize the impact of weeds and invasive species, implement the following BMPs:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Prevent problem weeds from going to seed by removing them at early life stages.</li> <li><input type="checkbox"/> Learn to identify weeds, particularly at the seedling stage.</li> <li><input type="checkbox"/> Apply appropriate controls at the recommended stage of crop and weed development.</li> <li><input type="checkbox"/> Clean up persistent perennial weeds.</li> <li><input type="checkbox"/> Control weeds along pathways.</li> <li><input type="checkbox"/> Use plastic and organic mulches to control or suppress weeds, when appropriate.</li> <li><input type="checkbox"/> Invasive plants should be removed physically, using manual labour, whenever possible.</li> <li><input type="checkbox"/> Work with the Sea-to-Sky Invasive Species Council.</li> </ul>
Soil and amendments	<p>Soil amendments include fertilizers, conditioners such as lime, soilless media constituents such as perlite, and organic sources of nutrients (manure, compost). It is expected that soil amendments and organic sources of fertilizers (N, P, K) will be used on this site. The following BMPs will help to minimize impacts on the environment.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Test pH and soil fertility on a regular (annually) basis so as to ensure the proper levels of lime and fertilizers are used.</li> <li><input type="checkbox"/> Match nutrient application to the developmental stage and rate of growth of the crop.</li> <li><input type="checkbox"/> Do not apply nutrients on excessively wet soils and soils which are cold, frozen or snow covered as these soils are less likely to absorb nutrients.</li> </ul>
Managing waste: compost, wood waste, and mulch	<p>Compost, wood waste, and mulch are waste materials that, if managed properly, can be used as a resource in food-growing areas. BMPs are required in order to minimize runoff and leaching organic and nutrient contaminants into the soil and nearby waterways. These BMPs include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Store raw materials and finished compost under cover.</li> <li><input type="checkbox"/> Use a concrete or other pad for large compost piles if possible.</li> <li><input type="checkbox"/> To reduce the degree of pollution, utilize sawdust from weathered wood waste or from less toxic softwood tree species such as spruce, pine or fir, or from hardwoods.</li> </ul>

Issues	Description of BMPs (continued)
Drainage	Drainage on the Airport Lot is likely poor in some areas. To minimize the impacts of excess water, the following BMPs should be used: <ul style="list-style-type: none"> <li><input type="checkbox"/> Create shallow drainage ditches, sloping slightly away from the growing areas, so that they remain in a free flowing state, but keeping grades shallow enough to reduce erosion.</li> <li><input type="checkbox"/> Consider installing drainage tiles if surface drains do not provide adequate drainage.</li> <li><input type="checkbox"/> Some crops, particularly lavender, prefer dry rooting depths and will require enhanced drainage.</li> <li><input type="checkbox"/> Connect drainage to existing infrastructure (culverts, larger ditches) in the immediate vicinity whenever possible.</li> </ul>
Irrigation	Irrigation is necessary in the summer, regardless of the amount of total precipitation received over the course of the year. The dry summers are responsible for moisture deficiency during the most important plant growing months and will have a direct effect on yield. Use of efficient irrigation practices that combine proper system design, operation, maintenance, and scheduling is required. The following BMPs should be employed ideally before drought conditions are announced so that in the event of a drought the impacts on the system are less pronounced. Note that irrigation system design is limited for sites under hydro lines and that water storage tanks will not be possible. <ul style="list-style-type: none"> <li><input type="checkbox"/> Install electronic timing devices to automate irrigation systems and adjust devices regularly to irrigate according to changing climate conditions over the irrigation season.</li> <li><input type="checkbox"/> When possible, irrigate during late night or early morning hours when evaporation and wind losses are generally lower.</li> <li><input type="checkbox"/> Check hoses and nozzles annually for wear.</li> <li><input type="checkbox"/> Check drip irrigation system emitters annually for signs of clogging: plugged piping/ emitters cause uneven water distribution.</li> </ul>

6.4) Recommended Governance and Key Partners

It is recommended that Site A continue to be managed by the Village of Pemberton and farmed by an individual (or individuals) directly through the Village of Pemberton using a lease agreement arrangement. Farm tenure agreements for publicly-owned land (such as parks, vacant lots) can be developed based on simple lease or license agreements with local government.

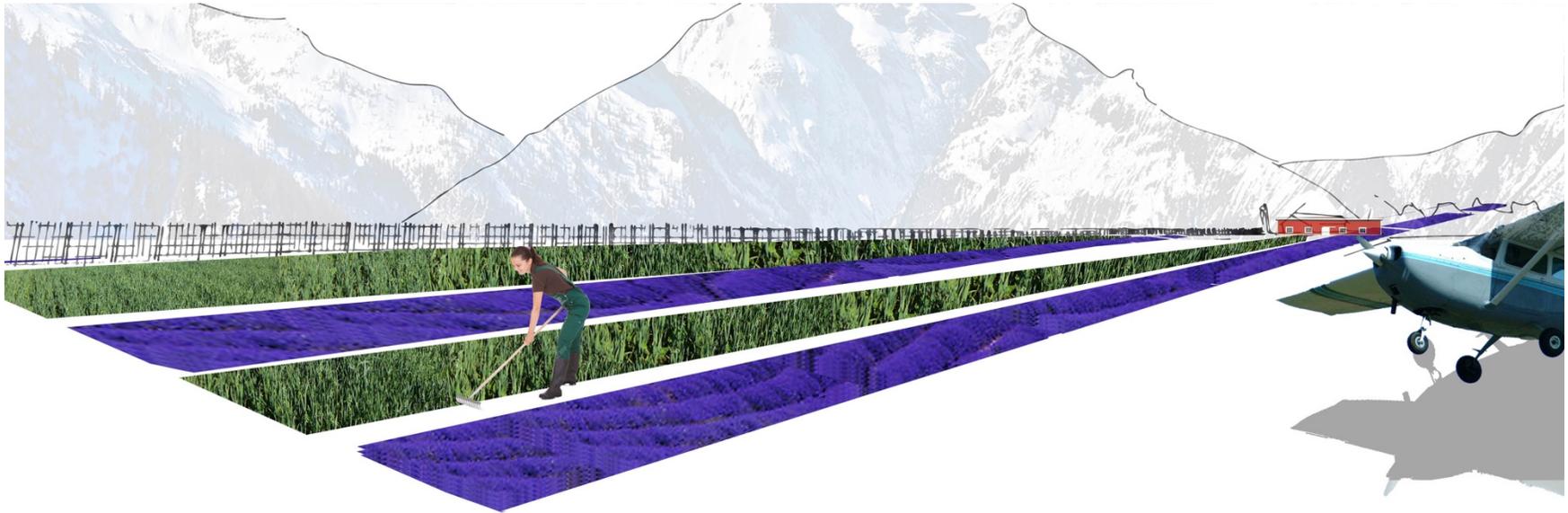
It is preferable if the lease is long-term, at least 10 – 15 years, in order to provide the producers with the security needed to invest in crop planning and infrastructure (such as irrigation) to optimize yields. By continuing to farm this parcel it will provide a good use of the land that would otherwise be underutilized for food production. It will also be aesthetically pleasing for those using the runway, particularly if perennial flowers and/or lavender are cultivated.

A business plan for the site could be created that incorporates a Community Supported Agriculture (CSA) program. This program would provide a regular veggie or flower box for shareholders during the growing season. Garlic, onions, flowers, and lavender could all be included. If grains and/or hay are grown they will likely take up a large amount of the fields, but they could be included in the CSA program as well.

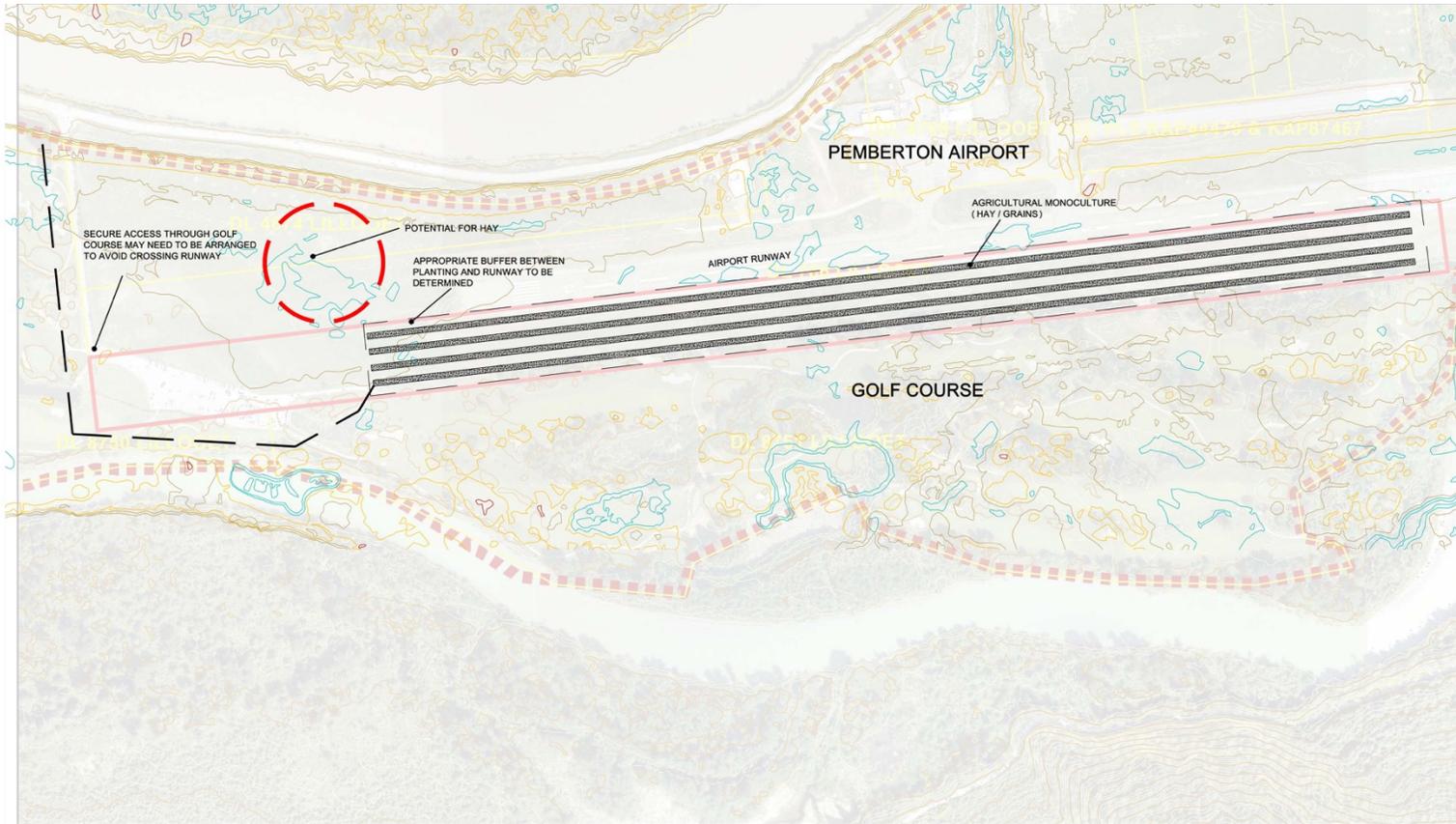
**Example:**  
 Sole Food Street Farms in Vancouver enters into a lease agreement with the City of Vancouver to produce farms in vacant lots, such as old gas station sites, which are in between land use. Sole Food sells its fruits and vegetables through a CSA, at farmer’s markets, local restaurants and retail outlets. Their CSA program runs from June until October.



