REPORT TO COMMITTEE OF THE WHOLE

Date: **December 1, 2015**

To: **Nikki Gilmore, Chief Administrative Officer**

From: **Lisa Pedrini, Planner**

Subject: **Community Agricultural Parks Planning Update**

PURPOSE

The purpose of this report is to provide Council with a proposed Consultation Plan to be used to guide public engagement in the development of an Agricultural Parks Master Plan being undertaken by Stewardship Pemberton Society and the Village of Pemberton, in association with the Upland Agricultural Consulting, Ltd.

BACKGROUND

In 2012, Staff presented a report to request Council's support and resolution endorsing Crown Land Tenure applications in order for the Village to pursue various park land acquisitions including Lots 8 and 20 (located at the end of Harrow Road) for the purpose of community recreation. As a result, at the Regular Council Meeting No. 1296, held Tuesday, January 24, 2012, the following resolution was passed:

> *Moved/Seconded*
> ***THAT** the Village of Pemberton apply to the Ministry of Forest, Lands and Natural Resources for Crown Land Tenures for the properties as listed:*
>
> - *End of Harrow Road/Lot 8, District Lot 165, LLD, Plan 883 - for the purpose of an Agricultural and Equestrian Park*
>
> ***CARRIED***

In 2013, Village Staff successfully made Crown Land Tenure Applications for Lots 8 and 20 Plan 883 for a Community Agricultural Park & Trails Network, and on May 20, 2014 the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) approved a License of Occupation by the Village on both Lots 8 and 20.

In addition to the tenures above, the Village has since 1996, held a tenure over the crown lands referred to as Lot 13, DL 2013, LLD, Plan 7619. This Tenure and any subsequent renewals requires approval by Sea to Sky School District No. 48 as legal access to Lot 13 is currently though Lot 10 (Signal Hill Elementary School).

On July 22, 2014, at the 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 municipal tenured properties (refer to map attached as **Appendix A** to the Consultation Plan):

- *Parcel A* - Airport lands (fields)
- *Parcel B* - Lot 8 at end of Harrow Road
- *Parcel C* - Lot 20 at the end of Harrow Road
- *Parcel D* - Lot 13 (next to Signal Hill Elementary School and the potential future Tiyata Community Garden location)

The intent was to establish a possible course of action in farming these properties in response to community needs. In the report, Caroline Lamont, former Manager of Development Services, 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 various Village controlled properties for agricultural purposes. Discussion among the Committee of the Whole took place regarding the following:

- Opportunity for a community greenhouse
- Role of Stewardship Pemberton Society given their experience managing the Community Garden
- Role of other interest groups and importance of inclusion of organizations such as the Pemberton Valley Trails Association, Pemberton Farmers Institute and the equestrian community
- Community consultation processes and ideas such as public forum, information meetings etc.
- Importance of understanding the history of each property (farming, wetlands, dumpsites)
- Costs associated with development of the properties

The Committee of the Whole supported this initiative and passed the following resolution:

Moved/Seconded
***THAT** the Committee of the Whole recommend to Council to support Staff's direction with respect to the development of Community Agricultural Parks, as presented in the report to the Committee of the Whole, dated July 22, 2014.*
CARRIED

Subsequently, Council supported this recommendation and Rose with Report from the Committee of the Whole 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

As a result of this direction, on August 26th, 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 2nd, 2014.

The report also included recommended next steps in planning a course of action for the agricultural use of various Village tenured properties, which would entail:

1. Engaging existing community organizations
2. Recognizing expertise needed
3. Identifying organization structure
4. Developing a work program
5. Identifying funding sources

In this regard, the following resolution was passed by the Committee of the Whole on September 2, 2014:

> *Moved/Seconded*
> ***THAT** the Committee of the Whole receives this report for their information;*
>
> ***AND THAT** the Committee of the Whole recommend to Council to direct Staff to allocate $3,500 towards the Agricultural Park Planning initiative.*
> ***CARRIED***

This direction was supported by Council at the Regular Council Meeting No. 1375, held September 16, 2014.

> *Moved/Seconded*
> ***THAT** Council supports the Committee of the Whole recommendation to direct Staff to allocate $3,500 towards the Agricultural Park Planning initiative.*
> ***CARRIED***

Due to limited Staffing and resources, activity on this initiative did not proceed in 2014 and was moved to the 2015 work plan and budget discussions.

In January 2015, Stewardship Pemberton Society approached the Village of Pemberton and offered its assistance to seek additional funding with an aim to leverage the funds allocated by the Village to the Agricultural Park lands project (as proposed in the 2015 budget by the Village) to increase the overall scope of the project.

At the Regular Council Meeting No. 1388, held February 3, 2015, Council passed the following resolutions:

> *Moved/Seconded*
> ***THAT** Council supports the inclusion of the establishment of a Village of Pemberton Agricultural Parks Plan in the 2015 Strategic Plan and Budget deliberations;*
>
> ***AND THAT** Council supports partnering with Stewardship Pemberton to source out funding for the development of an Agricultural Parks Master Plan;*
>
> ***AND THAT** Staff be directed to work with Stewardship Pemberton on developing applications for appropriate grant programs and report back if applications have been approved.*
> ***CARRIED***

Moved/Seconded
***THAT** Council supports the commencement of volunteer work on Lot 13 in advance of the development of the Pemberton Agricultural Park Plan.*
CARRIED

On October 6th, 2015 Staff presented a report at the Committee of the Whole Meeting No. 137 giving an update on the progress of this initiative. This report outlined how the next steps identified in an earlier report (dated September 2, 2014) had been addressed, and identified the need for a Consultation Plan to be presented to the Committee of the Whole before community engagement began. The following resolution was passed:

Moved/Seconded
***THAT** the Committee of the Whole receives this report for their information;*

***AND THAT** the Committee of the Whole support Staff continuing to work with Stewardship Pemberton to develop the Agricultural Parks Plan as per the attached Work Program submitted by Stewardship Pemberton on September 24th, 2015.*
CARRIED

Moved/Seconded
***THAT** the details of the proposed consultation (public outreach tactics, budget, and timing) be brought forward in a subsequent report for Committee of the Whole's information.*
CARRIED

Moved/Seconded
***THAT** the Committee of the Whole recommends to Council that it confirms a commitment of $2,500 in kind for Staff assistance with this project.*
CARRIED

Subsequently, at the Regular Council Meeting No. 1408, held later that same day, Council confirmed and supported in-kind support for staff assistance for this project.

DISCUSSION

A Consultation Plan to guide public engagement on the development of the Agricultural Parks Master Plan, which has received the support of Stewardship Pemberton Society, is attached as **Appendix 1**.

Essentially, the Consultation Plan calls for one-on-one and group meetings with invited stakeholders to begin in first week of December 2015 and continue over next month as necessary, based on dates which best suit the stakeholder identified in the Consultation Plan.

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

- Pemberton Farmers Institute
- Pemberton Creek Community Garden
- Pemberton Farmer's Market Equestrian Community PACA/Equi-fest
- Airport User Group
- SLRD / Electoral Area C Agricultural Advisory Commission
- SD48 / Signal Hill Elementary School / Pemberton Secondary School

- Pemberton Youth Centre
- Pemberton Seniors Society (Men's Tool Shed)
- Stewardship Pemberton Society
- Small/Medium Commercial Market Gardeners - Ice Cap Organics, Bathtub Gardens, Willowcraft Farms, Rootdown Farms, North Arm Farm, Helmers Organics, Across the Creek Organics, JD Hare Farms, etc.
- Apiarist (bee keeper)
- Conservation Officer Services representative
- BC Hydro representative
- Lil'wat Nation
- Others (yet to be determined)

A special meeting opportunity with the Lil'wat Nation will be sought in January 2016 (date to be determined).

One of the intentions of the stakeholder meetings will be to seek comments and feedback on the Stage 1: Soils Analysis and Stage 2 report: Pemberton Agricultural Parks – Assessment on Suitable Agricultural Activities (attached as **Appendix B & C** to the Consultation Plan) developed by Upland Agricultural Consulting. This draft report outlines a summary of feasible agricultural activities for each site and details on the potential agricultural activities that could be pursued, and relevant stakeholders will be asked for feedback on the feasibility of the findings.

These consultation activities will be followed by a Public Open House in the spring of 2016 (date to be determined).

COMMUNICATIONS

Village Staff will be preparing information on the Agricultural Parks Master Plan for the Village e-News, the Website and the Facebook page as a means of notifying and educating the public on the project, and sharing information on public engagement opportunities.

Once the Consultation Plan is accepted by the Village Council, the Village Planner and Communications & Grant Coordinator will work with Stewardship Pemberton to implement the next steps of disseminating information on the project and opportunities for public engagement through the mediums noted above and any other sources that may be available.

LEGAL CONSIDERATIONS

There are no legal, legislative or regulatory considerations at this time.

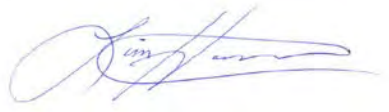
IMPACT ON BUDGET & STAFFING

Project funding in the amount of $40,000 has been raised by Stewardship Pemberton Society to cover the costs of a consultant, SPS Staff time, and consultation activities. The Village has confirmed $5,000 cash & $2,500 in kind for Staff assistance with this project.

INTERDEPARTMENTAL IMPACT & APPROVAL

This project will impact the day to day operations of the Operations and Development Services department and the Office of the CAO and can be accommodated and incorporated into the daily routines.

Nikki Gilmore, Chief Administrative Officer



Tim Harris, Manager of Operations and Development Services

IMPACT ON THE REGION OR NEIGHBOURING JURISDICTIONS

This project will have an impact on the SLRD Area C in the following ways:

- Creation of Agricultural Park Land in Area C, tenured and maintained by the Village;
- Implementation of various recommendations contained in the SLRD Area C Agricultural Area Plan.
- The SLRD Area C Agricultural Advisory Group will be consulted for their input into the Plan.

ALTERNATIVE OPTIONS

An alternative would be not to proceed with the Consultation Plan developed to guide public engagement for the Agricultural Parks Plan; however, Staff does not recommend this option.

POTENTIAL GOVERNANCE CONSIDERATIONS

Support of this initiative is consistent with Strategic Priority Four: Social Responsibility in which the Village strives to create a strong and vibrant community recognizing the importance and benefits of both healthy and engaged citizens as well as an accessible and well managed natural environment.

RECOMMENDATIONS

Recommendation One:

THAT the Committee of the Whole receives this report for their information.

Recommendation Two:

THAT the Committee of the Whole supports the Stewardship Pemberton Society & Village of Pemberton Agricultural Parks Master Plan Consultation Plan presented.

Recommendation Three:

THAT correspondence be sent from the Village to Lil'wat Nation inviting them to participate in the Stewardship Pemberton Society & Village of Pemberton Agricultural Parks Master Plan consultation.

Attachments:

Appendix 1: Stewardship Pemberton Society & Village of Pemberton Agricultural Parks Master Plan Consultation Plan, November 2015

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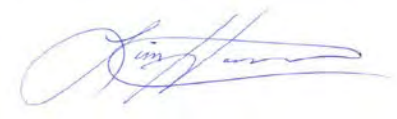
Lisa Pedrini, Village Planner

MANAGER



_____
Tim Harris, Manager of Operations and Development Services

CHIEF ADMINISTRATIVE OFFICER

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Nikki Gilmore
Chief Administrative Officer

Appendix 1

Stewardship Pemberton Society

& the Village of Pemberton

Agricultural Parks

Master Plan

CONSULTATION PLAN

Prepared by Lisa Pedrini, Village Planner

November 27, 2015

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Purpose & Goals

The purpose of this Consultation Plan is to guide the work of Stewardship Pemberton Society and the Village of Pemberton in conjunction with Upland Agricultural Consulting Ltd. as it engages the community and seeks feedback for use in the development of the Pemberton Agricultural Parks Master Plan.

The three broad goals of the Consultation Plan are to:

- Communicate to raise awareness about the Pemberton Agricultural Parks Master Plan, to spark interest and discussion on potential issues and priorities, and inform about opportunities to participate;
- Gather input and feedback through a variety of means, including invited stakeholder group meetings, one-on-one meetings and a Public Open House ;
- Present this input and feedback in a manner that informs the development of the Pemberton Agricultural Parks Master Plan.

Description of the Project

Stewardship Pemberton Society (SPS), in partnership with the Village of Pemberton, is developing a Pemberton Agricultural Parks Master Plan for four (4) parcels of land totaling twenty-seven (27) hectares (approximately sixty-seven (67) acres) tenured by the Village of Pemberton that have been identified as having potential for community supported agricultural purposes[1]. The parcels are identified in **Appendix A** as:

- *Parcel A* - Airport lands (fields)
- *Parcel B* - Lot 8 at end of Harrow Road
- *Parcel C* - Lot 20 at the end of Harrow Road
- *Parcel D* - Lot 13 (next to Signal Hill Elementary School and the potential future Tiyata Community Garden location)

Two of the four (4) parcels of land are located within the municipal boundaries of Pemberton (Parcels A & D), and two (2) are outside municipal boundaries in the SLRD (Parcels B & C). See Appendix A for a Location Map of the properties.

Three (3) of the four (4) properties are within the Provincial Agricultural Land Reserve (ALR) (Parcels A, B, & C). All are in various states of non-productive agricultural use. All four (4) properties require further land use evaluation and a feasibility analysis before agricultural

[1] 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.*

opportunities can be identified and implemented. While the parcels have excellent potential, each parcel is constrained by different environmental and social considerations:

- *Parcel A* (Airport fields) is adjacent to the Pemberton Airport.
- *Parcel B and C* (Harrow Road) are adjacent parcels located in the rural-urban interface between the SLRD and the VOP. They are located partially on or near a historic dump site, in proximity to a wetland, and provide public access to the Lillooet River.
- *Parcel D* (Lot 13) is located within the Village Boundaries immediately adjacent to Signal Hill Elementary School.

Further investigation and community consultation is required to determine the best possible use of these municipal and interface lands to determine what types of agricultural uses the lands will support given their environmental and social considerations.

The Pemberton Agricultural Lands Master Plan will be produced after the following components have been completed:

- Site and Soils Assessment
- Assessment of Future Agricultural Potential and Value of the Site(s)
- Consultation with the Broader Community
- Sharing the Deliverable with the Village of Pemberton and the Squamish-Lillooet Regional District (SLRD), who in turn will share with its member municipalities including Squamish, Whistler, and Lillooet and other Regional Districts in the Province is an important deliverable specified by our funders.

Implementation would most likely require the identification of potential sources of funding.

Background

The Village of Pemberton began to initiate the concept of community agricultural parkland in 2012 and pursued a Crown Land tenure over two lots in the ALR located just outside the Village Boundaries near The Glen neighbourhood. In 2012 Village staff presented a report to request Council's support and resolution endorsing Crown Land Tenure applications in order for the Village to pursue various park land acquisitions including Lots 8 and 20 for the purpose of community recreation. Upon receiving Council's support, Village staff successfully made Crown Land Tenure Applications in 2013 for Lots 8 and 20 Plan 883 for a Community Agricultural Park & Trails Network. On May 20, 2014 the Ministry of Forests, Lands and Natural Resource Operations (MFLRNO) approved a License of Occupation by the Village on Lots 8 and 20.

In addition to the tenures above, the Village recognized it had held tenure over Crown Lands referred to as Lot 13, DL 2013, LLD, Plan 7619 since 1996. This Tenure was for parking purposes and would require approval by Sea to Sky School District No. 48 as legal access to Lot 13 is currently though Lot 10 (Signal Hill Elementary School). On July 22, 2014 staff presented a report to the Committee of the Whole in which it was recommended that staff explore, with the

community, certain opportunities to farm the municipal tenured properties known as Parcels A, B, C and D. The intent was to establish a possible course of action to pursue agricultural activities on these properties in response to community needs. Staff requested support to initiate a planning process in partnership with community interest groups for the development of various Village controlled properties for agricultural purposes.

As a result of this direction, on August 26, 2014, Village staff 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.

Some of the recognized opportunities that came out of the initial brainstorming event included:

- A large market/community garden next to Signal Hill Elementary School, providing fresh vegetables for school food programs and serving as an outdoor classroom
- A Farm to School project next to Signal Hill Elementary based on successful projects in other communities
- Incorporation of a native pollinator garden or pollinator corridor throughout the parcels and beyond
- A community supported agriculture system consisting of a fruit orchard, honey bees, and chickens that serves as an example for maintaining food sustainability while co-existing with bears
- Contribute to local food security through focusing on foods not widely available locally
- An equestrian centre/riding arena
- A permaculture demonstration site with educational opportunities

A staff report following the brainstorming session included recommended next steps in planning a course of action for the agricultural use of various Village tenured properties, which would entail:

1. Engaging existing community organizations
2. Recognizing expertise needed
3. Identifying organization structure
4. Developing a work program
5. Identifying funding sources

This direction was supported by Council at the Regular Council Meeting No. 1375, held September 16, 2014. However, due to limited staffing and resources, activity on this initiative did not proceed in 2014 and was moved to the 2015 work plan and budget discussions.

In January 2015, Stewardship Pemberton Society approached the Village of Pemberton and offered assistance to seek additional funding and leverage the funds allocated to the Agricultural Park lands project (as proposed in the 2015 budget by the Village) to increase the overall scope of the project. On February 3, 2015, Council supported the inclusion of the establishment of a Village of Pemberton Agricultural Parks Plan in the 2015 Strategic Plan and Budget deliberations;

supported partnering with Stewardship Pemberton to source out funding for the development of an Agricultural Parks Master Plan; and directed staff to work with Stewardship Pemberton Society on developing applications for appropriate grant programs and report back if applications have been approved.

Stewardship Pemberton Society successfully obtained a grant of $10,000 from the Community Foundation of Whistler (CFOW) and a grant of $20,000 from the B.C. Real Estate Foundation to support the development of an Agricultural Parks Master Plan. The Village of Pemberton has also committed to contributing $5,000 in cash and $2,500 in kind to this project. Following the success of the grant writing stage, Stewardship Pemberton secured a contract with Ione Smith of Upland Agricultural Consulting in July 2015. Upland conducted a Soils Analysis in September 2015 to assist in determining the best uses for the parcels.

On October 1, 2015, the Village and Stewardship Pemberton Society received a Report 1 - Soil Technical Report, and in November 2015, the Village and Stewardship Pemberton Society received draft Report 2 - Pemberton Agricultural Parks – Assessment on Suitable Agricultural Activities, both submitted by Upland Agricultural Consulting Ltd. These reports are attached as **Appendices B & C.**

Rationale

Food security and sustainability, community engagement and social activism are all driving forces for this project. Climate change and rising food costs have in part led to an increased and growing interest in food security in the Sea to Sky Area.

Several higher level plans support the concept of community-based agriculture in the Pemberton Valley:

- The Village of Pemberton Official Community Plan includes goals around the promotion of agriculture;
- The results of the Electoral Area C Agricultural Area Plan supported community agricultural opportunities in the Pemberton Valley;
- The Report of the SLRD Energy Resilience Task Force recognized the need to accommodate the interest of young entrepreneurs wanting to get into farming but finding it difficult due to the high price of farmland in the Pemberton Valley;
- The SLRD Regional Growth Strategy recognized the importance of protecting farmland for agricultural production, recognizing the existing and potential regional provincial and international markets for locally produced agricultural products.

This project can be a catalyst for community change. It can serve as a healthy outlet for youth: a source of inspiration for teachers and community members. It will add to Pemberton's already diverse and dynamic agricultural-tourism appeal, further validate Pemberton as a destination, and have a positive social and environmental impact through eating local foods and educational outreach. Community Agricultural Park land could provide many families in Pemberton who cannot afford to own agricultural land an opportunity to be involved as part of a collective group of citizens with common goals.

Some of the larger benefits that can be attained by this project include:

- Demonstration of community collaboration to reach common goals;
- Showcase progressive partnerships between local government and non-government organizations;
- Demonstration of how high level planning (Village of Pemberton Official Community Plan and Electoral Area C Agricultural Area Plan) guide community visions to create and implement real tangible projects;
- The project process can serve as an example for other communities to follow as a fiscally responsible social enterprise providing local employment opportunities based on sound agricultural practices.

However, it is recognized that the Village faces a unique combination of challenges with respect to the development of an Agricultural Parks Master Plan. These include the following:

- Potential competing land use desires from other community organizations seeking Village tenured Crown Land (i.e., Equestrian uses);
- Potential competing land use desires from development interests who have requested the use of Lot 13 as an access to a development project (Portage Landing) in exchange for agreed-upon community amenities;
- Potential competing land use considerations with respect to acceptable and appropriate uses of Airport lands;

Despite the recognized challenges, the Village of Pemberton supports Stewardship Pemberton Society's mandate to contribute to sustainable agricultural practices, local and regional food security, as well as community driven initiatives that have benefit the wider community.

These opportunities and challenges need to be addressed in such a way that will contribute to the Village's and Stewardship Pemberton's Society's mutual goals. Ultimately, the Agricultural Parks Master Plan Update will be successful if it clearly articulates a vision that enables decision makers to address the following unique circumstances:

1. To develop and manage the use of Agricultural Parkland in a manner that it is consistent with environmental and community values, as reflected in the principles of the Village of Pemberton Official Community Plan;
2. To address conflicts and liability issues within the Parklands through responsible policy direction and maintenance to ensure the long-term viability of these important community assets.

Consultation Scope

Initial outreach on the development of agricultural parkland took place in August of 2014. This included an open brain-storming meeting with interested individuals. As a result of this meeting,

Village staff prepared a report to Council recommending referrals, community organization engagement, and consultation with Village Staff.

The present consultation efforts will seek to inform residents, affected agencies, adjacent local governments (SLRD and Lil'wat Nation), and community interest groups that the process is underway, and will focus on broader engagement with the above-listed in order to confirm information gathered by the consultant on best uses for the four parcels is relevant. This process will also enable the project team to seek comments from residents that were not involved earlier to incorporate their desires/concerns.

A substantive emphasis of the Agricultural Parks Master Plan will be shaped in accordance with the issues and priorities identified via the consultant and through public consultation activities. Throughout this process, Village Staff will provide project oversight for the update and Council will be kept regularly apprised of the results of the consultation stages.

Consultation Timeline & Stages

The Agricultural Parks Master Plan process was launched in the Spring of 2015 with an anticipated conclusion in the Spring of 2016. Within this time-line there will be various opportunities for public input on the plan. Consultation has been divided into five (5) stages:

Stage 1 included preparation of funding requests, selection of a Consultant. These activities occurred over the months of January to July, 2015.

Stage 2 included soil sampling and the development of technical reports by the Consultant. These activities occurred over the months of August to November 2015.

Stage 3 includes the development of the Consultation Plan for the Agricultural Parks Master Plan update, identification of Key Stakeholders, presentation of Consultation Plan to the Village Committee of the Whole (December 1 2015), and following this, meetings with Key Stakeholders (SLRD's Agricultural Advisory Committee, Active Farmers, Equestrian Interest Groups, Airport Users Group, among others) beginning in the second week of December 2015, and the initiation of dialogue with the Lil'wat Nation about their preferences regarding involvement in the Agricultural Parks Master Planning process. These activities will occur over the months of December, 2015/ January, 2016.

Stage 4 includes assembling information and holding a public open house to present options to the general public, once all the information is gathered through preliminary consultation and technical analysis. The public open house will offer the opportunity for feedback via feedback forms to fill out on-site or hand in at a later date. This open house is anticipated to occur the first week of February. These activities will occur over the months of January and February, 2016.

Stage 5 will occur once the consultation results are analyzed and a draft plan is prepared. This stage includes sharing of the Draft Agricultural Parks Master Plan with key stakeholders and affected agencies via a referral process, presentation of the Draft to Committee of the Whole, and posting the Draft on the Village website with a means to collect comments before

contemplating adoption of the Plan. The schedule of timing of Agricultural Parks Master Plan Consultation activities is identified in the table below (those stages shown italicized have already been completed).

