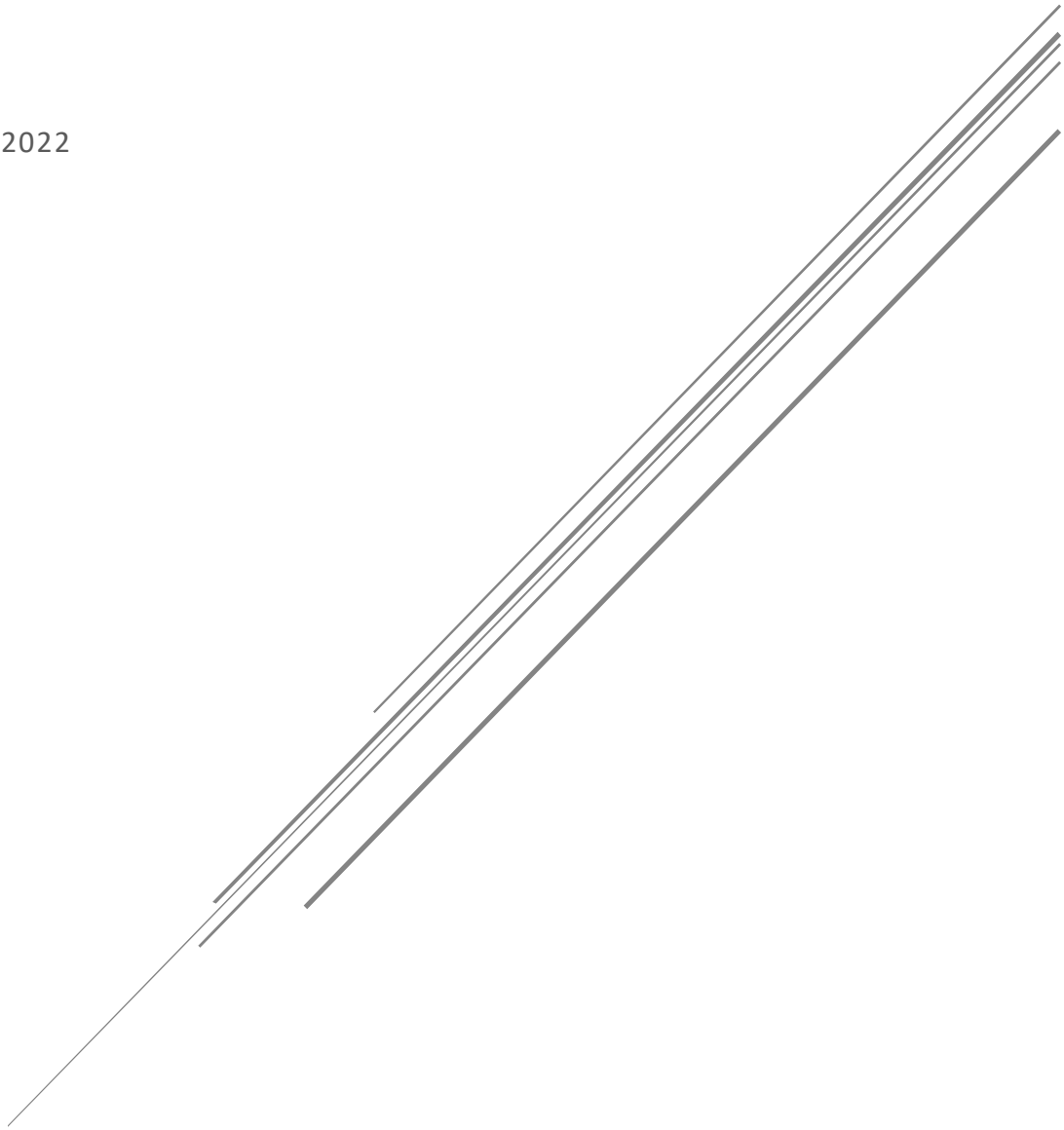
KPU | Institute for Sustainable Food Systems

FOODLANDS TRUST BUSINESS CASE

February 2022



Prepared for: Capital Regional District
Prepared by: KPU Institute for Sustainable Food Systems

Capital Regional District
Foodland Trust Business Case

Table of Contents

Figures

Tables

Acknowledgements

We work, study, and live in a region south of the Fraser River which overlaps with the unceded traditional and ancestral lands of the Kwantlen, Musqueam, Katzie, Semiahmoo, Tsawwassen, Qayqayt and Kwikwetlem peoples.

The Institute for Sustainable Food Systems would like to thank all the Capital Regional District (CRD) Staff and liaisons. These people provided support, guidance, and valuable feedback throughout all stages of the project. Gratitude to Emily Sinclair, Jeff Weightman, and Nikki Elliott.

We would also like to thank the members of the Regional Food and Agriculture Task Force (RFATF) who provided their insight and feedback throughout the project. We thank them for participating in the advisory group sessions. Gratitude to Emily Carmichael, Linda Geggie, Pierre Lachetti, Virginie Lavallee-Picard, Bob Maxwell, and Gerard Leblanc.

We would also like to thank fellow Kwantlen Polytechnic University staff for their support on this project. Gratitude to Kent Mullinix and Wallapak Polasub.

Report Prepared by:

Caroline Chiu (Project Manager)
Jenn Cline (Research Associate)
Kent Mullinix (Director)

Corresponding Authors:

Kent Mullinix (Director)
Wallapak Polasub (Senior Research Associate)

Executive Summary

In 2016 the Capital Regional District (CRD) Board approved the Regional Food and Agriculture Strategy (RFAS) and appointed a Regional Food and Agriculture Task Force (RFATF) to support the advancement of regional food and agriculture objectives. After completing *the Capital Regional District Regional Foodland Access Program Feasibility Study* (2019 feasibility study), staff were directed to canvas municipalities to assess interest in supporting a foodlands trust in partnership with a non-profit organization and identify lands that may be available for inclusion in the trust.

Three land parcels were initially identified for evaluation and assessment on appropriate use for a Foodland Trust Incubator Program.

1. Newman Farm - Central Section
2. Panama Flats - Northern Section
3. Bear Hill Parcel - located on 5920 Patricia Bay Highway

Building off the 2019 feasibility study, Kwantlen Polytechnic University's (KPU) Institute for Sustainable Food Systems (ISFS) produced this business case and accompanying site assessments to understand further technical and cost information related to establishing a Foodlands Trust Incubator Program (Foodlands Trust).

The three land parcels are located within the traditional Coast Salish Territory. As this project moves forward, the CRD and its partners have committed to engaging meaningfully with neighbouring First Nation communities to understand ways to incorporate traditional and Indigenous foodways on the parcels. In November 2021, the project team presented initial project updates to the W̱SÁNEĆ Leadership Council Society. The CRD received valuable feedback indicating that the Nations are interested in being involved.

Incubator Program Components

A review of other successful incubator programs in Canada and the USA identified many standard features that contribute to program success. This informed the financial analysis:

1) Affordable lease rates in current times of high land prices.
2) Peer mentorship to provide valuable learning experiences.
3) Shared infrastructure and tools, which are high-cost items for new farmers.
4) Dedicated staff to operate and maintain the site and provide support for incubator farmers.

Parcel Site Assessments

The strengths and weaknesses of each parcel were evaluated based on the following criteria: agriculture capability, infrastructure set up, drainage, location, soil texture and topography and financial investment. A summary of the results is as follows:

- **Newman Farms - Central Section:** This parcel is adjacent to another community farm and is gated from public access, so it would solely be used for incubator farming and planned activities. This central section of the parcel has a good potential for mixed vegetable, livestock, and orchard production; it is 6.2-acres naturally divided into five sections with varying soil types. This parcel has only been used for livestock grazing in the past, thus lacking in basic infrastructure set up (i.e., water and power connection). A significant financial investment is needed to develop this parcel as a farm incubator program.

- **Panama Flats - Northern Section:** This parcel is marshland and is prone to severe flooding in the fall and winter months, thus potentially causing significant delays in the farming season. Experts recommend investment in drainage improvements. While it has high agriculture potential for mixed vegetable production, the cost to prepare and establish this site is significant. The parcel can continue to be utilized by the public for walking trails and bird watching, with potential for community garden spaces. Its centralized location offers close access to markets for new farmers and can build a food hub for the local neighborhood.

- **The Bear Hill Parcel:** Located on the eastern edge of CRD's Bear Hill Regional Park, this parcel is the previous site of the City of Victoria's tree nursery and is designated under the Agricultural Land Reserve (ALR). It is the smallest of the three parcels and already has required basic infrastructure installed (water and power), which significantly lowers the site development costs, only requiring some initial amendments to build the soil. Natural drainage is good, with varying topography that could allow for growing mixed vegetables, orchards, livestock and establishing indigenous food systems. The entire site has perimeter fencing in place.

Financial Analysis

Each site was assessed individually with full costing of infrastructure, equipment, human resource, and variable operating costs. Two financial scenarios were created - Scenario A, where the parcels are established with the full suite of infrastructure and tools, and Scenario B, which represents a lower and phased capital investment. Should all three parcels move forward, there is significant potential for administrative efficiencies.

This analysis provides a concept level estimate of anticipated and ongoing capital and operating expenses. The following articulates a base level of revenue from land parcel rentals only and makes assumptions on CRD and external funding sources per parcel. Initial capital investments have not been included in the annual program costs and revenues, nor have shared costs or revenues across the parcels been included. Once a funding model is determined, a further detailed financial analysis is required.

Scenario A

	Panama Flats	Newman Farm	Bear Hill Parcel
Initial Capital Investment (Year 1)	$306,769	$305,123	$270,941
Annual Program Costs and Revenues			
Operating Cost	$180,392	$180,448	$180,112
Gross Revenue*	$193,037	$193,387	$191,289
Net Revenue	$12,645	$12,939	$11,177

**Assumes $120,000 annual CRD funding, 35% funding from external grants & land leasing revenue for each individual parcel.*

Scenario B

	Panama Flats	Newman Farm	Bear Hill Parcel
Initial Capital Investment (Years 1 & 3)	$207,089	$205,443	$171,261
Annual Program Costs and Revenues			
Operating Cost	$175,744	$175,800	$175,464
Gross Revenue*	$191,411	$191,760	$189,663
Net Revenue	$15,666	$15,960	$14,198

**Assumes $120,000 annual CRD funding, 35% funding from external grants & land leasing revenue for each individual parcel*

Non-Profit Organizations and Governance

The 2019 *Capital Regional District Regional Foodland Access Program Feasibility Study* recommended that the governance structure for the regional Foodland Trust should be a hybrid model between the CRD and a non-profit organization (NPO). The CRD would be responsible for high-level administration oversight in terms of legal, policy, and fundraising matters, whereas the NPO would lead the day-to-day operations of managing the incubator farmers and maintaining the sites. A hybrid model would allow the CRD to provide steady financial support contributing to wage subsidy and operating costs, while the NPO would generate revenue through incubator fees and access to external grant funding. The region hosts a few NPOs that have experience in managing food lands, incubator and community programs that may be a suitable partner in this endeavor.

Recommendations

Incubator and land leasing programs effectively support aspiring farmers, thus contributing to the advancement of the local food system. The Bear Hill parcel would be the best option for a pilot parcel as it requires the lowest initial capital investment cost for the establishment, the plots are ready to be farmed, and it has supportive partners. The parcel does require zoning approvals and legal agreements between existing users to be sorted before use. Newman Farm would be ideal because of its location, privacy, and agricultural history; however, it would require significant initial capital investment. The Panama Flats parcel remains a potential site but requires extensive infrastructure investments. W̱SÁNEĆ Leadership Council representatives also indicated that this land is a critical wetland habitat and

harvesting area. It is recommended that additional community and First Nation consultation occur before inclusion.

Introduction

The purpose of this business case is to understand further financial implications for the CRD pursuing a Foodland Trust Incubator Program (Foodland Trust), building off the 2019 Capital Regional District Regional Foodland Access Program Feasibility Study. The goal of the Foodland Trust is to utilize public lands to prove a concept that would empower viable farm business operations and community-led harvesting and growing. Ultimately, the aim is to increase access to agricultural land for new aspiring farmers in the capital region. As this project moves forward, the CRD and its partners intend to engage with these First Nation communities in decision making of the Foodland Trust and invite them to incorporate traditional and Indigenous food systems on the parcels.