## 6.5) Proposed Site Design of Airport Site



*Figure 9. Possible cropping activities on Lot A.*



AGRICULTURAL PARK PARCELS, PEMBERTON BC  
**PEMBERTON AIRPORT (SITE A)**



DRAWING SCALE  
 1:500  
 MAY 24, 2016



**BEST AGRICULTURAL OPTIONS FOR AIRPORT (SITE A)**



Figure 10. Proposed site design for Lot A (aerial view).

## 7) Agricultural Plan for Sites B & C (Lots 8 & 20) – Harrow Rd

### 7.1) Current Uses

Sites B & C (Lots 8 & 20) are adjacent parcels located in Electoral Area C. Site B (Lot 8) can be accessed via Harrow Road and Site C (Lot 20) can only be accessed via the Fraser Urdal Connector Trail. The total area of the sites is 5.95 hectares (14.7 acres). They have not previously been used for agriculture and were once flooded by the Lillooet River. As a result, the soils are characterized as very sandy and stony, with minimal soil structure or soil horizon development. A significant portion of the site is covered by a wetland.



Figure 11. Lots 8 and 20 outlined in red. Harrow Rd is shown connecting to the southwest corner of Lot 8.



Figure 12. Aerial image of Lot 8 and 20 facing north.

## 7.2) Recommended Agricultural Uses

It is recommended that Site C (Lot 20) remain undeveloped in order to provide optimal ecological function through wetland protection. Site B (Lot 8), which is 4 hectares in size, will be developed into an enhanced community garden. Examples of agricultural uses will include a community fruit and nut tree orchard, a variety of raised beds, and berries. Appropriate electric fencing and netting will be required to minimize conflicts with wildlife and to reduce the amount of food lost to birds. A garden shed, raised beds, and trails can be developed in partnership with community groups. While equestrian uses were considered for Lot 8 as part of the feasibility assessment, it would appear that both the size and location of the parcel is not ideal for an equestrian facility. Limited potential equestrian uses, such as an obstacle course could be located on the north-east section of Lot 8, if space permits. Unfortunately with this site, the portions of Lot 8 that are flat are under hydroelectric wires or are very boggy due to the proximity of the wetland. There was also some concern about access and the need for adequate parking space for horse trailers. However, the possibility of developing a multi-use trail that is horse-friendly through Lot 8 to connect Harrow Rd. to the Fraser Urdal Connector remains, and should be explored during the implementation phase.

*Table 6. Recommended agricultural uses for Site B (Lot 8, Harrow Rd.).*

Agricultural Use		Considerations
	Fruit and nut trees	<ul style="list-style-type: none"> <li>Initial purchase costs will need to be considered.</li> <li>Freeze &amp; thaw cycle may challenge establishment.</li> <li>Requires deep mineral soils for deep rooting requirements – soil structure may be a challenge in some areas.</li> <li>Fruit trees don't like wet feet – will need to plant trees in drier areas.</li> <li>Pollinators required.</li> <li>Electric fencing required.</li> </ul>
	Raised garden beds	<ul style="list-style-type: none"> <li>Requires labour for initial construction and establishment.</li> <li>Will require addition of soil matrix (compost/soil mix).</li> <li>Management of access and membership required.</li> <li>An access / parking plan will need to be developed.</li> </ul>
	Mixed berries (strawberries, blackberries, raspberries, blueberries)	<ul style="list-style-type: none"> <li>Initial purchase costs will need to be considered.</li> <li>Annual pruning and fertilizers required.</li> <li>Will require electric fencing.</li> </ul>
	Honey bees	<ul style="list-style-type: none"> <li>Will require electric fencing.</li> <li>Skilled labour required to maintain the hives.</li> <li>Possibility to partner with local beekeeping groups.</li> <li>Refer to VoP's Bee Keeping Bylaw (2008).</li> </ul>
	Horse riding area	<ul style="list-style-type: none"> <li>Riding arena will require adequate space, buffer from riparian area.</li> <li>Will require a relatively flat, dry area.</li> <li>Location for horse trailers and connection to roads and trails may be challenging.</li> <li>Possibility to partner with local equestrian groups to develop a hunter/jumper or obstacle course on north-east section of Lot 8.</li> </ul>
	Community trails	<ul style="list-style-type: none"> <li>Possibility to partner with PVTa (local trail group) and Equestrian groups.</li> <li>Would provide an important opportunity to connect existing trails.</li> <li>Depending on parcel boundary location, a bridge over the wetland may be required (labour).</li> <li>May include interpretive signage.</li> </ul>

### 7.3) Best Management Practices

Lot 20 is primarily wetland, therefore the focus of these BMPs is for Lot 8. It is assumed that only small buildings and structures (sheds, fencing) will be installed on the site and that no livestock will be included in the farm plan at this time. It is also assumed that most food production will occur in raised beds (except berry bushes and fruit & nut trees, which will be planted directly in the soil) and that organic farm practices will be used (no chemical fertilizers or pesticides will be used). The most relevant BMPs for Lot 8 are provided in the following table. The list of BMPs is a combination of those found in the literature and those derived from the agrologist’s experiences visiting the site.

*Table 7. Relevant Best Management Practices for Site B (Lot 8, Harrow Rd.).*

Issues	Description of BMPs
Terrestrial habitat protection and Wildlife Management	<p>Valley bottoms and lowlands, such as the Pemberton Valley, have longer growing seasons and are therefore more biologically productive than other parts of BC. This greater biological productivity makes these landscapes some of the best agricultural areas of the province, but they can also be disproportionately important to wildlife. Agriculture benefits from biodiversity in many ways. Countless species of soil organisms are essential to the process of decomposition, the cycling of nutrients and energy, and the formation of soil. Insects and other organisms are also needed as agents of biological control of crop pests and serve as plant pollinators. BMPs can help to support beneficial organisms while minimizing conflicts between food production and wildlife. These include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Know the wildlife species in the area and what habitats are present to determine if there are any threatened or endangered species.</li> <li><input type="checkbox"/> Perform an annual assessment of habitat health, implement changes identified, and monitor the results of any changes or improvements made.</li> <li><input type="checkbox"/> Provide wildlife with corridors for moving across the property (where appropriate, work with neighbours to establish continuous corridors).</li> <li><input type="checkbox"/> Conserve wildlife trees and other habitat features.</li> <li><input type="checkbox"/> Use Integrated Pest Management to decide when and how to control pests.</li> <li><input type="checkbox"/> Clean up spilled fruits, seeds, loose forage and other food sources which may attract wildlife.</li> <li><input type="checkbox"/> Use electric fencing to create a physical barrier between animals and crops. Note that in the absence of electric fencing, deer fencing may need to be 6-8 feet high to be effective.</li> </ul>
Aquatic Habitat Protection and Riparian Area Management	<p>Use of land for food production can create hazards for water quality and aquatic habitat. The following BMPs minimize the impacts of agriculture on aquatic health.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Ensure riparian areas are up to functioning condition by planting native species of vegetation and controlling invasive plants and noxious weeds, as required.</li> <li><input type="checkbox"/> Limit the number and use of in-stream crossings by constructing bridges or culverts wherever necessary.</li> <li><input type="checkbox"/> Perform an annual assessment of riparian health, implement changes identified, and monitor the results of any changes or improvements made. Consider the assistance of local environmental enhancement groups.</li> <li><input type="checkbox"/> Use a source other than ponds and wetlands for irrigation water.</li> </ul>
Soil and Amendments	<p>Soil amendments include fertilizers, conditioners such as lime, soilless media constituents such as perlite, and organic sources of nutrients (manure, compost). Lot 8 has fairly poor soil structure and minimal levels of organic matter. It is expected that soil amendments will need to be added for fruit and nut trees, berry bushes, and raised beds. It is expected that organic sources of fertilizers (N, P, K) will be used. The following BMPs will help to minimize impacts on the environment.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Test pH and soil fertility on a regular (annually) basis so as to ensure the proper levels of lime and fertilizers are used.</li> <li><input type="checkbox"/> Nutrients should be applied to trees and berries from early spring through late fall (March to May) in multiple applications.</li> <li><input type="checkbox"/> Match nutrient application to the developmental stage and rate of growth of the crop.</li> <li><input type="checkbox"/> Do not apply nutrients on excessively wet soils and soils which are cold, frozen or snow covered as these soils are less likely to absorb nutrients.</li> </ul>