Stage	Responsibility	Timing
1 - *Preparation of funding requests to Whistler Environmental Fund, Real Estate Association of BC, SLRD. Confirmation of funds from CFOW and BCREF. Hire consultant.*	*Stewardship Pemberton takes the lead with the assistance of VoP Planner*	*March - June, 2015*
2 *- Soil Sampling and development of Draft Stage 1 Report.*	*Consultant*	*July - September, 2015*
3 - *Completion of Soil Technical Report (Stage 1 Report).* *Staff Report to CotW on the Agricultural Parks, presentation of Terms of Reference and Soil Technical Report (Report 1).* *Development of Draft Stage 2 Report: Pemberton Agricultural Parks –Assessment of Suitable Agricultural Activities (DRAFT)*	*Consultant* *Village Planner prepares Report to COW (RtCOW)* *Consultant*	*October 1, 2015* *October 6, 2015* *November 6, 2015*
<u>4 - Consultation Phase:</u> Present Consultation Plan & Draft Stage 2 Report to COW for their Information Information on eNews & Website re: Agricultural Parks Planning Process Series of One-on-one and group meetings with selected stakeholders Public Open House to review concepts and options. **Information shared with CotW**	 Village Planner to prepare RtCOW Village Staff Consultant and Village / SPS Staff (All) All Village Planner to prepare RtCOW	 Dec 1, 2015 Dec 2 – Dec 14, 2015 Dec 9 – 10, 2015 TBD

5 - Final public review and referral of the draft to Key Stakeholders and affected agencies Adoption of the Agricultural Parks Master Plan	Village staff to do Email referrals / Website link / RtCOW RtCOW	TBD TBD TBD

Details of Consultation Methods

The Village and Stewardship Pemberton Society will use the following consultation methods in developing the Agricultural Parks Master Plan Update:

- Dialogue with Lil'wat Nation to explore options for their involvement;
- Key Stakeholders Meetings, engaging representatives of a variety of community organizations and sectors of the populations in the development of the Agricultural Parks Master Plan;
- A public open house designed to involve participants in the review of Agricultural Parks Master Plan options, and the choice of a preferred option;
- Reports to the Committee of Whole at key points in the process;
- Inclusion of input from relevant government agencies (SLRD, ALC, Min of AG, etc.) through referrals.

Lil'wat Nation Consultation

Traditional land use management, including the cultivation of crops, has been a long standing practice for many First Nations. All parcels of lands for the Pemberton Agricultural Parks are located within Lil'wat Traditional Territory. To ensure inclusivity, it is advisable that the leaders of the Lil'wat Nation be formally invited to participate in the Agricultural Parks Master Plan process. The Planner recognizes that effective First Nations consultation may require an initial discussion with Lil'wat Nation to seek their input and explore options for effective involvement of their communities. In general, it would be inadvisable to pre-determine in any great detail what effective consultation with the Lil'wat Nation would look like without first involving the affected First Nations in the design of the plan.

It is recommended that a letter of invitation from the Village of Pemberton and Stewardship Pemberton Society be sent inviting the Lil'wat Nation's participation in the Master Planning Process. Based on Lil'wat Nation's response the consultation plan can be amended accordingly.

Key Stakeholder Meetings

Representatives from key community groups will be invited to group and one-on-one meetings to provide them with an opportunity to brief each other on their interests in the plan area, discuss their key issues/desires, debate content, and provide comments and input to the Village on consultation that has already taken place.

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

- Pemberton Farmers Institute
- Pemberton Creek Community Garden
- Pemberton Farmer's Market Equestrian Community PACA/Equi-fest
- Airport User Group
- SLRD / Electoral Area C Agricultural Advisory Commission
- SD48 / Signal Hill Elementary School / Pemberton Secondary School
- Pemberton Youth Centre
- Pemberton Seniors Society (Men's Tool Shed)
- Stewardship Pemberton Society
- Small/Medium Commercial 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.
- Apiarist (bee keeper)
- Conservation Officer Services representative
- BC Hydro representative

Project Advisory Group

The following members will together form a Project Advisory Group:

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

Public Open House

A "Have your Say" public open house is expected to be held at the Pemberton Community Centre (Room B) in the Spring of 2016. This open house will focus on review and discussion of Agricultural Parks Master Plan options. Following presentation of the options, participants will be encouraged to engage in dialogue on the pros and cons of each option. The event will be designed to maximize:

- understanding of each of the agricultural feasibility options;

- engagement in discussion of the merits of each option, considering community and environmental priorities; and
- input on what option is preferred.

In addition, respondents will have opportunities to comment on how preferred options could be modified and strengthened.

Committee of the Whole Meetings

There will be several Committee of the Whole (COW) meetings throughout the planning process, which will allow staff to keep the Committee up to date on the process. It is key to maintain ongoing contact with Village Council through update reports to the Committee of the Whole on the status of the process and to obtain their feedback at various stages.

Summary of Consultation Tools

A range of communication tools will be used throughout the Agricultural Parks Master Plan consultation process to inform and engage the general public and interested parties. Informing residents and interested organizations will be important for raising awareness of the update, keeping residents updated on progress; and, informing people about opportunities to provide input and feedback.

The process will rely on the following primary tools for dissemination of information:

- Village of Pemberton electronic newsletter (eNews)
- a dedicated project page on the Village of Pemberton website (http://www.pemberton.ca/municipal-hall/village-projects/
- Information on the Stewardship Pemberton Society's website – Projects Page (http://www.stewardshippemberton.com/home/projects)
- Information shared on other websites of willing stakeholders, such as the Pemberton Farmers Institute
- posts on the Village Facebook page https://www.facebook.com/VillageOfPemberton and Stewardship Pemberton's One Mile Lake Nature Centre's Facebook page https://www.facebook.com/One-Mile-Lake-Nature-Center-111010045638090/?fref=ts
- Reports to Council/Committee of the Whole posted on the Village website

Two additional communication tools will be used to support consultation events: display materials, and advertising in local media to inform about the Public Open House event.

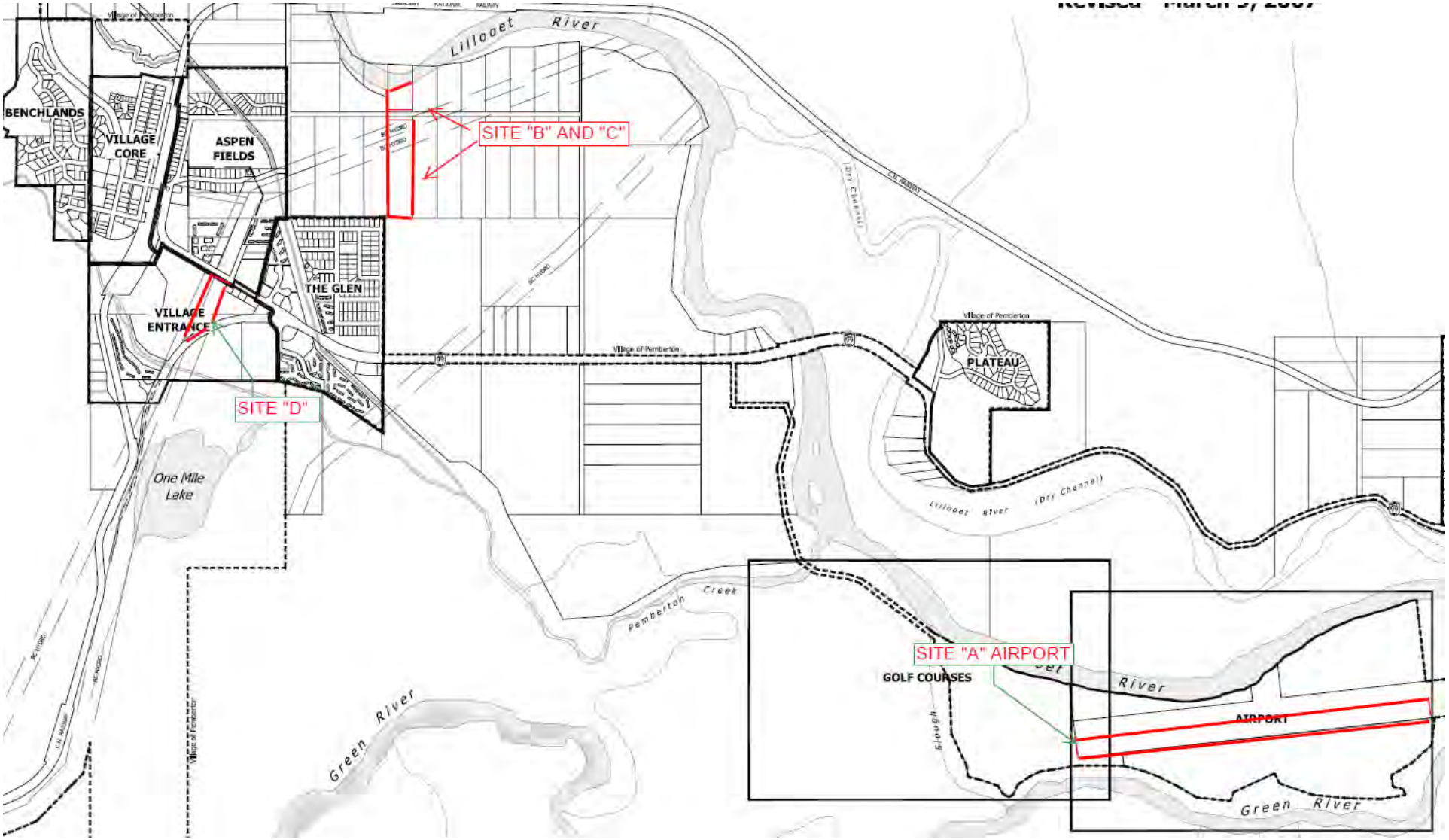
Consultation Budget

Method	Details	Estimated Cost
Website/eNews	Creation of copy, update website, send out eNews	Village Staff time
Meetings	Send invitations by email, staff facilitation, venue: Village White Bldg.	Staff & Consultant
"Have Your Say" Public Open House	Advertising in local paper (one (1) half (1/2) page colour ad one (1) week prior to event Rent Room B, PCC for 2.5 hours at $29.87 hr + refreshments or use White Building (no cost)	Cost Covered by Grant Funding raised by SPS) Cost Covered by Grant Funding raised by SPS) or n/a
Referrals	Send out referrals to appropriate government agencies	Staff Time
TOTAL		All expenses Covered by Grant Funding from VoP, BC REA, and WB Foundation

APPENDIX A

LOCATION MAP OF SUBJECT PROPERTIES

Village of Pemberton-Agricultural Lands Master Plan



APPENDIX B

Pemberton Agricultural Parks Master Plan

Phase 1: Soil Technical Report

Submitted by:
Upland Agricultural Consulting Ltd.
October 1, 2015

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Executive Summary

The assessment of four sites totaling 27.5 hectares is being conducted for potential agricultural production as part of the *Pemberton Agricultural Parks Master Plan*. This *Soil Technical Report* is the main deliverable of Phase 1, site and soil assessment.

The methods used to develop this technical report included three approaches:

1. Desk-based research;
2. Site visits; and
3. Laboratory analysis.

The four parcels were assessed as three sites (Site A, Site BC, and Site D) and were visited on August 26th 2015 so that the parcels could be ground-truthed and soil samples could be collected. Soil samples were sent via courier to A & L Laboratories in London, ON, for analysis of the following parameters:

- Physio-Chemical: pH, CEC, organic matter, particle size analysis.
- Nutrients: Percent base saturation, available P, NO_3-N, available micronutrients.
- Trace metals: Comparison of potentially toxic elements (e.g. As, Hg, Pb) to published soil quality guidelines (OMRR and CEQG).

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, and some degree of stoniness at Site D.

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), 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 (including Zn) indicated any levels of toxicity concern when compared to two published guidelines: OMRR Land Application Guidelines for Class A Compost and the CEQG soil quality guidelines for human health.

In summary, three sites were assessed for agricultural potential within the Pemberton area, 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 provided detailed nutrient application recommendations if crop production is chosen at a future time.

Introduction

Stewardship Pemberton Society (SPS), in partnership with the Village of Pemberton (VoP), is creating an Agricultural Parks Master Plan. Four publicly-owned parcels of land totaling 27.5 hectares (approximately 67 acres) are being assessed regarding their suitability for community supported agricultural activities.

Upland Agricultural Consulting Ltd was retained to provide agrology services. Specifically, four phases of work are to be completed:

1) Analysis of sites and soils
2) Assessment of crop suitability and best management practices for the sites
3) Connections to the broader community
4) Agricultural assessment report

This *Soil Technical Report* is the main deliverable of Phase 1.

Figure 1. Study site locations within the vicinity of Pemberton, BC.

Methodology

The four parcels were assessed as three distinct sites:

- Site A: located adjacent to a low use landing strip at the Pemberton Airport;
- Site B&C: two adjacent parcels located in a rural-urban interface between the VoP and the Squamish Lillooet Regional District (SLRD); and
- Site D: located under BC Hydro powerlines immediately adjacent to Signal Hill Elementary School.

The methods used to develop this technical report included three approaches:

1. Desk-based research: reviewing maps (geological, soil series, agricultural capability, zoning, etc.), reading published soils reports, and accessing online tools such as Google Earth.
2. Site visits: The sites were toured by the consultant along with the client on August 26th 2015. The visit was used to ground-truth the sites, verify mapping accuracy, take photographs, and obtain soil samples.
3. Laboratory analysis: Soil samples obtained at each of the sites were collected during the August 26th, 2015 site visits and shipped to an external laboratory for analysis.

To obtain the soil samples, three soil pits were dug within the potentially agriculturally active portions of each site. The locations of the three pits were chosen based on their representation of the differing topography and varying agricultural capability limitations.

The following steps were taken while collecting the samples:

1. Sampling sites were pre-identified in the field visually.
2. Vegetation residue was removed from the top layer of the soil.
3. A shovel was used to dig a small soil pit to a depth of 20cm - 30cm. This depth represents the depth to which most soil is tilled and contains the majority of a crop's roots[1].
4. For each site, 3 pits were dug and soil from each pit was collected in a bucket. Lumps were broken up and stones and roots were removed, and the soil was mixed thoroughly.
5. From these 3 pits a composite soil sample was obtained and divided into two lab submissions (e.g. A1 and A2).
6. The plastic bags were stored on ice and were shipped to an external laboratory (A & L Laboratories Canada) for analysis.

[1] Bertrand, R.A., Hughes-Games, G.A., and Nikkel, D.C., 1991. Soil Management Handbook for the Lower Fraser Valley. 2nd Edition. BC Ministry of Agriculture, Fisheries, and Food.

Table 1. Location of soil tests at Site A.

Soil Pit ID	Elevation	Latitude	Longitude
Aa	206 m	50° 18’ 05”	122° 44’ 33”
Ab	204 m	50° 18’ 06”	122° 44’ 19”
Ac	204 m	50° 18’ 06”	122° 44’ 24”

Figure 2. Soil sampling locations at Site A.

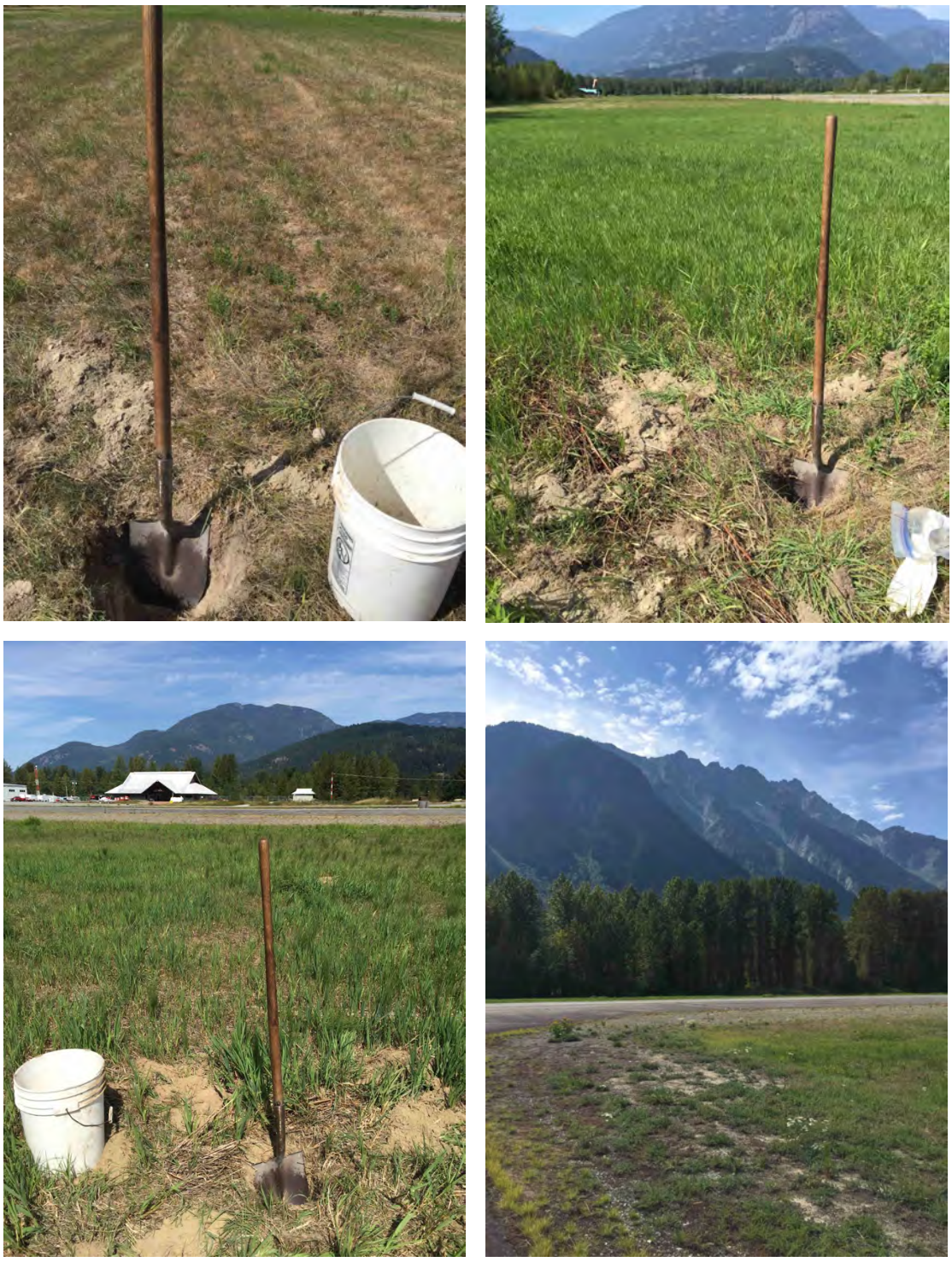

Figure 3. Scenes from soil sample collection at Site A.

Table 2. Location of soil tests at Site BC.

Soil Pit ID	Elevation	Latitude	Longitude
BCa	209 m	50° 19' 17"	122° 47' 29"
BCb	210 m	50° 19' 18"	122° 47' 31"
BCc	209 m	50° 19' 17"	122° 47' 31"

Figure 4. Soil sampling locations at Site BC.

Figure 5. Scenes from soil sample collection at Site BC.

Table 3. Location of soil tests at Site D.

Soil Pit ID	Elevation	Latitude	Longitude
Da	211 m	50° 19' 06"	122° 48' 09"
Db	211 m	50° 19' 04"	122° 48' 10"
Dc	211 m	50° 19' 03"	122° 48' 11"

Figure 6. Soil sampling locations at Site D.

Figure 7. Scenes from soil sample collection at Site D.

Site Characteristics

General Site Descriptions

Table 4. Biophysical characteristics of the study sites.

Parameter	Site A	Site B & C	Site D
Location	This site is located adjacent to a small landing strip at the Pemberton Airport.	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.
Size (Ha)	20 hectares	5.95 hectares	1.5 hectares
Previous agricultural uses	The site has previously been used to cultivate hay and had been recently cut.	Unknown.	Not previously used for agriculture. Vegetation is regularly cut back under hydro lines.
Current land cover	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.
Water and drainage	No active signs of irrigation were visible, however 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.
Terrain	Flat with some small pockets of undulating terrain.	Flat with slopes towards waterbodies along the west and north ends of the site.	Undulating and somewhat stony.
Zoning	Agricultural Land Reserve	Agricultural Land Reserve	Non-ALR
Agricultural Capability Class	2w (1) Class 2 due to excess water (seasonally high water tables). Improvable to Class 1 with proper drainage and/or irrigation.	2^{8}w – 4^{2}w (1^{8} – 2^{2}w) A mix of Class 2 and 4 due to excess water (seasonally high water tables). Improvable to 80% Class 1 and 20% Class 2 with proper drainage and/or irrigation.	5^{6}m,p – 4^{4}w (4^{6}p,m – 2^{4}w) 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.

Soils and Geology

Soil is a living mineral and organic matrix located at the surface of the earth's crust. Soil has been formed over thousands of years and can be described by morphological, physical, chemical, and biological characteristics. Most soil characteristics vary with depth and are the product of many factors including climate, geology, biology, and water.

Table 5. Geology and soil taxonomy of the study sites.

Parameter	Site A	Site B & C	Site D
Geology[2]	Silty and sandy fluvial deposits of the Lillooet River floodplain.	Silty and sandy fluvial deposits of the Lillooet River floodplain.	Mainly anthropogenic (man-made or modified materials) due to nearby land developments.
Soil Order[3]	Regosol (Gleyed and Orthic) and Gleysol (Rego)	Gleysol (Rego)	Gleysol (Rego)
Soil Series[4]	The majority of the site is comprised of Sankey (SA) soils, with smaller amounts of Gates Lake (GA), and Wolverine (WO) soils interspersed throughout.	The majority of the site is comprised of Wolverine (WO) soils with some Scobie (SC) soils interspersed throughout.	The majority of the site is comprised of Sankey (SA) soils with some Scobie (SC) soils interspersed throughout.
Soil Texture[5]	Loam and Clay Loam	Silty Clay Loam and Clay Loam	Loam and Silty Clay Loam

Soil Order Descriptions[6]

Regosols

Regosolic soils are weakly developed. They may lack development from any of a number of factors. In the case of Site A it is most likely attributed to youthfulness of the material, or recent alluvium deposits. Regosolic soils are generally rapidly to imperfectly drained and occur under a wide range of vegetation and climates.

Gleysols

Gleysolic soils are defined on the basis of color and mottling, which indicates the influence of periodic or sustained reducing conditions (wetness). Saturation with water may result from either high groundwater tables or temporary accumulation of water above a relatively impermeable layer, or both. In areas of subhumid climate, Gleysolic soils occur commonly in shallow depressions and on level lowlands that are saturated

[2] Soil Survey of the Pemberton Valley, BC. 1980. Roxanna L. Beale Kuurne, PAg. RAB Bulletin 16. BC Ministry of Environment.
[3] Agriculture and Agri-Food Canada (AAFC), 1998. The Canadian System of Soil Classification, 3rd Edition. http://sis.agr.gc.ca/cansis/taxa/cssc3/index.html
[4] Soil Survey of the Pemberton Valley, BC. 1980. Roxanna L. Beale Kuurne, PAg. RAB Bulletin 16. BC Ministry of Environment.
[5] Based on laboratory test results.
[6] Descriptions are adapted from: Agriculture and Agri-Food Canada (AAFC), 1998. The Canadian System of Soil Classification, 3rd Edition. http://sis.agr.gc.ca/cansis/taxa/cssc3/index.html

with water every spring. In more humid areas, they may also occur on slopes and on undulating terrain.

Soil Series Descriptions[7]

GA: Gates Lake soils
These Orthic Regosol soils are sandy fluvial deposits that have sandy loam, loam, or silt loams at the surface with few stones. The soils are well to moderately well drained, moderately pervious, and are located on level areas or very gentle slopes. Commonly found native species include cottonwood, red cedar, alder, willows, and horsetails.