Incubator farms are becoming increasingly necessary and helpful in providing start-up support for new farmers due to high land prices and high capital costs. An incubator farm offers an accessible location for new farmers to develop food growing skills, "learn business and marketing skills, and develop an interconnected relationship with the regional agriculture company. It is designed to be an interim step that fosters entrepreneurial skills for new farmers to eventually develop independent businesses on other agricultural lands" (Metrovancouver, 2011). In Canada, there are only a handful of incubator programs, including two in the capital region - Haliburton Community Farm in Saanich, BC and Sandown Centre for Regenerative Agriculture (Sandown Centre) in North Saanich, BC

Farming Trends, Challenges and Benefits on Vancouver Island

Access to farmland is one of the biggest challenges for current and new farmers trying to enter the market. The cost of purchasing farmland is prohibitive to most farmers, and agricultural land values continue to increase in the capital region (Uplands Consulting, 2019, Farm Credit Canada, 2021). Land prices make it unattainable for many entrant farmers or those wishing to expand their existing farm businesses. Smaller acreages tend to sell at a higher cost per acre than larger properties, resulting in small-scale farmers being disproportionally affected (Smith D., 2019). A 2016 report found that farmers would need to increase their prices by up to 70% if they had to be paying off mortgages on agricultural land (Sussman, Dorward, Polasub, Mullinix, & Mansfield, 2016). Land leasing for farmers is not a new trend in BC or on Vancouver Island; it is a long-standing practice and vital to many farm businesses, small and large alike. For example, John and Lorriane of Parry Bay Sheep Farm in Metchosin own 2-acres and lease 1000 acres in total; they have been farming like this for 40 years. Bill Zylmans of W & A Farms in Richmond is farming 400 acres and owns 70 of them; he also subleases other farmers for rotational purposes and adds diversity to his cover cropping system. Both farms prefer long-term leases, a minimum of 5-10 years with a first refusal purchasing option. This land leasing structure makes land and infrastructure improvements worth the investment for farmers (Grimmer, 2021).

For the 2019 feasibility study, farmers in the capital region were consulted to understand better if a government-subsidized incubator farm program for new farmers utilizing a Foodland Trust model would give an unfair advantage to new entrant farmers. This was not identified as a concern to these farmers due to the following reasons (Upland Agricultural Consulting, 2019):

- Rising cost of land
- Competitive lease rates

- Historical resources are no longer available and accessible
- Lack of mentorship opportunities
- Good farmers take time to grow
- Rural extension opportunities
- Lack of assets on leased land
- It takes a village

Underutilized agricultural land can and should be farmed in ways that support their surrounding ecosystems in this unprecedented time of climate change. The natural assets within farmland support the following environmental benefits (Upland Agricultural Consulting, 2019):

- Wildlife habitat
- Soil formation and nutrient cycling
- Climate regulation
- Water purification
- Flood regulation
- Pest management
- Pollination

This program can create accessing land opportunities for farmers, foster current relationships and develop innovative partnerships within the capital region. This action could demonstrate an approach to affect policy change around ALR land, land pricing, and increased agricultural use of unused land parcels. The CRD could be leaders in creating a Foodland trust program on the island.

Project History

The CRD's RFAS was approved in December 2016, and its first recommendation was to create a Regional Food and Agriculture Task Force (RFATF). The RFATF then prioritized addressing the recommendation related to increasing access to farmland within the CRD (Capital Regional District, 2016).

On April 12, 2017, the CRD Board directed that the RFATF "continue to examine a range of options for assisting agriculture in the region together with the potential costs and report back for the Planning and Protective Services Committee's decision." On September 13, 2017, the Board approved a $30,000 budget to fund a regional Foodland access feasibility study. On February 10, 2018, the Board approved terms of reference, and a contract was subsequently awarded to Uplands Consulting Ltd.

Over the course of 2018, the Capital Regional District Regional Foodlands Access Program Feasibility Study was completed. Conducted through research and discussions with new and established farmers, various NPOs, incubator farmers, other farmland trusts, and local/provincial government representatives, it examined seven land access tools used by government and NPOs:

1. Land trusts
2. Land banks
3. Land connecting services
4. Incubator farms

5. Farm tax policies
6. Farmland ownership restrictions
7. Regulation of farm leases

These tools were assessed based on:

- Relative Cost: Amount of sustained support required.
- Lead Agency: Organizational leadership required.
- Timeframe: Short (1–3 years), medium (3–5 years), or long-term (>5 years).
- Level of Effort: Local government capacity.
- Level of Impact: Relative amount of land and/or farmers that will benefit.

The study ranked the land trust and land bank tools first and second for the greatest potential impact to improve long-term land access.

At their April 10, 2019 meeting, the CRD Board directed staff to assess municipal interest in a Foodland Trust and to identify potential municipal lands that could be made available. The District of Saanich, District of Central Saanich and CRD Regional Parks division identified potential lands for consideration. Other municipalities, while interested, required more information before confirming support. Ultimately, three land parcels were identified.

In November 2019, the CRD partnered with Kwantlen Polytechnic University's (KPU) Institute for Sustainable Food Systems (ISFS) to conduct the Foodland Trust business case to provide additional information specifically on the Foodland Trust model based on three initial land parcels.

Kwantlen Polytechnic University - Institute for Sustainable Food Systems

As an applied research and extension unit investigating and supporting regional food systems as key elements of sustainable communities, the KPU's ISFS was selected to conduct this business case. Community collaboration is central to the ISFS' approach, as evidenced by consistent work with community activists and agencies, leaders, Indigenous Nation governments, settler governments, and other academics. In alignment with long-held ISFS values, objectives and programmatic foci, the ISFS has prioritized serving and supporting Indigenous Nations and communities to achieve their food sovereignty aspirations. Similarly, the ISFS strives to manifest reconciliation into all our work.

The ISFS has extensive experience and knowledge in developing and providing agriculture training programs and services that support the next generation of farmers through our flagship farm school programs since 2010. The farm schools also operate incubator farmland programming, allowing graduates to access incubator plots with shared resources and mentorship to start their own farm businesses.

Since the start of KPU's farm school programs, over 160 students have been enrolled, among which, 35 graduates (~20%) have participated in the incubator component and started their own farm business operations. Many students choose ISFS programs over others because of the incubator plots, which

provide significant leverage for new farmers. The ISFS' farm school and incubator programs have gained a positive reputation provincially and nationally as many First Nation communities and other universities have sought advice on farm school development.

Research on Land Leasing Incubator Models

There is a precedence for creating a Foodland Trust, and it is something that has undergone rigorous research over the past decade by many organizations, including CRFAIR (Capital Region Food and Agriculture Initiatives Roundtable), Farm Folk City Folk, the Centre for Sustainable Food Systems at UBC Farm, Young Agrarians, and many more. See *Appendix A - Past Research on Foodland Trust Reports* for information published by these organizations.

Several successful incubator farm programs in Canada and the USA have been used as a point of reference for the proposed Foodland Trust Incubator Program. Refer to *Appendix B – Examples of Incubator Programs* for a description of the following programs, including a detailed list of the provided equipment and infrastructure and the membership fees:

- Plate-forme Agricole de l'Ange-Gardien (Gatineau, Quebec)
- Kwantlen Polytechnic University Farm Schools – Incubator Programs (Richmond & Tsawwassen, British Columbia)
- Viva Farms (Skagit Valley, Washington)
- Haliburton Community Organic Farm (Victoria, British Columbia)

Each program is different as they are designed to cater to the needs of their specific community. However, some common aspects lead to the success of these programs, such as:

- Affordable lease rates in current times of high land prices.
- Peer mentorship to provide a valuable learning experience.
- Shared infrastructure and tools, which are costly items for new farmers.
- Human resource needs require dedicated staff to operate and maintain the site and provide support for incubator farmers.

A summary of five former incubator farm businesses that have stemmed from the incubator programs noted above is also provided in *Appendix B.*

Common Benefits of Incubator Farm Programs

An incubator-style program is effective for aspiring farmers who wish to enter the market. Program evaluations from KPU's incubator farm programs have shown that an incubator program eliminates a level of start-up risk for new farmers and provides them time to transition into a full-time farming career. Feedback indicates that peer support from being on incubator farmland is essential because farmers can learn from each other and are less lonely when starting out. Aside from the sharing of infrastructure and equipment, the two KPU farms are located close to city centers, allowing easier access to markets while building their brand. On a community level, the public is excited about the increased production of local vegetables and land in agriculture use. An incubator program eliminates a

massive capital investment that many new farmers would not be able to afford, significantly reducing the barrier to entry.

Typical benefits of an incubator farming program are the support and collaboration between farmers and the powerful sense of pride in collectively striving for the same goal: to grow and provide high-quality and fresh organic vegetables to the local food system. Many Plate-forme Agricole de L'Ange-Gardien program farmers claimed that the social benefit is just as significant as the financial benefits. An incubator program allows for economic savings such as pooling resources to bulk-purchase supplies and time savings by helping each other with small tasks and sharing efficient and successful growing practices. The strong network of support and collaboration advances socio-ecological resiliency in the food system (Kenney, Dale, & Newman , 2016).

Incubator farm programs can vary widely on the length and educational training offered, but all aim to address:

- Affordable access to land; Reduced capital cost for farmers starting their business by providing shared infrastructure, tools, and equipment;
- Community support while building farming skills and farm businesses.

Operation Design Recommendations

This operation design is appropriate for the three land parcels under consideration in this business case: Newman Farm, Panama Flats, and Bear Hill Parcel. It will also apply to any future parcels put into the program.

Plot Size

KPU recommends that each farmer be provided between 0.5-acre to 1-acre plots. This recommendation is based on the KPU, Viva Farms, and the Sandown Centre land leasing model. The goal is to set farmers up for success and provide a manageable plot size. This plot size is appropriate for at least the first three years of leasing while the farmers are in a career transition, potentially working part-time, developing their farming skillset and building a business. The future incubator program manager should create evaluation milestones that the farmers must achieve before being offered more land based on the farmer's capacity, business and farming goals and that the land has been managed ecologically and sustainably.

Another consideration is the space required for infrastructure setup, including a cooler and washing station unit, a storage shed for tools, and a bay for larger machinery. It is assumed that these items will take up between 0.5 and 1-acre.

Lastly, the plot sizes offered must consider the layout and distribution of land within each parcel. Given the assumption that 1-acre is for infrastructure and each farmer is given between 0.5 to 1-acre plots, Newman Farm and Panama Flat can potentially fit 5 to 10 farmers, and Bear Hill Parcel can have 4 to 8 farmers.

Infrastructure

Based on secondary research, interviews with incubator farmers, and KPU's experience of running two incubator programs, the minimal suite of communal infrastructure and machinery, tools and equipment needed for a successful incubator program includes the following items:

- Packing unit – a food-safe space for farmers to pack produce.
- Cooler – cooler storage for produce to allow and encourage farmers to sell their produce at markets and other sales avenues.
- Washing station – a food-safe space for farmers to wash produce.
- Propagation house – a high tunnel propagation greenhouse for farmers to start and store their seedlings.
- Storage shed – storage unit for shared equipment, machinery, and tools.
- Drainage – site-dependent, but drainage tiles or pipe installation may be needed if the parcel is prone to flooding due to fall and winter rainfall.
- Machinery and equipment:
    - 50-55hp ride on tractor with the basic implements (plow, disc, rototiller, mower) is needed to cultivate new land, prepare land on a large scale, and maintain the site.
    - A walk-behind tractor with basic implements (rotary plow, rototiller, mower, disc harrow) is perfect for small-scale farmers to use on an individual basis for land management, including tilling, mowing, bed building, and cover cropping.
    - Weed whacker for managing overgrown grass and weeds in areas where the mower cannot reach.
- Hand tools – this includes basic hands tools such as shovels, rakes, wheelbarrows, weeding hoes, seeders.
- Power access – to power the wash pack unit and the cooler.
- Water access – access to safe, clean water for irrigation hookups and post-harvest washing of crops.
- Plot irrigation – each plot to have individual irrigation hook up.
- Pick-up truck – for the site caretaker to use for hauling equipment, buying supplies, and travelling between sites.

The list of communal infrastructure, equipment and tools will vary depending on the budget; however, this is the minimum suite of items recommended. For the scope of this business case, the budget for each parcel is evaluated individually; however, there could be opportunities for a more collaborative approach with some shared communal tools and infrastructure between the parcels. Depending on the distance between parcels, large items like a ride-on utility tractor could be shared amongst the various parcels to reduce capital investment. For example, at Viva Farms, equipment such as tractors is shared as each site is only 1 mile from each other. It is customary for some farms to partner with and hire an existing farmer with a tractor to do soil cultivation in the spring and fall. For example, the Farmland Trust Society, which manages Newman Farm's upper section, hires (in kind) a neighbor farmer to cultivate a large land area every year in the spring and fall. It builds relationships amongst the farming community and mitigates the need for everyone to have a tractor.

The three parcels under evaluation and assessment are more than 1 mile between them. However, it is reasonable to assume that Newman Farm and Bear Hill share a utility tractor (with only 4.3 miles between). Panama Flats is 7.8 miles from Bear Hill and would require its own utility tractor. Further, all parcels could share a single packing and cooler unit between the three parcels, and a single pickup truck, utilized by the site caretaker.