Issues	Description of BMPs (continued)
Invasive Plants and Noxious Weeds	<p>Noxious weeds should be prevented from becoming established and, if present, prevented from spreading to neighbouring properties. Noxious weeds are listed in the <i>Weed Control Regulation</i>. Weeds reduce crop growth and affect the ability of crops to effectively use nutrients. Orange hawkweed, one eye daisy, spotted and diffuse knapweed, and purple loosestrife are common invasive plants in Pemberton. To minimize the impact of weeds and invasive species, implement the following BMPs:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Prevent problem weeds from going to seed by removing them at early life stages.</li> <li><input type="checkbox"/> Learn to identify weeds, particularly at the seedling stage.</li> <li><input type="checkbox"/> Apply appropriate controls at the recommended stage of crop and weed development.</li> <li><input type="checkbox"/> Clean up persistent perennial weeds prior to planting crops.</li> <li><input type="checkbox"/> Control weeds along roads and trails.</li> <li><input type="checkbox"/> Use plastic and organic mulches to control or suppress weeds, when appropriate.</li> <li><input type="checkbox"/> Invasive plants should be removed physically, using manual labour, whenever possible.</li> <li><input type="checkbox"/> Work with the Sea-to-Sky Invasive Species Council.</li> </ul>
Managing Waste: Compost, Wood waste, and Mulch	<p>Compost, wood waste, and mulch are waste materials that, if managed properly, can be used as a resource in agricultural areas. Appropriate uses of wood waste on Lot 8 are restricted to plant mulch, groundcover, trails, and access ways. BMPs are required in order to minimize runoff and leaching organic and nutrient contaminants into the soil and nearby waterways. These BMPs include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Store raw materials and finished compost under cover.</li> <li><input type="checkbox"/> If the compost, wood waste, or mulch is stored directly on the ground rather than on a raised concrete pad, divert runoff from the area.</li> <li><input type="checkbox"/> Use adequate buffers between areas receiving wood waste and watercourses to prevent leachate contamination.</li> <li><input type="checkbox"/> Do not apply wood waste outdoors to more than 15 cm of depth in any year and limit the total outdoor depth of wood waste areas to 30 cm.</li> <li><input type="checkbox"/> Do not use wood waste that may contain antisapstain chemicals, wood preservatives, fire retardation chemicals.</li> <li><input type="checkbox"/> To reduce the degree of pollution, utilize sawdust from weathered wood waste or from less toxic softwood tree species such as spruce, pine or fir, or from hardwoods.</li> <li><input type="checkbox"/> For equestrian uses (riding arenas and turnout paddocks) ensure that drainage systems under wood waste do not discharge into any ditch, creek, stream, or pond.</li> <li><input type="checkbox"/> Do not use wood waste as landfill to level an equestrian site (apply clean fill for levelling purposes before laying down any wood waste).</li> <li><input type="checkbox"/> Use alternative footing materials on equestrian sites, such as sand, if the wood waste BMPs cannot be met.</li> </ul>
Drainage	<p>The Lillooet River dyke to the north of Lots 8 and 20 is robust and is unlikely to fail, therefore the BMPs listed below are for events such as excessive rain or snowmelt causing surface water ponding that lasts days to weeks, primarily in the winter or spring. High water tables have a marked effect in the early part of the growing season by slowing root growth when top growth (shoots) is most vigorous. However, high water tables or even inundation have no serious effect on most plants if it is of short duration. It is only when prolonged that severe damage can be done. Flooding can also cause poor aeration, low seed germination rates, slow growth, uneven maturity, and poor quality and yield. To minimize the impacts of excess water, the following BMPs should be used:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The water table should be maintained at levels that would aid fruit and nut tree growth in the drier months. As a general rule, drainage should remove water to a 60 cm soil depth.</li> <li><input type="checkbox"/> To maintain drainage ditches in a free flowing state, keep grades shallow to reduce erosion. Sandy soils (such as those found on Lot 8) require shallower slopes than clay soils.</li> <li><input type="checkbox"/> Protect ditch banks, particularly those in sandy soils, against erosion with crushed rock, gravel or effective vegetation – this will filter sediments before they reach the ditch.</li> </ul>

Issues	Description of BMPs (continued)
Irrigation	<p>Irrigation is necessary in the summer, regardless of the amount of total precipitation received over the course of the year. The dry summers are responsible for moisture deficiency during the most important plant growing months and will have a direct effect on yield. Use efficient irrigation practices that combine proper irrigation system design, system operation (trickle or drip), maintenance and irrigation scheduling. The following BMPs should be used before drought conditions are announced so that in the event of a drought the impacts on the system are less pronounced.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Develop on-site water storage and collect runoff flows as a source of irrigation water.</li> <li><input type="checkbox"/> For raised beds, use hand-held watering techniques such as garden hoses, watering cans or use high-efficiency drip tape connected to a timer and/or soil moisture sensor.</li> <li><input type="checkbox"/> Install electronic timing devices to automate the system and adjust the devices regularly to irrigate according to changing climate conditions over the irrigation season.</li> <li><input type="checkbox"/> If sprinklers are used for fruit &amp; nut trees, operate the sprinkler system at the recommended operating pressure (excessive pressure can be inefficient and result in water loss due to evaporation and wind drift) and check sprinkler nozzles and replace worn units.</li> <li><input type="checkbox"/> Use soil moisture measurement techniques to schedule irrigation of fruit &amp; nut trees.</li> <li><input type="checkbox"/> When possible, irrigate during late night or early morning hours when evaporation and wind losses are generally lower.</li> <li><input type="checkbox"/> Check equipment regularly for leaks: common faults include leaking gaskets, defective sprinkler bearings and uneven pressure due to incorrect pipe sizes or difference in elevation.</li> <li><input type="checkbox"/> Check nozzles annually for wear: worn, oversized nozzles will apply excess water to the crop.</li> <li><input type="checkbox"/> Check trickle system emitters annually for signs of clogging: plugged emitters cause uneven water distribution.</li> </ul>
Buildings and Fences	<p>Structures such as building and fences can have impacts on the environment during construction stage, and if designed properly can have minimal impacts and can work with the food growing area. The BMPs for buildings and fences in Lot 8 include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Locate buildings using setback “standards” from watercourses <ul style="list-style-type: none"> <li>o at least 5 m from constructed ditches;</li> <li>o at least 15 m from natural watercourses;</li> <li>o a distance from channelized streams as given by conditions in “standards”; and</li> <li>o at least 30 m from any watercourse specified by the Building Code.</li> </ul> </li> <li><input type="checkbox"/> Sites that provide protection from wind by using windbreaks or by taking advantage of terrain should be favoured.</li> <li><input type="checkbox"/> Locate structures relative to one another to account for wind-drifted snow.</li> <li><input type="checkbox"/> Collect and manage roof water: in high rainfall areas, incorporate eaves troughs to divert roof drainage away from watercourses.</li> <li><input type="checkbox"/> For electric fencing, consider installing a solar energy battery source to power the fence.</li> </ul>

## 7.4) Recommended Governance and Key Partners

Site B (Lot 8) is a good candidate for being managed as a Community Farm. The land may be held “in trust” for the community rather than privately owned and can be leased (or licensed) by a non-profit organization. This type of tenure arrangement allows for a wide variety of activities to take place on a shared land base. Some initiatives may include:

- Food production;
- Environmental education;
- Agricultural mentorship and training;
- Conservation of natural and cultural heritage; and
- Outdoor recreation.

Community farming is one of the most viable and affordable ways for new farmers to get experience in agriculture. Benefits include sharing of costs and risks, sharing of labour, knowledge and experience. The farm, which could be named the Pemberton Community Farm, could be managed by the Stewardship Pemberton Society or other non-profit organization that is familiar with maintaining community garden programming. Key partners could include the Pemberton Valley Trails Association, to provide enhanced trail connectivity in the area, as well as the Pemberton AAC or Farmers Institute to provide assistance in developing some interpretative signage to highlight the agricultural heritage and history of the area. The equestrian community will also be a key partner in continuing to explore possible uses for the parcel, such as mixed use trails. The Crown is the current leaseholder of this site, therefore a sublease agreement to a non-profit society will require their agreement.

Key partners for Site B (Lot 8) will include:

- Village of Pemberton;
- Stewardship Pemberton Society (or other non-profit community garden group);
- Equestrian Community;
- Pemberton Farmers Institute (PFI);
- Pemberton Valley Trails Association (PVTA); and
- SLRD.

Example:

The Gabriola Commons, situated on Gabriola Island, is a place where sustainability, community and agriculture meet, featuring 26 acres of peaceful rural landscapes and rich ecosystems with significant biodiversity. The property includes connecting pathways, open vistas, meditative spaces, vibrant community gardens, learning and meeting facilities for the use and enjoyment of the public. The Gabriola Commons is a unique and distinct property on Gabriola with zoning that recognizes and enshrines the vision and spirit of a "community commons".

The Gabriola Commons Foundation (GCF) is a registered charitable society whose activities are directed by a Board consisting of nine elected trustees.