SA: Sankey soils
These Rego Gleysol soils are found on silty fluvial deposits within the Lillooet River floodplain and are among the most common soils in the Lillooet River valley. They are nonstony silty clay loams or silt loams. Past flooding has left thin layers of organic material in some of these soils. These soils are slowly pervious with surface ponding occurring after heavy rainfall events or during snowmelt. They are poorly drained, often due to seasonally high groundwater levels. They occur on level to nearly level slopes. These soils are commonly used for agriculture. Where left in a natural state they are often vegetated with cottonwood, red cedar, alder, hazelnut, and grasses.

SC: Scobie soils
These soils are formed in sandy flooplain deposits, and are nonstony fine sandy loams or sandy loams. They are moderately to rapidly pervious, poorly drained due to seasonally high groundwater levels, and occur on level to nearly level slopes. When not being used for agriculture, Scobie soils support cottonwood, red cedar, birch, and willow.

WO: Wolverine soils
Wolverine soils are a form of Gleyed Regosols located in sandy fluvial deposits of the Lillooet River floodplain. They are nonstony loamy sand or sandy loam. They are moderately to rapidly pervious, imperfectly drained due to fluctuating ground water levels, and occur on level areas or gentle slopes. Vegetation assocated with Wolverine soils includes red cedar, Douglas fir, cottonwood, Sitka spruce, alder, willow, grasses, and mosses.

Soil Texture Descriptions[8]

Soil textural class is a description of the relative proportions of sand, silt, and clay within the soil. The decreasing order of the particle size is (bold indicates study site results fall within those categories of particle size:

Sand > loamy sand > sandy loam > **loam** > silt loam > silt > sandy clay loam > **clay loam** > **silty clay loam** > sandy clay > silty clay > clay.

The adsorption rates of water, nutrients, and gas as well as the attraction of particles to one another, are all surface phenomena and is directly related to the proportion of clay in the soil.

[7] Descriptions are adapted from: Soil Survey of the Pemberton Valley, BC. 1980. Roxanna L. Beale Kuurne, PAg. RAB Bulletin 16. BC Ministry of Environment.
[8] Descriptions are adapted from: The Nature and Properties of Soils. 11th Ed. 1996. Brady, N.C. and R.R. Weil. Prentice Hall, Upper Saddle River, NJ.

Soil Testing Results

The ability for soils to exchange nutrients (cations and anions) between soil particles and plant roots is a vital process in nature. This exchange takes place primarily on the surfaces of fine soil particles (such as clay) and organic matter. Therefore, understanding common properties (such as pH, amount of organic matter, cation exchange capacity, and nutrient levels) is critical in understanding a soil's potential to sustain agricultural production. The following describes the role of each of these properties along with an interpretation of the associated laboratory results for the soil sampless collected at Site A, Site BC, and Site D.

pH

The pH of a soil provides a measurement of the level of acidity or alkalinity. The pH scale extends from 1 to 14, with 7 being neutral. Less than 7 is considered acidic, while more than 7 is considered alkaline. The pH values for all sites sampled fell within 6.2 – 7.0, with the lower ranges found in Site D. None of these results would present any acidity (or alkalinity) problems for most crops.

Organic Matter (OM)

Generally speaking, ideal Organic Matter (OM) levels in loamy soils are 4-5%[9]. Soils with less than 3% OM may have challenges retaining water and nutrients. Creating additional OM is challenging but not impossible. Site BC has the lowest %OM, which is consistent with field observations: there was little to no vegetation associated with the upper soil layers at Site BC.

Methods to increase OM may include:

- Incorporating compost into the upper soil layers;
- Reducing tillage or managing soils using "no-till" techniques;
- Crop rotation; and
- Winter cover crops.

Table 6. Soil test results: pH and Organic Matter.

Sample #	pH	Organic Matter %
A1	6.9	2.0
A2	7.0	3.4
BC1	7.0	0.7
BC2	6.7	1.2
D1	6.2	2.2
D2	6.3	3.1
Target range	**5.5 to 7.0**	**4 – 5**

[9] Factsheet: Soil management: building a healthy soil. Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA). http://www.omafra.gov.on.ca/english/crops/pub811/8building.htm

Rating	Colour
Very Low	
Low	
Medium	
High	
Very High	

Table 7. Soil laboratory results: CEC, Percent Base Saturation, and exchangeable P.

		Percent Base Saturations						
Sample #	**CEC meq/100g**	**K %**	**Mg %**	**Ca %**	**Na %**	**H %**	**P (Bray-P1) ppm**	**Saturation P%**
A1	5.4	5.0	14.7	56.5	1.9	22.0	7	1
A2	7.1	5.0	14.7	66.4	1.0	12.8	20	3
BC1	4.7	6.0	14.3	63.1	3.8	12.9	26	8
BC2	3.9	7.3	14.0	46.6	1.2	30.9	29	8
D1	6.7	7.7	10.6	58.9	5.0	17.8	38	7
D2	4.9	4.9	11.1	58.4	1.2	24.4	14	2

Table 8. Soil laboratory results: Nitrate and micronutrients.

Sample #	**NO3-N**	**K**	**Ca**	**Mg**	**Cu**	**Zn**	**Fe**	**Mn**	**B**
	ppm	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
A1	1	105	610	95	3.0	1.9	132	31	0.1
A2	7	138	940	125	2.4	6.5	95	45	0.1
BC1	1	109	590	80	2.5	6.6	132	12	0.1
BC2	2	110	360	65	2.7	8.5	144	10	0.1
D1	2	202	790	85	3.3	5.5	126	8	0.2
D2	2	94	570	65	3.5	4.0	144	23	0.1

Cation Exchange Capacity (CEC) and Percent Saturation

The CEC is the sum total of exchangeable cations that a soil can adsorb. A cation is a positively charged ion (such as a nutrient or heavy metal), which is attracted to a negatively charged anion (such as a clay particle or organic matter particle). Therefore the CEC provides and indication as to the ability of the soil to readily release cations (such as H^+ , Na^+, Mg^{+2}, or Ca^{+2}) and adsorb others that are purposefully added (such as K^+). Sandy soils tend to have lower CECs than clay soils, because smaller clayparticles provide greater total surface area. The proportion of the CEC satisfied by a given cation is called the *percentage saturation* for that cation.[10] The related cation percentage is referred to as the *percentage base saturation* (PSB). The PSB for each element influences the uptake of these elements by growing plants.

[10] The Nature and Properties of Soils. 11th Ed. 1996. Brady, N.C. and R.R. Weil. Prentice Hall, Upper Saddle River, NJ.

Generally speaking, target ranges for most agricultural soils are as follows:

- K: 1-5%
- Mg: 10-40%
- Ca: 60-80%

Most of the laboratory results fall within these ranges for the three sites, although % Ca measured a bit low in some of the samples (Table 7). This suggests that additions of Ca may be beneficial during future crop production, which is a common soil management practice. This can be done using organic sources such as bone meal.

Phosphorus

Phosphorus (P) is calculated differently than K, Mg, and Ca because it has opposite ionic properties (i.e. it is negatively charged rather than positively charged) and it is not related to the CEC. Available P is determined by the Bray-P1 test. Adequate levels of available phosphorus are usually between 22 and 33 PPM. The results for most of the samples tested indicate low levels for Site BC and Site D, and very low levels at Site A. This is not surprising considering that Site A may have lost P over time during hay cultivation (especially if a fertilizer has not been recently applied). Therefore, future crop production will necessitate a P fertilization program. This can be done using organic sources. The low Saturation P% levels in all soils suggests that P will not readily be lost from the soil.

Nitrate Nitrogen (NO_3- N)

Nitrogen is essential to nearly every aspect of plant growth. Nitrogen is absorbed by plants as nitrate (NO_3^-) and ammonium (NH_4^+). Soil NO_3^- and NH_4^+ levels can fluctuate widely with soil and weather conditions over very short periods of time. Nitrogen recommendations are based on crop needs with the assumption that very little available N remains in the soil after the growing season. Adjustments must be made based on %OM, if soils are recently amended with manure or compost, or if legumes (which fix nitrogen in the soil) are grown in the crop rotation.

In general, a soil NO_3-N concentration of 30 ppm or higher during the active growing season is sufficient for most plants. Therefore, when the concentration of soil NO_3-N is less than 30 ppm, additional fertilizer is likely required. All samples indicated low or very low levels of NO_3-N, indicating that a nitrogen fertilizer will be required for crop production at all sites.

Micronutrients (Cu, Zn, Fe, Mn, B)

Micronutrients (sometimes referred to as trace elements) play complex roles in plant nutrition. Most have roles within enzyme systems, photosynthesis, and other metabolic steps. Levels of micronutrients within soils and plants can be described as deficient, normal, or toxic. The main source of micronutrients is from rocks that undergo mineral decomposition over time. Organic sources such as organic matter, compost, and manure, are important secondary source of micronutrients. Soil pH has a lead role in the availability of micronutrients within the soil solution to plants[11].

Available micronutrient results varied between sites. In general, Cu, Zn, and Fe levels were high or very high. These are likely originating from a natural geologic source. Additional sources of Mn and B will be required, especially at Site BC. Although only required in small amounts, B is critical for healthy plant growth.

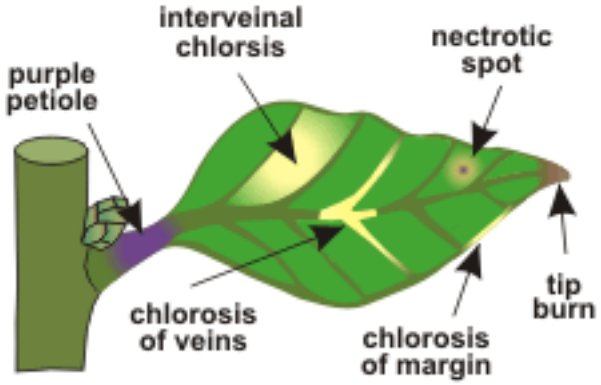

Figure 8. Common leaf abnormalities resulting from nutrient deficiencies[12].

[11] A note on soil testing methods for trace elements: Since micronutrients such as Cu can be both a benefit and potential toxin to plants, two test methods are used. The first provides a measurement of the "available" amount of that element determined by testing the soil solution resulting from an addition of acid. The second provides a deeper analysis by using Inductively-Coupled Plasma (ICP) or similar methods. This result will reflect the total amount of metal found in the soil sample, not just the readily available fraction.

[12] Growers Guide for Hydroponics, Coco, and Soil. Flairform Growing Media. http://www.flairform.com/index.php?option=com_content&view=article&id=3&Itemid=115

Trace Metals

There are many sources of metal contaminants that can accumulate in soils. These include the burning of fossil fuels, use of additives in gasoline, use of insecticides, metal plating, domestic sewage sludge, industrial waste, and air pollution. The greatest problems usually arise from Arsenic (As), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Lead (Pb), and Zinc (Zn). Cd and As are extremely poisonous to humans; Hg, Pb, and Ni are moderately so; and Boron (B), Cu, Manganese (Mn), and Zn are relatively lower in mammalian toxicity[13].

The soil samples were analyzed in the lab for a suite of trace metals[14] and results were compared to two commonly-used health and safety guidelines: BC's Organic Matter Recycling Regulation (OMRR) Class A Compost[15] and the Canadian Council of Ministers for the Environment (CCME)'s Canadian Environmental Quality Guidelines (CEQG): Soil Quality Guidelines for Human Health[16]. Results were favourable at all sites. No concerns were noted for any the elements tested. These results are summarized in Table 9 and a full set of results are provided in the Appendix.

Table 9. Soil laboratory results: trace metals.

		Site						Guidelines	
Parameter	**Detection Limit**	**Airport**		**Harrow Rd**		**Signal Hill**		**OMRR**	**CCME**
	(ug/g or ppm)	**A1**	**A2**	**BC1**	**BC2**	**D1**	**D2**	**Class A Compost**	**Soil Quality Guidelines for Human Health**
Arsenic	1	2.9	2.2	1.2	1.1	BDL	BDL	13	12 (inorg)
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 (inorg)
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

[13] The Nature and Properties of Soils. 11th Ed. 1996. Brady, N.C. and R.R. Weil. Prentice Hall, Upper Saddle River, NJ.
[14] The samples were tested for trace metals using the following techniques: Inductively Coupled Plasma (ICP) for the majority of elements, Hydride Generation Atomic Absorption Spectrometry (HGAAS) for As and Se, and Cold Vapour Atomic Absorption Spectrometry (CVAAS) for Hg.
[15] Land Application Guidelines for the Organic Matter Recycling Regulation and the Soil Amendment Code of Practice. Best Management Practices. March 2008. BC Ministry of Environment. http://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/landappguidelines.pdf
[16] CCME Canadian Environmental Quality Guidelines. Factsheets. http://www.ccme.ca/en/resources/canadian_environmental_quality_guidelines/index.html

Conclusion

In summary, three sites were assessed for agricultural potential within the Pemberton area, and minimal constraints were found. Results indicate that the sites are a combination of loams on mainly flat terrain with good to excellent agricultural capability. Main challenges to capability relate to seasonally high water tables, which could be managed through proper drainage. Some level of stoniness was noted in Site D.

Many indicators of fertility, including organic matter, phosphorus, and nitrogen levels were measured to be relatively low. However this is not uncommon for sites that have not been previously cultivated, or that may have had repeated crop production with little to minimal levels of fertilizers applied. None of the trace metal results indicated any levels of toxicity concern when compared to two published guidelines: OMRR Land Application Guidelines for Class A Compost and the CEQG soil quality guidelines for human health.

Appendix

Soil Laboratory Test Results

A&L Canada Laboratories results sheets (PDFs).

APPENDIX C

Pemberton Agricultural Parks – Phase 2
Assessment of Suitable Agricultural Activities

November 6, 2015

Upland Agricultural Consulting

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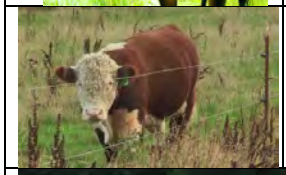
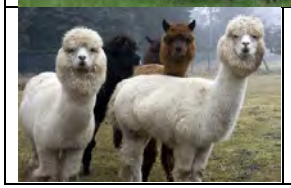
Summary of Feasible Agricultural Activities for Each Site

Permitted Use	Activity	Site		
		A (Airport)	B&C (Harrow Rd)	D (Signal Hill)
Horticulture	Root vegetables (e.g. potatoes, onions, carrots, radishes, beets)	High	High	High
	Green vegetables (e.g. lettuce, celery, cabbage, broccoli, spinach, herbs, kale, cauliflower)	High	High	High
	Field flowers	High	Moderate	High
	Squash (e.g. pumpkins, squash, melons)	High	Moderate	High
	Nightshades (e.g. 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
	Horses	Low	Moderate	Low
	Cows (beef or dairy)	Low	Low	Low
	Pigs, sheeps, goats	Low	Low	Low
	Llamas, alpacas	Low	Low	Low
Greenhouse/hothouse 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

Detail of Potential Agricultural Activities - Site A – Airport

Airport Site: Field Crop Production				
	Crop	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Root Vegetables (potato, onion, carrot, radish, beets)	High	• Soil amendments for organic matter required; • Annual soil fertility testing and nutrient program recommended; • Drainage and irrigation required; • Fairly low maintenance.	Medium-Low
	Green Vegetables (Lettuce, celery, cabbage, broccoli, spinach, herbs)	High	• Soil amendments for organic matter required; • Annual soil fertility testing and nutrient program recommended; • Drainage and irrigation required; • Fairly low maintenance; • Susceptible to predation by slugs, deer, other wildlife; • Some weeding required.	Medium-Low
	Pumpkins, zucchini, squash, melon	High	• Susceptible to frost; • Liming, fertilizer, seeds; • May require addition/mixing of organic matter for improved structure; • Susceptible to predation by slugs, birds, other wildlife; • Low maintenance.	Medium-Low
	Field flowers	High	• Good drainage required; • Susceptible to predation by slugs, deer, other wildlife; • Liming, fertilizer, plants/bulbs are all cost considerations; • May require addition/mixing of organic matter for improved structure.	Medium
	Cereal grains, hay	High	• Similar to the status quo; • Requires good drainage; • Irrigation may be optional; • Liming, fertilizer, seeds will be required; • May require addition/mixing of organic matter for improved structure; • Fairly low maintenance.	Medium-Low

	Raspberries and Strawberries	Moderate	• Soil amendments for organic matter required; • Raised beds or hills may be required for production to be feasible; • Will require netting or other bird deterrents; • May require manure applications; • Basic capital investment similar to blueberries and high maintenance.	Medium
	Blueberries	Moderate	• Will require acidic soils – soil amendments for pH more intensive; • Pest control required; • Predation from birds and small mammals will need to be mitigated through netting, sprinklers, or other deterrents; • Blueberry plants may be expensive (depending on age at time of purchase); • Total set up costs approx. $30,000/acre and high maintenance.	Medium-High
	Corn	Moderate	• Requires deep water table; • Liming, fertilizer, seeds; • May require addition/mixing of organic matter for improved structure.	Medium-Low
	Tomatoes, peppers, eggplant	Low	• Highly susceptible to frost; • Summer months may not be warm enough for field tomatoes; • High labour to maintain and harvest.	Low-Medium
	Fruit & nut trees (orchards)	Low	• Takes many years to establish and requires a very low water table; • Requires deep mineral soils for deep rooting requirements; • Height of trees may be inapproporate for the proximity of the landing strip; • Pollinators required.	High
	Grape vines (winery)	Low	• Takes many years to establish and requires a very low water table; • Climate is too wet and summers not hot enough for most grape varieties to produce well; • Susceptible to frost.	High

Airport Site: Animals (Poultry/Livestock/Horse/Bee) Production				
	Livestock	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Honey bees	High	• Will require electric fencing or similar security to deter wildlife; • Will benefit agricultural and non-agricultural plants through increased presence of pollinators.	Medium-low
	Poultry (broilers, layers, turkeys)	Low	• Coops and fencing would be required – not suitable to the site; • Caretaker would be required 24/7 – not suitable to the site.	Medium
	Large animals: Horses	Low	• Stables, fencing, and outbuildings would be required – not suitable to the site; • Caretaker would be required 24/7 – not suitable to the site.	High
	Large animals: Cattle (dairy and/or beef)	Low	• Barns, fencing, and outbuildings would be required - not suitable to the site; • Caretaker would be required 24/7 – not suitable to the site.	High
	Medium sized animals: Pigs, sheep, goats	Low	• Barns, fencing, and outbuildings would be required - not suitable to the site; • Caretaker would be required 24/7 – not suitable to the site.	High
	Other animals: Llamas, alpacas, emus, deer	Low	• Barns, fencing, and outbuildings would be required - not suitable to the site; • Caretaker would be required 24/7 – not suitable to the site.	High

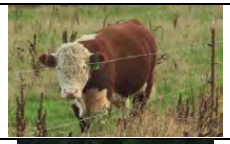
Airport Site: Greenhouse Production				
	Structure	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Hoop houses	Moderate	• Good for greens, strawberries, and a variety of starter plants; • Fertilizer demands and green waste produced may be high, depending on crops grown; • Ideally a caretaker will be on site 24/7 to prevent theft and/or vandalism; • Set up and maintenance costs may be high; • Irrigation infrastructure may be required.	Medium-Low
	Poly houses	Low	• Cost and size unsuitable to the site.	Medium-High
	Glass houses	Low	• Cost and size unsuitable to the site.	Very High

Airport Site: Other Uses Permitted on Agricultural Land				
	Use	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Biodiversity conservation, passive recreation, heritage, wildlife and scenery viewing purposes	High	• Similar to the status quo.	Medium-Low
	Education and research	Moderate	• Opportunities exist for partnerships with local and regional education institutions; • The site could be used for crop trials (potato varieties, flower varieties); • Parking and access will likely be required.	Medium
	Farm retail sales	Low	• Not suitable for the site due to the location of the airport.	Medium
	Agri-tourism	Low	• Not suitable for the site due to location of the airport.	Medium
	Botanical garden	Low	• Hoop housing required to grow nursery stock; • Expensive maintenance costs; • On-site water, energy, and waste systems; • Heating and irrigation infrastructure required.	Medium
	Storing, packing, preparing, or processing	Low	• Not suitable to the site due to location of airport.	High
	Large scale compost operations	Low	• Not suitable to the site due to location of airport.	High
	Petting zoo, pet breeding and/or kennel	Low	• Not suitable to the site due to location of airport.	High

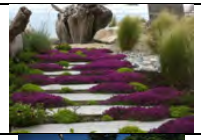
Detail of Potential Agricultural Activities - Site B&C – Harrow Rd.