Tenant Transitions

It is essential to create a straightforward process for transferring infrastructure investments made by an outgoing farmer tenant to the incoming farmer to the same plot of land. The Foodland Trust Feasibility Program report outlined a straightforward way to navigate and negotiate the land leases to compensate for any investment a tenant has contributed to that land. A few important components of a lease agreement (Upland Agricultural Consulting, 2019):

- Leases can be crafted to facilitate the transfer of capital investments from one lessee to the next.
- It will be important what improvements the lessee will be responsible for (i.e., soil health maintenance) and what the program manager will oversee (i.e., maintaining perimeter fences, mainline irrigation maintenance and repairs, etc.).

The following options may be applied to lease terms once the lease expires, as per the feasibility study (Upland Agricultural Consulting, 2019):

1. The lessor (e.g., local government and/or NGO) can have the investments (and associated depreciations) assessed by a neutral third party, and a lump-sum payment is made to the farmer to buy them out. The lessor can later recoup this payment by charging a higher lease rate to the next farmer, acknowledging the increased value of the infrastructure available.
2. The outgoing farmer can sell the infrastructure directly to the incoming farmer.
3. The outgoing farmer can take the infrastructure with them to a new location.
4. A combination of the above can occur.

It will be essential for the lessee to keep detailed purchase records and receipts of all land investment improvements to facilitate a smooth transition of infrastructure investments. The transfer must be directly included in and throughout the lease agreement (Upland Agricultural Consulting, 2019).

The opportunity to transfer infrastructure and other investments from one lessee to the next can benefit both farmers. A buy-and-sell relationship between incoming and outgoing incubator farmers is encouraged at KPU farm schools, and farmers are often grateful for the opportunity. This opportunity benefits both parties economically, and this upcycling/recycling of materials creates less waste in the environment.

Parcel Assessment and Evaluation

Each of the three land parcels was objectively evaluated on their suitability for being developed as an incubator site for new entrant farmers:

1. Newman Farm - Central Section

2. Panama Flats - Northern Section
3. Bear Hill Parcel

All three land parcels were evaluated as separate entities and considered in the larger context of a potential multi-site incubator farm program. The assessment includes recommendations for each land parcel. A detailed site assessment report was completed for each parcel and is provided separately from this document; refer to each assessment for further information.

Each site was evaluated based on the following criteria:

- Its current and future agriculture production possibilities: soil and site characteristics.
- Its current and future infrastructure capacity: utility access (water and power), buildings, fencing, and road access.
- Its historical and current social context.

At each parcel, the soil was sampled to understand the soil texture and characteristics. Results are provided in the summary results below, and further explanation is provided in Appendix C – Soil Texture Summary.

Summary Results - Newman Farm Parcel

The Newman Farm, a 16-acre property, was cared for and managed as a subsistence farm for a century before being gifted to the District of Central Saanich in 2003 from the Newman Family. It is divided into three sections: the upper farm, the central farm, and the lower farm. The district has invested significant resources into determining the best way to move forward with the Newman Farm, including developing the Newman Farm Master Plan in 2007. The guiding vision for the Newman Farm should be considered in this project:

> *"The community of Central Saanich will care for Newman Farm in a manner that honours the legacy of the Newman Family, reveals our agrarian heritage, demonstrates our values, and involves and considers our community"* (Masselink Environmental Design, 2007).

The lower farm section is currently being used and maintained as a public park; the Farmland Trust Society manages the upper farm section. It is proposed that the central farm section, a 6.2-acre parcel, be utilized by new farmers for incubator farmland. During the Newman Farm Master Plan process, neighbor and community consultation a desire to limit public access to the central farm section.

The following provides a summary. Refer to the separate site assessment report for further details.

Figure 1: Newman Farm central section

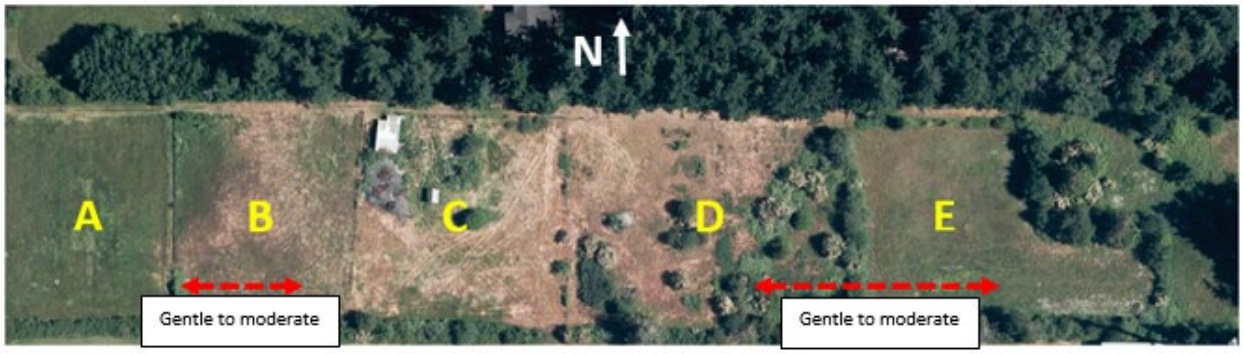


Table 1: Newman Farm blocks soil texture and characteristics

Location	Soil texture	Soil pH	Organic Matter %	Carbon: Nitrogen	Phosphorus mg/kg
Block A	Loam	5.4	8	11	12
Blocks B, C, and D	Sandy loam with gravel/rocks	5.3	11.6	15	250
Block E	Loam with rocks	5.8	7.2	14	18

Table 2: Newman Farm site characteristics

Characteristics	
Parcel Size	6.2 acres.
Topography	3-5% slope
Agricultural capabilities	A – most suitable for mixed vegetable production, some flooding thus possibility of a shorter season; B, C, D – not suitable for mixed vegetable production (natural soil-bound crop use) because the soil is primarily in Qualicum and Brigantine soils (Bob Maxwell, 2021). However, raised beds, lasagna and/or Hugelkulture type production could work for vegetable production. E – possible to have mixed vegetable production, but it is rocky. It may need some initial investment in topsoil/compost to build the soil.
Public access	No.
Water access	No – a small well available on site but will need city water connection and mainline set up for each individual plot.

Power access	Potential municipal access.
Road access	Yes – but gated.
Opportunity for Indigenous Foodways	W̱SÁNEĆ Leadership Council to inform.
Infrastructure on site	An old barn building on Block C will need repair for use.
Washing stations unit	Potentially in block C.
Machinery and tools	Potentially in block C.
Drainage need	Ideally, otherwise a shorter growing season. Installing drainage tile in Block A would be highly recommended.
Access to markets	Central location, close to Patricia Bay highway, offers close access to potential markets.
Community space	No – community discourages public access to the site.

Overall analysis and recommendations

This small site has an interesting diversity of production opportunities: mixed vegetables and fruit trees. There will be a significant cost getting the utilities and infrastructure on-site (water and power) to ensure it is suitable for hosting an incubator program. However, it represents an opportunity for farmers interested in perennial crop production and livestock raising to do so on land that has been utilized that way in the past, honoring that history and keeping the land in agricultural stewardship. There are also opportunities for incorporating Indigenous Food Systems, based on input from local First Nations.

Summary Results - Panama Flats Parcel

The District of Saanich purchased the Panama Flats property in 2011 to secure it for many reasons: to enhance food security in the area. The District published a concept plan of land use in 2014 for the entire parcel, and it was recommended that some of the lands be used for food production; 21-acres of the flats are designated ALR (LADR Landscape Architect Inc, 2014). There has been substantial community consultation on potential land use plans and significant concern about ultimately converting the flats to agricultural use. The flats are a critical wetland habitat for specific plants, insects, and animals and play a key role in storm water management throughout the year. It is also a popular recreational area for residents. As proposed, the recommendation to include this as an incubator site would have a minimal impact on the overall use of the land and would not change it from being a publicly accessed site.

Refer to the separate site assessment report for more information.

Figure 2: Panama Flats

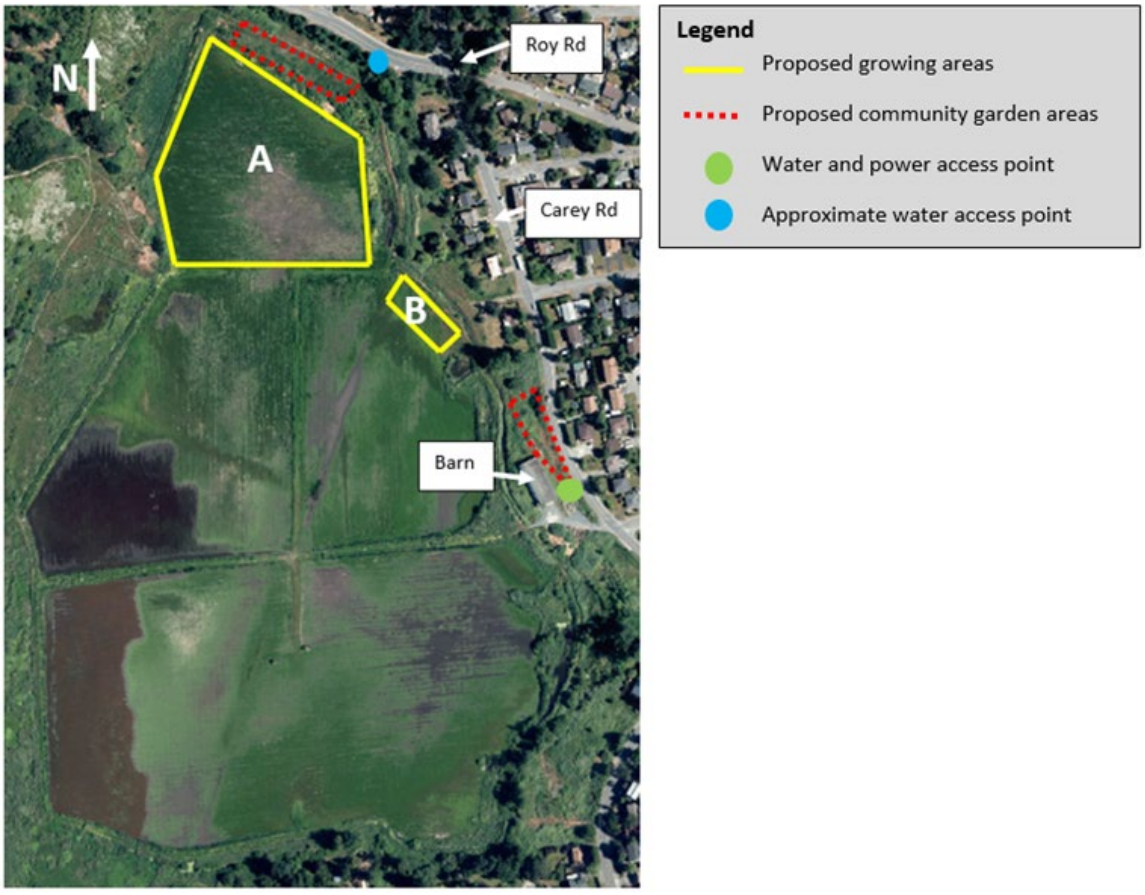


Table 3: Panama Flat Site Characteristics

Characteristics	
Parcel size	Block A - 5.5-acre parcel Block B - ½ acre parcel
Topography	Very flat.
Soil characteristics	Soil texture: Silty clay loam Soil pH: 5.0 Organic matter %: 16 Carbon nitrogen: 13 Phosphorus mg/kg: 210
Agricultural capabilities	Without proper drainage, the parcels are heavily flooded in the fall and winter months. Without drainage, the growing season is short, from June to September/October. When the parcels are dry, they are suitable for mixed vegetable operations or animal husbandry.
Public access	Yes - a communal recreational space.
Water access	Block A: Yes – Mainline on the northern edge to the city mainline on Roy Rd; previously used for agriculture irrigation by previous owners. This mainline would need to be extended further into the flats. Block B: Yes – Connected to the barn through the city main line on Carey Rd. It would need to extend this into the flats.
Power access	Yes – Line from an electrical pole on Carey Rd is connected to the barn.
Road Access	Yes, but it may need additional infrastructure for tractor access.
Opportunity for Indigenous Foodways	W̱SÁNEĆ Leadership Council to inform.
Infrastructure on site	Old barn building connected to power and water currently used by the district.
Washing stations unit	A potential unit placed next to the old barn.
Machinery and tools	Potential to store equipment in the old barn.
Drainage need	Yes, see Panama Flats site assessment for the whole drainage plan.