The purposes of GCF are to:

- Hold, protect and steward the property on Gabriola Island known as the "Gabriola Commons" as a public amenity for the use and enjoyment of the community in perpetuity;
- Preserve the ecological qualities of the Gabriola Commons; and
- Promote sustainable agricultural practices.

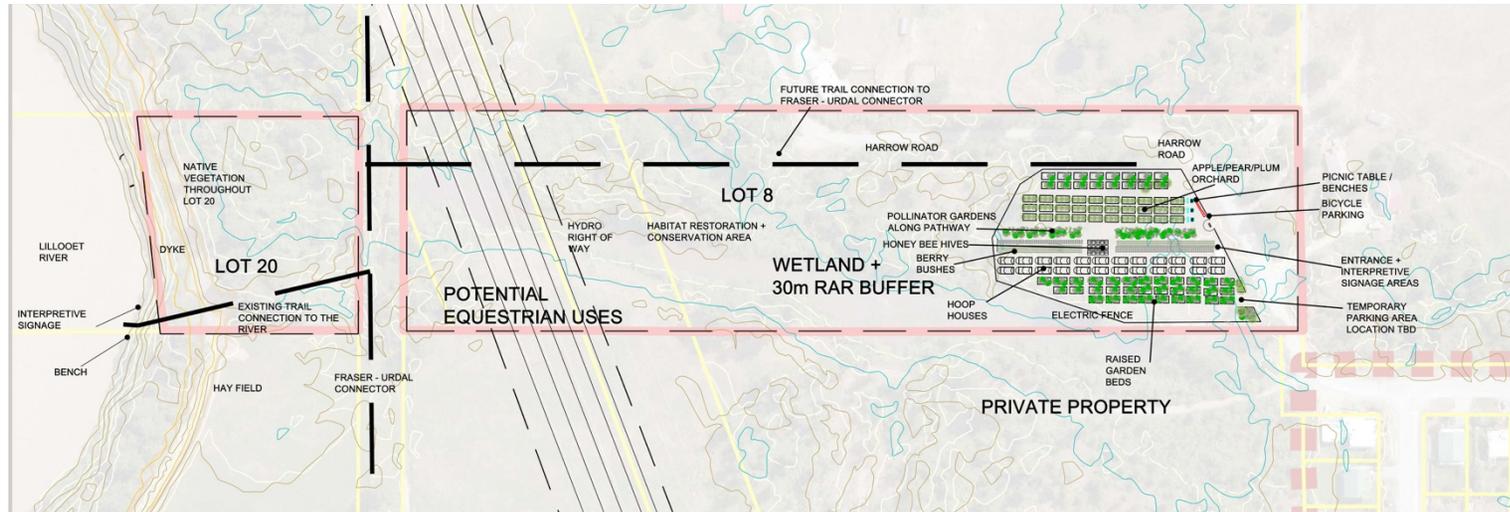


Figure 13. First Pemberton 'Seedy Saturday' (Seed Exchange) event (photo credit: Dave Steers).

## 7.5) Proposed Site Design



Figure 14. Proposed design for Site B (Lot 8).



AGRICULTURAL PARK PARCELS, PEMBERTON BC  
**LOT 8 & 20 (SITES B + C)** N

DRAWING SCALE  
 1:150  
 MAY 24, 2016



**BEST AGRICULTURAL OPTIONS FOR LOT 8 & 20 (SITES B + C)**



Figure 15. Proposed site design for Sites B & C (aerial view).

## 8) Agricultural Plan for Site D (Lot 13)

### 8.1) Current Uses

Site D (Lot 13) is a long rectangular piece of land 1.23 hectares (3.04 acres) in size located east of Signal Hill Elementary School under BC Hydro lines. It has not previously been used for agriculture, although the vegetation is managed by BC Hydro through mechanized mowing. As a result, the site is covered by secondary growth for most of the year. Reeds, cattails, and wild roses are found in wetter depressions, particularly towards the southern end of the site. A drained and irrigated playfield, maintained by School District 48 (SD48) 48, is located adjacent to Site D (Lot 13).



Figure 16. Aerial view of Site D boundaries (approximate).



Figure 17. View of Site D (Lot 13) from Portage Road.

## 8.2) Recommended Agricultural Uses

Site D will focus on an education and community garden model. Examples of activities may include interpretive gardens, farm to school food programs, pollinator gardens, and outdoor science classes. It is assumed that only small structures (raised beds, hoop houses, benches, pathways, fencing) will be installed on the site and that no livestock will be included. It is also assumed that hand held or drip irrigation (no sprinklers) and organic farm practices be used (no chemical fertilizers or pesticides will be used).

*Table 8. Recommended agricultural uses for Site D (Lot 13, Signal Hill).*

Recommended Use		Considerations
	Mason bees and butterflies	<ul style="list-style-type: none"> <li>• Opportunity for mason bee habitat.</li> <li>• May provide an educational opportunity for school children.</li> <li>• Provides pollination services.</li> </ul>
	Small hoop house	<ul style="list-style-type: none"> <li>• Will need to be low to the ground (max 7' tall).</li> <li>• Allows early plant starters and year-round production.</li> <li>• Will require a bit of capital for startup.</li> </ul>
	Raised beds	<ul style="list-style-type: none"> <li>• Requires labour for initial construction and establishment.</li> <li>• Will require addition of soil matrix (compost/soil mix).</li> <li>• Management of access and membership required.</li> <li>• Potential to partner with high school to share lessons and best practices.</li> </ul>
	Garden trails	<ul style="list-style-type: none"> <li>• May include interpretive signs.</li> <li>• 3m wide, cedar chips.</li> </ul>
	Garden shed, outdoor classroom	<ul style="list-style-type: none"> <li>• Communal building for storing tools</li> <li>• The outdoor classroom will provide a value-added experience for school children and community garden members.</li> </ul>

## 8.3) Best Management Practices

Best Management Practices (BMPs) are published by the Growing Forward initiative, as a resource under BC's Environmental Farm Plan program. When used appropriately, BMPs enhance natural resources and reduce the possibility of accidental harm to soil, air, water and/or biodiversity. BMPs can help to mitigate those impacts and maintain biodiversity. External pressures can also influence farm activities, such as the presence of invasive species. Many of the potential negative impacts of farming can be greatly reduced by use of BMPs. The list of BMPs for Site D is a combination of those found in the literature and those derived from the agrologist's experiences visiting the site.

Table 9. Recommended Best Management Practices for Site D (Lot 13, Signal Hill).

Issues	Description of BMPs
Structures, pathways, and fences	<p>Structures such as pathways, raised beds, benches, and fences can have impacts on the environment during construction stage, and if designed properly can have minimal impacts and can work with the food growing area. The BMPs for buildings and fences in Lot 13 include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Locate all structures and pathways at least 10 m from hydro towers.</li> <li><input type="checkbox"/> Electric fencing under hydro lines will likely be prohibited. Consider using stones, or other non-conducting materials for fencing.</li> <li><input type="checkbox"/> Use stones, wood or other non-conducting materials for raised beds and outdoor classroom structures (e.g. benches).</li> <li><input type="checkbox"/> Pathways should be maintained with gravel and sand.</li> <li><input type="checkbox"/> Any grading of the land should be done so that overall less than 0.5 m change from original grade is made.</li> <li><input type="checkbox"/> All structures must be less than 3 m high.</li> </ul>
Terrestrial habitat protection and wildlife management	<p>Greenways properly maintained under hydro lines can support biodiversity and act as wildlife connectivity features. BMPs can help to support beneficial organisms while minimizing conflicts between food production and wildlife. These include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Know the wildlife species in the area and what habitats are present to determine if there are any threatened or endangered species.</li> <li><input type="checkbox"/> Perform an annual assessment of habitat health, implement changes identified, and monitor the results of any changes or improvements made.</li> <li><input type="checkbox"/> Conserve and/or plant pollinator attractants (e.g. flowers, bushes).</li> <li><input type="checkbox"/> Use Integrated Pest Management to decide when and how to control pests.</li> <li><input type="checkbox"/> Clean up spilled fruits, seeds, loose forage and other food sources which may attract wildlife.</li> <li><input type="checkbox"/> Use fencing to create a physical barrier between animals and crops.</li> <li><input type="checkbox"/> Ensure that bear-proof waste/recycling receptacles are present and are emptied and maintained on a regular basis.</li> </ul>
Soil and amendments	<p>Soil amendments include fertilizers, conditioners such as lime, soilless media constituents such as perlite, and organic sources of nutrients (manure, compost). It is expected that soil amendments will be used when establishing the raised beds and that organic sources of fertilizers (N, P, K) will be used. The following BMPs will help to minimize impacts on the environment.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Test pH and soil fertility on a regular (annually) basis to ensure the proper levels of lime and fertilizers are used.</li> <li><input type="checkbox"/> Match nutrient application to the developmental stage and rate of growth of the crop.</li> <li><input type="checkbox"/> Do not apply nutrients on excessively wet soils and soils which are cold, frozen or snow covered as these soils are less likely to absorb nutrients.</li> </ul>
Invasive plants and noxious weeds	<p>Noxious weeds are often minimized as a part of regular maintenance under hydro lines. However, they should be further prevented from becoming established and, if present, from spreading to neighbouring properties. Noxious weeds are listed in the <i>Weed Control Regulation</i>. Weeds reduce crop growth and affect the ability of crops to effectively use nutrients. Orange hawkweed, oxeye daisy, spotted and diffuse knapweed, and purple loosestrife are common invasive plants in Pemberton. To minimize the impact of weeds and invasive species, implement the following BMPs:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Prevent problem weeds from going to seed by removing them at early life stages.</li> <li><input type="checkbox"/> Learn to identify weeds, particularly at the seedling stage.</li> <li><input type="checkbox"/> Apply appropriate controls at the recommended stage of crop and weed development.</li> <li><input type="checkbox"/> Clean up persistent perennial weeds.</li> <li><input type="checkbox"/> Control weeds along pathways.</li> <li><input type="checkbox"/> Use plastic and organic mulches to control or suppress weeds, when appropriate.</li> <li><input type="checkbox"/> Invasive plants should be removed physically, using manual labour, whenever possible.</li> <li><input type="checkbox"/> Work with the Sea-to-Sky Invasive Species Council.</li> </ul>