Harrow Rd: Field Crop Production – Site B&C				
	Crop	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Root Vegetables (potato, onion, carrot, radish, beets)	High	• Soil amendments for pH and organic matter required; • Annual soil fertility testing and nutrient program recommended; • Drainage and irrigation required.	Medium-Low
	Green Vegetables (Lettuce, celery, cabbage, broccoli, spinach, herbs)	High	• Soil amendments for pH and organic matter required; • Annual soil fertility testing and nutrient program recommended; • Drainage and irrigation required.	Medium-Low
	Blueberries	High	• Will require acidic soils; • Pest control required; • Predation from birds and small mammals will need to be mitigated through netting, sprinklers, or other deterrents; • Total set up costs approx. $30,000/acre.	Medium-High
	Raspberries and Strawberries	High	• Soil amendments for pH and organic matter required; • Annual soil fertility testing and nutrient program recommended; • Drainage and irrigation required; • Raised beds or hills may be required for production to be feasible; • Will require netting or other bird deterrents; • Basic capital investment similar to blueberries.	Medium
	Fruit trees (orchards)	High	• Takes many years to establish and requires a very low water table; • Requires deep mineral soils for deep rooting requirements. • Pollinators required.	High
	Tomatoes, peppers, eggplant	Moderate	• Highly susceptible to frost.	Low-Medium

	Pumpkins, zucchini, squash, melon	Moderate	• Susceptible to frost; • Liming, fertilizer, seeds; • May require addition/mixing of organic matter for improved structure; • Raised beds may be required for production to be feasible.	Medium-Low
	Corn	Moderate	• Requires deep water table; • Liming, fertilizer, seeds; • May require addition/mixing of organic matter for improved structure.	Medium-Low
	Cereal grains	Moderate	• Requires deep water table; • Liming, fertilizer, seeds; • May require addition/mixing of organic matter for improved structure.	Medium-Low
	Field flowers	Moderate	• Perennials may suffer in high water tables – most flowers do not tolerate water logging; • Growing flowers in raised beds may help boost production; • Susceptible to predation by slugs; • Liming, fertilizer, plants; • May require addition/mixing of organic matter for improved structure; • Raised beds may be required for production to be feasible.	Medium
	Grape vines (winery)	Low	• Takes many years to establish and requires a very low water table; • Climate and soils may not be suitable; • Grower skills must be high.	High

Harrow Rd: Animals (Poultry/Livestock/Horse/Bee) Production – Site B&C				
	Livestock	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Honey bees	High	• Will require electric fencing or similar security to deter wildlife; • Will benefit agricultural and non-agricultural plants through increased presence of pollinators.	Medium-low
	Poultry	Moderate	• Risk of possible predation by wildlife is high (coyotes, hawks, etc) - will require electric fencing or similar security to deter wildlife; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism; • Coops, shelters, fencing, drinking water, heating, costs of purchasing birds; • Odour and dust emissions (may affect agricultural crops).	Medium
	Large animals: Horses	Moderate	• Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism; • Development of fencing, stables, riding rings; • May require trail development; • Drinking water, heating for shelters, grass, hay, alfalfa, or other grazing; • Costs of purchasing animals or managing those that belong to others.	High
	Large animals: Cattle (dairy and/or beef)	Low	• Not suitable due to relative size of pasture/grazing required; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism.	High
	Medium sized animals: Pigs, sheep, goats	Low	• Not suitable due to relative size of pasture/grazing required; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism.	High
	Other animals: Llamas, alpacas, emus, deer	Low	• Not suitable due to relative size of pasture/grazing required; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism.	High

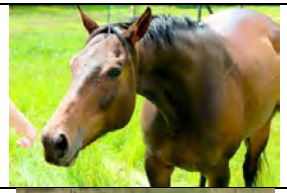
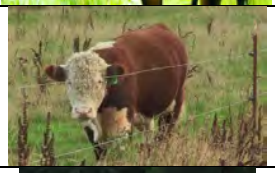
Harrow Rd: Greenhouse Production – Site B&C				
	Structure	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Hoop houses	High	• Good for greens, strawberries, and a variety of starter plants; • Fertilizer demands and green waste produced may be high, depending on crops grown; • Ideally a caretaker will be on site 24/7 to prevent theft and/or vandalism; • Set up and maintenance costs; • Irrigation infrastructure may be required.	Medium-Low
	Poly houses	Moderate	• Ideal crops include: greens, strawberries, nursery stock, vine vegetables (tomatoes, cucumbers, peppers), and/or flowers; • Fertilizer demands and green waste produced may be high, depending on crops grown; • Ideally a caretaker will be on site 24/7 to prevent theft and/or vandalism; • Set up and maintenance costs; • Excavation and fill may be required; • Heating and irrigation infrastructure required; • Waste management/composting systems may be required.	Medium-High
	Glass houses	Low	• High tech glass greenhouses and associated infrastructure can cost approximately $1 million per acre; • Excavation and fill required; • Heating and irrigation infrastructure required; • Waste management/composting systems required	Very High

Harrow Rd: Other Uses Permitted on Agricultural Land – Site B&C				
	Use	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Farm retail sales and agritourism	High	• A farm stand could offer products grown on the site for sale; • Staffing the booth may be required to reduce theft and vandalism; • Integration of site-based agriculture, education, and/or recreation could result in successful agri-tourism initiatives such as tours, slow food hikes/cycles, culinary events, and local food celebrations (Feast of Fields, etc.); • Electricity and water servicing may be required; • Parking will likely be required;	Medium
	Biodiversity conservation, passive recreation, heritage, wildlife and scenery viewing	High	• The area occupied by associated buildings and structures must not exceed 100 m^2 unless otherwise approved by the Agricultural Land Commission; • Habitat restoration may be required, incl. invasive species management; • Trail/boardwalk construction, interpretive signage; • Parking, monitoring for vandalism and dumping.	Medium-Low
	Botanical garden	High	• Hoop housing required to grow nursery stock; • On-site water, energy, and waste systems will need to be considered; • Heating and irrigation infrastructure required; • Parking will likely be required;	Medium
	Education and research	High	• Partnerships with local and regional education institutions; • The area occupied by associated buildings and structures must not exceed 100 m^2 unless otherwise approved by the Agricultural Land Commission; • Electricity and water servicing, Parking will likely be required.	Medium
	Storing, packing, preparing, or processing	Moderate	• Location may not be suitable due to proximity to residential and commercial areas (zoning); • Electricity and other servicing will be required;	High
	Large scale compost operations	Moderate	• Location may not be suitable due to proximity to residential and commercial areas and the inherent noise and odour involved in large scale composting operations.	High
	Petting zoo, pet breeding and/or kennel	Low	• Not suitable without a 24/7 caretaker.	High

Potential Agricultural Activities - Site D – Adjacent to Signal Hill Elementary

Signal Hill: Field Crop Production – Site D				
	Crop	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Root Vegetables (potato, onion, carrot, radish, beets)	High	• Soil amendments for pH and organic matter required; • Annual soil fertility testing and nutrient program recommended; • Drainage and irrigation required; • May be suitable as part of a community garden layout/design.	Medium-Low
	Green Vegetables (Lettuce, celery, cabbage, broccoli, spinach, herbs)	High	• Soil amendments for pH and organic matter required; • Annual soil fertility testing and nutrient program recommended; • Drainage and irrigation required; • May be suitable as part of a community garden layout/design..	Medium-Low
	Field flowers	High	• Perennials may suffer in high water tables – most flowers do not tolerate water logging; • Susceptible to predation by slugs; • Initial costs of perennials, bulbs, may be high. • May be suitable as part of a community garden layout/design.	Medium
	Pumpkins, zucchini, squash, melon	High	• Susceptible to frost; • Main cost will be seeds; • May require addition/mixing of organic matter; • Raised beds may be required for production to be feasible.	Low
	Tomatoes, peppers, eggplant	High	• Highly susceptible to frost; • May be suitable as part of a community garden layout/design.	Low-Medium
	Fruit trees (orchards)	Moderate	• Takes many years to establish and requires a very low water table; • Requires deep mineral soils for deep rooting requirements. • Pollinators required; • Predation from birds, small mammals, bears will need to be mitigated; • May be most appropriate in small numbers; • Height suitability under hydro wires must be considered.	High

	Blueberries	Moderate	• Will require acidic soils; • Pest control required; • Predation from birds, small mammals, bears will need to be mitigated through netting, sprinklers, or other deterrents; • Total set up costs approx. $30,000/acre; • May be most appropriate in small numbers.	Medium-High
	Raspberries and Strawberries	Moderate	• Soil amendments for pH and organic matter required; • Annual soil fertility testing and nutrient program recommended; • Drainage and irrigation required; • Raised beds or hills may be required for production to be feasible; • Will require netting or other predator deterrents; • Basic capital investment similar to blueberries.	Medium
	Corn	Low	• Requires deep water table; • Liming, fertilizer, seeds; • May require addition/mixing of organic matter for improved structure.	Medium-Low
	Cereal grains	Low	• Requires deep water table; • Liming, fertilizer, seeds; • May require addition/mixing of organic matter for improved structure.	Medium-Low
	Grape vines (winery)	Low	• Takes many years to establish and requires a very low water table; • Climate and soil may not be attuned to most grape varieties; • Skill level of grower must be high.	High

Signal Hill: Animals (Poultry/Livestock/Horse/Bee) Production – Site D				
	Livestock	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Honey bees	High	• Will require electric fencing or similar security to deter wildlife; • Will benefit agricultural and non-agricultural plants through increased presence of pollinators.	Medium-low
	Poultry (broilers, layers, turkeys)	Low	• Risk of possible predation by wildlife is high (coyotes, hawks, etc); • Will require electric fencing or similar security to deter wildlife; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism; • Coops, shelters, fencing, drinking water, heating, purchasing birds; • Odour and dust emissions (may affect agricultural crops).	Medium
	Large animals: Horses	Low	• Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism; • Development of fencing, stables, riding rings; trail development; • Drinking water, heating for shelters; grass, hay, alfalfa, or other for grazing; • Odour; • Costs of purchasing animals or managing those that belong to others.	High
	Large animals: Cattle (dairy and/or beef)	Low	• Not suitable due to relative size of pasture/grazing required; • Costs of purchasing and maintaining health of animals will be high; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism.	High
	Medium sized animals: Pigs, sheep, goats	Low	• Not suitable due to relative size of pasture/grazing required; • Costs of purchasing and maintaining health of animals will be high; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism.	High
	Other animals: Llamas, alpacas, emus, deer	Low	• Not suitable due to relative size of pasture/grazing required; • Costs of purchasing and maintaining health of animals will be high; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism.	High

Signal Hill: Greenhouse Production – Site D				
	Structure	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Hoop houses	High	• Good for greens, strawberries, and a variety of starter plants; • Fertilizer demands and green waste produced may be high, depending on crops grown; • Ideally a caretaker will be on site 24/7 to prevent theft and/or vandalism; • Set up and maintenance costs; • Irrigation infrastructure may be required.	Medium-Low
	Poly houses	Moderate	• Ideal crops include: greens, strawberries, nursery stock, vine vegetables (tomatoes, cucumbers, peppers), and/or flowers; • Fertilizer demands and green waste produced may be high, depending on crops grown; • Ideally a caretaker will be on site 24/7 to prevent theft and/or vandalism; • Set up and maintenance costs; • Excavation and fill may be required; • Heating and irrigation infrastructure required; • Waste management/composting systems may be required.	Medium-High
	Glass houses	Low	• Ideal crops include: nursery stock, vine vegetables (tomatoes, cucumbers, peppers), and/or flowers; • High yield production may be in excess of seasonal market demand; • Glass house floors may be soil-based (organic production) or concrete; • Caretaker will be required on site 24/7 to prevent theft and/or vandalism; • High tech glass greenhouses and associated infrastructure can cost approximately $1 million per acre; • Excavation and fill required; • Heating and irrigation infrastructure required; • Waste management/composting systems required	Very High

Signal Hill: Other Uses Permitted on Agricultural Land – Site D				
	Use	**Suitability Ranking**	**Considerations**	**Relative Cost of Implementation**
	Farm retail sales and agritourism	High	• A farm stand could offer products grown on the site for sale; • Integration of site-based agriculture, education, and/or recreation could result in tours, slow food hikes/cycles, culinary events etc; • Staffing the booth may be required to reduce theft and vandalism; • Electricity and water servicing may be required; parking.	Medium
	Biodiversity conservation, recreation, heritage, wildlife viewing purposes	High	• The area occupied by associated buildings and structures must not exceed 100 m^2 unless otherwise approved by the Agricultural Land Commission; • Habitat restoration may be required, incl. invasive species management; • Trail/boardwalk construction; interpretive signage; • Parking, monitoring for vandalism and dumping.	Medium-Low
	Education and research	High	• Partnerships with local education institutions; • The area occupied by associated buildings and structures must not exceed 100 m^2 unless otherwise approved by the Agricultural Land Commission; • Electricity and water servicing; parking will likely be required.	Medium
	Botanical garden	Moderate	• Hoop housing required to grow nursery stock; • On-site water, energy, and waste systems will need to be considered; • Heating and irrigation infrastructure required; • Parking will likely be required;	Medium
	Storing, packing, preparing, or processing	Low	• Truck/large vehicle access will need to be considered; • Excavation and fill of the building site will be required; • On-site water, energy, and waste systems will need to be considered.	High
	Large scale compost operations	Low	• Location may not be suitable due to proximity to residential and commercial areas and the inherent noise and odour involved in large scale composting operations; • Truck/large vehicle access will need to be considered	High
	Petting zoo, pet breeding and/or kennel	Low	• Predation by wildlife is possible; • Location is not suitable due to proximity to residential and commercial areas and the inherent noise involved in kennel and breeding operations; • Caretaker will be required on site 24/7 for animal well-being and to prevent theft and/or vandalism.	High

REPORT TO COMMITTEE OF THE WHOLE

Date: **October 6, 2015**

To: **Nikki Gilmore, Chief Administrative Officer**

From: **Lisa Pedrini, Planner**

Subject: **Community Agricultural Parks Planning Update**

PURPOSE

The purpose of this report is to provide Council with an update on the development of Community Agricultural Parkland being undertaken by Stewardship Pemberton in association with the Village of Pemberton.

BACKGROUND

In 2012 staff presented a report to request Council's support and resolution endorsing Crown Land Tenure applications in order for the Village to pursue various park land acquisitions including Lots 8 and 20 for the purpose of community recreation. At the time, at the January 24, 2012 Council No. 1296 the following resolution was passed:

> *Moved/Seconded*
> ***THAT** the Village of Pemberton apply to the Ministry of Forest, Lands and Natural Resources for Crown Land Tenures for the properties as listed:*
>
> - *End of Harrow Road/Lot 8, District Lot 165, LLD, Plan 883 - for the purpose of an Agricultural and Equestrian Park*
>
> ***CARRIED***

In 2013, Village staff successfully made Crown Land Tenure Applications for Lots 8 and 20 Plan 883 for a Community Agricultural Park & Trails Network, and on May 20, 2014 the Ministry of Forests, Lands and Resource Operations (MFLRNO) approved a Licence of Occupation by the Village on Lots 8 and 20.

In addition to the tenures above, the Village holds tenure over the crown lands referred to as Lot 13, DL 2013, LLD, Plan 7619 since 1996. This Tenure requires approval by Sea to Sky School District No. 48 as legal access to Lot 13 is currently though Lot 10 (Signal Hill Elementary School).

On July 22, 2014 at the 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 municipal tenured properties (refer to map attached as **Appendix A**):

- *Parcel A* - Airport lands (fields)
- *Parcel B* - Lot 8 & *Parcel C* - Lot 20 at the end of Harrow Road

- *Parcel D* - Lot 13 (next to Signal Hill Elementary School and the potential future Toyota Community Garden location)

The intent was to establish a possible course of action in farming these properties in response to community needs. In the report, Caroline Lamont, former Manager of Development Services, 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 various Village controlled properties for agricultural purposes. Discussion among the Committee of the Whole took place regarding the following:

- Opportunity for a community greenhouse
- Role of Stewardship Pemberton given their experience managing the Community Garden
- Role of other interest groups and importance of inclusion of organizations such as the Pemberton Valley Trails Association, Pemberton Farmers Institute and the equestrian community
- Community consultation processes and ideas such as public forum, information meetings etc.
- Importance of understanding the history of each property (farming, wetlands, dumpsites)
- Costs associated with development of the properties

As a result, the Committee of the Whole supported this initiative and passed the following resolution:

> *Moved/Seconded*
> ***THAT** the Committee of the Whole recommend to Council to support staff's direction with respect to the development of Community Agricultural Parks, as presented in the report to the Committee of the Whole, dated July 22, 2014.*
> ***CARRIED***

Subsequently, Council supported this recommendation and Rose with Report from the Committee of the Whole 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***

As a result of this direction, on August 26, 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 2nd, 2014. This report is attached as **Appendix B**.

The report also included recommended next steps in planning a course of action for the agricultural use of various Village tenured properties, which would entail:

1. Engaging existing community organizations
2. Recognizing expertise needed
3. Identifying organization structure
4. Developing a work program
5. Identifying funding sources

In this regard, the following resolution was passed by the Committee of the Whole on September 2, 2015:

> *Moved/Seconded*
> ***THAT** the Committee of the Whole receives this report for their information;*
>
> ***AND THAT** the Committee of the Whole recommend to Council to direct staff to allocate $3,500 towards the Agricultural Park Planning initiative.*
> ***CARRIED***

This direction was supported by Council at the Regular Council Meeting No. 1375, held September 16, 2015.

> *Moved/Seconded*
> ***THAT** Council supports the Committee of the Whole recommendation to direct staff to allocate $3,500 towards the Agricultural Park Planning initiative.*
> ***CARRIED***

Due to limited staffing and resources, activity on this initiative did not proceed in 2014 and was moved to the 2015 work plan and budget discussions.

In January 2015, Stewardship Pemberton approached the Village of Pemberton and offered its assistance to seek additional funding and leverage the funds allocated to the Agricultural Park lands project (as proposed in the 2015 budget by the Village) to increase the overall scope of the project (request letter attached as **Appendix C**).

At the Regular Council Meeting No. 1388, held February 3, 2015, Council passed the following resolutions:

> *Moved/Seconded*
> ***THAT** Council supports the inclusion of the establishment of a Village of Pemberton Agricultural Parks Plan in the 2015 Strategic Plan and Budget deliberations;*
>
> ***AND THAT** Council supports partnering with Stewardship Pemberton to source out funding for the development of an Agricultural Parks Master Plan;*
>
> ***AND THAT** staff be directed to work with Stewardship Pemberton on developing applications for appropriate grant programs and report back if applications have been approved.*
> ***CARRIED***
> *Moved/Seconded*
> ***THAT** Council supports the commencement of volunteer work on Lot 13 in advance of the development of the Pemberton Agricultural Park Plan.*
> ***CARRIED***

Since this time Stewardship Pemberton obtained a grant of $10,000 from the Community Foundation of Whistler (CFOW) in April 2015. As well, Stewardship Pemberton, with assistance from the Village Planner, submitted a grant application to the Real Estate Foundation of BC and successfully secured $20,000 funding in June 2015 to support the development of an Agricultural Parks Master Plan. The SLRD was also invited to contribute (Lots 8 & 20 are within the Area C and it was felt that the Master Plan process will help to implement certain actions from the Area C Agricultural Area Plan), however, they declined.

Following the success of the grant writing stage, Stewardship Pemberton secured a contract with Ione Smith of Upland Consulting in July 2015 to conduct a Soils Analysis and assist in determining the best uses for the parcels. A Soils Analysis was conducted in early September and a preliminary review of results from the Soils Analysis determined that there are no initial health concerns.

On September 24, 2015 Stewardship Pemberton provided the attached summary to update the Village on the status of this project (attached as **Appendix D**). On October 1, 2015 the Village received the attached final Soil Technical Report submitted by Upland Agricultural Consulting Ltd., attached as **Appendix E**.

With respect to the second motion related to volunteer work on Lot 13, it should be noted that although there had been hope that some work to start a school garden could commence on Lot 13; this has not transpired for 2015 but will continue to be pursued[1].

DISCUSSION

With respect to the next steps that were identified in the report dated September 2, 2014, and shown below in italics, it would appear that the following areas have been or will be addressed in the near future:

1. ***Engaging Existing Community Organizations and Partners*** *– As mentioned there was a relatively low turnout and no representations from many agriculture interests such as long-time local farmers, equestrian interests and food services (restaurants). The participants indicated that it would be appropriate to have additional outreach done to determine if there are opportunities for greater community engagement. The Lil'wat Nation and the SLRD should be engaged in an effort to share resources and knowledge in the planning, development and farming stages.*

   Update: Additional outreach will be undertaken as part of the work program of the Agricultural Parks Master Plan to provide opportunities for greater community engagement. The Lil'wat Nation and the SLRD will be contacted to gauge their interest and ability to share resources in the preparation of the plan. As mentioned above, the SLRD was initially contacted to see if they would be interested in financially supporting the project but declined. As the SLRD are an important partner in our community, the Draft of the Master Plan will be referred to them for comment.

[1] The volunteer effort was to be carried out by a cadets group from the UK. Unfortunately they were not able to fundraise to get over this year, but there is a chance this may occur in 2016.

2. ***Recognizing Expertise Needed*** *– Additional investigations within the local community as well as other similar agricultural initiatives should be undertaken to clearly understand the challenges involved in this project. For example, the quality of the soils (and opportunities for upgrading), irrigation (or other sustainable methods), and the mitigation of possible land use conflicts (wildlife, power lines, airplanes, etc.).*

   Update: A professional Agrologist has been contracted by Stewardship Pemberton in order to help the Village and Stewardship Pemberton understand the challenges involved in this project. As part of the work program, the quality of the soils (and opportunities for upgrading), irrigation (or other sustainable methods), and the mitigation of possible land use conflicts (wildlife, power lines, neighbours, etc.) is to be explored.

3. ***Identify Funding Sources*** *– Research possible funding sources which would consider not only the seed funding to get the organization established but also the identification of funding of programming or capital improvements.*

   Update: Funding sources to develop the Master Plan have been secured. Additional funding will be sought to assist with programming and capital improvements. There is also an opportunity to sub-lease portions of the Agricultural Park land which would ensure the program would be somewhat self-supporting[2].

4. ***Identify Organizational Structure –*** *A review of possible structures for the organization could be considered, which may include adding this initiative to an existing not-for-profit, a new organization, or part of the Village staff responsibilities.*

   Update: Stewardship Pemberton, an existing not-for-profit, has taken the lead on the development of the Agricultural Parks Master Plan, and the Village would seek their involvement in its implementation (funds permitting).

5. ***Developing a Work Plan –*** *Following the compilation of the information noted; a work plan should be developed for Council's consideration that outlines a course of action for the agricultural properties as well as funding sources and organizational structures.*

   Update: A work plan prepared by Stewardship Pemberton in consultation with Village Staff is attached to this report for Council's consideration.

COMMUNICATIONS

The Village has promoted the agricultural park initiative on their website in the past, in the newspaper and in the Village Enews. It would be the intent that the Village Planner and Communications & Grant Coordinator work with Stewardship Pemberton to bring forward a full communications plan (within budget) for the project in due course.

LEGAL CONSIDERATIONS

There are no legal, legislative or regulatory considerations at this time.

[2] As the lands are leased from the Crown we would have to enter into a Sublicence with anyone who would be interested. This sublicence would need to be approved by the Ministry. We do have the ability to charge but would likely not do so given we don't have to pay anything for the lands.

IMPACT ON BUDGET & STAFFING

In the September 2014 report, staff recommended that a contractor be hired to a maximum fee of $3500 to undertake the proposed work. At the time it was anticipated that such a contract would take approximately fifty (50) hours to complete. In the meantime, Stewardship Pemberton contacted the Village to initiate the concept of their organization spearheading this project, in association with the Village. As a result, Council increased the budget to $5,000.

In order to effectively leverage funding from other grant organizations the Village agreed to commit the budgeted $5,000 plus an in-kind contribution up to $2,500 (Staff time/resources) for a total amount of $7,500 for this project. The contribution of $5,000 funding plus the in-kind contribution helped to strengthen the grant applications which were ultimately successful as it demonstrated the Village's commitment to the project.

INTERDEPARTMENTAL IMPACT & APPROVAL

This project will impact the day to day operations of the Operations and Development Services department and the Office of the CAO and can be accommodated and incorporated into the daily routines.

Nikki Gilmore, CAO/Acting Manager of Operations and Development Services

IMPACT ON THE REGION OR NEIGHBOURING JURISDICTIONS

This project will have an impact on the SLRD Area C in the following ways:

- Creation of Agricultural Park Land in Area C, tenured and maintained by the Village;
- Implementation of various recommendations contained in the SLRD Area C Agricultural Area Plan.

ALTERNATIVE OPTIONS

An alternative would be not to proceed with the Agricultural Parks Plan; however, staff does not recommend this option.

POTENTIAL GOVERNANCE CONSIDERATIONS

Support of this initiative is consistent with all four Strategic Priorities:

1. Strategic Priorities No. One: Economic Vitality – the Village values and supports a competitive and diversified economy with engaged corporate citizens;
2. Strategic Priority No. Two: Good Governance –committed to citizen engagement, being an open, honest and accountable government, and fiscal responsibility;

3. Strategic Priority No. Three: Excellence in Service – delivering highest quality level municipal services within the scope of our resources and
4. Strategic Priority No. Four: Social Responsibility - the Village strives to create a strong and vibrant community recognizing the importance and benefits of both healthy and engaged citizens as well as an accessible and well managed natural environment.

RECOMMENDATIONS

Recommendation One:

THAT the Committee of the Whole receives this report for their information;

AND THAT the Committee of the Whole support staff continuing to work with Stewardship Pemberton to develop the Agricultural Parks Plan as per the attached Work Program submitted by Stewardship Pemberton on September 24th, 2015;

Recommendation Two:

THAT the Committee of the Whole recommend to Council that it confirms a commitment of $2,500 in kind for staff assistance with this project.

Recommendation Three:

THAT the details of the proposed consultation (public outreach tactics, budget, timing) be brought forward in a subsequent report for Committee of the Whole's information.