Access to markets	In the center of a residential area, could have a potential market stand by the old barn.
Community space	Site with public access with opportunities for a community growing space, educational activities, and community engagement; marked in red in *Figure 3: Panama Flats*

Overall analysis and recommendations

There are many essential factors analyzed for the overall recommendations for Panama Flats agricultural capability and potential of being used as an incubator program site:

- the soil's pH of 5.0, organic matter percentages, and its seasonal inundation of water
- the strong presence of swamp grasses and canary reed grass
- the need for drainage infrastructure on site
- the social, political, and community context, current and historical

Further, initial feedback in November 2021 from W̱SÁNEĆ Leadership Council Nation members indicated a strong preference to see Panama Flats restored for wetland conservation because of its function as storm water management and its historical and cultural function as a place of harvest and waterfowl hunting for members. There is concern that turning the Flats into agriculture production will remove these natural services for the community. The CRD will continue conversations with the Leadership Council during the project's subsequent phases.

Bringing new farmers onto such a site without addressing the challenges mentioned above would not be advisable. Farming is a challenging profession to begin with, and bringing inexperienced growers onto land with good soil but delayed growing seasons, flooded winters, and challenging perennial 'weeds' would not be setting the farmers up for success. Addressing these challenges will require high costs and time that can hinder farm operations. The recommendations above must be addressed before starting an incubator farm program, specifically implementing drainage infrastructure. There are also opportunities for incorporating Indigenous Food Systems, based on input from local First Nations.

Summary Results – Bear Hill Parcel

The 5-acre parcel is located at 5920 Patricia Bay Highway and is a cleared forested area on the eastern edge of Bear Hill Regional Park that is designated Agricultural Land Reserve (ALR) within the District of Saanich. The property is owned by the CRD as part of the regional parks system and has a long-term lease agreement with the City of Victoria, who previously used it for a tree nursery. In 2013, the City of Victoria began sub-leasing the land to the Garry Oak Meadows Preservation Society (GOMPS) who started their own small nursery on site in 2017. GOMPS currently operates on the same site and has weekly volunteers on site, and while supportive, are weary of having the land being fully open to the public. Should the parcel be subdivided from the Bear Hill Regional Park, a rezoning with the District of Saanich would be required. This social history and context informed recommendations for the use of the site.

The following provides a summary, refer to the separate site assessment report for further details.

Figure 3: Bear Hill Parcel

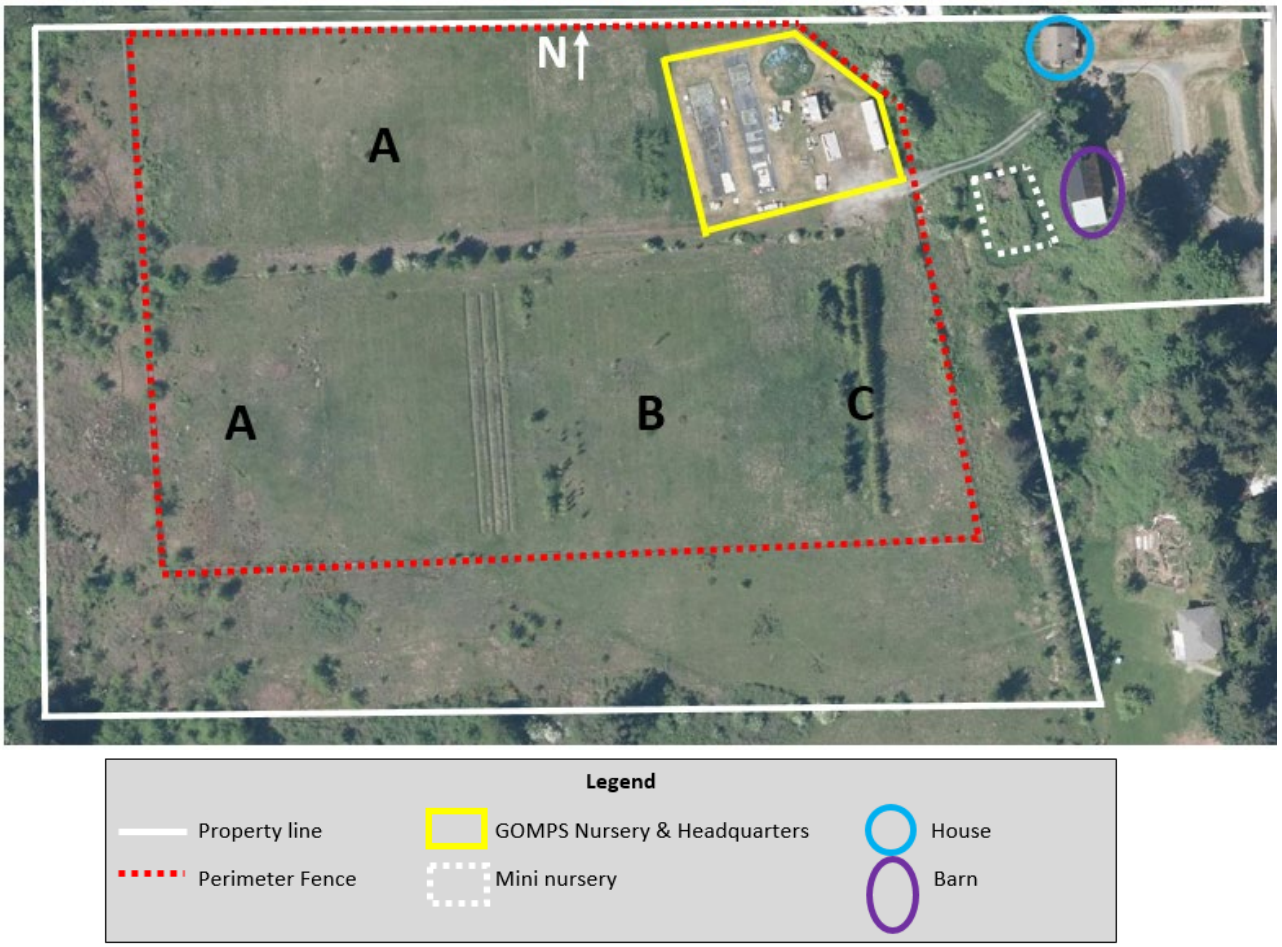


Table 4: Bear Hill Parcel Site Characteristics

Characteristics		
Parcel Size	Approximately 5 acres	
Topography	Flat with sloped areas (average slope 10%; maximum 86%).	
Soil characteristics	Upper/West: Soil texture: loam Soil pH: 5.5 Organic matter %: 7.2 Carbon nitrogen: 11 Phosphorus mg/kg: 2.7	Central/Lower: Soil texture: Sandy loam Soil pH: 5.7 Organic matter %: 8 Carbon nitrogen: 14 Phosphorus mg/kg: 12
Agricultural capabilities	A – Mainly flat with minimal slope, good for mixed vegetable production; B – Large slope, suitable for perennial bushes and trees, or more permanent raised beds (too steep for tractor). Too dangerous to drive any tractor on this slope; C – Damp meadow and damp area, potential Indigenous garden (i.e. camas).	
Public access	No – 8' deer fencing around the whole parcel.	
Water access	Yes – Has main connection, main line system, and irrigations heads around the parcel.	
Power access	Yes.	
Road access	Yes.	
Opportunity for Indigenous Foodways	W̱SÁNEĆ Leadership Council to inform.	
Infrastructure on site	Shared housing building on site as office space.	
Washing stations unit	Potentially old barn area once the barn is taken down.	
Machinery and tools	Potentially old barn area once the barn is taken down.	
Drainage need	No.	
Access to markets	Off of Patricia Bay Hwy, so easy access to markets.	
Community garden space	No – preference is to limit public access.	

Overall analysis and recommendations

While its size is relatively small, it could be a good first incubator location. There are existing utilities and infrastructure on site (irrigation system, power connection, perimeter fencing) and the soil's general agricultural capacity and capability with minimal inputs needed (compost and lime). Before use, the CRD needs to determine legal, risk and administrative processes with existing users and the District of Saanich. There may also be opportunities for Indigenous Food Systems, following local First Nations input.

Evaluation of Potential Non-Profit Organization Partners

The feasibility study (Uplands Consulting, 2019) recommended a hybrid government-NPO model to manage the Foodland Trust because such a partnership can improve grant funding opportunities, effective program delivery, and land stability. The CRD can choose an existing NPO to partner with for this initiative to leverage local knowledge and resources. The 2019 feasibility study identified the Foodland Cooperative of BC, Farmlands Trust (Greater Victoria) Society and Sooke Region Farmland Trust Society as potential partners. An additional three NPOs have been considered in this evaluation: Capital Region Food and Agriculture Initiatives Roundtable, the Sandown Centre, and Haliburton Community Farm.

Table 5 provides an evaluation of each NPO based on the criteria of ***organization vision***, ***relevant experience (scope of projects), expertise in farmland management and incubator programs, and overall management capacity***. The characteristics of the subject parcels were also considered in the evaluation. The last column of the table summarizes KPU's evaluation of each NPO.

Table 5: Evaluation of potential NPO Organizations

Organization & Location	Mandate	Scope of Projects	Management Structure	KPU Evaluation
Foodland Cooperative of BC Aldergrove, BC	Secure land in trust and promote the protection of stewardship of food providing lands.	To hold farm and Foodland for the main purpose of food production.	- Board of Directors	A cooperative organization consisting of already formed organizations or farm businesses. Board consists of representatives with various skills – food policy, research, land leasing, farming, cooperatives. No capacity to manage or execute programming or a land leasing program. Not recommended as the managing NPO, but a future Foodland Trust could be a part of this Cooperative.
Farmlands Trust Society Saanichton, BC	Enhance local farming capacity by protecting local farmland: producing food for those in need, providing education, promote economic viability of farmland, and provide community access.	Newman Farm Program – a community farm growing food for donation serving the vulnerable.	- Board of Directors - Community Advisor - Farm Manager - Volunteers	The main programming is operating the charity community farm and providing food and education to the marginal population and public. They do not focus on land leasing nor support for new aspiring farmers.
Sooke Region Farmland Trust Society Sooke, BC	Acquire and preserve farmland in the Sooke region through donation, purchase, or lease. Arrange lease agreements with individuals/organizations to farm the land.	Have not executed any projects to date.	- Board of Directors - Volunteers	Intention of this Foodland trust aligns with interests of the Society. However, it seems like this NPO has limited human resource capacity and they have yet to execute any projects. No dedicated staff and fully relies on volunteers currently. Mandate is limited to Sooke region at this time.

Organization & Location	Mandate	Scope of Projects	Management Structure	KPU Evaluation
Capital Region Food and Agriculture Initiatives Roundtable (CRFAIR) Victoria, BC	Mobilize and connect efforts to develop healthy, equitable and sustainable food systems in the capital region.	Food system policy development, knowledge mobilization, and networking.	- Board of Directors	Focuses more on food system policy working and networking between organizations. Board consists of food policy experts. Does not have a focus on supporting new farmers through increasing access to farmland. No staff capacity to execute programming.
Sandown Centre for Regenerative Agriculture North Saanich, BC	To foster the next generation of farmers, improve soil health, host teaching and research, offer community food growing spaces, and enhance biodiversity.	Incubator farmland leasing, farmer mentorship, demonstration farm, and community education.	- Board of Directors - Multiple Directors - Advisors - Coordinators	Potential NPO that can take on this initiative with increased resources. Sandown Centre will have to expand their staffing team, however, they already have a branch of land leasing incubator program, so newly acquired lands could be assigned to them for day-to-day management as an extension to their incubator program. May allow for a more efficient use of resources as they already have the Board of Directors with expert advisors, and incubator farming for new farmers is also a part of their strategic planning.
Haliburton Community Organic Farm Society Saanich, BC	A community-supported certified organic educational farm aiming to be the leading model of a community-based, small scale sustainable agriculture farm.	Organic education farm, long-term land leases, food selling, education programming, volunteer programming, biodiversity, and restoration projects.	- Board of Directors, including land leasing farmer representatives	Potential NPO that could take this on this initiative - they have the knowledge and experience of already leasing land out to farmers. Although, they tend to lease out to more experienced farmers who are already farming as a career, and less leasing to aspiring farmers.

Of the NPOs evaluated in the table above, the organizations with the most potential in managing NPO for this Foodland Trust are **Sandown Centre** and **Haliburton Community Organic Farm**. Further details on the justification are below.

Sandown Centre for Regenerative Agriculture

Main priorities (Our Priorities, 2020):

1. Feeding the land so the land feeds us.
2. Healing land and water.
3. Fostering the next generation of farmers.
4. Living laboratory.
5. Public programs.

Sandown Centre offers incubator plots to new aspiring farmers known as the Farmpreneur Program. The plots are located at the same site with shared site amenities including a wash/pack unit and equipment and tools, shared market channels, and support from peers and mentors on site.