Issues	Description of BMPs (continued)
Drainage	<p>Drainage on Lot 13 is poor in some areas, particularly to the south end of the parcel. To minimize the impacts of excess water, the following BMPs should be used:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Create shallow drainage ditches, or a bioswale, sloping slightly away from the growing areas, so that they remain in a free flowing state, but keeping grades shallow enough to reduce erosion.</li> <li><input type="checkbox"/> Note that any digging will require pre-communication with BC Hydro to determine if any safety issues exist for Lot 13.</li> <li><input type="checkbox"/> Connect drainage to existing infrastructure (culverts, larger ditches) in the immediate vicinity whenever possible.</li> </ul>
Irrigation	<p>Irrigation is necessary in the summer, regardless of the amount of total precipitation received over the course of the year. The dry summers are responsible for moisture deficiency during the most important plant growing months and will have a direct effect on yield. Use of efficient irrigation practices that combine proper system design, operation, maintenance, and scheduling is required. The following BMPs should be employed ideally before drought conditions are announced so that in the event of a drought the impacts on the system are less pronounced. Note that irrigation system design is limited for sites under hydro lines and that water storage tanks will not be possible.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> For raised beds, use hand-held watering techniques such as garden hoses, watering cans or use high-efficiency drip PVC drip lines connected to a timer and/or soil moisture sensor.</li> <li><input type="checkbox"/> Install electronic timing devices to automate the system and adjust the devices regularly to irrigate according to changing climate conditions over the irrigation season.</li> <li><input type="checkbox"/> When possible, irrigate during late night or early morning hours when evaporation and wind losses are generally lower.</li> <li><input type="checkbox"/> Check hoses and nozzles annually for wear.</li> <li><input type="checkbox"/> Check drip irrigation system emitters annually for signs of clogging: plugged piping/ emitters cause uneven water distribution.</li> </ul>

8.4) Recommended Governance and Key Partners

Site D (Lot 13) has a good opportunity to be managed as an Active Learning Farm. A learning farm, or learning garden, operates on the premise that practical learning and hands-on experience are necessary elements to creating sustainable communities. Learning farms are usually operated by a non-profit society and provide programming for various sectors of the public. Educational programming can be coordinated the local School District to meet curriculum requirements.

Examples of programs that may be appropriate include:

- Outdoor classroom experiences
- Gardening classes
- Kids Farm Camps (on Professional Development Days, spring break, and/or summer break)
- After-school group access
- Local food access programming
- Community gleaning
- Shaded areas to sit and rest

Local non-profit organization Stewardship Pemberton Society (SPS) is well-positioned to lead the management of site activities on this parcel. SPS currently runs similar education-based programs for children from the One Mile Lake Nature Centre in Pemberton. SPS also manages the Pemberton Creek Community Garden and associated food bank programs. Tiyata Properties Ltd. may purchase a parcel of

Example: The City of North Vancouver allows The North Shore Neighbourhood House Edible Garden Project, a local non-profit organization, to operate the Loutet Farm in Loutet Park. The Loutet Park Farm license is for five years with an offer to renew for two additional consecutive five year terms.

land adjacent to Lot 13 and is interested in expanding the Lot 13 uses land to the community garden site proposed as part of their development. Discussions regarding implementation will include the developers of the adjacent parcel with respect to trail access and water (drainage) management.

Key partners for Site D will include:

- Village of Pemberton;
- Stewardship Pemberton Society;
- BC Hydro;
- Signal Hill Elementary School;
- School District No. 48 (Sea to Sky);
- Tiyata Properties Ltd.; and
- Pemberton Valley Trails Association.

Due to the location of the site, BC Hydro will be required to approve final site designs. Furthermore, a Crown amendment is required to ensure that agriculture is listed as an acceptable use on the site. While these steps are not expected to be onerous, they are critical to ensuring the development of the site moves forward in a straightforward manner.

## 8.5) Proposed Site Design for Site D



Figure 18. Proposed design for Site D (Lot 13).

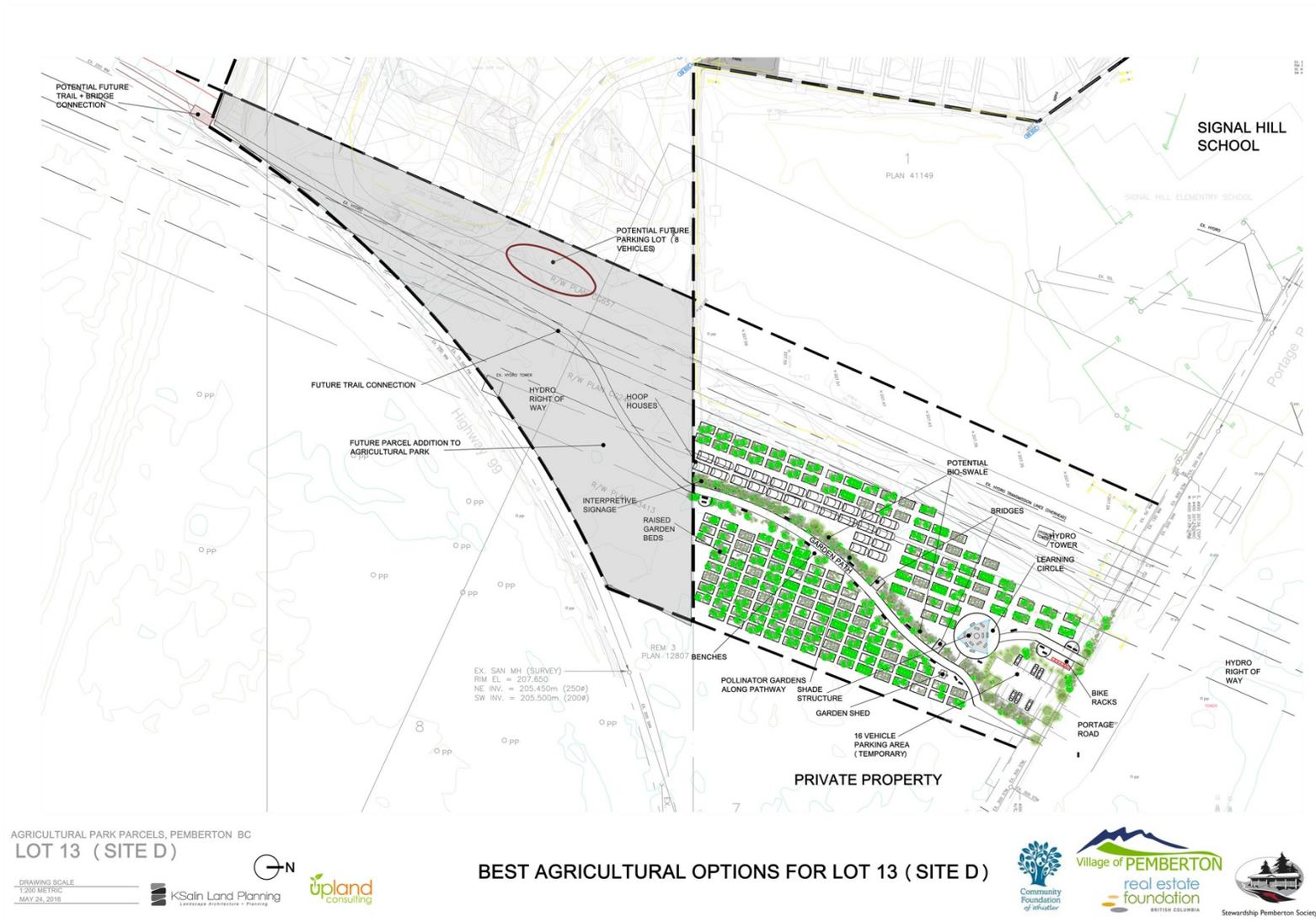


Figure 19. Proposed site design for Site D (aerial view).

## 9) Implementation Strategy

In order for the activities outlined in the Plan to become implemented on the ground, a strategy is required. The strategy, as outlined in the table below, will need to be led primarily by the Village of Pemberton, with support from other key stakeholders. The strategy will determine the priorities and preferred phasing of implementation of the various sites.

Table 10. Implementation actions, key and supporting players, and timeframe.