Attachments:

Appendix A – Map of the Agricultural Park Lands
Appendix B – RtCoW dated September 2, 2014
Appendix C – Letter from Stewardship Pemberton dated January 27, 2015
Appendix D – Project Synopsis from Stewardship Pemberton dated September 24, 2015
Appendix E – Soil Technical Report by Upland Agricultural Consulting Ltd. dated October 1, 2015

Lisa Pedrini

Lisa Pedrini, Village Planner

CHIEF ADMINISTRATIVE OFFICER / ACTING MANAGER OF DEVELOPMENT SERVICES

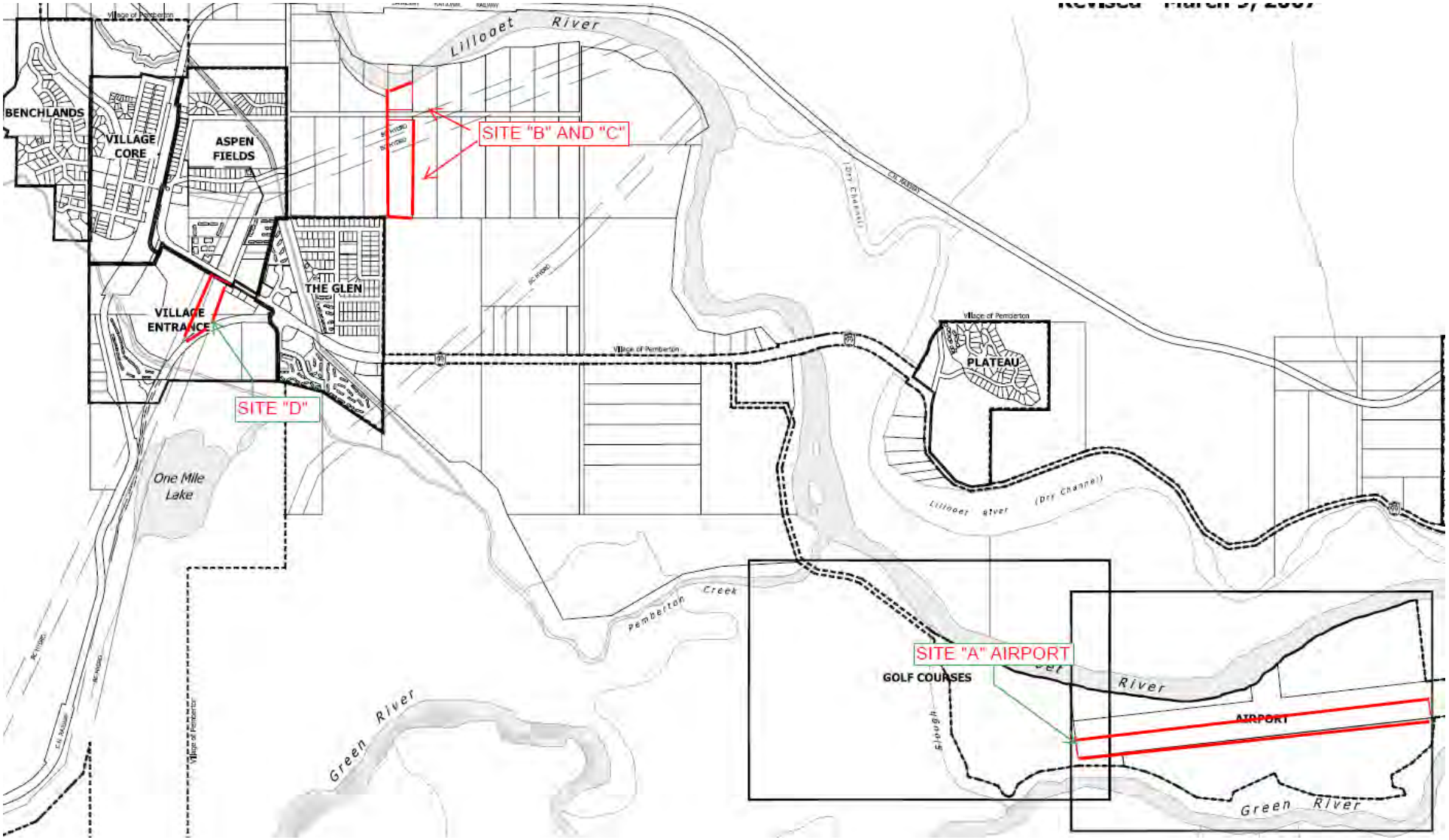
Nikki Gilmore

Nikki Gilmore, Chief Administrative Officer

APPENDIX A

LOCATION MAP OF SUBJECT PROPERTIES

Village of Pemberton-Agricultural Lands Master Plan



Village of PEMBERTON

REPORT TO
COMMITTEE OF THE WHOLE

APPENDIX B

Date: **September 2, 2014**

To: **Sheena Fraser, Acting Chief Administrative Officer**

From: **Caroline Lamont, Manager of Development Services**

Subject: **Community Agricultural Parks**
Work Program

PURPOSE

The purpose of this report is to provide Council with information with regard to the input received at the Community Agricultural Park brainstorming session and to identify a work program that will set a course of action for the planning and eventual agricultural use of various Village tenured properties.

BACKGROUND

On July 22, 2014 Council considered a report from staff that recommended that staff explore with the community certain opportunities to farm selected municipal tenured properties. The intent would be to establish a possible course of action in farming these properties in response to community need.

On August 26th the Village held a brainstorming session with interested community members for ideas and direction related the farm planning. There were seven (7) adults and four (4) children attending, and despite the small numbers, they all provided meaningful input.

BRAINSTORMING SESSION: Agenda

The brainstorming session was held under the barn roof, in part to spark ideas from the attendees. The session agenda was as follows:

- a brief introduction of the initiative
- overview of the properties
- opportunities and constraints for each properties
- recommendation for next steps

BRAINSTORMING SESSION: Findings

General Introductions

Everyone in attendance was asked to share their interest in the meeting.

- To have sustainable farms producing healthy foods
- Learning opportunities about farming
- Biodiversity in farming
- New agricultural products in the valley, including cheese, chickens, orchards
- Promote eco-tourism, yurts on learning farms
- Working forest (Garden of Eden – Jim Morrison)
- Horse paddocks/riding school (Western)
- Rescue animals – 4H club

- Community corrals/horse co-op
- Low cost, organic, grassroots facilities
- Processing of farm products
- Hops
- Hemp

Opportunities by Property

The participants indicated the potential uses on each of the five (5) properties*:

	Opportunities	Constraints
Lot 8/20	▫ community orchard, fruit trees, nut trees ▫ education on grafting trees ▫ maintaining orchards/local fruit/produce ▫ vegetables (Back to Eden model) ▫ bees and chickens ▫ animals ▫ permaculture school ▫ eco-agriculture ▫ dairy farm (cheese) ▫ bridge gaps in food sustainability ▫ "transition town" ▫ Horse paddocks and shelters for boarding (close to Village)	▫ water fowl ▫ bears (need electric fence) ▫ near existing neighbours ▫ need to be an example of how we can be community leaders in sustainability
Lot 13 & future Tiyata Community Garden	▫ Raise chickens and goats (milk) ▫ Education permaculture ▫ Garden beds ▫ Kids work after school activity and take produce home to eat ▫ Nut trees ▫ Develop program for good food for school ▫ Hot lunch, fresh fruit and vegetable program	▫ Power line concerns for animals and produce ▫ Water source ▫ Money ▫ Volunteers coordination ▫ School district red tape ▫ Bears/wildlife ▫
Airport	▫ Hemp ▫ Lavender – commercial crop ▫ Sheep farm ▫ High human input/low machinery = jobs ▫ Land regeneration ▫ Education potential and permaculture centre	▫ Noise for animals ▫ Water ▫ Power ▫ Low growing ▫ sustainable

**There were no specific comments related to the Future Sunstone Community Garden*

Next Steps and Other Ideas

The following were miscellaneous comments from the participants related to the vision for the farm planning and next steps.

- Education potential
- Partnerships with educational institutions (Kwaltlen University)
- Professional expertise
- Consultation with local farmers
- Understanding the history of farming and importance to the value
- Need for soil scientist
- Horses/Western learning centre
- Benefits of a community based project
- Sustaining food sources for local community
- Local food and regional gaps in food supply
- Investigate other examples in BC

- Agri-tourism
- Greenhouses for all seasons
- Food storage facilities
- Food processing facilities
- Solid farm planning, may take longer but do in properly.
- Funding opportunities (grants and partnerships)

DISCUSSION

The session was a true brainstorming session that considered all possible opportunities of the various properties. Although those in attendance represented a range of community interests (personal farming, start-up farming, sustainable methods, commercial needs, education, agri-torism, etc) the meeting was not attended by many of the key agricultural stakeholders and interest groups in the community. In addition, it was evident that there is a level of education and expertise that is needed before any decisions are be made with regard to improving any of the properties. The session participants and Village staff clearly recognized the magnitude of this initiative but yet recognized that there is the passion and the expertise in Pemberton to create a lasting farming legacy.

At this time, however, additional outreach and information is needed to better frame what is being pursued. In particular:

Engaging Existing Community Organizations and Partners – As mentioned there was a relatively low turnout and no representations from many agriculture interests such as long-time local farmers, equestrian interests and food services (restaurants). The participants indicated that it would be appropriate to have additional outreach done to determine if there are opportunities for greater community engagement. The Lil'wat Nation and the SLRD should be engaged in an effort to share resources and knowledge in the planning, development and farming stages.

Recognizing Expertise Needed – Additional investigations within the local community as well as other similar agricultural initiatives should be undertaken to clearly understand the challenges involved in this project. For example, the quality of the soils (and opportunities for upgrading), irrigation (or other sustainable methods), and the mitigation of possible land use conflicts (wildlife, power lines, airplanes, etc).

Identify Funding Sources – Research possible funding sources which would consider not only the seed funding to get the organization established but also the identification of funding of programming or capital improvements.

Identify Organizational Structure – A review of possible structures for the organization could be considered, which may include adding this initiative to an existing not-for-profit, a new organization, or part of the Village staff responsibilities.

Developing a Work Plan – Following the compilation of the information noted; a work plan should be developed for Council's consideration that outlines a course of action for the agricultural properties as well as funding sources and organizational structures.

COMMUNICATIONS

The Village has promoted the agricultural park initiative on their website, in the newspaper and the Enews. It would be the intent that the website continue to include updates on the initiative as it moves forward.

BUDGET AND STAFFING

Typically the next step in the process would be for internal staff to frame the work program as noted in the Discussion section of this report. With the departure of the Manager of Development Services (and the expected delay in hiring) there is not the capacity to complete the work in-house. It is therefore recommended that a contractor be hired to a maximum fee of $3500 to undertake the proposed work. It is anticipated that such a contract would take approximately 50 hours to complete.

Although certain seed funding may be needed for this project, it is the intent that over the mid to long term the project will be self-sustaining.

STRATEGIC PRIORITIES

The review of this application is consistent with providing economic vitality, notably retaining and encouraging local agriculture.

RECOMMENDATION:

THAT the Committee of the Whole receive this report for their information;

AND THAT the Committee of the Whole recommend to Council to direct staff to allocate $3,500 towards the Agricultural Park Planning initiative.

Respectfully submitted,

_____
Caroline Lamont
Manager of Development Services

CHIEF ADMINISTRATIVE OFFICER

_____
Sheena Fraser,
Acting Chief Administrative Officer

APPENDIX C

Stewardship Pemberton Society

Dawn Johnson
Project Coordinator
Stewardship Pemberton Society
PO Box 31
Pemberton, B.C.
V0N 2L0

January 26, 2015

Village of Pemberton
Box 100
Pemberton, BC
V0N 2L0

Regarding: Pemberton Agricultural Park
Regarding: Crabapple Tree Pruning on Portage Road

Dear Mayor and Council,

Pemberton Agricultural Park

Growing food in our community has always been an area of interest for Stewardship Pemberton Society (SPS).

SPS encourages the protection, restoration and long term sustainability of the natural environment through education, cooperation and community involvement. Connecting people to food through community outreach events, projects, programs and the management of the Pemberton Creek Community Garden has provided a way for SPS to further our mandate of connecting community, people and nature.

It is with much excitement and enthusiasm that our volunteer Board of Directors has been following and discussing the progression of planning for the Pemberton Agricultural Parks located at Lot 13 on Portage Road, Lot 8 & 20 at the end of Harrow Road and the appropriate lands at the airport.

As a result, SPS has identified opportunities that could possibly move forward the work for the development of an Agricultural Park Plan. Dawn Johnson, SPS Project Coordinator, is offering to volunteer her time to submit two (2) funding proposals to:

1. The Community Foundation of Whistler (CFOW) Environmental Legacy Fund ($10,000)
2. B.C. Real Estate Foundation Fund ($15,000)

The goal would be to secure funds that would be used to develop a Master Plan for the Pemberton Agricultural Parks. This plan would identify steps and key components required to move ahead, including but not limited to, the following:

1. Constraints and opportunities for each parcel, including surveys if required, soil tests, site evaluations and environmental considerations from an agrologist, and local knowledge from Pemberton farmers
2. Community engagement and the creation of a working group
3. Development of a 3-5 year strategic plan
4. Identify sources of funding
5. Assess feasibility and create management plans for each parcel
6. Create a Master Plan that will guide the progression of the Agricultural Parks over time

This initial work as outlined above would take place over the course of one year, from the time funds are secured. Implementing the Master Plan will be a multi-year project and will assist the Village in securing future funding for the implementation. This is intended to be a collaborative project between the Village of Pemberton and Stewardship Pemberton that would see a consultant hired to implement the project and engage the community at large, much like the creation and implementation of the One Mile Lake Master Plan.

SPS is seeking to work with Village staff to prepare the funding applications for the two grant programs noted above. It should be noted that this request is time sensitive due to the application submission deadlines which are as follows:

CFOW:	Letter of Intent	due February 12th.
CFOW:	Funding Application	due March 24th.
B.C. Real Estate Foundation:		due March 6th.

SPS is seeking to partner with the Village and requesting that the development of an Agricultural Parks Master Plan be considered for incorporation into the Strategic Plan and that a contribution of $5000 for this Plan be included in the 2015 budget to facilitate opportunities to leverage funds from both the CFOW and the B.C. Real Estate Foundation. If both grant applications are successful this will establish a potential total working budget of $30,000 to facilitate the development of the Plan. Demonstrating matching funds and partnerships is a requirement for the B.C. Real Estate Foundation grant, is considered by the CFOW as part of their review and will make both funding proposals stronger.

Further, opportunities exist to undertake work on Lot 13, located next to Signal Hill Elementary School, as a result of the recent work done by BC Hydro to clear the lands. This could potentially see the creation of a small scale community garden, run by a community group, which would serve as an outdoor classroom and learning centre for students of Signal Hill Elementary School and the community at large. A successful model for implementation has been identified (Fresh-Roots.ca). SPS also has a group of enthusiastic volunteers willing to put approximately 480 hours of volunteer labour towards a project of this kind this summer. B.C. Hydro will be continuing with the conversion of that parcel in the early spring, and it could be converted to producing farm land instead of a grassy field. In order not to miss these opportunities, SPS is seeking approval from Mayor and Council to allow some work to commence on Lot 13 in advance of the development of the Pemberton Agricultural Park Plan but with the intent that this initiative would be incorporated into the Master Plan.

The extent of in-kind support from SPS at this stage is only for the initial funding applications. Should the applications be successful, SPS and Village staff can evaluate the next steps forward and identify further partnership opportunities.

Feasting for Change: Crabapple Trees

SPS is also seeking Village approval in moving ahead with the 2015 Feasting for Change: Crabapple project. Last year was a huge success, with nearly one tonne of crabapples picked. Moreover, the Conservation Officer Services stated in a letter of support that human-bear conflict in Pemberton appeared to be reduced in late 2014 as a result of the projects efforts.

SPS is requesting that the VoP continue to prune the fruit bearing crabapple trees along Portage Road to achieve the following objectives:

1. Keep trees at a height they can be picked
2. Maintain tree health
3. Assists in higher quality fruit productions
4. Keep the quantity of fruit manageable

The trees adjacent to Pemberton Valley Nursery that were not pruned last year are of a higher priority as they are too tall to pick the majority of the fruit. A full report on the success of this project in 2014 can be provided to the Village should it be required.

Thank you very much for your time and consideration. SPS is excited and keen to work within our mandate to continue to provide excellent programs and opportunities within our community with the new Mayor and Council in the coming years.

Kind Regards,

Dawn Johnson
Stewardship Pemberton Society Coordinator

Shannon Didier
Stewardship Pemberton Society Chair

APPENDIX D

Pemberton Agricultural Parks Synopsis

Prepared for the Village of Pemberton
By Dawn Johnson
September 29th, 2015

Stewardship Pemberton Society

Executive Summary

Stewardship Pemberton Society and Village of Pemberton are working in partnership to undertake an Agricultural Assessment and Agricultural Parks Master Plan for the parcels of lands set aside for community agriculture. The four sites cover approximately 28 hectares of land not currently being farmed or that is available for more intensive agricultural production. The assessment is largely being completed by a professional agrologist, while community outreach, links to regional plans, and final project deliverables are being undertaken by Stewardship Pemberton Society with the guidance and support of the Village of Pemberton.

The intent of this report is to provide staff, Mayor and Council with an update on the project including a timeline and budget.

1.0 The Consultant

Three quotes were obtained to undertake the technical components associated with the assessment. Stewardship Pemberton Society awarded the contract to Upland Consulting in July 2015. Ione Smith is the Principal and Owner of Upland Consulting, a B.C.-based firm specializing in sustainable agricultural land use solutions for resilient communities. She brings over twelve years of experience with rural communities in agricultural planning, soil and site analysis, food systems science and policy development. Ione is a Professional Agrologist with a background in Land Resource Science and Agricultural Land Use Planning.

Recent projects in our area that Upland has worked on include the SLRD Area B, District of Lillooet, and St'at'imc Agricultural Plan.

2.0 Agricultural Assessment

Key elements of the Agricultural Assessment underway with the consultant include determining soil suitability, crop viability, and connecting with key partners in the community to recommend agricultural initiatives on the sites.

Key goals for the consultant portion of the project include determining current soil conditions and recommending viable crops and agricultural practices through a lens of ecological health with an emphasis on sustainable practices, while taking a collaborative approach to ensure that the expertise of local farmers and feedback from the broader community are incorporated into the site assessment.

Four key Phases of the Agricultural Assessment have been identified and include:

Phase 1: Analysis of Sites and Soils

1.1 Refine project goals, review relevant reports and maps;

1.2 Ground-truth sites and collect soil samples to assess site fertility and constraints;

1.3 Summarize the relevant capability and limitations for agriculture for each site;

Phase 2: Assessment of Crop Suitability and Best Management Practices for the Sites

2.1 Specify the range of potential crops suited to the sites

2.2 Identify strategies for soil conservation, riparian area management, or other agricultural BMPs that may be appropriate for the sites;

Phase 3: Connections to the Broader Community

3.1 Provide a an assessment of how production practices can it best fit with neighbouring operations;

3.2 Suggest any alternative or community-based farming approaches that may be a good fit for the sites;

3.3 Provide community outreach support for the public consultation component of the project.

Phase 4: Pemberton Agricultural Parks Master Plan - Agricultural Assessment Report

4.1 Produce a Draft Report and a Final Report

The Agricultural Assessment represents a significant portion of the funding for this project, at approximately $22,000 (Appendix A).

3.0 Proposed Workplan & Timeline

It is expected that the entire timeline of the project will be approximately 12 months. The early stages of this project, including the agricultural assessment will predominantly be carried out by the consultant. The latter portions, including: community consultation; links to regional agency plans; strategic planning and identifying and applying for funding will be largely completed by Stewardship Pemberton Society in partnership and collaboration with the Village of Pemberton (Appendix B).

4.0 Project Budget

This project is being funding by a matrix of funders including the Community Foundation of Whistler, B.C. Real Estate Foundation, and the Village of Pemberton with in-kind support from Stewardship Pemberton Society (Appendix C). This project is currently running on budget and on time. The Village of Pemberton is contributing $5000 cash towards this project (confirmed), and is being asked to contribute $2500 in-kind of staff collaboration time (not confirmed). SPS is providing $3350 in-kind (confirmed).

5.0 Other Updates

Lot 13 Pollinator Garden

Stewardship Pemberton Society along with J. Westlake from the Village of Pemberton met in mid-August with B.C. Hydro, Signal Hill Elementary and the Emily Carr Institute of Art to discuss the possibility of creating and implementing a large scale native pollinator garden on Lot 13 adjacent to Signal Hill Elementary School. While this meeting was insightful, the project protocol that has been used in other areas (Richmond and Kelowna) is on a scale that may prove difficult to implement, manage, and maintain for a small community where partnerships with universities and links to other resources may be challenging. It was identified that retaining a portion of native vegetation already serving as native pollinator habitat may be the best practice, along with creating public pathways to connect to the Creekside complex and the far side of One Mile Lake Park to improve access to Lot 13. The areas bordering the path and other strategic areas could be planted with low maintenance pollinator blends where native vegetation is not retained. Interpretive signage along the path educating on the importance of native pollinators could be created and installed. BC Hydro has expressed an interest in contributing funds towards the development of this parcel that sits directly under the power lines. The vision of this parcel of land will become more apparent following community consultation.

Site Survey: Lot 8 and 20

At this time, it is uncertain if lots 8 and 20 have had land surveys completed to establish lot corners. Land surveys may be required for project implementation, and the cost to have this done is approximately $5000.00 (Appendix D).

In Conclusion

Stewardship Pemberton Society is excited and motivated to see this project through to completion as the opportunities of this project are countless. Engaging our community in this process will strengthen the fabric of who we are, provide a stronger sense of belonging, and result in more willingness to participate in projects and programs to benefit the community at large. SPS will continue to provide education and guidance on the importance of issues such as food security, sustainable food practices, food preservation, the ecological footprint of the food we eat, the importance of coexisting with wildlife and preserving ecologically sensitive areas.

SPS is, as always, grateful for the support and partnership with the Village of Pemberton.

Appendix A. Budget Agricultural Assessment

Phase and Task	DESCRIPTION Hourly Rate: $100/hr	Ione Smith # hours	Expenses	Total Labour
1	**Analysis of Sites and Soils**			
1.1	Refine project goals, review relevant reports and maps	10	-	$ 1,000
1.2	Ground-truth sites and collect soil samples to assess site fertility and constraints	36	$600	$ 3,600
1.3	Summarize the relevant capability and limitations for agriculture for each site	12	-	$ 1,200
2	**Assessment of Crop Suitability and Best Management Practices for the Sites**			
2.1	Specify the range of potential crops suited to the sites	46	$600	$ 4,600
2.2	Identify strategies for soil conservation, riparian area management, or other agricultural BMPs that may be appropriate for the sites	16	-	$ 1,600
3	**Connections to the Broader Community**			
3.1	Provide a an assessment of how production practices can it best fit with neighbouring operations	6		$ 600
3.2	Suggest any alternative or community-based farming approaches that may be a good fit for the sites	32	-	$ 3,200
3.3	Provide community outreach support for the public consultation component of the project	6	-	$ 600
4	**Pemberton Agricultural Parks Master Plan - Agricultural Assessment Report**			
4.1	Produce a Draft Report and a Final Report and present it to the client	34	$600	$ 3,400
	SUBTOTAL	**198**	**$1,800**	**$19,800**
	Administration and Overhead	**4**		**$400**
	TOTAL	**202**	**$ 1,800**	**$22,000**

Appendix B. Workplan and Timeline

Description	Months					
	July& August	Sept. &Oct.	Nov and Dec.	Jan& Feb	March& April	May& June
Refine project goals, review relevant reports and maps (Upland)						
Ground-truth sites and collect soil samples to assess site fertility and constraints (Upland)						
Summarize the relevant capability and limitations for agriculture for each site (Upland)						
Specify the range of potential crops suited to the sites (Upland)						
Identify strategies for soil conservation, riparian area management, or other agricultural BMPs that may be appropriate for the sites (Upland)						
Assessment of how production practices can it best fit with neighbouring operations (Upland)						
Identify alternative or community-based farming approaches that may be a good fit for the sites (Upland)						
Community outreach and public consultation (SPS and VOP with Upland support)						
Strategic Plan (SPS with VoP input)						

Investigate funding for implementation (SPS)						
Incorporation of findings into Master Plan (SPS and VoP)						
Incorporate regional goals into Master Plan (VoP)						
Draft Report (All)						
Review and Finalize Master Plan (All)						
Grant writing for project implementation (SPS)						
Share deliverables with local, regional, and provincial agencies (SPS)						
Report out on grants (SPS)						

Appendix C. Project Budget

Pemberton Agricultural Park Master Plan Budget Revised September, 2015

Expense	Description	Funding Matrix		
		Cash	In-kind	Total Budget
Project Coordination - SPS	100 hrs X $50/hr	$2,500.00	$2,500.00	$5,000.00
Agricultural Assessment	Upland Consulting including travel, expenses, and tax	$23,000.00		$23,000.00
Soil Samples	Basic agricultural soil test package for four sites	$1,200.00		$1,200.00
Shipping Fees	Soil samples	$250.00		$250.00
Community Consultation	Village of Pemberton	$1,000.00	$1,000.00	$2,000.00
Community Consultation	Stewardship Pemberton Society	$1,000.00		$1,000.00
Strategic Plan	Stewardship Pemberton Society	$1,200.00		$1,200.00
Investigate funding for implementation	Stewardship Pemberton Society	$350.00	$850.00	$1,200.00
Grant writing for project implementation	Stewardship Pemberton Society	$3,250.00		$3,250.00
Incorporation of findings into Master Plan	Stewardship Pemberton Society	$500.00		$500.00
Incorporation of findings into Master Plan	Village of Pemberton		$250.00	$250.00
Incorporate regional goals into Master Plan	Village of Pemberton		$250.00	$250.00
Share deliverables with local, regional, and provincial agencies	Village of Pemberton		$250.00	$250.00
Review and finalize Master Plan	Stewardship Pemberton Society	$750.00		$750.00
Review and finalize Master Plan	Village of Pemberton		$750.00	$750.00
		$35,000.00	**$5,850.00**	**$40,850.00**

Funders	**Status (pending or confirmed)**	**Cash**	**In-kind**	**Total Budget**
Real Estate Foundation of BC	Confirmed (cash)	$20000.00		
Community Foundation of Whistler	Confirmed (cash)	$10000.00		
Village of Pemberton	Approved (cash, in-kind pending)	$5000.00	$2500.00	
Stewardship Pemberton Society	Confirmed (in-kind)		$3350.00	
Total Funding		**$35000.00**	**$5850.00**	**$40850.00**

Appendix D. Quote for Land Survey

DOUG BUSH SURVEY SERVICES LTD.