Farmers are evaluated on a case-by-case basis as the goal is to set them up for success as much as possible. Plot sizes vary from ¼-acre to ½ -acre depending on the farmers' goals, experiences, and growing plan. There is an opportunity to expand further on the land as the farmers become more established and manage their land well.

The following is shared infrastructure available to the farmers onsite:

- 60 ft. greenhouse for plant starts; access to power from farmhouse into the greenhouse.
- BCS and Grillo walk-behind tractors available to use with instruction.
- Common tools: irrigation installation supplies, handheld tools (shovels, rakes, etc.), weed whacker.
- Basic washing station.
- Starting in 2022, cold storage and post-harvest processing space.

Sandown Centre is a non-profit organization with the following team members:

- 6-member Board of Director
- Director of Society Business Operations
- Director or Partner and Community Engagement
- Director of Farm Operations
- Land Management Coordinator
- 8 Advisors on several topics: Livestock, Soils, Farm Design, Site Management, Pasture Management, Farm Business, Irrigation.

KPU Conclusion: Sandown Centre's current staffing capacity may not be able to acquire and manage more incubator land. However, with more resources to hire staff, Sandown's existing knowledge and experience in high level management will be a more efficient use of resources in potentially taking on this Foodland Trust initiative as an extension to their current Farmpreneur program. Sandown's current

location is only on a 10 year-lease, with 2 more years of District funding confirmed. Sandown currently has capacity for 7 incubator farmers on arable land that is ready for farmers. The Centre will be prepping and restoring additional land within the pastured area to bring on more incubator farmers for the 2023 season. The initial call-out for farmer applications resulted in more than 30 applications. This indicates that there is a demand for more incubator plots in the region and that Sandown can efficiently use their resources to expand land access for more new farmers. Further discussion with the Board of Directors and management team is required to fully understand interests and opportunities.

Haliburton Community Organic Farm Society

Haliburton Community Organic Farm Society (HCOFS) is a non-profit organization made up of farmers, neighbors of Haliburton Farm, education, and community members; it is currently run by an 11-member Board of Directors. The farm is a 9.3-acre property with 6 separate farm businesses operating under the umbrella of HCOFS. While HCOFS provides long-term leases to farm businesses to run their operations, they target experienced farmers with the intention to farm as a livelihood offering four to eight-year leases. The following is shared infrastructure available to the farmers onsite:

- Walk-in cooler.
- Farmhouse access: Wash station space, kitchen, storage in the basement, and workshop space upstairs.
- 50ft greenhouse for plant starts; access to power from farmhouse into the greenhouse.
- On-site farm-stand.
- 3 tables at the Moss Street Farmers Market.
- Common tools: Lawnmower and weed whacker.
- Wholesale business attached to the farm.
- Property is IOPA Certified Farm (all farmers share the certification #); shared between farmers so they can learn how to do it themselves.

Farmers are expected to purchase their own tools and their own necessary infrastructure (hoop houses, shade houses, wash station, etc.).

KPU conclusion: Haliburton Community Farm is a model of a successful community-based sustainable farm that provides education, builds capacity, and supports farmers facing barriers to land access. They are a diverse team of knowledgeable farmers with direct expertise, would potentially be an appropriate organization to manage the day-to-day operations of the Foodland Trust. A limitation is that they do not currently directly deal with new aspiring farmers, so may need to develop additional capacities in order to develop incubator farmer programming. However, may be an extension to the programming that is already in place. Further discussion with the Board of Directors and management team is required to fully discuss interests and opportunities.

Governance Structure for Foodland Trusts

Uplands Consulting (2019) reviewed seven different land access models option in the feasibility study: land trust, land bank, land connecting services, incubator farms, farm tax policies, farmland ownership restrictions, and regulations of leases. *Table 6* summarizes results of the preferred models based on their analysis.

Table 6: Summary of Foodland Trust access tools and level of impact

Rank	Tool	Relative Cost	Lead Agency	Timeframe	Level of Effort	Level of Impact
1	Land trusts	High	Local governments and/or NPOs	Short (1-3 years)	Easy	High
2	Land banks	Medium-High	Local governments and/or NPOs	Short (1-3 years)	Easy	High
3	Land connecting	Medium-Low	NPOs	Short (1-3 years)	Easy	Low
4	Incubator farms	Medium	NPOs and/or academic institutes	Medium (3-5 years)	Challenging	Moderate
5	Farm tax policies	Low	Federal and/or provincial government	Medium (5 years)	Difficult	High
6	Restrictions on farmland ownership	Medium	Provincial government	Medium (5 years)	Difficult	High
7	Regulation of farm leases	Low	Provincial government	Medium (3-5 years)	Difficult	Low

**Green indicates good candidate as a tool for local governments; yellow indicates a possible tool to be used within a broader strategy; orange indicates a limited ability for local governments to use the tool.*

Land trusts and land banks are ranked first and second, respectively, because of their applicability to farmland. Land banks are most often associated with city parks, in part because the Canada Revenue Agency has a specific program targeted at gifting ecologically sensitive lands, with their associated tax credits. Uplands Consulting (2019) identified land trusts as the preferred land access tool as a land trust would protect agricultural land in perpetuity and could offer land donors above minimal tax credits.

Uplands Consulting (2019) recommended a hybrid government and NPO governance model for a Foodland trust based on the following reasons:

- The hybrid model ensures greater funding opportunities through grant-based funding that the government (CRD) would not have access to on its own.
- The CRD's role would be limited to policy development, property and lease management, funding, and overall administration.
- A CRD regional hybrid approach will enable significant cost efficiencies over many municipalities creating their own land trusts.
- A Foodland Trust ensures the land will be held in perpetuity within the CRD, not to be disturbed by changing government leadership.

- As an oversight body, the CRD would ensure the Foodland Trust programming meets regional goals.
- The day-to-day management of the incubator farm program will be done by agricultural experts within an NPO structure.

Foodland Trust & Land Banking Models

A trust fund is a legal arrangement "that allows individuals to place assets in a special account to benefit another person or entity" (What is a trust fund, and how does it work?, 2021). In this case, a Foodland Trust operates as an entity that maintains land for "agricultural and food provisioning activities in perpetuity" (Upland Agricultural Consulting, 2019). The Foodland Trust model is based on managing farmland as a community asset for the public good, not just one individual. The farmland in its holding can include publicly owned and/or privately-owned lands. Land is most often acquired by way of gift or donation, transfer of property rights, or direct purchase. This model protects existing farm and Foodland long-term while supporting the "succession process between retiring and new farmers" (Upland Agricultural Consulting, 2019).

Another legal arrangement that may be applicable in the immediate term, is land banking which would essentially 'hold' the land for the purposes of this initiative. CRD staff have indicated that this is a more common approach that aligns with its current administrative functions and could likely be done in a more expedient and cost effect manner.

The CRD does not currently have an existing service to administer this program, as such the next step is to articulate legal, risk and administrative obligations and confirm the governance model and roles associated with developing a regional or sub-regional foodlands access service.

Proposed Roles - Hybrid Governance Model

The specific roles of the CRD and the NPO are laid out below, based on KPU's recommended approach.

Capital Regional District

For this program, it is envisioned that the CRD would be responsible for the high-level administrative tasks and oversight. There would need to be a dedicated staff to coordinate work with the NPO. Responsibilities would pertain primarily to the policy, legal and contractual requirements between municipalities and NPO and facilitate communications and reporting between the RFATF, municipal partners and the Board.

As the CRD currently does not have an applicable service to host such a role, a new service would be needed. It is envisioned that the following staffing would be required:

1. **CRD Role** (0.5 Full-time equivalent (FTE)):

The CRD has specific departments that deal with legal, finance, land use, and policy matters, so the responsibilities of this coordinator would potentially be spread among several people. The following describes likely responsibilities requiring up to 0.5 FTE in terms of time commitment in the first year, reducing to 0.3 FTE in the following years.

- Policy development – Monitor and evaluate ongoing policy developments that affect the program's operation and establish policies that will further support the functions as needed.
- Property/lease management – Establish standards and expectations for all acquired properties' overall management and site maintenance.
- Land Use Agreements – With parcel owners, establish agreements with local governments for publicly owned parcels or owners of private parcels to ensure stable land holding.
- Lease Agreements – Establish an agreement template for farmers leasing land with the NPO partner. This includes lease duration, cost, operations, and land use parameters
- Contracting and legal oversight: Administer agreements/contracts and provide legal oversight.
- Land Acquisition Protocol: With input from various stakeholders, establish criteria for acquiring new parcels. This will include an initial parcel assessment, agriculture capability, acquisition cost, and necessary land upgrades.
- External funding – With the NPO, seek, apply and support external funding applications.
- Additional Support - Provide support to the NPO as needed, such as providing meeting space for the Program Advisory Committee and other high-level management oversight.
- Reporting and Communications – Oversee reporting and communicate results to the RFATF and CRD Board.
- Financial Support - The business case assumes a CRD allocation of **a minimum of $120,000**/year for this initiative.

Non-Profit Organization

The NPO would be responsible for the day-to-day operations of the incubator parcel(s) within the program. The NPO would bring expertise in agriculture production, land leasing, and land use management. It is recommended that the NPO has the following human resource capacity to operate the program: Program Advisory Committee (PAC), program manager, and site caretaker(s).

1. Program Committee Advisory Group

This NPO would be led by a voluntary Program Advisory Committee (PAC) that would be represented by various stakeholders who have the expertise and experience with managing such an operation. This would include members who:

- Have experience and expertise with managing farmland.
- Identify as Indigenous/First Nations/Metis.
- Have connections with local farmers and farming communities.
- Have strong business and financial expertise.
- Are aware of local food security issues.
- Have some expertise in ecological land stewardship and management.
- Are members that represent the diversity of the local food scene.

2. **Program Manager** (1 FTE)
   - Program Management – Ensure that the program is operating smoothly, solve any problems and conflicts that may arise, manage budget, and manage staff.

- External funding – With the CRD, seek and apply for external funding to reach program cost-recovery.
- Stakeholder Engagement – Foster current and establish new relationships with First Nations and other community organizations with consistent communication.
- Monitoring – Develop annual reports (operation and financial) for stakeholders and the CRD.
- Public Relations – With the CRD, support outreach with the public, promote the program to aspiring farmers and organize/attend events.
- People Management – Ensure that farmers uphold the end of their agreements and ensure that the site caretaker performs their duties.
- CRD Liaising – Communicate consistently with the CRD liaison, and work with CRD on high-level operation duties.
- Farm Business – Work with farmers to assess and achieve their business operations and goals.

3. **Site Caretaker** (0.25 FTE per parcel)

The FTE requirements for this position would vary and increase if the program acquired more properties. The job position would vary depending on the infrastructure on the respective parcels because some may have communal infrastructure, which would require significantly more time to maintain. For this business case, each parcel has been analyzed individually, so a part-time 0.25 FTE position is recommended.

Responsibilities include:

- Site Visits – Visit all parcels on a rotating basis to ensure proper use.
- Site Maintenance – Maintain uncultivated plots (mowed and cover cropped), and maintain non-farming areas including hedgerows, pathways, walkways etc.
- Land Preparation – Open and prepare new lands as needed as new farmers come on board.
- Infrastructure Maintenance – Enforce maintenance policies with farmers to ensure that shared infrastructure (e.g., tool shed, washing stations, and irrigation system) are repaired, maintained and performing well.
- Equipment Maintenance – Enforce maintenance policies with farmers to ensure that equipment, machinery, and tools are effectively used, cleaned, stored, and repaired.
- Technical Assistance – Assist farmers with proper use of all equipment and machinery.
- General Management – Work with the program manager in executing the operations plan and improving the site as needed.

Financial Analysis

This type of project is a long-term community investment. Therefore, the capital costs (infrastructure, roads, fences, irrigation, etc.) should be amortized over time.

This analysis intends to provide a concept level analysis (i.e. equivalent to Class C/D assessment) of anticipated and ongoing capital and operating expenses. This analysis assumes a base level of revenue from land parcel rentals only and makes assumptions on CRD and external funding sources. Initial capital investments have not been included in the annual program costs and revenues. A defined funding model and further detailed financial analysis should occur as next phases of the project.

For the scope of this business case, the costs and revenues are provided for establishing each parcel as an individual incubator program.

Site Development Costs

Modifications and upgrades vary between the parcels depending on the location and land capacity. Based on the site assessments, the site development upgrades suggested ensure that the parcels can support mixed vegetables, orchard and/or livestock production. It is recommended that the program covers amendment costs for all farmers for the first year. As each parcel differs in soil pH and organic matter levels, lime and compost application will be necessary to bring the land to a workable and useable state.