Implementation Phase	Implementation Step	Lead Players	Supporting Players	Timeframe
1) Adoption and endorsement	1.1 Present the Plan to the VoP Committee of the Whole for feedback & support.	VoP Staff	SPS, consultants	June 2016
	1.2 Present the Plan to VoP Council for adoption. Seek direction on Phasing / Implementation Priorities	VoP Staff	SPS, consultants	July 2016
	1.3 Present the Plan to SLRD Board for information/support.	VoP Staff / SPS		Summer 2016
	1.4 Present the Plan to other partners for support.	VoP Staff / SPS		Summer 2016
2) Finalize Site Plans	2.1 Amend crown lease agreement for Lot 13 to allow agriculture as a permitted use.	VoP Staff	BC Govt (MFLNR)	Summer 2016
	2.2 Receive approval from BC Hydro for Lot 13 site design.	VoP Staff	SPS, BC Govt, BC Hydro	Summer 2016
	2.3 Present final concept site plans with key partners in land development.	VoP Staff	PFI, BC Hydro, local developers, PVTA, others as required	Summer and Fall 2016
	2.4 Have site plans amended to reflect any final changes in details.	VoP Staff	Consultants, as required	Summer and Fall 2016
3) Formalize Governance Structures	3.1 Site A: Meet with Airport Users Group/representative and farmer(s) to review terms and sign lease agreement.	VoP Staff	SPS, Airport Users Group, farmer(s)	2016/2017
	3.2 Site B (Lot 8): Meet with non-profit society to review terms and sign lease agreement.	VoP Staff	SLRD, SPS, PVTA	2016/2017
	3.3 Site D (Lot 13): Meet with non-profit society, BC Hydro, and school to review terms and sign lease agreement.	VoP Staff	SPS, Signal Hill Elementary School, BC Hydro, Tiyata Development Ltd.	2016/2017
	3.4 Consider setting up a Board or other governance structure ("Governance Group") to oversee management on all sites and others that may be added over time.	VoP Council, SPS	PVTA, Pemberton Farmers Institute, Airport Users Group, others	Summer / Fall 2016
4) Secure Implementation Funding	4.1 Determine site development priorities.	VoP Staff and Council		Spring / Summer 2016
	4.2 Identify possible sources of funding for development of the sites.	VoP Staff, SPS		Fall 2016 - ongoing
	4.3 Apply for funding and manage successful applications.	VoP, SPS	Governance group	Fall 2016 – ongoing

Implementation Phase	Implementation Step (continued)	Lead Players	Supporting Players	Timeframe
5) Facilitate Agricultural Development	5.1 Ensure policies and regulations remain supportive and conducive to food production.	VoP, SLRD		Ongoing
	5.2 Ensure annual local & regional funding (including in-kind) is allocated to provide a supervisory role to the ag activities.	VoP, SLRD		Ongoing
	5.3 Coordinate production of various crops between the sites.	VoP, SPS		Every Winter / Spring
	5.4 Host regular “Governance Group” meetings to discuss any issues that may arise.	Governance group		Ongoing, semi-monthly
	5.5 Develop a high-level business plan for each site. Include details around capital inputs, ongoing operational costs, gross revenues, and net revenues. Consider whether labour will be provided by a paid staff, volunteers, or a mixture of both.	Governance group	VoP, SPS	Fall / Winter 2016
6) Communicate	6.1 Ensure that the success of the Agricultural Parks Master Plan is communicated to funders and beyond.	VoP Staff, SPS, Governance Group		Ongoing
	6.2 Create a webpage or website for the initiatives.	VoP Staff, SPS, Governance Group		Fall / Winter 2016
	6.3 Develop marketing and branding tools to communicate the project and the products arising from the food production.	Governance Group		Winter / Spring 2017
7) Monitor and Evaluate	7.1 Develop a set of indicators, milestones, and aspirations to monitor the successes and challenges of the project.	Governance group		Fall / Winter 2016
	7.2 Collect data regarding food production.	Farmers, Governance group		Ongoing
	7.3 Collect information about community programming occurring on the sites.	Non-profit users, Governance group		Ongoing
	7.4 Collect information and metrics about the returns being made to the community (agricultural, educational, economic).	Non-profit users, Governance group		Ongoing
	7.5 Provide annual reporting to communicate the benefit of the Agricultural Parks initiative.	VoP Staff, Governance group		Ongoing

## 10) Conclusion

Pemberton is well-known for its historically active ranches and farms. However, many farms and farmers are struggling as markets change and the average age of farmers' increases. Furthermore, many members of the community live in multi-family developments or apartments/suites in urban and semi-urban neighbourhoods without direct access to space to grow food. The focus of the *Pemberton Agricultural Parks Master Plan*, which includes over 27.5 hectares (68 acres) of land both in and outside the ALR, is to bring underutilized public farmland into production for the benefit of the greater community. The Village of Pemberton, in partnership with Stewardship Pemberton Society, has prioritized the preparation of this Plan in order to highlight what is possible in terms of community agriculture. It is intended to be used as an example of what could be done in other communities, who may also be able access public lands that are characterized by agricultural underproduction.

Based on soil, water, and climate data, there is a wide diversity of what can be cultivated on these different sites. The findings of this report rank specific and allowable agricultural uses for each site, and combine these findings with a discussion on governance opportunities. The *Pemberton Agricultural Parks Master Plan* will include an Active Learning Farm, an Enhanced Community Garden & Orchard, and a Community Supported Agricultural program. The next step will involve concentrating efforts on implementing the Plan, as outlined in the implementation steps provided, which will require leadership from the Village alongside continued partnerships with local non-profit organizations such as Stewardship Pemberton Society, Pemberton Farmers Institute, and the Pemberton Valley Trails Association.

One of the best ways to protect the agricultural land base and promote investment is to use farmland for farming. An increase in food production for community benefit in the Village of Pemberton will support the fact that agriculture is a significant contributor to the local economy. It will also underscore that using farmland for agricultural production is an important tool in strengthening local food security and promoting access to and education around the food system.

## Appendix 1

### Summary of Public Consultation

#### I. Key Stakeholder Consultation Results

Key components of the stakeholder consultation included:

- Brainstorming session on August 26<sup>th</sup>, 2014
- Invitational meetings between the project advisory committee and key stakeholders (Local Farmers, Apiarists, SLRD Area C Agricultural Advisory Committee, Airport Users Group, Equestrian Community, and Pemberton Valley Trails Association [PVTA]) on December 9<sup>th</sup>, 2015.
- Second Meeting with PVTA at the Fraser Urdal Connector to view Lots 8&20 on December 9<sup>th</sup> and 14<sup>th</sup>, 2015.
- Second Meeting with Pemberton Equestrian Community at the Fraser Urdal Connector to view Lots 8&20 on December 16<sup>th</sup>, 2015.
- Meeting with SD48, Parents Advisory Committee, Pemberton Secondary School representatives
- Meeting with Lil'wat Nation Land and Resources Committee on March 23<sup>rd</sup>, 2016.
- Public Open House on April 26<sup>th</sup>, 2016.
- Second meeting with Airport Users Group on May 18, 2016.

#### Summary of engagement:

On August 26<sup>th</sup>, 2014, the Village held a brainstorming session with interested community members for ideas and direction related to community supported agricultural park planning. There were seven (7) adults and four (4) children attending, and despite the small numbers, meaningful input was provided. The results of this session were presented at the Committee of the Whole Meeting No. 120, held on September 2<sup>nd</sup>, 2014.

A series of invitational key stakeholder meetings were held in Pemberton, B.C. on December 9<sup>th</sup>, 2015 to provide an update on the Pemberton Agricultural Parks Plan and gather stakeholder feedback. Members of the Project Advisory Group, listed below, spearheaded the meetings.

#### Project Advisory Group

1. Consultant: Ione Smith, Upland Agricultural Consulting, Professional Agrologist
2. Lisa Pedrini, Planner, Village of Pemberton
3. Dawn Johnson, Executive Director, Stewardship Pemberton Society
4. Nikki Gilmore, CAO and/or Tim Harris, Manager of Operations & Development Services, Village of Pemberton

#### Key stakeholders were identified as the following:

1. Local area farmers
2. Pemberton Airport Users Group
3. Squamish-Lillooet Regional District (SLRD) and the Area C Agricultural Advisory Committee (AAC)
4. Pemberton Equestrian Community
5. Pemberton Valley Trails Association (PVTA)
6. Local Schools, Signal Hill Elementary Parent Advisory Council (SHE PAC) and School District 48
7. Lil'wat Nation

Several meetings were held. For efficiency, one meeting was held with Group 1 and Group 3 together. Upland Agricultural Consulting presented a series of slides and report outcomes at each of the meetings, tailored to provide information most relevant to each stakeholder group. For example, local area farmers, SLRD and AAC were asked to comment on all parcels of land, while the Airport User Group primarily focused on Site A and the equestrian stakeholders focused on Sites B&C. The meeting scope with the PVTA was to raise awareness regarding the project and open discussions on incorporating public trail access on sites B, C&D. The Village of Pemberton and Stewardship Pemberton Society answered questions and gathered feedback from the key stakeholders.

### **Meeting #1, December 9, 2015 - Local Area Farmers and SLRD Area C AAC,**

In attendance:

- Niki Vankerck - Area C AAC
- Remi Charron - Camel's Back Harvest
- Simone Maclsaac - Root Down Farms
- Sarah MacMillan- Root Down Farms
- Trish Sturdy - North Arm Farms
- Delores Los - Pemberton Valley Beekeepers Association
- Roxy Kuurne - Area C AAC and Camel's Back Harvest
- Ian Holl - SLRD Planner, Area C AAC
- Samuel Casavant - Bathtub Gardens
- Ione Smith, Upland Consulting
- Dawn Johnson, Executive Director, SPS
- Lisa Pedrini, Village Planner
- Kim Slater - Village of Pemberton Communications & Grants Coordinator

### **Comments**

#### **Site A**

- Anecdotal information: This site is said to not flood from the Green River
- Abbotsford Airport: co-exists with blueberries and raspberries adjacent to their airport
- Airport site needs to limit the number of users due to security concerns, ideally 1-2 growers and less intensive crops
- This site may be suitable for bulb production
- Livestock and fencing is not an option on this site
- Lavender and garlic feasible for this site. Lavender likes sandy dry soil
- Hives for bees could be an option
- Pumpkins and squash not ideal as they attract bears and birds, and cannot have an electric fence on this site
- Grains are a possibility but it is a significant bear attractant. Food grade barley, oats and rye currently not produced locally but animal fodder grade is (Gilmore Farms, Kuurne Farms). Would require a combine harvester.
- Garlic, lavender, flowers, and grain production seem like viable options for Site A.
- Cooperative model is potentially suitable for this parcel but access makes it unsuitable due to access and security