DOUGLAS J. BUSH ASc*T*, RSIS
Applied Science Technologist in Geomatics
#18 – 1370 Alpha Lake Road,* WHISTLER, B.C. * V0N 1B1
Ph: 604-932-3314 * Fax: 604-932-3039 * dougb@dbss.ca

ENGINEERING AND CONSTRUCTION LAYOUT
MUNICIPAL AND VOLUMETRIC SURVEYS
TOPOGRAPHIC AND SITE SURVEYS
GPS (Global Positioning Systems)

QUOTATION

DATE : July 24, 2015	**QUOTATION NO. : 15225-01**
OUR FILE NO. : J15225	**YOUR REF NO. :**

TO: Stewardship Pemberton Society

ATTENTION: Dawn Johnson

SUBJECT: Lot 8, DL 165, Lillooet District, Plan 883 Except Plans B3514 and CG601 – PID 012-180-645

Dear Dawn,
Thank you for the opportunity to submit a quotation of five thousand three hundred and seventy five dollars ($5,375.00) for survey services as outlined below.
Survey services to include:

Topographic and Site Survey:

- Establish a geodetic benchmark to the site and geo-reference the site so that google earth imagery can be overlayed.
- Search Land Title Office Records and calculations of legal plans.
- Locate existing legal evidence to relate survey to Land Title Office records.
- Delineate approximate property lines with line pickets.
- Topographic and site survey taking a few spot elevations, locating the end of pavement along Harrow Road, locating the existing driveway that passes through the property to Lot 7.
- Survey would also include the location of structures, tree line, open areas, visible services, fences and hydro lines.
- Process and plot all field data.
- Show 0.5 metre contour intervals, spot elevations, some site features, property dimensions from Land Title Office Records and legal evidence found.
- Provide AutoCad drawing in digital format and hard copy plan plotted in metric.

Comments:

- This proposal does not include a detailed location of the drainage area but a separate plan with google earth imagining overlayed on the site survey will be provided. We could provide the detailed location if required.
- We would not be re-establishing missing corners. That would come under the jurisdiction of a BC Land Surveyor. We would be setting line pickets and stakes for clearing and landscaping purposes.
- I could commence the survey within one to two weeks.

DOUG BUSH SURVEY SERVICES LTD.

DOUGLAS J. BUSH ASc T, RSIS
Applied Science Technologist in Geomatics
#18 – 1370 Alpha Lake Road,* WHISTLER, B.C. * VON 1B1
Ph: 604-932-3314 * Fax: 604-932-3039 * dougb@dbss.ca

ENGINEERING AND CONSTRUCTION LAYOUT
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TOPOGRAPHIC AND SITE SURVEYS
GPS (Global Positioning Systems)

QUOTATION

DATE : July 24, 2015	**QUOTATION NO. : 15225-01**
OUR FILE NO. : J15225	**YOUR REF NO. :**

Additional survey work requested would be invoiced at $70.00 an hour per person for fieldwork ($140.00 an hour for a crew of 2 people and all equipment), $85.00 an hour per person for office technicians and $100.00 an hour for a senior survey technologist. A 1 person crew with a robotic instrument would be invoiced at $100.00 an hour and a 1 person crew with GPS equipment would be invoiced at $100.00 an hour.

This quotation does not include GST or disbursements.
If you have any questions regarding this quotation please do not hesitate to call.

Yours truly,

Douglas J. Bush ASc T, RSIS
Applied Science Technologist (Geomatics)

APPENDIX E

Pemberton Agricultural Parks Master Plan

Phase 1: Soil Technical Report

Submitted by:
Upland Agricultural Consulting Ltd.
October 1, 2015

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Executive Summary

The assessment of four sites totaling 27.5 hectares is being conducted for potential agricultural production as part of the *Pemberton Agricultural Parks Master Plan*. This *Soil Technical Report* is the main deliverable of Phase 1, site and soil assessment.

The methods used to develop this technical report included three approaches:

1. Desk-based research;
2. Site visits; and
3. Laboratory analysis.

The four parcels were assessed as three sites (Site A, Site BC, and Site D) and were visited on August 26th 2015 so that the parcels could be ground-truthed and soil samples could be collected. Soil samples were sent via courier to A & L Laboratories in London, ON, for analysis of the following parameters:

- Physio-Chemical: pH, CEC, organic matter, particle size analysis.
- Nutrients: Percent base saturation, available P, NO_3-N, available micronutrients.
- Trace metals: Comparison of potentially toxic elements (e.g. As, Hg, Pb) to published soil quality guidelines (OMRR and CEQG).

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, and some degree of stoniness at Site D.

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), 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 (including Zn) indicated any levels of toxicity concern when compared to two published guidelines: OMRR Land Application Guidelines for Class A Compost and the CEQG soil quality guidelines for human health.

In summary, three sites were assessed for agricultural potential within the Pemberton area, 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 provided detailed nutrient application recommendations if crop production is chosen at a future time.

Introduction

Stewardship Pemberton Society (SPS), in partnership with the Village of Pemberton (VoP), is creating an Agricultural Parks Master Plan. Four publicly-owned parcels of land totaling 27.5 hectares (approximately 67 acres) are being assessed regarding their suitability for community supported agricultural activities.

Upland Agricultural Consulting Ltd was retained to provide agrology services. Specifically, four phases of work are to be completed:

1) Analysis of sites and soils
2) Assessment of crop suitability and best management practices for the sites
3) Connections to the broader community
4) Agricultural assessment report

This *Soil Technical Report* is the main deliverable of Phase 1.

Figure 1. Study site locations within the vicinity of Pemberton, BC.

Methodology

The four parcels were assessed as three distinct sites:

- Site A: located adjacent to a low use landing strip at the Pemberton Airport;
- Site B&C: two adjacent parcels located in a rural-urban interface between the VoP and the Squamish Lillooet Regional District (SLRD); and
- Site D: located under BC Hydro powerlines immediately adjacent to Signal Hill Elementary School.

The methods used to develop this technical report included three approaches:

1. Desk-based research: reviewing maps (geological, soil series, agricultural capability, zoning, etc.), reading published soils reports, and accessing online tools such as Google Earth.
2. Site visits: The sites were toured by the consultant along with the client on August 26th 2015. The visit was used to ground-truth the sites, verify mapping accuracy, take photographs, and obtain soil samples.
3. Laboratory analysis: Soil samples obtained at each of the sites were collected during the August 26th, 2015 site visits and shipped to an external laboratory for analysis.

To obtain the soil samples, three soil pits were dug within the potentially agriculturally active portions of each site. The locations of the three pits were chosen based on their representation of the differing topography and varying agricultural capability limitations.

The following steps were taken while collecting the samples:

1. Sampling sites were pre-identified in the field visually.
2. Vegetation residue was removed from the top layer of the soil.
3. A shovel was used to dig a small soil pit to a depth of 20cm - 30cm. This depth represents the depth to which most soil is tilled and contains the majority of a crop's roots[1].
4. For each site, 3 pits were dug and soil from each pit was collected in a bucket. Lumps were broken up and stones and roots were removed, and the soil was mixed thoroughly.
5. From these 3 pits a composite soil sample was obtained and divided into two lab submissions (e.g. A1 and A2).
6. The plastic bags were stored on ice and were shipped to an external laboratory (A & L Laboratories Canada) for analysis.

[1] Bertrand, R.A., Hughes-Games, G.A., and Nikkel, D.C., 1991. Soil Management Handbook for the Lower Fraser Valley. 2nd Edition. BC Ministry of Agriculture, Fisheries, and Food.

Table 1. Location of soil tests at Site A.

Soil Pit ID	Elevation	Latitude	Longitude
Aa	206 m	50° 18’ 05”	122° 44’ 33”
Ab	204 m	50° 18’ 06”	122° 44’ 19”
Ac	204 m	50° 18’ 06”	122° 44’ 24”

Figure 2. Soil sampling locations at Site A.

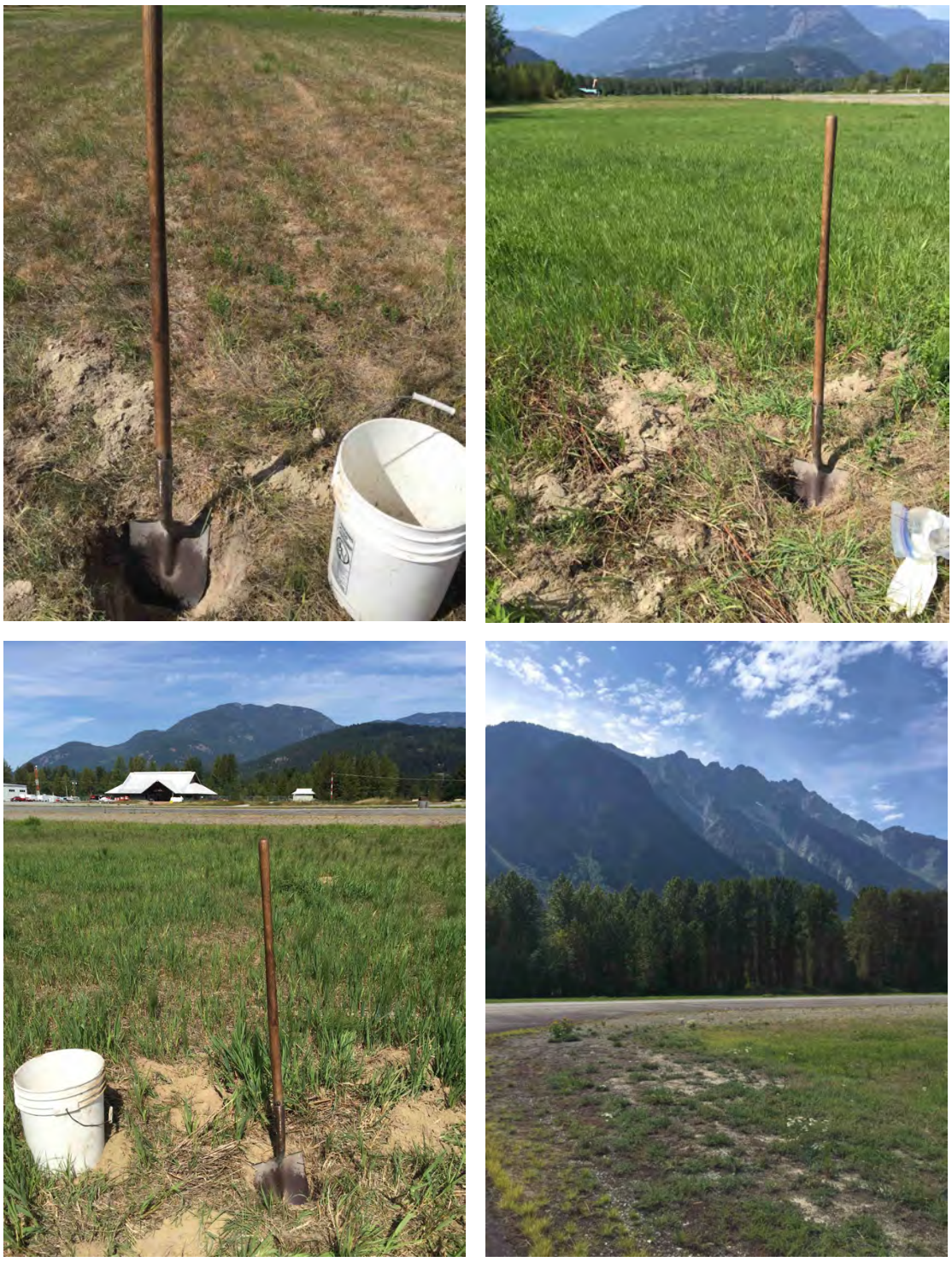


Figure 3. Scenes from soil sample collection at Site A.

Table 2. Location of soil tests at Site BC.

Soil Pit ID	Elevation	Latitude	Longitude
BCa	209 m	50° 19' 17"	122° 47' 29"
BCb	210 m	50° 19' 18"	122° 47' 31"
BCc	209 m	50° 19' 17"	122° 47' 31"

Figure 4. Soil sampling locations at Site BC.

Figure 5. Scenes from soil sample collection at Site BC.

Table 3. Location of soil tests at Site D.

Soil Pit ID	Elevation	Latitude	Longitude
Da	211 m	50° 19' 06"	122° 48' 09"
Db	211 m	50° 19' 04"	122° 48' 10"
Dc	211 m	50° 19' 03"	122° 48' 11"

Figure 6. Soil sampling locations at Site D.

Figure 7. Scenes from soil sample collection at Site D.

Site Characteristics

General Site Descriptions

Table 4. Biophysical characteristics of the study sites.

Parameter	Site A	Site B & C	Site D
Location	This site is located adjacent to a small landing strip at the Pemberton Airport.	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.
Size (Ha)	20 hectares	5.95 hectares	1.5 hectares
Previous agricultural uses	The site has previously been used to cultivate hay and had been recently cut.	Unknown.	Not previously used for agriculture. Vegetation is regularly cut back under hydro lines.
Current land cover	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.
Water and drainage	No active signs of irrigation were visible, however 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.
Terrain	Flat with some small pockets of undulating terrain.	Flat with slopes towards waterbodies along the west and north ends of the site.	Undulating and somewhat stony.
Zoning	Agricultural Land Reserve	Agricultural Land Reserve	Non-ALR
Agricultural Capability Class	2w (1) Class 2 due to excess water (seasonally high water tables). Improvable to Class 1 with proper drainage and/or irrigation.	2^{8}w – 4^{2}w (1^{8} – 2^{2}w) A mix of Class 2 and 4 due to excess water (seasonally high water tables). Improvable to 80% Class 1 and 20% Class 2 with proper drainage and/or irrigation.	5^{6}m,p – 4^{4}w (4^{6}p,m – 2^{4}w) 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.

Soils and Geology

Soil is a living mineral and organic matrix located at the surface of the earth's crust. Soil has been formed over thousands of years and can be described by morphological, physical, chemical, and biological characteristics. Most soil characteristics vary with depth and are the product of many factors including climate, geology, biology, and water.

Table 5. Geology and soil taxonomy of the study sites.

Parameter	Site A	Site B & C	Site D
Geology[2]	Silty and sandy fluvial deposits of the Lillooet River floodplain.	Silty and sandy fluvial deposits of the Lillooet River floodplain.	Mainly anthropogenic (man-made or modified materials) due to nearby land developments.
Soil Order[3]	Regosol (Gleyed and Orthic) and Gleysol (Rego)	Gleysol (Rego)	Gleysol (Rego)
Soil Series[4]	The majority of the site is comprised of Sankey (SA) soils, with smaller amounts of Gates Lake (GA), and Wolverine (WO) soils interspersed throughout.	The majority of the site is comprised of Wolverine (WO) soils with some Scobie (SC) soils interspersed throughout.	The majority of the site is comprised of Sankey (SA) soils with some Scobie (SC) soils interspersed throughout.
Soil Texture[5]	Loam and Clay Loam	Silty Clay Loam and Clay Loam	Loam and Silty Clay Loam

Soil Order Descriptions[6]

Regosols

Regosolic soils are weakly developed. They may lack development from any of a number of factors. In the case of Site A it is most likely attributed to youthfulness of the material, or recent alluvium deposits. Regosolic soils are generally rapidly to imperfectly drained and occur under a wide range of vegetation and climates.

Gleysols

Gleysolic soils are defined on the basis of color and mottling, which indicates the influence of periodic or sustained reducing conditions (wetness). Saturation with water may result from either high groundwater tables or temporary accumulation of water above a relatively impermeable layer, or both. In areas of subhumid climate, Gleysolic soils occur commonly in shallow depressions and on level lowlands that are saturated

[2] Soil Survey of the Pemberton Valley, BC. 1980. Roxanna L. Beale Kuurne, PAg. RAB Bulletin 16. BC Ministry of Environment.
[3] Agriculture and Agri-Food Canada (AAFC), 1998. The Canadian System of Soil Classification, 3rd Edition. http://sis.agr.gc.ca/cansis/taxa/cssc3/index.html
[4] Soil Survey of the Pemberton Valley, BC. 1980. Roxanna L. Beale Kuurne, PAg. RAB Bulletin 16. BC Ministry of Environment.
[5] Based on laboratory test results.
[6] Descriptions are adapted from: Agriculture and Agri-Food Canada (AAFC), 1998. The Canadian System of Soil Classification, 3rd Edition. http://sis.agr.gc.ca/cansis/taxa/cssc3/index.html

with water every spring. In more humid areas, they may also occur on slopes and on undulating terrain.

Soil Series Descriptions[7]

GA: Gates Lake soils
These Orthic Regosol soils are sandy fluvial deposits that have sandy loam, loam, or silt loams at the surface with few stones. The soils are well to moderately well drained, moderately pervious, and are located on level areas or very gentle slopes. Commonly found native species include cottonwood, red cedar, alder, willows, and horsetails.

SA: Sankey soils
These Rego Gleysol soils are found on silty fluvial deposits within the Lillooet River floodplain and are among the most common soils in the Lillooet River valley. They are nonstony silty clay loams or silt loams. Past flooding has left thin layers of organic material in some of these soils. These soils are slowly pervious with surface ponding occurring after heavy rainfall events or during snowmelt. They are poorly drained, often due to seasonally high groundwater levels. They occur on level to nearly level slopes. These soils are commonly used for agriculture. Where left in a natural state they are often vegetated with cottonwood, red cedar, alder, hazelnut, and grasses.

SC: Scobie soils
These soils are formed in sandy flooplain deposits, and are nonstony fine sandy loams or sandy loams. They are moderately to rapidly pervious, poorly drained due to seasonally high groundwater levels, and occur on level to nearly level slopes. When not being used for agriculture, Scobie soils support cottonwood, red cedar, birch, and willow.

WO: Wolverine soils
Wolverine soils are a form of Gleyed Regosols located in sandy fluvial deposits of the Lillooet River floodplain. They are nonstony loamy sand or sandy loam. They are moderately to rapidly pervious, imperfectly drained due to fluctuating ground water levels, and occur on level areas or gentle slopes. Vegetation assocated with Wolverine soils includes red cedar, Douglas fir, cottonwood, Sitka spruce, alder, willow, grasses, and mosses.

Soil Texture Descriptions[8]

Soil textural class is a description of the relative proportions of sand, silt, and clay within the soil. The decreasing order of the particle size is (bold indicates study site results fall within those categories of particle size:

Sand > loamy sand > sandy loam > **loam** > silt loam > silt > sandy clay loam > **clay loam** > **silty clay loam** > sandy clay > silty clay > clay.

The adsorption rates of water, nutrients, and gas as well as the attraction of particles to one another, are all surface phenomena and is directly related to the proportion of clay in the soil.

[7] Descriptions are adapted from: Soil Survey of the Pemberton Valley, BC. 1980. Roxanna L. Beale Kuurne, PAg. RAB Bulletin 16. BC Ministry of Environment.
[8] Descriptions are adapted from: The Nature and Properties of Soils. 11th Ed. 1996. Brady, N.C. and R.R. Weil. Prentice Hall, Upper Saddle River, NJ.

Soil Testing Results

The ability for soils to exchange nutrients (cations and anions) between soil particles and plant roots is a vital process in nature. This exchange takes place primarily on the surfaces of fine soil particles (such as clay) and organic matter. Therefore, understanding common properties (such as pH, amount of organic matter, cation exchange capacity, and nutrient levels) is critical in understanding a soil's potential to sustain agricultural production. The following describes the role of each of these properties along with an interpretation of the associated laboratory results for the soil sampless collected at Site A, Site BC, and Site D.

pH

The pH of a soil provides a measurement of the level of acidity or alkalinity. The pH scale extends from 1 to 14, with 7 being neutral. Less than 7 is considered acidic, while more than 7 is considered alkaline. The pH values for all sites sampled fell within 6.2 – 7.0, with the lower ranges found in Site D. None of these results would present any acidity (or alkalinity) problems for most crops.

Organic Matter (OM)

Generally speaking, ideal Organic Matter (OM) levels in loamy soils are 4-5%[9]. Soils with less than 3% OM may have challenges retaining water and nutrients. Creating additional OM is challenging but not impossible. Site BC has the lowest %OM, which is consistent with field observations: there was little to no vegetation associated with the upper soil layers at Site BC.

Methods to increase OM may include:

- Incorporating compost into the upper soil layers;
- Reducing tillage or managing soils using "no-till" techniques;
- Crop rotation; and
- Winter cover crops.

Table 6. Soil test results: pH and Organic Matter.

Sample #	pH	Organic Matter %
A1	6.9	2.0
A2	7.0	3.4
BC1	7.0	0.7
BC2	6.7	1.2
D1	6.2	2.2
D2	6.3	3.1
Target range	**5.5 to 7.0**	**4 – 5**

[9] Factsheet: Soil management: building a healthy soil. Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA). http://www.omafra.gov.on.ca/english/crops/pub811/8building.htm

Rating	Colour
Very Low	
Low	
Medium	
High	
Very High	

Table 7. Soil laboratory results: CEC, Percent Base Saturation, and exchangeable P.

		Percent Base Saturations						
Sample #	**CEC meq/100g**	**K %**	**Mg %**	**Ca %**	**Na %**	**H %**	**P (Bray-P1) ppm**	**Saturation P%**
A1	5.4	5.0	14.7	56.5	1.9	22.0	7	1
A2	7.1	5.0	14.7	66.4	1.0	12.8	20	3
BC1	4.7	6.0	14.3	63.1	3.8	12.9	26	8
BC2	3.9	7.3	14.0	46.6	1.2	30.9	29	8
D1	6.7	7.7	10.6	58.9	5.0	17.8	38	7
D2	4.9	4.9	11.1	58.4	1.2	24.4	14	2

Table 8. Soil laboratory results: Nitrate and micronutrients.

Sample #	**NO3-N**	**K**	**Ca**	**Mg**	**Cu**	**Zn**	**Fe**	**Mn**	**B**
	ppm	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
A1	1	105	610	95	3.0	1.9	132	31	0.1
A2	7	138	940	125	2.4	6.5	95	45	0.1
BC1	1	109	590	80	2.5	6.6	132	12	0.1
BC2	2	110	360	65	2.7	8.5	144	10	0.1
D1	2	202	790	85	3.3	5.5	126	8	0.2
D2	2	94	570	65	3.5	4.0	144	23	0.1

Cation Exchange Capacity (CEC) and Percent Saturation

The CEC is the sum total of exchangeable cations that a soil can adsorb. A cation is a positively charged ion (such as a nutrient or heavy metal), which is attracted to a negatively charged anion (such as a clay particle or organic matter particle). Therefore the CEC provides and indication as to the ability of the soil to readily release cations (such as H^+ , Na^+, Mg^{+2}, or Ca^{+2}) and adsorb others that are purposefully added (such as K^+). Sandy soils tend to have lower CECs than clay soils, because smaller clayparticles provide greater total surface area. The proportion of the CEC satisfied by a given cation is called the *percentage saturation* for that cation.[10] The related cation percentage is referred to as the *percentage base saturation* (PSB). The PSB for each element influences the uptake of these elements by growing plants.