Standard General Expenses

Basic Infrastructure and Tools

A review of the current market prices of the suite of infrastructure, equipment, machinery, and tools recommended for setting up an incubator farming site was completed. The items can be removed or added based on the budget capacity at the time of implementation. The costs and description of the function of each item are provided in *Appendix D - Basic Infrastructure and Tools Details.*

Human Resources

It is recommended that the NPO Program manager and the CRD staff are funded regardless of parcel numbers; the site caretaker position is flexible. The feasibility study found that the following staffing level would accommodate the management of up to 80-acres of land (Upland Agricultural Consulting, 2019).

For this business case, each parcel's financial projection is analyzed individually. Since each parcel is only 5-7 acres in this study, the budget assumes that the site caretaker is part-time on 10 hours/week year-round. The more parcels that the Foodland Trust manages, the more cost-efficient the salaries of these positions will be.

Table 7: Human Resources

Human Resources	Salary Cost
Program Manager (1 FTE at $30/hour x 40 hours/week x 52 weeks)	$71,136.00
Site Caretaker (0.25 FTE at $24/hour at 10 hours for 52 weeks/parcel)	$34,200.00

CRD Staff (0.5 FTE including benefits)	$64,500.00

Land Leasing Revenue

Estimating revenue is challenging and not straightforward because the number and size of plots that the parcels will be split into are not standardized. As described by the other successful incubator programs, the plot size and tenures are decided on a case-by-case basis. As reference points, Sandown Center charges $1700/0.5-acre per year, including land lease, electricity, mentorship, shared tools, and infrastructure; water is an additional cost (where they receive agriculture water rates). This rate is used as a reference point. Haliburton charges $500/acre with additional costs in shared electricity, infrastructure, and water, measured by use per farmer per year. The incubator fee for the KPU Farm School is $1480/0.5-acre per year, plus a refundable $500 damage deposit. The market rate for leasing out farmland is $500 per acre.

However, to conduct a financial analysis for this business case, the estimated revenue generation is based on a simple structure: each farmer is assigned a 1-acre plot and has a 5-year lease, potentially extending it upon negotiation.

The breakdown of the general incubator fees **per acre per year** is as follows:

Table 8: Annual Incubator Fees

Items	**per acre**
Land Lease	$500
Infrastructure use	$300
Equipment uses	$500
Water fee	$200
Administration and Site Maintenance	$150
Total	**$ 1,650.00**

As mentioned, this methodology for determining fees is limited. Some alternate scenarios can include:

- Items can be removed or altered depending on the availability of resources at the site. For example, the site may not have a cooler available, thus lowering the overall infrastructure fee.
- Electricity is accounted for in incubator fees.
- A damage deposit of $500 is included where the land must be returned in the same or better condition as when farmers got it.
- Leasing out smaller plots of ½ acres;
- Equipment and infrastructure fees can be calculated based on actual farmer usage (for example, cost per hour used).
- If the site provides Organic Certification, each incubator farmer will need to pay for the certification fee.
- As farmers stay on the land longer, they can provide structured mentorship to new incoming incubator farmers and receive a reduction in their incubator fees.

The anticipated annual CRD funding of $120,000 would support staff salaries. Therefore, the aim is for incubator fees to cover the variable operating costs (which are further explained in the expenses section).

Common with most non-profit organizations, grants account for a sizable portion of the revenue, accounting for 30% to 40% of total operating costs. See *Appendix E – Potential Grants.* While there would be some stability with the CRD funding and incubator fees, external grants are uncertain and unpredictable. It is recommended to plan for additional revenue sources as the program operates and grows. Other revenue stream potential:

- Workshops, events, and education components.
- Incubator fees can also change following market rates of land lease and communal resources provided.
- Consistent industry or private donations.

The following sections will show expenses and revenue calculated for each parcel individually. Expenses are defined by:

1. Initial Capital Investment includes costs for site development, infrastructure, equipment, machinery, and tools. These would be one-time investment costs to establish the incubator site.
2. Annual Operating Costs - include costs for annual salaries and variable expenses. These would be the anticipated costs of operation on an annual basis.

Financial Scenarios

For the financial analysis of each parcel, two scenarios were identified with varying financial implications:

- Scenario A – Each parcel purchases the suite of infrastructure, equipment, and tools in year one.

- Scenario B – Each parcel phases the purchase of infrastructure and equipment over a three-year period or until incubator farm operations are established and evaluated, as follows:
    1. The purchase of the packing unit with cooler is deferred. Farmers may be able to rent cooler space through the South Island Food Hub.
    2. The purchase of the utility tractor is deferred to year three and the NPO investigates a different approach, such as partnering with a local farmer and renting their tractor, or contracting them to do larger work, or accessing through CRD/municipal parks departments.
    3. The purchase of the pick-up truck is removed.

In both scenarios, fee structure remains the same. The difference between both scenarios is that in Scenario A, it is anticipated that a one-time investment in the infrastructure and equipment purchases in year one by the CRD/local governments and initial grants, thereby not relying on additional generated revenue in following years. Whereas in Scenario B, infrastructure and equipment purchased in years two and three will need to be supported by external grants/funding or through profit from the program. In both scenarios, partnering with a NPO is essential as it allows access to external funding for infrastructure costs.

Expenses and Revenue – Newman Farm

SCENARIO A

Expenses

While the Newman Farm site has been in agriculture production in the past, it has only been in livestock grazing. This means that the site lacks basic infrastructure such as water and power connection, thus is not ready for produce production. Natural drainage for the entire site is quite good, but there is one section where it gets severely flooded in the spring and winter, and drainage improvements are recommended for that area. *Table 9* below shows the cost breakdown:

Table 9: Site Development Costs for Newman Farm in Year 1

Item	Description	Total Cost
Municipal water connection	Connecting to municipal water mainline running along Central Saanich Rd	$20,000
Irrigation mainline in property	Cost including standpipes for each block- $2,221.66 for 125m length	$6,967
Municipal electrical connection	Connecting to municipal electricity line running along Central Saanich Rd	$45,000
Amendments	Lime application for loamy soil in lbs. -excluding the L-field section	$2,489
Amendments	Compost- yards/acre	$16,934
Drainage	Block A is severely flooded in winter spring, and the best growing section	$2,800
	Total Costs	**$94,190**

To set up this parcel as an incubator farm, the initial investment will include building infrastructure and the cost of purchasing large machinery and equipment. *Table 10* summarizes the initial capital investment in year one. For a more detailed breakdown of the costs, see *Appendix F – Newman Farm Cost Breakdown*.

Table 10: Initial Capital Investment for Newman Farm

	Year 1
Site Development	$94,190.13
Infrastructure	$59,360.00
Equipment and Machinery	$149,683.52
Tools	$1,889.10
Total Expenses	**$305,122.75**

Once the site is established with the basic resources, the NPO can open applications to farmers. To operate the site annually, the main costs are staff salaries for the NPO and CRD support. Variable operating costs involve repair, maintenance, and utilities. Detailed breakdown of the costs can be found in *Appendix F – Newman Farm Cost Breakdown.*

Table 11: Annual Operating Costs for Newman Farm Year 1 to 3

	Year 1	Year 2	Year 3
Human Resources	$169,836.35	$169,836.35	$169,836.35
Variable Operating Costs	$10,612.00	$10,612.00	$10,612.00
Total Costs	**$180,448.35**	**$180,448.35**	**$180,448.35**

Should Newman Farm be selected to be a pilot Foodland Trust incubator farm site, the CRD can expect it to cost $305,123 in initial capital investment, with a recurring $169,836 in annual operating costs. Summing them together, this project estimates to cost a total of **$474,959 in the first year, then $169,836 in subsequent years.**

Revenue

Newman Farms has 6.2-acres available. An approach is to divide the parcel into five 1-acre plots and two 0.6-acre plots. ½-acre sized plots are also a decent size for a new farmer as it is much more manageable and is an ideal size for part-time farmers. *Table 12* shows a revenue scenario if the CRD provides funding, all plots are leased out, and 35% of the total expenses are funded by external grants.

The net revenue does not account for the cost of initial capital investment in the first year.

Table 12: Operating Net Revenue Newman Farm Year 1 to 3

	Year 1	Year 2	Year 3
Annual CRD funding	$120,000.00	$120,000.00	$120,000.00
Incubator fees (5 x 1-acre farms, 2 x 0.6-acre farms)	$10,230.00	$10,230.00	$10,230.00
Grants (35%)	$63,156.92	$63,156.92	$63,156.92
Total	**$193,386.92**	**$193,386.92**	**$193,386.92**
Net Revenue	**$12,938.58**	**$12,938.58**	**$12,938.58**

**Net Revenue = Total Revenue – Annual Operating Costs*

In the annual operating budget of the program, the partners should build a healthy contingency fund as grants are not guaranteed. In KPU's experience the cost for repair and maintenance is generally higher in incubator programs (compared to a sole proprietorship) due to higher wear and tear from multiple users.

If the initial capital investment costs are included in the first year, the program would carry a deficit of $292,184.

SCENARIO B

Referring to the conditions set for scenario B, *Table 13* shows the financial investment of a establishing a simpler incubator program.

Table 13: Scenario B - Expenses and Revenue for Newman Farm

Initial Capital Investment			
	Year 1	**Year 2**	**Year 3**
Site Development	$94,190.13	$0.00	$0.00
Infrastructure	$14,560.00	$0.00	$0.00
Equipment and Machinery	$14,670.88	$0.00	$80,132.64
Tools	$1,889.10	$0.00	$0.00
Total Expenses	**$125,310.11**	**$0.00**	**$80,132.64**

Annual Operating Costs			
	Year 1	**Year 2**	**Year 3**
Human Resources	$169,386.35	$169,386.35	$169,386.35
Variable Operating Costs	$5,964.00	$5,964.00	$8,092.00
Total Costs	**$175,800.35**	**$175,800.35**	**$177,928.35**

Revenue			
	Year 1	**Year 2**	**Year 3**
Annual CRD funding	$120,000.00	$120,000.00	$120,000.00
Incubator fees (5 x 1 acre farms, 2 x 0.6 acre farms)	$10,230.00	$10,230.00	$10,230.00
Grants (35%)	$61,530.12	$61,530.12	$62,274.92
Total	**$191,760.12**	**$191,760.12**	**$192,504.92**
Net Revenue	**$15,959.78**	**$15,959.78**	**$14,576.58**

**Net Revenue = Total Revenue – Annual Operating Costs*

Expenses and Revenues – Panama Flats

SCENARIO A

Expenses

Panama Flats is a marshland and floodplain that regulates the flow of Saanich stormwater throughout the winter months; it is flooded from November through May or June. Without any upgrades to drainage, it will delay crop production growing season significantly and may not be desirable for many farmers. Many experts have discussed and analyzed Panama Flats over the years due to its potential. Investing in drainage upgrades will benefit farmers for many years down the road. An initial assessment by a drainage expert advised the cost to approximately be $20,000. Details of the drainage improvement site can be found in the site assessment report for Panama Flats.

As shown in *Table 14*, in addition to drainage upgrades, a few other site developments are recommended, including perimeter fencing, soil amendments, and irrigation mainline installation at this time.

Table 14: Site Development Costs

Item	Description	Total Cost
Drainage	Drainage ditching and pumping system for 6-acres	$20,000.00
Perimeter fencing	8' Perimeter fencing at 2880 linear ft. including braces, gates, labor	$47,738.88
Amendments	Lime application for clay soil in lbs.	$3,981.77
Amendments	Compost- yards/acre	$18,144.00
Irrigation Mainline Installation	Cost including standpipes for each block- $2,221.66 for 125m length	$5,971.82
	Total Costs	**$95,836.47**

Table 15 summarizes the initial capital investment in year one, which includes site development, infrastructure, equipment, and tools. For a more detailed breakdown of the costs, see *Appendix G – Panama Flats Cost Breakdown.*

Table 15: Initial Capital Investment for Panama Flats

Items	Year 1
Site Development	$95,836.47
Infrastructure	$59,360.00
Equipment and Machinery	$149,683.52
Tools	$1,889.10
Total Costs	**$306,769.09**

Once the site is established with the basic resources, the NPO can open applications to farmers. To operate the site, the main costs are the program's staff salaries. Variable operating costs involve repair, maintenance, and utilities. The detailed breakdown of the variable costs can be found in *Appendix G – Panama Flats Cost Breakdown.*

Table 16: Annual Operating Costs Year 1-3

	Year 1	Year 2	Year 3
Human Resources	$169,836.35	$169,836.35	$169,836.35
Variable Operating Costs	$10,556.00	$10,556.00	$10,556.00
Total Costs	**$180,392.35**	**$180,392.35**	**$180,392.35**

Should Panama Flats be selected to be the pilot Foodland Trust incubator farm site, the CRD can expect it to cost $306,770 in initial capital investment and a recurring $180,392 in annual operating costs. Summing them together, this project estimates to cost a total of **$487,606 in the first year, then $180,392 in subsequent years.**

Of note, there is currently a barn structure at Panama Flats that is currently owned and used by the District of Saanich. Should the district gift the barn to the program, infrastructure costs decrease significantly. However, it is out of the scope of this business case to inquire about the intention of this barn.