#### **Sites B&C**

- River breach in 1980's explains soil structure (sandy, rocky)
- Flat, close to residential - possible that the Glen needs community garden space? Or this site could provide a "step up" from a traditional community garden space (e.g. include an orchard), or cooperative farm set up
- Suites, smaller housing lots and townhouses may require community garden spaces
- Would require irrigation, stone picking or else bring in soil amendments

- Could be ideal for berries and fruit trees behind electric fence (cherries, plums, apples, pears, perhaps nut trees). Fruit trees may be challenging to establish due to freeze thaw cycle in Pemberton. Long term investment. Fulfills a need within the community - many people actively cutting fruit trees down due to bear attractant or not growing fruit trees due to limited space.
- Honey bees could be viable behind chain link and electric fencing (flat deck trailer with chain link fence/electric fence around)
- Raised beds could be a good option here. Bees are facing increased challenges (mites and pesticide uses). Potentially high losses.
- Interpretive signage and walking trail through the rest of the site. Could showcase agricultural history and natural biodiversity.
- Current trail to Lillooet River should be sanctioned.
- Value in preserving wildlife and their habitat (specifically bird habitat)
- Electric fencing considerations: ideally 8 feet (deer) and needs to be trimmed at the bottom to prevent shorting out
- Edible forest
- Concerns brought up regarding people stealing food from community farmed spaces

#### **Site D**

- Partnerships with post-secondary could create opportunities for both parties
- Opportunities exist to tie Site D into current Pemberton High School program. Perhaps their summer students can farm our garden plots.
- Community gardens could be feasible here
- Tie Men's shed learning/projects into community garden/farm to school concept
- Butterfly and mason bees may be preferred over honey bees on this parcel

#### **Governance Models**

- Incubator farms a good idea but could set farmers up for false hopes once they leave the program as land prices locally are high
- Research possibilities for crop development seems like a good idea
- Generally this project appears to be well supported by local farmers, there were very few concerns raised over competitive uses - leasing to farmers for like uses using heavily subsidized lands.
- Urban community farming in public spaces

#### **Meeting #2, December 9, 2015 - Airport User Group**

##### **In attendance:**

- Peter Timms - Pemberton Flying Club
- Tracey Rozsypalek - Pemberton Airport User and Tenant
- Sheena Fraser - Village of Pemberton
- Nikki Gilmore - Village of Pemberton
- Ione Smith, Upland Consulting
- Dawn Johnson, Executive Director, SPS
- Lisa Pedrini, Village Planner

Several stakeholders were not in attendance. It was advised the group speak with:

- Steve Smith - regarding parachute landing
- Andy Meeker- Blackcomb Aviation

- Robin Brown - recreational aviator

#### **General concerns/comments**

- Bear attractant crops are not viable
- Cannot have any fencing (electric or non-electric)
- Airport security
- Other farmland in Pemberton better suited for this use
- Should focus on better hay production
- Feasibility of potatoes is questionable
- Could take irrigation off of current Anna Creek water license of the golf course (VOP owned)
- Suggested crops include potatoes, turnips, root vegetables, garlic, lavender, flowers, perennials
- Could try to grow higher quality hay – use fertilizers, soil amendments
- There are likely regulations surrounding impeding the surrounding airstrip. This may be an obstacle. Need to think about if an aircraft needs the space to land.
- Parachutes land in this field from time to time
- There is a Crown grant on this parcel - not a crown lease - that is specific to airport use and auxiliary uses. VOP to request amendment to grant to include agricultural uses
- Bee activity should focus off site - what about golf course?
- Restricting access is important - need to create protocols around access
- Issues concerning fire
- Access to the field through golf course is preferred
- The area is in a high wildlife use corridor (deer, bear, moose)
- Grains are a possibility but bears may be issue
- Low light in the winter is a challenge
- Winter operations could impact future uses (plowing, salt, sand)
- Long term leases to farmers preferable so that turnover of people is low

#### **Meeting #3 December 9, 2015 - Equestrian Group**

##### **In attendance:**

- Drew Meredith
- Lori Mitchel
- Barb Eslake
- Ian Kruger
- Corrine Stoltz Ohrava
- Brenda Williams
- Evelyn Coggins
- Angie Heilman
- Lena Martin
- Ione Smith
- Dawn Johnson
- Lisa Pedrini

##### **General comments/concerns:**

- Discussion with this group focused on Lots 8&20.
- Concerns brought up that the report outlined irrelevant and high costs for equestrian use. The report outcomes regarding equestrian use focused on horses grazed and boarded on the parcels, and considered fencing and barns/stables, etc.
- Equestrian group feels that a riding arena is more of what they would be after, similar to the arena that existed on the site off Poplar Street.

- Group would like to see equestrian trail access on lots 8&20 but there is a wetland that cuts across these parcels at a diagonal making it impassable without trespassing on private land along an existing driveway.
- Lot 13 riding arena was discussed but it is not ideal as it faces the same issues as the previous outdoor arena: under the power lines and surrounded by housing developments.
- It is estimated that a riding arena would need approx. 2 acres of land to support activities for stands, arena, parking, trailering.
- This riding arena would be primarily for community (personal) use and occasional events such as Equi-fest.
- The discussion arose regarding the former riding arena that the equestrian community was forced to dismantle due to the potential conflict under the power lines. It was stated that no promises were made by the equestrian group by the VOP to find parcels of land to relocate former riding arena (Drew Meredith).
- If a riding arena were to be located on Lot 8, the group feels they need access off the Fraser-Urdal connector so people are not riding through the Glen to get to the arena. As noted above, the wetland prohibits through access to the southern portion of the parcels.
- The group brainstormed a hunter jumper course, obstacle course, etc. and felt it could co-exist with agricultural activities such as fruit trees or community garden plots.
- Ideally they would like to see a grassy meadow maintained for parking and grazing, with an outdoor arena.
- It was decided that Lot 13 (Site D) does not require equestrian access as it does not connect to existing trail networks.
- The group decided to meet onsite with Dawn to look at a smaller section of Lot 8 adjacent to the Fraser-Urdal connector.

#### **Meeting #4 December 9, 2015 - Pemberton Valley Trails Association**

Members from the Project Advisory Group (Ione Smith, Lisa Pedrini, and Dawn Johnson) attended the PVTA regular meeting at the Pemberton Community Centre and presented to their group.

#### **General comments/concerns:**

- Connecting Harrow Rd to the Fraser-Urdal connector was identified as a priority project for members of the PVTA as it provides a low valley loop for local residents but as noted, the wetland location spanning the width of this parcel makes through-access difficult.
- Dawn to meet on site with Hugh Naylor to assess viability and alternative access points.
- Environmental conservation and restoration will remain a priority goal on Lots 8&20, along with public river access on Lot 20.
- Connector trail from SHE to OMLP and Creekside complex identified as a priority
- Define Eastern Boundary of Lots 8&20 as neighbours may be encroaching on parcels
- PVTA voted on and passed a motion in support of this project at their December 9th meeting

#### **On Site Meetings**

#### **Meeting #5 December 14th, 2015 - Fraser Urdal Connector to view Lots 8&20: Pemberton Valley Trails Association**

#### **In attendance:**

- Dawn Johnson Executive Director, SPS
- Hugh Naylor
- Jan Naylor

**Objective:** To walk two parcels of land to assess trail connectivity and garner feedback from a trails and community perspective.

Findings: The wetland appears to dissect Lot 8 diagonally and providing access from Harrow Road to the Fraser Urdal connector would likely entail a boardwalk and/or bridge.

**General Comments/Concerns:**

- Lot 20 public access to the Lillooet River should be sanctioned if not already.
- The arable Northern portion of Lot 8 could be considered for agricultural activities only if a really great idea comes around. Otherwise interpretive trails are a great option for this portion of land.
- Jan brought up human-bear conflict concerns for hives, fruit trees, etc.

**Action Items:** Dawn and Hugh to revisit the sight, taking bearings to roughly establish site lines for a potential trail.

**Meeting #6 December 16th, 2015 Fraser Urdal Connector to view Lots 8&20: Pemberton Equestrian Interested Parties**

**In attendance:**

- Dawn Johnson, Executive Director, SPS
- Drew Meredith
- Lena Martin
- Brenda Williams

**Objective:** To walk two parcels of land to consider the site as a potential location for a riding arena, and garner feedback from an equestrian community perspective.

**General Comments/Concerns:**

- Lot 20 public access to the Lillooet River should be sanctioned if not already.
- The arable Northern portion of Lot 8 could be considered for a riding arena if there is room, and if it is allowable with B.C. Hydro.
- Ideal access as community members can ride to this parcel from boarding locations.
- parking could happen along Urdal Road and Fraser Road if people have trailers.
- Water would be required for any equestrian activity.
- Power lines may be too low, site may be too small on the Northern portion of this site.
- The Southern portion of this site is also suitable, but parking could be an issue. The group noted that the site was wet - perhaps too boggy for their uses. Parking trailers on Harrow Road could be an issue. Local rider access through the Glen may prove challenging.
- Northern portion of Lot 8 needs to be mapped 30 meters from the high water mark to determine available area - or as advised by the SLRD.
- Lots 8&20 tie in well to existing equestrian trail networks.
- The group sees the constraints and opportunities on both sites - Southern and Northern. SLRD Ag Bylaws will likely guide direction, as well as the Riparian Area Regulation and B.C. Hydro constraints/opportunities.

**Action Items:** Lena to follow up with SLRD regarding mapping for the site to see if Northern portion of the parcel could support a riding arena. If viable, contact needs to be made to BC Hydro from the VOP to determine if this is acceptable under this parcel.