[10] The Nature and Properties of Soils. 11th Ed. 1996. Brady, N.C. and R.R. Weil. Prentice Hall, Upper Saddle River, NJ.

Generally speaking, target ranges for most agricultural soils are as follows:

- K: 1-5%
- Mg: 10-40%
- Ca: 60-80%

Most of the laboratory results fall within these ranges for the three sites, although % Ca measured a bit low in some of the samples (Table 7). This suggests that additions of Ca may be beneficial during future crop production, which is a common soil management practice. This can be done using organic sources such as bone meal.

Phosphorus

Phosphorus (P) is calculated differently than K, Mg, and Ca because it has opposite ionic properties (i.e. it is negatively charged rather than positively charged) and it is not related to the CEC. Available P is determined by the Bray-P1 test. Adequate levels of available phosphorus are usually between 22 and 33 PPM. The results for most of the samples tested indicate low levels for Site BC and Site D, and very low levels at Site A. This is not surprising considering that Site A may have lost P over time during hay cultivation (especially if a fertilizer has not been recently applied). Therefore, future crop production will necessitate a P fertilization program. This can be done using organic sources. The low Saturation P% levels in all soils suggests that P will not readily be lost from the soil.

Nitrate Nitrogen (NO_3- N)

Nitrogen is essential to nearly every aspect of plant growth. Nitrogen is absorbed by plants as nitrate (NO_3^-) and ammonium (NH_4^+). Soil NO_3^- and NH_4^+ levels can fluctuate widely with soil and weather conditions over very short periods of time. Nitrogen recommendations are based on crop needs with the assumption that very little available N remains in the soil after the growing season. Adjustments must be made based on %OM, if soils are recently amended with manure or compost, or if legumes (which fix nitrogen in the soil) are grown in the crop rotation.

In general, a soil NO_3-N concentration of 30 ppm or higher during the active growing season is sufficient for most plants. Therefore, when the concentration of soil NO_3-N is less than 30 ppm, additional fertilizer is likely required. All samples indicated low or very low levels of NO_3-N, indicating that a nitrogen fertilizer will be required for crop production at all sites.

Micronutrients (Cu, Zn, Fe, Mn, B)

Micronutrients (sometimes referred to as trace elements) play complex roles in plant nutrition. Most have roles within enzyme systems, photosynthesis, and other metabolic steps. Levels of micronutrients within soils and plants can be described as deficient, normal, or toxic. The main source of micronutrients is from rocks that undergo mineral decomposition over time. Organic sources such as organic matter, compost, and manure, are important secondary source of micronutrients. Soil pH has a lead role in the availability of micronutrients within the soil solution to plants[11].

Available micronutrient results varied between sites. In general, Cu, Zn, and Fe levels were high or very high. These are likely originating from a natural geologic source. Additional sources of Mn and B will be required, especially at Site BC. Although only required in small amounts, B is critical for healthy plant growth.

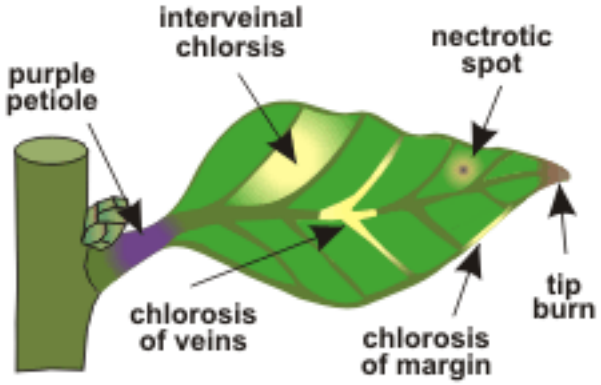


Figure 8. Common leaf abnormalities resulting from nutrient deficiencies[12].

[11] A note on soil testing methods for trace elements: Since micronutrients such as Cu can be both a benefit and potential toxin to plants, two test methods are used. The first provides a measurement of the "available" amount of that element determined by testing the soil solution resulting from an addition of acid. The second provides a deeper analysis by using Inductively-Coupled Plasma (ICP) or similar methods. This result will reflect the total amount of metal found in the soil sample, not just the readily available fraction.

[12] Growers Guide for Hydroponics, Coco, and Soil. Flairform Growing Media. http://www.flairform.com/index.php?option=com_content&view=article&id=3&Itemid=115

Trace Metals

There are many sources of metal contaminants that can accumulate in soils. These include the burning of fossil fuels, use of additives in gasoline, use of insecticides, metal plating, domestic sewage sludge, industrial waste, and air pollution. The greatest problems usually arise from Arsenic (As), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Lead (Pb), and Zinc (Zn). Cd and As are extremely poisonous to humans; Hg, Pb, and Ni are moderately so; and Boron (B), Cu, Manganese (Mn), and Zn are relatively lower in mammalian toxicity[13].

The soil samples were analyzed in the lab for a suite of trace metals[14] and results were compared to two commonly-used health and safety guidelines: BC's Organic Matter Recycling Regulation (OMRR) Class A Compost[15] and the Canadian Council of Ministers for the Environment (CCME)'s Canadian Environmental Quality Guidelines (CEQG): Soil Quality Guidelines for Human Health[16]. Results were favourable at all sites. No concerns were noted for any the elements tested. These results are summarized in Table 9 and a full set of results are provided in the Appendix.

Table 9. Soil laboratory results: trace metals.

		Site						Guidelines	
Parameter	**Detection Limit**	**Airport**		**Harrow Rd**		**Signal Hill**		**OMRR**	**CCME**
	(ug/g or ppm)	**A1**	**A2**	**BC1**	**BC2**	**D1**	**D2**	**Class A Compost**	**Soil Quality Guidelines for Human Health**
Arsenic	1	2.9	2.2	1.2	1.1	BDL	BDL	13	12 (inorg)
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 (inorg)
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

[13] The Nature and Properties of Soils. 11th Ed. 1996. Brady, N.C. and R.R. Weil. Prentice Hall, Upper Saddle River, NJ.
[14] The samples were tested for trace metals using the following techniques: Inductively Coupled Plasma (ICP) for the majority of elements, Hydride Generation Atomic Absorption Spectrometry (HGAAS) for As and Se, and Cold Vapour Atomic Absorption Spectrometry (CVAAS) for Hg.
[15] Land Application Guidelines for the Organic Matter Recycling Regulation and the Soil Amendment Code of Practice. Best Management Practices. March 2008. BC Ministry of Environment. http://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/landappguidelines.pdf
[16] CCME Canadian Environmental Quality Guidelines. Factsheets. http://www.ccme.ca/en/resources/canadian_environmental_quality_guidelines/index.html

Conclusion

In summary, three sites were assessed for agricultural potential within the Pemberton area, and minimal constraints were found. Results indicate that the sites are a combination of loams on mainly flat terrain with good to excellent agricultural capability. Main challenges to capability relate to seasonally high water tables, which could be managed through proper drainage. Some level of stoniness was noted in Site D.

Many indicators of fertility, including organic matter, phosphorus, and nitrogen levels were measured to be relatively low. However this is not uncommon for sites that have not been previously cultivated, or that may have had repeated crop production with little to minimal levels of fertilizers applied. None of the trace metal results indicated any levels of toxicity concern when compared to two published guidelines: OMRR Land Application Guidelines for Class A Compost and the CEQG soil quality guidelines for human health.

Appendix

Soil Laboratory Test Results

A&L Canada Laboratories results sheets (PDFs).

REPORT TO
COMMITTEE OF THE WHOLE

Date: **September 2, 2014**

To: **Sheena Fraser, Acting Chief Administrative Officer**

From: **Caroline Lamont, Manager of Development Services**

Subject: **Community Agricultural Parks Work Program**

PURPOSE

The purpose of this report is to provide Council with information with regard to the input received at the Community Agricultural Park brainstorming session and to identify a work program that will set a course of action for the planning and eventual agricultural use of various Village tenured properties.

BACKGROUND

On July 22, 2014 Council considered a report from staff that recommended that staff explore with the community certain opportunities to farm selected municipal tenured properties. The intent would be to establish a possible course of action in farming these properties in response to community need.

On August 26th the Village held a brainstorming session with interested community members for ideas and direction related the farm planning. There were seven (7) adults and four (4) children attending, and despite the small numbers, they all provided meaningful input.

BRAINSTORMING SESSION: Agenda

The brainstorming session was held under the barn roof, in part to spark ideas from the attendees. The session agenda was as follows:

- a brief introduction of the initiative
- overview of the properties
- opportunities and constraints for each properties
- recommendation for next steps

BRAINSTORMING SESSION: Findings

General Introductions

Everyone in attendance was asked to share their interest in the meeting.

- To have sustainable farms producing healthy foods
- Learning opportunities about farming
- Biodiversity in farming
- New agricultural products in the valley, including cheese, chickens, orchards
- Promote eco-tourism, yurts on learning farms
- Working forest (Garden of Eden – Jim Morrison)
- Horse paddocks/riding school (Western)
- Rescue animals – 4H club

- Community corrals/horse co-op
- Low cost, organic, grassroots facilities
- Processing of farm products
- Hops
- Hemp

Opportunities by Property

The participants indicated the potential uses on each of the five (5) properties*:

	Opportunities	Constraints
Lot 8/20	▫ community orchard, fruit trees, nut trees ▫ education on grafting trees ▫ maintaining orchards/local fruit/produce ▫ vegetables (Back to Eden model) ▫ bees and chickens ▫ animals ▫ permaculture school ▫ eco-agriculture ▫ dairy farm (cheese) ▫ bridge gaps in food sustainability ▫ "transition town" ▫ Horse paddocks and shelters for boarding (close to Village)	▫ water fowl ▫ bears (need electric fence) ▫ near existing neighbours ▫ need to be an example of how we can be community leaders in sustainability
Lot 13 & future Tiyata Community Garden	▫ Raise chickens and goats (milk) ▫ Education permaculture ▫ Garden beds ▫ Kids work after school activity and take produce home to eat ▫ Nut trees ▫ Develop program for good food for school ▫ Hot lunch, fresh fruit and vegetable program	▫ Power line concerns for animals and produce ▫ Water source ▫ Money ▫ Volunteers coordination ▫ School district red tape ▫ Bears/wildlife ▫
Airport	▫ Hemp ▫ Lavender – commercial crop ▫ Sheep farm ▫ High human input/low machinery = jobs ▫ Land regeneration ▫ Education potential and permaculture centre	▫ Noise for animals ▫ Water ▫ Power ▫ Low growing ▫ sustainable

**There were no specific comments related to the Future Sunstone Community Garden*

Next Steps and Other Ideas

The following were miscellaneous comments from the participants related to the vision for the farm planning and next steps.

- Education potential
- Partnerships with educational institutions (Kwaltlen University)
- Professional expertise
- Consultation with local farmers
- Understanding the history of farming and importance to the value
- Need for soil scientist
- Horses/Western learning centre
- Benefits of a community based project
- Sustaining food sources for local community
- Local food and regional gaps in food supply
- Investigate other examples in BC

- Agri-tourism
- Greenhouses for all seasons
- Food storage facilities
- Food processing facilities
- Solid farm planning, may take longer but do in properly.
- Funding opportunities (grants and partnerships)

DISCUSSION

The session was a true brainstorming session that considered all possible opportunities of the various properties. Although those in attendance represented a range of community interests (personal farming, start-up farming, sustainable methods, commercial needs, education, agri-torism, etc) the meeting was not attended by many of the key agricultural stakeholders and interest groups in the community. In addition, it was evident that there is a level of education and expertise that is needed before any decisions are be made with regard to improving any of the properties. The session participants and Village staff clearly recognized the magnitude of this initiative but yet recognized that there is the passion and the expertise in Pemberton to create a lasting farming legacy.

At this time, however, additional outreach and information is needed to better frame what is being pursued. In particular:

Engaging Existing Community Organizations and Partners – As mentioned there was a relatively low turnout and no representations from many agriculture interests such as long-time local farmers, equestrian interests and food services (restaurants). The participants indicated that it would be appropriate to have additional outreach done to determine if there are opportunities for greater community engagement. The Lil'wat Nation and the SLRD should be engaged in an effort to share resources and knowledge in the planning, development and farming stages.

Recognizing Expertise Needed – Additional investigations within the local community as well as other similar agricultural initiatives should be undertaken to clearly understand the challenges involved in this project. For example, the quality of the soils (and opportunities for upgrading), irrigation (or other sustainable methods), and the mitigation of possible land use conflicts (wildlife, power lines, airplanes, etc).

Identify Funding Sources – Research possible funding sources which would consider not only the seed funding to get the organization established but also the identification of funding of programming or capital improvements.

Identify Organizational Structure – A review of possible structures for the organization could be considered, which may include adding this initiative to an existing not-for-profit, a new organization, or part of the Village staff responsibilities.

Developing a Work Plan – Following the compilation of the information noted; a work plan should be developed for Council's consideration that outlines a course of action for the agricultural properties as well as funding sources and organizational structures.

COMMUNICATIONS

The Village has promoted the agricultural park initiative on their website, in the newspaper and the Enews. It would be the intent that the website continue to include updates on the initiative as it moves forward.

BUDGET AND STAFFING

Typically the next step in the process would be for internal staff to frame the work program as noted in the Discussion section of this report. With the departure of the Manager of Development Services (and the expected delay in hiring) there is not the capacity to complete the work in-house. It is therefore recommended that a contractor be hired to a maximum fee of $3500 to undertake the proposed work. It is anticipated that such a contract would take approximately 50 hours to complete

Although certain seed funding may be needed for this project, it is the intent that over the mid to long term the project will be self-sustaining.

STRATEGIC PRIORITIES

The review of this application is consistent with providing economic vitality, notably retaining and encouraging local agriculture.

RECOMMENDATION:

THAT the Committee of the Whole receive this report for their information;

AND THAT the Committee of the Whole recommend to Council to direct staff to allocate $3,500 towards the Agricultural Park Planning initiative.

Respectfully submitted,

_____
Caroline Lamont
Manager of Development Services

CHIEF ADMINISTRATIVE OFFICER

_____
Sheena Fraser,
Acting Chief Administrative Officer

REPORT TO COMMITTEE OF THE WHOLE

DATE: July 22, 2014

MEMO TO: Daniel Sailland, Chief Administrative Officer

FROM: Caroline Lamont, Manager of Development Services

SUBJECT: Community Agricultural Parks

PURPOSE

This report requests Council's support to initiate a planning process in partnership with community interests for the development of various Village controlled properties for agricultural purposes.

BACKGROUND

The Village made application in early 2012 to the *Ministry of Forests, Lands and Natural Resources for Crown l*and tenure of a 6 ha (14.83 acres) for Lot 8 and 20, District Lot 883. The property is situated within the jurisdiction of the *Squamish Lillooet Regional District*. On September 6, 2013 the *Ministry of Community, Sport and Cultural Development* sponsored the application for a Community Agricultural Park, and subsequently on May 20, 2014 the Village accepted the Licence of Occupation from the province (refer to Appendix A).

The Village now has tenure to the property and would like to work with the community to improve the property for agricultural and trail uses. In addition to these uses, the Village also has interest in several other agricultural properties that also could benefit from more comprehensive planning.

DESCRIPTION

The following provides a short overview of the properties.

Lot 8 and 20

The tenure application requested the land for a *Community Agricultural Park*, which would provide residents with an opportunity to get involved and learn about growing food in a supportive and communal environment. The intent would be to provide additional garden plot spaces for a small garden and/or larger farming plots for the farming community to use as an incubator program for new farmers. The project would also provide trail network connections as well as river access through Lot 20. The next step is to develop a plan for agricultural use (with trail connections) on the property.

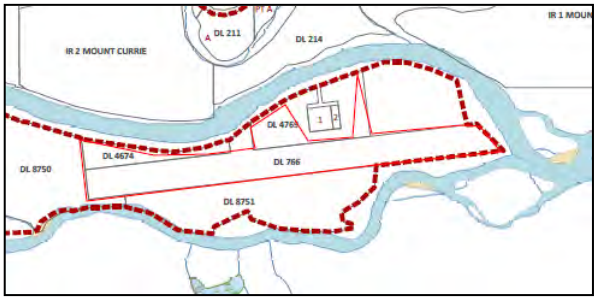
Council may recall that at their October 16, 2012 Regular Meeting a letter was received from *Kwantlen Polytechnic University* regarding the *Sustainable Food Systems Working Group* who is leading a three year initiative to develop a Food System Design and Implementation Plan for southwest British Columbia. One of the group's Phase 1 Stakeholder workshops was held in Whistler on June 5th. The initial phase of the project is to establish objectives for a food system vision and gathering data and information to inform the design process (there is an online survey that staff has completed). The second phase of the project will be to work with stakeholders to explore scenarios and design a food system that could better feed and generate economic development for our communities by 2050.

Due to workload, staff was not able to attend the stakeholder workshop; however, Dawn Johnson of Stewardship Pemberton was present. At the meeting, the idea of a community fruit orchard was raised. Apparently there are few non-commercial orchards in the Pemberton area. *Stewardship Pemberton* would like to work with the Village in designing the *Community Agriculture Park* while also pursuing funding for fruit trees, and electric fencing. It is understood from Stewardship Pemberton that there is also a PhD project through *Kwantlen's Institute* for Sustainable Food Systems that would help with project start up, at no cost.

Subsequently Village staff recognized that there are several other properties that may also benefit from the agricultural planning.

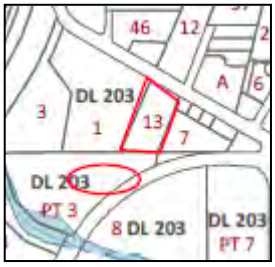
Pemberton Airport

The airport is on ALR land and has in past years produced a hay crop. Increasingly the Acting Manager of Public Works is having great difficulty getting the hay removed from the airport. It is very poor quality and the land needs to be cultivated and improved. That can be costly and time consuming either in-house or contracted out. The lands comprise 40-57 acres of non-irrigated land.



Lot 13

This lot is located beside Signal Hill School under the major transmission lines. It is poorly drained and not irrigated. The site, which is in the heart of the community, has potential to provide an educational component – perhaps working with local schools.



Future Sunstone and Tiyata Community Gardens

Both the Sunstone and Tiyata developments propose community gardens of 2 ha and 5 ha respectively. At this time the properties are not yet in municipal ownership, but it may be worthwhile to include them in the phased planning process. The Tiyata site is directly south of Lot 13.

DISCUSSION

As mentioned, the Village would like to work with community interests on the design and improvement of the *Community Agricultural Park* on Lot 8 and 20 as well as other agricultural properties with farming potential. *Stewardship Pemberton* and the *Sustainable Food Systems Working Group* have both expressed interest in assisting the municipality. *Stewardship Pemberton* currently manages the existing community garden (since 2008).

Staff is very supportive of *Stewardship Pemberton's* and *Kwantlen's* interest in working with the Village on this project. Staff would also like to establish a process to engage other agricultural interests in the planning of the site. Other groups should include the Pemberton Farmer's Institute and the Farmers Market.

This report therefore requests Council's support to establish a planning process for the site planning design of local *Community Agriculture Parks.*

BUDGET

This initiative is being completed with in-house staff, which likely will require approximately 20 hours to develop. The next stage in the process will identify possible budget impacts as it relates to a tangible work program.

COMMUNICATIONS

The Village will contact various agricultural focused community groups to engage them in the planning process. An advertisement will also run in the ENews and Newspaper requesting participation in the process.

STRATEGIC PLAN

The review of this application is consistent *Economic Vitality - the Village values and supports a competitive and diversified economy with engaged corporate citizens*.

RECOMMENDATION

THAT the Committee of the Whole receive this report for their information and recommend to Council that staff's current directions be supported.

Attachment: Appendix A - Licence of Occupation

Caroline Lamont
Manager of Development Services

CHIEF ADMINISTRATIVE OFFICER REVIEW

Daniel Sailland

Chief Administrative Officer

BRITISH COLUMBIA

LICENCE OF OCCUPATION

Licence No.: 242616

File No.: 2410875

Disposition No.: 906615

THIS AGREEMENT is dated for reference May 20, 2014 and is made under the *Land Act*.

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA, represented by the minister responsible for the *Land Act*, Parliament Buildings, Victoria, British Columbia

(the "Province")

AND:

CORPORATION OF THE VILLAGE OF PEMBERTON
PO Box 100
7400 Prospect St
Pemberton, BC V0N 2L0

(the "Licensee")

The parties agree as follows:

ARTICLE 1 - INTERPRETATION

1.1 In this Agreement,

"Agreement" means this licence of occupation;

"Commencement Date" means July 21, 2014;

"disposition" has the meaning given to it in the *Land Act* and includes a licence of occupation;

"Fees" means the fees set out in Article 3;

"Hazardous Substances" means any substance which is hazardous to persons, property or the environment, including without limitation

(a) waste, as that term is defined in the *Environmental Management Act*; and

(b) any other hazardous, toxic or other dangerous substance, the use, transportation or release into the environment of which, is now or from time to time prohibited, controlled or regulated under any laws or by any governmental authority, applicable to, or having jurisdiction in relation to, the Land;

"Improvements" includes anything made, constructed, erected, built, altered, repaired or added to, in, on or under the Land, and attached to it or intended to become a part of it, and also includes any clearing, excavating, digging, drilling, tunnelling, filling, grading or ditching of, in, on or under the Land;

"Land" means that part or those parts of the Crown land either described in, or shown outlined by bold line on, the schedule attached to this Agreement entitled "Legal Description Schedule" except for those parts of the land that, on the Commencement Date, consist of highways (as defined in the *Transportation Act*) and land covered by water;

"Management Plan" means the most recent management plan prepared by you in a form approved by us, signed and dated by the parties, and held on file by us;

"Realty Taxes" means all taxes, rates, levies, duties, charges and assessments levied or charged, at any time, by any government authority having jurisdiction which relate to the Land, the Improvements or both of them and which you are liable to pay under applicable laws;

"Security" means the security referred to in section 6.1 or 6.2, as replaced or supplemented in accordance with section 6.5;

"Term" means the period of time set out in section 2.2;

"we", **"us"** or **"our"** refers to the Province alone and never refers to the combination of the Province and the Licensee: that combination is referred to as **"the parties"**; and

"you" or **"your"** refers to the Licensee.

1.2 In this Agreement, "person" includes a corporation, partnership or party, and the personal or other legal representatives of a person to whom the context can apply according to law and wherever the singular or masculine form is used in this Agreement it will be construed as the plural or feminine or neuter form, as the case may be, and vice versa where the context or parties require.

1.3 The captions and headings contained in this Agreement are for convenience only and do not define or in any way limit the scope or intent of this Agreement.

1.4 This Agreement will be interpreted according to the laws of the Province of British Columbia.

1.5 Where there is a reference to an enactment of the Province of British Columbia or of Canada in this Agreement, that reference will include a reference to every amendment to it, every regulation made under it and any subsequent enactment of like effect and, unless otherwise indicated, all enactments referred to in this Agreement are enactments of the Province of British Columbia.

1.6 If any section of this Agreement, or any part of a section, is found to be illegal or unenforceable, that section or part of a section, as the case may be, will be considered separate and severable and the remainder of this Agreement will not be affected and this Agreement will be enforceable to the fullest extent permitted by law.

1.7 Each schedule to this Agreement is an integral part of this Agreement as if set out at length in the body of this Agreement.

1.8 This Agreement constitutes the entire agreement between the parties and no understanding or agreement, oral or otherwise, exists between the parties with respect to the subject matter of this Agreement except as expressly set out in this Agreement and this Agreement may not be modified except by subsequent agreement in writing between the parties.