Revenue

Panama Flats has 6-acres available for incubator plots. *Table 17* shows the operating revenue projection if the CRD provides annual funding, 6 x 1-acre plots are leased out, and 35% of operating costs are funded by external grants.

Table 17: Operating Net Revenue Year 1 to 3

	Year 1	Year 2	Year 3
Annual CRD funding	$120,000.00	$120,000.00	$120,000.00
Incubator fees (6 x 1-acre farms)	$9,900.00	$9,900.00	$9,900.00
Grants (35%)	$63,137.32	$63,137.32	$63,137.32
Total Revenue	**$193,037.32**	**$193,037.32**	**$193,037.32**
Net Revenue	**$12,644.98**	**$12,644.98**	**$12,644.98**

**Net Revenue = Total Revenue – Annual Operating Costs*

In the annual operating budget of the program, the partners should build a healthy contingency fund as grants are not guaranteed. In KPU's experience the cost for repair and maintenance is generally higher in incubator programs (compared to a sole proprietorship) due to higher wear and tear from multiple users.

If the initial capital investment costs are included in the first year, the program would carry a deficit of $294,124.

SCENARIO B

Referring to the conditions set for scenario B, *Table 18* shows the financial investment of a establishing a simpler incubator program.

Table 18: Scenario B - Expenses and Revenue for Panama Flats

Initial Investment			
	Year 1	**Year 2**	**Year 3**
Site Development	$95,836.47	$0.00	$0.00
Infrastructure	$14,560.00	$0.00	$0.00
Equipment and Machinery	$14,670.88	$0.00	$80,132.64
Tools	$1,889.10	$0.00	$0.00
Total Costs	**$126,956.45**	**$0.00**	**$80,132.64**

Annual Operating Cost			
	Year 1	**Year 2**	**Year 3**
Human Resources	$169,836.35	$169,836.35	$169,836.35
Variable Operating Costs	$5,908.00	$7,196.00	$8,036.00
Total Costs	**$175,744.35**	**$177,032.35**	**$177,872.35**

Revenue			
	Year 1	**Year 2**	**Year 3**
Annual CRD funding	$120,000.00	$120,000.00	$120,000.00
Incubator fees (6 x 1 acre farms)	$9,900.00	$9,900.00	$9,900.00
Grants (35%)	$61,510.52	$61,961.32	$62,255.32
Total Revenue	**$191,410.52**	**$191,861.32**	**$192,155.32**
Net Revenue	**$15,666.18**	**$14,828.98**	**$14,282.98**

**Net Revenue = Total Revenue – Annual Operating Costs*

Expenses and Revenue – Bear Hill Parcel

SCENARIO A

Expenses

Compared to the other two sites, Bear Hill parcel is the most established for agriculture production as it already has water and power connections, and sub-plots already have their own irrigation connection. This site would require the least financial investment for site development. *Table 24* shows the breakdown.

Table 19: Site Development Costs Bear Hill Parcel

Item	Description	Total Cost
Amendments	Lime application for loamy soil in lbs.	$2,488.60
Amendments	Compost- yards/acre	$15,120.00
Building demolition	Removal of current barn	$22,400.00
Building retention	Restoration and upkeep of former on-site caretaker house	$20,000.00
	Total Costs	**$60,008.60**

Table 20 provides a high-level breakdown of the initial capital investment for site development, infrastructure, and purchasing equipment and tools. For a more detailed breakdown of the costs, see *Appendix H – Bear Hill Parcel Cost Breakdown.*

Table 20: Initial Capital Investment Bear Hill Parcel Year 1

	Year 1
Site Development	$60,0008.60
Infrastructure	$59,360.00
Equipment and Machinery	$149,683.52
Tools	$1,889.10
Total Expenses	**$270,941.23**

Once the site is established with the basic resources, the NPO can open applications to farmers. To operate the site, the main costs are program staff salaries. Variable operating costs involve repair, maintenance, and utilities. Detailed breakdown of the costs can be found in *Appendix H – Bear Hill Parcel Cost Breakdown.*

Table 21: Annual Operating Expenses Bear Hill Parcel Year 1 to 3

	Year 1	Year 2	Year 3
Human Resources	$169,836.35	$169,836.35	$169,836.35
Variable Operating Costs	$10,276.00	$10,276.00	$10,276.00
Total Costs	**$180,112.35**	**$180,112.35**	**$180,112.35**

Should Bear Hill parcel be selected to be the pilot Foodland Trust incubator farm site, the CRD can expect it to cost $270,941 in initial capital investment and a recurring $180,112 in annual operating costs. Summing them together, this project estimates to cost a total of **$451,053 in the first year, then $145,525 in subsequent years.**

Revenue

Bear Hill parcel has just under 5-acres available. *Table 22* shows the revenue potential if the CRD provides annual funding, all plots are leased out, and 35% of the total expenses are funded by external grants. As with the two other site, the annual revenue projection has been calculated where the initial capital investment is not accounted for in this table.

Table 22: Operating Net Revenue Bear Hill Parcel Year 1 to 3

	Year 1	**Year 2**	**Year 3**
Annual CRD funding	$120,000.00	$120,000.00	$120,000.00
Incubator fees (5 x 1-acre farms)	$8,250.00	$8,250.00	$8,250.00
Grants (35%)	$63,039.32	$63,039.32	$63,039.32
Total	**$191,289.32**	**$191,289.32**	**$191,289.32**
Net Revenue	**$11,176.98**	**$11,176.98**	**$11,176.98**

**Net Revenue = Total Revenue – Annual Operating Costs*

Bear Hill parcel requires the least cost for site development, but it is also about an acre smaller than the other two sites.

In the annual operating budget of the program, the partners should build a healthy contingency fund as grants are not guaranteed. In KPU's experience the cost for repair and maintenance is generally higher in incubator programs (compared to a sole proprietorship) due to higher wear and tear from multiple users.

If the initial capital investment is included in the first-year expenses, it will result in a deficit of $259,164 in the first year.

SCENARIO B

Referring to the conditions set for scenario B, *Table 23* shows the financial investment of a establishing a simpler incubator program.

Table 23: Scenario B - Expenses and Revenue for Bear Hill Parcel

Initial Capital Investment			
	Year 1	**Year 2**	**Year 3**
Pre-site Development	$60,008.60	$0.00	$0.00
Infrastructure	$14,560.00	$0.00	$0.00
Equipment and Machinery	$14,670.88	$0.00	$80,132.64
Tools	$1,889.10	$0.00	$0.00
Total Expenses	**$91,128.59**	**$0.00**	**$80,132.64**

Annual Operating Costs			
	Year 1	**Year 2**	**Year 3**
Human Resources	$169,836.35	$169,836.35	$169,836.35
Variable Operating Costs	$5,628.00	$5,628.00	$7,756.00
Total Costs	**$175,464.35**	**$175,464.35**	**$177,592.35**

Revenue			
	Year 1	**Year 2**	**Year 3**
Annual CRD funding	$120,000.00	$120,000.00	$120,000.00
Incubator fees (5 x 1 acre farms)	$8,250.00	$8,250.00	$8,250.00
Grants (35%)	$61,412.52	$61,412.52	$62,157.32
Total	**$189,662.52**	**$189,662.52**	**$190,407.32**
Net Revenue	**$14,198.18**	**$14,198.18**	**$12,814.98**

**Net Revenue = Total Revenue – Annual Operating Costs*

Summary Table

Scenario A is the investment and annual operating costs for establishing the parcels with the full suite of infrastructure and tools, while Scenario B portrays a lower investment in initial capital. *Table 24* shows a comparison of both scenario's overall financial commitment. This analysis assumes a base level of revenue from land parcel rentals only and makes assumptions on CRD and external funding sources. Initial capital investments have not been included in the annual program costs and revenues. The main difference between the two scenarios is that Scenario B is approximately $100,000 less in initial capital investment, while the annual operating costs and gross revenue are similar.

Should all three parcels move forward, there is significant potential for administrative efficiencies. From a revenue perspective, CRD funding would need be shared amongst the three parcels.

Table 24: Summary Financial Table

Scenario A

	Panama Flats	**Newman Farm**	**Bear Hill Parcel**
Initial Capital Investment (Year 1)	$306,769	$305,123	$270,941
Annual Program Costs and Revenues			
Operating Cost	$180,392	$180,448	$180,112
Gross Revenue*	$193,037	$193,387	$191,289
Net Revenue	$12,645	$12,939	$11,177

**Assumes $120,000 annual CRD funding, 35% funding from external grants & land leasing revenue for each individual parcel*

Scenario B

	Panama Flats	Newman Farm	Bear Hill Parcel
Initial Capital Investment (Year 1 & 3)	$207,069	$205,443	$171,261
Annual Program Costs and Revenues			
Operating Cost	$175,744	$175,800	$175,464
Gross Revenue*	$191,411	$191,760	$189,663
Net Revenue	$15,666	$15,960	$14,198

**Assumes $120,000 annual CRD funding, 35% funding from external grants & land leasing revenue for each individual parcel*

First Nation Engagement

It is important to acknowledge the First Nation lands and the host Nations where the parcels are located. Panama Flats, Newman Farm, and the Bear Hill parcel are all located in Coast Salish Territory. Project partners have committed to engaging meaningfully with neighbouring Nation communities to understand ways to incorporate traditional and Indigenous foodways on the parcels. This will be an ongoing process, with many conversations to come. So far, the CRD has connected with the W̱SÁNEĆ Leadership Council Society, a unified and legal governing body that was formed in 2018 and is comprised of the W̱SÁNEĆ First Nations: Tsartlip, Tseycum and Tsawout.

On April 22, 2021, a presentation of the Foodland Trust Concept was provided to the W̱SÁNEĆ Leadership Council. Follow-up documentation was then provided on May 31, 2021, and a meeting to present project updates and receive input on Indigenous Food Systems occurred on November 18, 2021 with the CRD's W̱SÁNEĆ Leadership Council Liaison. While there is a large interest in food production, food waste management, and ecosystem restoration within the W̱SÁNEĆ member nations, further conversations are required to understand particular interest and capacity in the Foodland Trust. Specific feedback on Panama Flats was that there remain several contentious issues for this site that have stifled restoration efforts in the past. For the Nations, there is large interest in wetland restoration and conservation to serve traditional uses such as berry foraging and hunting for waterfowl in the fall.

It is vital to keep the framework flexible for any First Nations interest that may come later in the process. Engagement with the W̱SÁNEĆ Leadership Council and other First Nations shall occur as this project advances.

Future Opportunities

This business case is the first step to achieving the larger vision of the Regional Food and Agriculture Strategy to advance the holistic local food system. The incubator program serves one aspect, which is supporting private farm operations. However, there is the need and potential to work towards Truth and Reconciliation and Indigenous Food Sovereignty. Food literacy is ongoing work that can be achieved through other initiatives such as community growing spaces and educational programming.

This section details potential opportunities to be included in future programming. Future options include additional parcels, different food growing models, and other operations (i.e. education and public events). These have been identified by members of the RFATF, community organizations, and government staff.

Community Garden and Growing Spaces

While this project's scope does not focus on community gardens, it is important to consider the possibility of integrating community garden spaces for future land parcels**.** Depending on the acquired parcel, community garden spaces may or may not be possible. However, community garden spaces have proved to be highly effective initiatives for community and neighbourhood building, which is a key element in developing holistic, sustainable communities (Community Gardens, 2021).

Based on KPU research and conversations with various advisory group members, community garden spaces may not be possible on all parcels; however, there remains a high potential of inclusion in future land acquisitions. This is a list of factors that the CRD and NPO should review when considering community garden spaces applicability:

- Is there existing public access?
- What is the topography of the parcel suitable for growing or establishing? E.g., Slopes could be used for fruit trees.
- Who are the neighbouring First Nation communities? Consult for possibilities of establishing Indigenous Foodways systems.
- Is there a demand for community garden spaces in the surrounding neighbourhoods?

It is highly encouraged that the development of community garden spaces is considered when acquiring new land parcels. In addition to contributing to a healthier lifestyle and diet, re-establishing Indigenous foodways and plants, providing a space for raising awareness and education, they provide space for community engagement in public spaces. They encourage “collective reflection about biodiversity” and can “generate a sense of shared personal commitment to sustainability.” This sense of “ecological citizenship” is a driving force for building social capital and sustainable consumption and food systems (Tharrey & Perignon, 2019). For a successful example, see *Appendix I – City of Victoria Community Garden Campaign.*

Collaboration with Community Groups

While education and mentorship are essential components in fostering long-term farmers and continuous learning, the proposed program does not need to develop formal education and mentorship as other organizations provide similar services. Program partners should engage with these groups to further understand opportunities for embedding within this program. Some local examples are as follows:

Young Agrarians (Young Agrarians, 2021)

1. Business Boot camp: 10-week program to support new, aspiring farmers in writing a comprehensive farm business plan. This program supports farmers in preparing detailed

business and financial plans, including marketing strategy. Also included is support in developing a crop plan, an essential tool of farmers.