### **Meeting #7 with Pemberton Secondary High School Community Garden Rep on December 16th, 2015**

#### **In attendance:**

- Dawn Johnson, Executive Director, SPS
- James Moch, Pemberton Secondary School teacher, counsellor, and community garden representative.

Dawn met on behalf of SPS with James Moch to provide an update on the project as James was unable to attend stakeholder meetings. James was identified as a source of information and collaborative partner during the stakeholder meeting with local area farmers. James articulated full support for the project but is unable to contribute to the project at this time due to being short on hours at PSS with a full schedule. Dawn and James identified future partnership opportunities (for example, hiring PSS students at the SHE garden site to oversee the garden during the summer as part of a farm training/summer student program, and having PSS foods classes involved in the gardens/orchards once established). James would like to be kept informed of the progress of the project.

### **Meeting # 8 with Signal Hill Elementary Parents Advisory Council on February 3, 2016**

#### **In attendance:**

- Dawn Johnson, Executive Director, SPS
- PAC Executive and Members

Dawn gave an update on the Pemberton Agricultural Parks Project on behalf of Stewardship Pemberton. SPS let PAC know that SPS and VoP received funding to incorporate the 3 acres adjacent to school into the project of the Pemberton Agricultural Parks Master Plan. The project needs support and feedback from the community and the Signal Hill Elementary, including the PAC. The PAC was invited to the Open house. SPS requested PAC support, feedback and ideas with this initiative. No formal resolution was passed, SPS will come to PAC with more information once the Master Plan is complete.

### **Meeting # 9 with Lil'wat Nation Land and Resources Committee on March 23<sup>rd</sup>, 2016**

#### **In attendance:**

- Harriet Van Wart, Director, Land and Resources Department, Lil'wat Nation
- Carrie Lester, Referral Coordinator, Land and Resources Department, Lil'wat Nation
- Land and Resources Committee members
- Lisa Pedrini, Village Planner
- Dawn Johnson, Executive Director, SPS

Lisa and Dawn met with the Land and Resources Committee for Lil'wat Nation to give them more information about the Agricultural Parks Master Plan initiative and to ask for feedback and invite them to be involved, if desired.

### **Meeting # 10 with Airport Users Group on May 19, 2016**

#### **In attendance:**

- Nikki Gilmore, Village CAO
- Sheena Fraser, Village Airport Manager
- Tim Harris, Village Manager of Operations and Development Services
- Lisa Pedrini, Village Planner
- Tracy Roszypalek
- Peter Timm

- Andy Meeker
- Alan Sidorov

Regrets:

- Steve Smith
- Robin Brown

Lisa Pedrini provided an update on the Agricultural Parks Master Plan as a follow up to the presentation made at the December User Group Meeting and the Community Open House held in April. This presentation was arranged in order to gather final feedback from the Pemberton Airport User Group. In specific Pedrini focused on the area located adjacent (south side between the runway and The Meadows Golf Club) to the runway at the Pemberton Airport. Ms. Pedrini presented the results of the studies that had been carried out by an agrologist and provided an overview of the type of crops that would be suitable for this growing area which included hay, grains, lavender and other crops. As well, Pedrini reviewed comments received at the Agricultural Parks Master Plan Open House. Ms. Pedrini sought input and feedback from the group so that she could include the group's preferences as part of the public consultation component of the Agricultural Parks Masterplan. The group commented that they felt lavender was too expensive of a proposition and required irrigation, although it would be very beautiful and a tourist attraction if it happened. They really like the idea of better hay being grown there, as it's in demand in the Valley and by giving a single farmer a multi- year lease, it would make it worthwhile to improve the land for a higher quality yield. Overall, they did not want the agriculture activities becoming more important than airport uses and/or interfering with airport uses. Ms. Pedrini asked the group, which of the options, if any, they perceived as a viable usage of the land. The following conclusion was made:

AGREED:

THAT all parties were in favour of using the land for agricultural purposes; specifically to farm better quality hay.

In addition to the dedicated meetings noted above, Development Services staff also held informal consultation with the Pemberton Valley Seniors (Men's Shed) about their interest in Lot 13 as a potential site for the Men's Shed on August 24, 2015. On that date, Richard Megeny requested a meeting with Development Services staff to seek specific information on several potential sites identified by the PVSS for the Men's Shed. The list of possible locations included:

- The Art Barn location (at the corner of Prospect Street and Aster Street)
- A small piece of municipally owned property adjacent to Pioneer Park

Staff advised Mr. Megeny on the need for development permits and parking requirements if a downtown location was chosen, and suggested a few other locations for investigation including Lot 13, in collaboration with the Agricultural Parks Plan (outside Downtown DP Area). However, it was communicated to staff that the ideal location for the Men's Shed would be somewhere more central and easily accessible, and therefore this potential partnership was not pursued further.

## II. Public Open House Consultation Results

**Results of the Pemberton Community Agricultural Parks Master Plan - Open House held April 28, 2016 are shown below.** Approximately 35 people attended, 30 people signed in, 14 Evaluation Forms were obtained.

### Results from Evaluation Forms

<p><b>1. Overall, how would you rate this event?</b></p>	<p>Excellent: 7    Good: 7 Average: 0    Below Average: 0 Poor: 0</p>
<p><b>2. What do you think of the Agricultural Parks Master Plan concept overall?</b></p>	<p>Excellent: 7    Good: 6 Average: 1    Below Average: 0 Poor: 0</p>
<p><b>3. What do you think of the proposed activities at the Airport site (Site A)?</b></p>	<p>Excellent: 3    Good: 8 Average: 1    Below Average: 1 Poor: 1</p>
<p><b>4. What do you think of the proposed activities at the Harrow site (Site B &amp; C)?</b></p>	<p>Excellent: 8    Good: 3 Average: 1    Below Average: 0 Poor: 1    Did not answer: 1</p>
<p><b>5. What do you think of the proposed activities at the Signal Hill Site (Site D)?</b></p>	<p>Excellent: 8    Good: 6 Average: 0    Below Average: 0 Poor: 0</p>
<p><b>6. Will the Agricultural Parks Master Plan increase your ability to make more meaningful contributions to your community and its future</b></p>	<p>Yes: 10    No: 1 Don't Know: 1    Did not answer: 2</p>
<p><b>• How did you hear about this event?</b></p>	<p>Friend/Neighbour: 5    Email: 3 Poster: 0    Newspaper: 1 Facebook: 1    Village Website: 2 Roundabout Signage: 0 Other (Winds of Change Website): 1 Other (Staff): 1 Other (Seed Exchange): 1 Other (Backcountry Horsemen): 1 Did not answer: 2</p>

## Results from Community Comments re: Story Boards

The following Comments / Suggestions / Changes were noted by the public (via sticky notes on the story boards) during the Open House

### ***General Location Map Story-board***

- “Can residents outside the Village of Pemberton access these agricultural sites?”

### ***Best Agricultural Options for Airport (Site A)***

- “Is there any concern at this site for airplane fuel pollution?”
- “Like the idea of creating a social enterprise to fund other programs”
- “Concern over access”
- “Like the thought of increasing local hay production then moving into lavender and/or bulb flower production and potential for social venture from flower/lavender production”
- “Could this be a potential spot to grow hemp/hemp seeds?”
- “Birds? Bees? Potential for stings”
- “The Village airport is more properly referred to as an aerodrome”
- “Commercial lavender crop to fund the other parcels”

### ***Site Plan – Site A***

- No comments from the public

### ***Best Agricultural Options for Lots 8 & 20 (Site B & C)***

- “Love the community orchard & garden”
- “Like conceptual plan”
- “Love fruit trees, berries and bees ideas”
- “I love the fruit trees & bee opportunity. Also really like the trails idea”
- “Orchard, interpretive [signage] of wetland / historical Lillooet River channel/ trail would be awesome”
- “Blackberries are invasive”
- “Space for sheep & chickens”

### ***Site Plan – Site B & C***

- “Horse trail and walking trail with possible riding arena or grassy area for picnic spot & obstacle track for horses”
- “Seems small for a riding arena but [could] support horse friendly access & trails”
- “Could Site B be used for a Riding Ring, obstacle track & trail?”
- “Would love to see trail connectivity to Valley Loop through wetland”
- “Would like to Off-leash / wild area preserved”
- “Concerns about adding traffic to quiet road & neighbourhood – we live on this road”
- “Would a space for Parking be included? Where would people [visiting Lot 8] park?”
- “Ideal to be walk-in (Parking on Harrow or Urdal) w/ vehicle access for harvest, especially b/c of small size”
- “Opportunity to create Agricultural certification courses with Landscape Certification”

- “Bike parking”
- “Would be nice to have some seating / gathering area – eat lunch, etc.”
- “Shaded area to rest”

***Best Agricultural Options for Lot 13 (Site D)***

- No comments from the Public

***Site Plan – Site D***

- “The conceptual plan looks great. Good for enjoyment & education & food supply”
- “Great opportunity for community/school gardens to support school food programs”
- “Pollinator garden – super concept”  
“Support idea of creating programming within the school”
- “Gathering space is important for groups / events / educational”
- “Needs ‘pocket’ seating / resting areas – nowhere to sit except for at entry”
- “Shaded area? to sit and rest?”
- “Bike parking”
- “Bike access / pedestrian (and horse?) Access very important with connections to trails and neighbourhoods”
- “None of these areas should incorporate parking but entire parcel should be committed to Agriculture as there is nearby parking opportunities”
- “Some Parking available / possible here (connected to the end of future Tiyata roadway) but not too much (i.e., 8 spaces)”
- “Move future Trail through this parcel away from the Highway”