1.9 Each party will, upon the request of the other, do or cause to be done all lawful acts necessary for the performance of the provisions of this Agreement.

1.10 Any liabilities or obligations of either party arising, or to be performed, before or as a result of the termination of this Agreement, and which have not been satisfied or remain unperformed at the termination of this Agreement, any indemnity and any release in our favour and any other provision which specifically states that it will survive the termination of this Agreement, shall survive and not be affected by the expiration of the Term or the termination of this Agreement.

1.11 Time is of the essence of this Agreement.

1.12 Wherever this Agreement provides that an action may be taken, a consent or approval must be obtained or a determination must be made, then you or we, as the case may be, will act reasonably in taking such action, deciding whether to provide such consent or approval or making such determination; but where this Agreement states that you or we have sole discretion to take an action, provide a consent or approval or make a determination, there will be no requirement to show reasonableness or to act reasonably in taking that action, providing that consent or approval or making that determination.

1.13 Any requirement under this Agreement for us to act reasonably shall not require us to act in a manner that is contrary to or inconsistent with any legislation, regulations, Treasury Board directives or other enactments or any policy, directive, executive direction or other such guideline of general application.

1.14 Wherever this Agreement provides that you may not undertake some activity or do something without our prior written approval or consent, our prior approval of the Management Plan will constitute our approval of, or consent to, the activity or thing to the extent the same is specifically and expressly described in the Management Plan and subject always to any conditions or qualifications that may be set in the Management Plan.

ARTICLE 2 - GRANT AND TERM

2.1 On the terms and conditions set out in this Agreement, we grant you a licence of occupation of the Land for community agricultural park and trail, including access road purposes, as set out in the Management Plan. You acknowledge this licence of occupation does not grant you exclusive use and occupancy of the Land.

2.2 The term of this Agreement commences on the Commencement Date and terminates on the 30th anniversary of that date, or such earlier date provided for in this Agreement. We reserve the right to terminate this Agreement in certain circumstances as expressly provided in this Agreement.

ARTICLE 3 - FEES

3.1 The Fee for the Term is $1.00, the receipt of which we acknowledge.

ARTICLE 4 - COVENANTS

4.1 You must

(a) pay, when due,

(i) the Fees to us at the address set out in Article 10,

(ii) the Realty Taxes, and

(iii) all charges for electricity, gas, water and other utilities supplied to the Land for use by you or on your behalf or with your permission;

(b) deliver to us, immediately upon demand, receipts or other evidence of the payment of Realty Taxes and all other money required to be paid by you under this Agreement;

(c) observe, abide by and comply with

(i) all applicable laws, bylaws, orders, directions, ordinances and regulations of any government authority having jurisdiction in any way affecting your use or occupation of the Land or the Improvements including without limitation all laws, bylaws, orders, directions, ordinances and regulations relating in any way to Hazardous Substances, the environment and human health and safety, and

(ii) the provisions of this Agreement;

(d) in respect of the use of the Land by you or by any person who enters upon or uses the Land as a result of your use of the Land under this Agreement, keep the Land and the Improvements in a safe, clean and sanitary condition satisfactory to us, and at our written request, rectify any failure to comply with such a covenant by making the Land and the Improvements safe, clean and sanitary;

(e) not commit any wilful or voluntary waste, spoil or destruction on the Land or do anything on the Land that may be or become a nuisance to an owner or occupier of land in the vicinity of the Land;

(f) use and occupy the Land only in accordance with and for the purposes set out in the Management Plan;

(g) not construct, place or affix any Improvement on or to the Land except as permitted in the Management Plan;

(h) pay all accounts and expenses as they become due for work performed on or materials supplied to the Land at your request, on your behalf or with your permission, except for money that you are required to hold back under the *Builders Lien Act*;

(i) if any claim of lien over the Land is made under the *Builders Lien Act* for work performed on or materials supplied to the Land at your request, on your behalf or with your permission, immediately take all steps necessary to have the lien discharged, unless the claim of lien is being contested in good faith by you and you have taken the steps necessary to ensure that the claim of lien will not subject the Land or any interest of yours under this Agreement to sale or forfeiture;

(j) not cut or remove timber on or from the Land without being granted the right under the *Forest Act* to harvest Crown timber on the Land;

(k) at our request and at your expense, have a British Columbia Land Surveyor conduct a survey of the Land within one year;

(l) take all reasonable precautions to avoid disturbing or damaging any archaeological material found on or under the Land and, upon discovering any archaeological material on or under the Land, you must immediately notify the ministry responsible for

administering the *Heritage Conservation Act*;

(m) permit us, or our authorized representatives, to enter on the Land at any time to inspect the Land and the Improvements, including without limitation to test and remove soil, groundwater and other materials and substances, where the inspection may be necessary or advisable for us to determine whether or not you have complied with your obligations under this Agreement with respect to Hazardous Substances, provided that we take reasonable steps to minimize any disruption of your operations;

(n) indemnify and save us and our servants, employees and agents harmless against all claims, actions, causes of action, losses, damages, costs and liabilities, including fees of solicitors and other professional advisors, arising out of

(i) your breach, violation or non-performance of a provision of this Agreement,

(ii) any conflict between your use of the Land under this Agreement and the lawful use of the Land by any other person, and

(iii) any personal injury, bodily injury (including death) or property damage occurring or happening on or off the Land by virtue of your entry upon, use or occupation of the Land,

and the amount of all such losses, damages, costs and liabilities will be payable to us immediately upon demand; and

(o) on the termination of this Agreement,

(i) peaceably quit and deliver to us possession of the Land and, subject to paragraphs (ii), (iii) and (iv), the Improvements in a safe, clean and sanitary condition,

(ii) within 30 days, remove from the Land any Improvement you want to remove, if the Improvement was placed on or made to the Land by you, is in the nature of a tenant's fixture normally removable by tenants and is not part of a building (other than as a tenant's fixture) or part of the Land and you are not in default of this Agreement,

(iii) not remove any Improvement from the Land if you are in default of this Agreement, unless we direct or permit you to do so under paragraph (iv),

(iv) remove from the Land any Improvement that we, in writing, direct or permit you to remove, other than any Improvement permitted to be placed on or made to the Land under another disposition, and

(v) restore the surface of the Land as nearly as may reasonably be possible, to the condition that the Land was in at the time it originally began to be used for the purposes described in this Agreement, but if you are not directed or permitted to remove an Improvement under paragraph (iii), this paragraph will not apply to that part of the surface of the Land on which that Improvement is located,

and all of your right, interest and estate in the Land will be absolutely forfeited to us, and to the extent necessary, this covenant will survive the termination of this Agreement.

4.2 You will not permit any person who enters upon or uses the Land as a result of your use of the Land under this Agreement to do anything you are restricted from doing under this Article.

4.3 You must not use all or any part of the Land

(a) for the storage or disposal of any Hazardous Substances; or

(b) in any other manner whatsoever which causes or contributes to any Hazardous Substances being added or released on, to or under the Land or into the environment from the Land;

unless

(c) such storage, disposal, release or other use does not result in your breach of any other provision of this Agreement, including without limitation, your obligation to comply with all laws relating in any way to Hazardous Substances, the environment and human health and safety; and

(d) we have given our prior written approval to such storage, disposal, release or other use and for certainty any such consent operates only as a consent for the purposes of this section and does not bind, limit, or otherwise affect any other governmental authority from whom any consent, permit or approval may be required.

4.4 Despite any other provision of this Agreement you must:

(a) on the expiry or earlier termination of this Agreement; and

(b) at any time if we request and if you are in breach of your obligations under this Agreement relating to Hazardous Substances;

promptly remove from the Land all Hazardous Substances stored, or disposed of, on the Land, or which have otherwise been added or released on, to or under the Land:

(c) by you; or

(d) as a result of the use of the Land under this Agreement;

save and except only to the extent that we have given a prior written approval expressly allowing specified Hazardous Substances to remain on the Land following the expiry of the Term.

4.5 We may from time to time

(a) in the event of the expiry or earlier termination of this Agreement;

(b) as a condition of our consideration of any request for consent to an assignment of this Agreement; or

(c) if we have a reasonable basis for believing that you are in breach of your obligations under this Agreement relating to Hazardous Substances;

provide you with a written request to investigate the environmental condition of the Land and upon any such request you must promptly obtain, at your cost, and provide us with, a report from a qualified and independent professional who has been approved by us, as to the environmental condition of the Land, the scope of which must be satisfactory to us and which may include all such tests and investigations that such professional may consider to be necessary or advisable to determine whether or not you have complied with your obligations under this Agreement with respect to Hazardous Substances.

4.6 You must at our request from time to time, but not more frequently than annually, provide us with your certificate (and if you are a corporation such certificate must be given by a senior officer) certifying that you are in compliance with all of your obligations under this Agreement pertaining to Hazardous Substances, and that no adverse environmental occurrences have taken place on the Land, other than as disclosed in writing to us.

ARTICLE 5 - LIMITATIONS

5.1 You agree with us that

(a) in addition to the other reservations and exceptions expressly provided in this Agreement this Agreement is subject to the exceptions and reservations of interests, rights, privileges and titles referred to in section 50 of the *Land Act*;

(b) other persons may hold or acquire rights to use the Land in accordance with enactments other than the *Land Act* or the *Ministry of Lands, Parks and Housing Act*, including rights held or acquired under the *Coal Act, Forest Act, Geothermal Resources Act, Mineral Tenure Act, Petroleum and Natural Gas Act, Range Act, Water Act* or *Wildlife*

Act (or any prior or subsequent enactment of the Province of British Columbia of like effect); such rights may exist as of the Commencement Date and may be granted or acquired subsequent to the Commencement Date and may affect your use of the Land;

(c) other persons may hold or acquire interests in or over the Land granted under the *Land Act* or the *Ministry of Lands, Parks and Housing Act*; such interests may exist as of the Commencement Date; following the Commencement Date we may grant such interests (including fee simple interests, leases, statutory rights of way and licences); you acknowledge that your use of the Land may be affected by such interests and the area or boundaries of the Land may change as a result of the granting of such interests;

(d) you have no right to compensation from us and you release us from all claims, actions, causes of action, suits, debts and demands that you now have or may at any time in the future have against us arising out of any conflict between your use of the Land under this Agreement and any use of, or impact on the Land arising from the exercise, or operation of the interests, rights, privileges and titles described in subsections (a), (b), and (c);

(e) this Agreement does not limit any right to notice, compensation or any other benefit that you may be entitled to from time to time under the enactments described in subsection (b), or any other applicable enactment;

(f) you will not commence or maintain proceedings under section 65 of the *Land Act* in respect of any interference with your use of the Land as permitted under this Agreement that arises as a result of the lawful exercise or operation of the interests, rights, privileges and titles described in subsections (a), (b) and (c);

(g) this Agreement is subject to the Right of Way granted to British Columbia Hydro and Power Authority as defined on Plan CG601 on file in the Kamloops Land Title Office issued for electrical power transmission line purposes;

(h) this Agreement is subject to the Right of Way granted to British Columbia Hydro and Power Authority as defined on Plan CG160 and B3514 on file in the Kamloops Land Title Office issued for electrical power transmission and distribution purposes;

(i) this Agreement is subject to the prior rights of the Village of Pemberton as holder of a Licence of Occupation on file 2402733 issued for navigational aid purposes;

(j) you will not remove or permit the removal of any Improvement from the Land except as expressly permitted or required under this Agreement;

(k) any interest you may have in the Improvements ceases to exist and becomes our property upon the termination of this Agreement, except where an Improvement may be removed under paragraph 4.1(o)(ii), (iii) or (iv) in which case any interest you may have

in that Improvement ceases to exist and becomes our property if the Improvement is not removed from the Land within the time period set out in paragraph 4.1(o)(ii) or the time period provided for in the direction or permission given under paragraph 4.1(o)(iii); and

(l) if, after the termination of this Agreement, we permit you to remain in possession of the Land and we accept money from you in respect of such possession, a tenancy from year to year will not be created by implication of law and you will be deemed to be a monthly occupier only subject to all of the provisions of this Agreement, except as to duration, in the absence of a written agreement to the contrary.

ARTICLE 6 - SECURITY AND INSURANCE

6.1 On the Commencement Date, you will deliver to us Security in the amount of $0.00 which will

(a) guarantee the performance of your obligations under this Agreement;

(b) be in the form required by us; and

(c) remain in effect until we certify, in writing, that you have fully performed your obligations under this Agreement.

6.2 Despite section 6.1, your obligations under that section are suspended for so long as you maintain in good standing other security acceptable to us to guarantee the performance of your obligations under this Agreement and all other dispositions held by you.

6.3 We may use the Security for the payment of any costs and expenses associated with any of your obligations under this Agreement that are not performed by you or to pay any overdue Fees and, if such event occurs, you will, within 30 days of that event, deliver further Security to us in an amount equal to the amount drawn down by us.

6.4 After we certify, in writing, that you have fully performed your obligations under this Agreement, we will return to you the Security maintained under section 6.1, less all amounts drawn down by us under section 6.3.

6.5 You acknowledge that we may, from time to time, notify you to

(a) change the form or amount of the Security; and

(b) provide and maintain another form of Security in replacement of or in addition to the Security posted by you under this Agreement;

and you will, within 60 days of receiving such notice, deliver to us written confirmation that the change has been made or the replacement or additional form of Security has been provided by

you.

6.6 You must

(a) without limiting your obligations or liabilities under this Agreement, at your expense, purchase and maintain during the Term the following insurance with insurers licensed to do business in Canada:

(i) Commercial General Liability insurance in an amount of not less than $2,000,000.00 inclusive per occurrence insuring against liability for personal injury, bodily injury (including death) and property damage, including coverage for all accidents or occurrences on the Land or the Improvements. Such policy will include cross liability, liability assumed under contract, provision to provide 30 days advance notice to us of material change or cancellation, and include us as additional insured;

(b) ensure that all insurance required to be maintained by you under this Agreement is primary and does not require the sharing of any loss by any of our insurers;

(c) within 10 working days of Commencement Date of this Agreement, provide to us evidence of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";

(d) if the required insurance policy or policies expire or are cancelled before the end of the Term of this Agreement, provide within 10 working days of the cancellation or expiration, evidence of new or renewal policy or policies of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";

(e) notwithstanding subsection (c) or (d) above, if requested by us, provide to us certified copies of the required insurance policies.

6.7 We may, acting reasonably, from time to time, require you to

(a) change the amount of insurance set out in subsection 6.6(a); and

(b) provide and maintain another type or types of insurance in replacement of or in addition to the insurance previously required to be maintained by you under this Agreement;

and you will, within 60 days of receiving such notice, cause the amounts and types to be changed and deliver to us a completed "Province of British Columbia Certificate of Insurance" for all insurance then required to be maintained by you under this Agreement.

6.8 You shall provide, maintain, and pay for any additional insurance which you are required by law to carry, or which you consider necessary to insure risks not otherwise covered by the

insurance specified in this Agreement in your sole discretion.

6.9 You waive all rights of recourse against us with regard to damage to your own property.

6.10 Despite sections 6.6 and 6.7, your obligations under those sections are suspended for so long as we in our sole discretion acknowledge our acceptance to you in writing your alternative risk financing program in respect of the matters covered by those sections.

If, in our sole discretion, your alternative risk financing program in respect of the matters covered by sections 6.6 and 6.7 is no longer acceptable to us, we will provide written notice to you and you must, within 60 days of such notice, obtain and provide to us evidence of compliance with section 6.6 of this Agreement.

ARTICLE 7 - ASSIGNMENT

7.1 You must not sublicense, assign, mortgage or transfer this Agreement, or permit any person to use or occupy the Land, without our prior written consent, which consent we may withhold.

7.2 Prior to considering a request for our consent under section 7.1, we may require you to meet certain conditions, including without limitation, that you provide us with a report as to the environmental condition of the Land as provided in section 4.5.

ARTICLE 8 - TERMINATION

8.1 You agree with us that

(a) if you

(i) default in the payment of any money payable by you under this Agreement, or

(ii) fail to observe, abide by and comply with the provisions of this Agreement (other than the payment of any money payable by you under this Agreement),

and your default or failure continues for 60 days after we give written notice of the default or failure to you,

(b) if, in our opinion, you fail to make diligent use of the Land for the purposes set out in this Agreement, and your failure continues for 60 days after we give written notice of the failure to you;

(c) if you

(i) become insolvent or make an assignment for the general benefit of your creditors,

(ii) commit an act which entitles a person to take action under the *Bankruptcy and Insolvency Act* (Canada) or a bankruptcy petition is filed or presented against you or you consent to the filing of the petition or a decree is entered by a court of competent jurisdiction adjudging you bankrupt under any law relating to bankruptcy or insolvency, or

(iii) voluntarily enter into an arrangement with your creditors;

(d) if you are a corporation,

(i) a receiver or receiver-manager is appointed to administer or carry on your business, or

(ii) an order is made, a resolution passed or a petition filed for your liquidation or winding up;

(e) if you are a society, you convert into a company in accordance with the *Society Act* without our prior written consent;

(f) if this Agreement is taken in execution or attachment by any person; or

(g) if we require the Land for our own use or, in our opinion, it is in the public interest to cancel this Agreement and we have given you 60 days' written notice of such requirement or opinion;

this Agreement will, at our option and with or without entry, terminate and your right to use and occupy the Land will cease.

8.2 If the condition complained of (other than the payment of any money payable by you under this Agreement) reasonably requires more time to cure than 60 days, you will be deemed to have complied with the remedying of it if you commence remedying or curing the condition within 60 days and diligently complete the same.

8.3 You agree with us that

(a) you will make no claim against us for compensation, in damages or otherwise, upon the lawful termination of this Agreement under section 8.1; and

(b) our remedies under this Article are in addition to those available to us under the *Land Act*.

ARTICLE 9 - DISPUTE RESOLUTION

9.1 If any dispute arises under this Agreement, the parties will make all reasonable efforts to resolve the dispute within 60 days of the dispute arising (or within such other time period agreed to by the parties) and, subject to applicable laws, provide candid and timely disclosure to each other of all relevant facts, information and documents to facilitate those efforts.

9.2 Subject to section 9.5, if a dispute under this Agreement cannot be resolved under section 9.1, we or you may refer the dispute to arbitration conducted by a sole arbitrator appointed pursuant to the *Commercial Arbitration Act*.

9.3 The cost of the arbitration referred to in section 9.2 will be shared equally by the parties and the arbitration will be governed by the laws of the Province of British Columbia.

9.4 The arbitration will be conducted at our offices (or the offices of our authorized representative) in Surrey, British Columbia, and if we or our authorized representative have no office in Surrey, British Columbia, then our offices (or the offices of our authorized representative) that are closest to Surrey, British Columbia.

9.5 A dispute under this Agreement in respect of a matter within our sole discretion cannot, unless we agree, be referred to arbitration as set out in section 9.2.

ARTICLE 10 - NOTICE

10.1 Any notice required to be given by either party to the other will be deemed to be given if mailed by prepaid registered mail in Canada or delivered to the address of the other as follows:

to us

MINISTRY OF FORESTS, LANDS AND
NATURAL RESOURCE OPERATIONS
200-10428 153 St
Surrey, BC V3R 1E1;

to you

CORPORATION OF THE VILLAGE OF PEMBERTON
PO Box 100
7400 Prospect St
Pemberton, BC V0N 2L0;

or at such other address as a party may, from time to time, direct in writing, and any such notice

will be deemed to have been received if delivered, on the day of delivery, and if mailed, 7 days after the time of mailing, except in the case of mail interruption in which case actual receipt is required.

10.2 In order to expedite the delivery of any notice required to be given by either party to the other, a concurrent facsimile copy of any notice will, where possible, be provided to the other party but nothing in this section, and specifically the lack of delivery of a facsimile copy of any notice, will affect the deemed delivery provided in section 10.1.

10.3 The delivery of all money payable to us under this Agreement will be effected by hand, courier or prepaid regular mail to the address specified above, or by any other payment procedure agreed to by the parties, such deliveries to be effective on actual receipt.

ARTICLE 11 - MISCELLANEOUS

11.1 No provision of this Agreement will be considered to have been waived unless the waiver is in writing, and a waiver of a breach of a provision of this Agreement will not be construed as or constitute a waiver of any further or other breach of the same or any other provision of this Agreement, and a consent or approval to any act requiring consent or approval will not waive or render unnecessary the requirement to obtain consent or approval to any subsequent same or similar act.

11.2 No remedy conferred upon or reserved to us under this Agreement is exclusive of any other remedy in this Agreement or provided by law, but that remedy will be in addition to all other remedies in this Agreement or then existing at law, in equity or by statute.

11.3 The grant of a sublicence, assignment or transfer of this Agreement does not release you from your obligation to observe and perform all the provisions of this Agreement on your part to be observed and performed unless we specifically release you from such obligation in our consent to the sublicence, assignment or transfer of this Agreement.

11.4 This Agreement extends to, is binding upon and enures to the benefit of the parties, their heirs, executors, administrators, successors and permitted assigns.

11.5 If, due to a strike, lockout, labour dispute, act of God, inability to obtain labour or materials, law, ordinance, rule, regulation or order of a competent governmental authority, enemy or hostile action, civil commotion, fire or other casualty or any condition or cause beyond your reasonable control, other than normal weather conditions, you are delayed in performing any of your obligations under this Agreement, the time for the performance of that obligation will be extended by a period of time equal to the period of time of the delay so long as

(a) you give notice to us within 30 days of the commencement of the delay setting forth the

nature of the delay and an estimated time frame for the performance of your obligation; and

(b) you diligently attempt to remove the delay.

11.6 You acknowledge and agree with us that

(a) this Agreement has been granted to you on the basis that you accept the Land on an "as is" basis;

(b) without limitation we have not made, and you have not relied upon, any representation or warranty from us as to

(i) the suitability of the Land for any particular use, including the use permitted by this Agreement;

(ii) the condition of the Land (including surface and groundwater), environmental or otherwise, including the presence of or absence of any toxic, hazardous, dangerous or potentially dangerous substances on or under the Land and the current and past uses of the Land and any surrounding land and whether or not the Land is susceptible to erosion or flooding;

(iii) the general condition and state of all utilities or other systems on or under the Land or which serve the Land;

(iv) the zoning of the Land and the bylaws of any government authority which relate to the development, use and occupation of the Land; and

(v) the application of any federal or Provincial enactment or law to the Land;

(c) you have been afforded a reasonable opportunity to inspect the Land or to carry out such other audits, investigations, tests and surveys as you consider necessary to investigate those matters set out in subsection (b) to your satisfaction before entering into this Agreement;

(d) you waive, to the extent permitted by law, the requirement if any, for us to provide you with a "site profile" under the *Environmental Management Act* or any regulations made under that act;

(e) we are under no obligation, express or implied, to provide financial assistance or to contribute toward the cost of servicing, creating or developing the Land or the Improvements and you are solely responsible for all costs and expenses associated with your use of the Land and the Improvements for the purposes set out in this Agreement; and

(f) we are under no obligation to provide access or services to the Land or to maintain or improve existing access roads.

11.7 You agree with us that nothing in this Agreement constitutes you as our agent, joint venturer or partner or gives you any authority or power to bind us in any way.

11.8 This Agreement does not override or affect any powers, privileges or immunities to which you are entitled under any enactment of the Province of British Columbia.

The parties have executed this Agreement as of the date of reference of this Agreement.

SIGNED on behalf of **HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA**
by the minister responsible for the *Land Act*
or the minister's authorized representative

Minister responsible for the *Land Act*
or the minister's authorized representative

SIGNED on behalf of
CORPORATION OF THE VILLAGE OF PEMBERTON
by its authorized signatories

Authorized Signatory James Linklater
Acting Mayor

Authorized Signatory Sheena Fraser
Corporate Officer

LEGAL DESCRIPTION SCHEDULE

THOSE PARTS OF LOTS 8 AND 20, DISTRICT LOT 165, LILLOOET DISTDRICT, PLAN 883, CONTAINING 2.00 HECTARES, MORE OR LESS