2. BC Business Mentorship Network: A supportive program that pairs new and seasoned farmers to cultivate the skills of running ecologically and financially sustainable farm business.

Sandown Community Farm (Greene, Geggie, Eastman, Harrison, & Rashleigh, 2018)

1. Farmland leasing – 13 plots to lease out to farmers that includes communal infrastructure, equipment, and machinery.
2. Farm Education Program - Providing hands-on mentorship training to a small cohort of farmers on an annual basis.

Haliburton Community Organic Farm (Haliburton Community Organic Farm, 2021)

1. Community and educational focused.
2. Eco farm school: Organic Master Gardner teachers, ecological landscape design, ecological plant knowledge for organic gardeners, and food growing courses.
3. Provide long-term leases for individual farm businesses on certified organic farmland.

South Island Farm Hub (South Island Farmhub, 2021)

1. Farmer-driven produce distributor and online platform for local and seasonal produce purchasing; an aggregator of local produce distributed to customers.
2. Future commercial kitchen space for food processing and creating value-added products to sell.
3. Cooler space available for rent.

North Island College (North Island College, 2021)

1. Sustainable Farming program - Teaches students to learn the main theories, concepts and practices of sustainable agriculture production

Additional Parcels & Programming

The KPU team connected and collaborated with many community organizations and government staff throughout the project. Some of these conversations led to suggestions for potential future parcels that could be included in the future. The CRD is encouraged to continue discussions with community partners to determine appropriate sites.

The RFATF advisory group also suggested a communal farming infrastructure: A Peninsula Food Hub. It would be a center for farmers to aggregate and collectively market their food, have additional cooler capacity, and do other activities. Shared infrastructure of this kind would have an enormous impact on the new and established farmers in the capital region. Access to larger infrastructure like food storage and a marketing hub would offer important support that is key in the first few years of farming. Creating a food hub can potentially eliminate the need for individual infrastructures at each site.

There is currently one food hub in the area, South Island Farm Hub, located in Esquimalt, that the Victoria Community Food Hub Society manages. The Hub operates an online platform that coordinates, collects, organizes, and distributes food grown by local farmers to local purchasers every week. Such a platform offers farmers an efficient and cost-effective way to sell their products. The hub is currently building a commercial kitchen that will provide cooler space and opportunities for value-added product

production. Diversifying revenue streams and product offerings contribute to farm businesses' economic viability (James, 2021). The biggest challenge of peninsula farmers using the South Island Farm Hub is its location: it is not centralized and far away from most farms and their marketplaces. Creating a Peninsula food hub that can act as a food storage space and marketing platform can increase the profitability of small-scale farms and allow for more efficient movement of local food to customers for this region of the Island.

Recommendations

Three land parcels were assessed as potential contributions to a future Foodland Trust within the capital region: Newman Farm, Panama Flats, and Bear Hill. Extensive site assessments, soil analysis, and historical and current community context were reviewed. KPU concludes that each parcel has the agricultural capability and potential for a variety of production types: fruit production, vegetable production, and animal raising, depending on the site. Each parcel has the capability to be utilized by farmers within an incubator program structure and recommendations and budgetary needs have been identified for each parcel separately.

The CRD should consider the financial investment, site assessment, and community engagement when deciding which parcel(s) has the best potential of supporting a successful land leasing incubator program. Based on KPU's initial assessment:

- To sustain the viability and success of this Foodland Trust program, it is suggested that the CRD selects a parcel(s) that requires the least amount of investment but has the highest potential for success. This program needs to succeed in its pilot year, to gain further support from the local governments, the farmers, and the community.
- The Bear Hill parcel would be the best option for a pilot parcel as it requires the lowest initial capital investment cost for the establishment, the plots are ready to be farmed, and the nursery organization is already in support of this initiative. The parcel does require zoning approvals and legal agreements between existing users to be sorted before use.
- Newman Farm would be ideal because of its location, privacy, and agricultural history. However, as with Panama Flats, it would require significant initial capital investment.
- Establishing Panama Flats would be very costly, and it appears to be one of the most controversial parcels. First, it is recommended to focus initial effort on community engagement to ensure that the majority of the public and the W̱SÁNEĆ Leadership Council Society are onboard before committing to invest in this parcel.
- It is recommended to discuss which parcel would have the most potential for Indigenous food systems with the W̱SÁNEĆ Leadership Council Society. Further conversations are needed to confirm specific ways of involvement.

Appendices

Appendix A - Past Research on Foodland Trust Reports

1. Kwantlen Polytechnic University's: Beyond protection: Delineating the economic and food production potential of underutilized, small-parcel farmland in metropolitan Surrey, British Columbia.
2. CRFAIR's: Findings Report- Exploring Farm and Food Lands Access in the CRD: A Local Government Farmland Trust Approach.
3. Community Farm's Program: A Review of Farmland Trusts- Communities Supporting Farmland, Farming, and Farmers.
4. Farm Folk City Folk and the Centre for Sustainable Food Systems at UBC Farm, CRFAIR, Young Agrarians, and Deer Crossing the Art Farm: Farmland Access in British Columbia: Four Innovative Approaches.

Appendix B – Examples of Incubator Programs

Plate-forme Agricole de l'Ange-Gardien (Gatineau, Quebec)

Plate-forme Agricole de L'Ange-Gardien is a ready-to-use farm site where aspiring farmers can rent certified organic land and have access to communal infrastructure, equipment, and tools to start their farm business operations. Their site consists of 78-acres of arable land and the program provides support and mentorship to help with farming and business planning, and guidance to search for land beyond incubator farming. They offer memberships of this program for up to 5 years and the fees vary depending on the year. In a study conducted in 2016, 20 farm businesses were utilizing the land and program.

One important factor for the success of this program is the political support from the Mayor who deeply believe that sustainability and economic community development are interlinked. *The main objective of this incubator program was to engage and encourage young people in farming to advance food system resiliency in the region. It has also shown that it contributes to social capital through invaluable knowledge transfer between new entrepreneurs and old farmers.*

In addition to supportive leadership, other factors for success of the Plate-forme Agricole de L'Ange-Gardien include farmers' access to a wide range of funding sources, proximity to economic centers and market channels, collective promotion and support of local farmers, a diverse membership of farmers, the socio-ecological relationships, and the access to arable land with shared infrastructure and equipment. It is the perfect package for a new farmer.

On-site Infrastructure:

- Multi-use building (cold room, storage and wash station, toilet, sinks and wash basins, watering hoses and access to potable water).
- Personal storage rooms (8 x10 feet).
- Heated greenhouse (3,060 square feet).
- A second heated greenhouse (1,400 square feet).
- Four high tunnels (6,000 square feet total).
- Access to a central field irrigation network (drip-tape, hoses, and sprinkler systems not included).
- Access to potable water for vegetable cleaning and preparation.
- Access to a storage dome for machinery and tool storage.
- Access to basic communal field preparation and cultivation work

On-site rental access to:

- Plastic mulch layer
- Fiat Agri-tractor
- Rototiller
- S-tine cultivator
- Garden tiller
- Earthway manual seeder and cover crop seeder

- Disc cultivator
- Tine cultivator
- Brush cutter

Stated on their website, membership fees are separated by farmers in years 1 to 3, and farmers in years 4 to 5. There are also other variables costs such as greenhouse heating, organic certification and electricity that are shared based on usage.

Year 1 to 3	Year 4 to 5
▪ Membership fee: $650/year (includes access to the cold room, potable water for irrigation and washing, washing station and storage rooms, and storage shed). ▪ Field rental fee: $225/acre. ▪ Heated greenhouse rental fee: $1.00 per square foot. ▪ High tunnel rental fee: $0.50 per square foot.	▪ Membership fee: $1000/year. ▪ Field rental fee: $250/acre. ▪ Heated greenhouse rental fee: $1.35 per square foot. ▪ High tunnel rental fee: $0.60 per square foot.

Kwantlen Polytechnic University Farm Schools – Incubator Programs (Richmond & Tsawwassen, British Columbia)

KPU's extension arm consists of two farm schools that have been in operation since 2010 (Richmond, BC) and 2015 (Tsawwassen First Nation, BC). Each offers a distinct 7-8-month program that provides students with a strong foundation in the principals and practices of regenerative farming. These programs focus on experiential learning alongside industry professionals, supported by classroom learning to prepare students for a career in the industry.

Tsawwassen First Nation Farm School

The Tsawwassen First Nation (TFN) Farm School is a unique partnership with Tsawwassen First Nation. It is an intensive immersion into mixed vegetable and fruit production and livestock raising. The program runs throughout the local growing season on a 20-acre certified organic educational and working farm. Students receive 250 hours of classroom learning and 350 hours of field-based learning. Products from the farm are sold through direct marketing channels providing revenue to the program.

This farm also serves as a community farm to the TFN community to advance their food sovereignty aspirations. The farm is a place of gathering, learning, and connecting with the land for the members. Each year, the farm provides fresh vegetables and meat products, organizes various events, and workshops, and hosts a year-end feast for the community. The farm is seen as an important aspect of food security for the TFN community for many generations to come.

The farm consists of ten to fifteen ½-acre plots for the incubator program, which are only accessible to graduates of the farm school. Since 2015, seven graduates have taken on an incubator plot. The incubator component offers continuing technical mentorship, water access, communal propagation house, cooler, washing and packing area, and shared equipment such as tractors, hand tools, and small machinery. This allows new farmers to develop their farm skills and build their business brands without a large capital investment.

Richmond

The Richmond Farm School is a partnership with the City of Richmond, with the objectives of increasing the profile of organic agriculture and providing support to aspiring farmers in the city. This program operates on a 7-acre property and different from TFN farm school, it focuses on lean urban farming, intensive, high value and cost-effective mixed vegetable production with minimal infrastructure and capital investment. While both programs are not far apart in geographical distance, there are no issues filling both programs as they target students with different farming goals.

The Richmond site has minimal infrastructure to offer to students, however, continued mentorship is offered, access to ¼ and ½ acre incubator plots, compost from the city, water, and access to various tractors, smaller tools, and machinery. Since 2010, 20 graduates have gone through the incubator program.

For both programs, incubator farmers may access a plot for up to 3 years. However, occasionally the duration has been extended on a case-by-case basis. Among the ISFS' incubator farmers, about 50% continue as career farmers with buying their own farmland or leasing larger sections of land.

Viva Farms (Skagit Valley, Washington)

Viva Farms is a large-scale incubator farm in Skagit Valley, USA, that has been in operation since 2010. It is a non-profit organization that offers a farm practicum program, then land leasing opportunity for practicum participants. They have been successful in providing low-barrier land lease to many new farmers, especially immigrants to the USA, with communal infrastructure and shared equipment support. They offer their program in English and Spanish to make it more accessible and inclusive.

A summary of their operation:

They have 4 sites, 3 within 1 mile of each other. Their home site is 33-acres, and it is the site where the practicum is held and where beginner incubator farmers lease land. They have two categories of land:

1) Incubator Land
    - Farmers must partake in the education practicum program to lease land.
    - Average lease tenure is 1-5 years.
    - To extend the tenure, new farmers must hit certain milestones every year and the program manager will assess incubator operations on a case-by-case basis.
    - Plot sizes range from 0.5-acres to 2-acres for the first 5 years.
    - Farmers have access to a washing, packing, and cooler unit, and shared tractors, equipment, and hand tools.

- Lease fee per acre is comparable to market rate, plus extra fees for using the infrastructure and tools.
- Farmers can pay Viva Farms staff labor hours to do bigger jobs, such as using the tractor to till large land sections.

2) Agriculture Park
    - "Post incubator phase" – land is normally leased to intermediate or advanced farmers; this is for farmers are who are serious about farming.
    - Can lease more land, and longer tenure of 5-10 years – parcel size and tenure length are evaluated on a case-by-case basis.
    - Farmers can still access communal infrastructure, machinery, and tools, but most of them start purchasing their own.
    - The fewer communal items used, the lower the lease rate.
    - Farmers can pay Viva Farms staff labor hours to do bigger jobs, such as using the tractor to till up large land sections.

Viva Farm's Director of Programs and Operations (Smith R. , 2021) stated that one of the most crucial factors of making a successful incubator is having dedicated staff to know the farmers. When discussing parcel size and lease tenure length, the Director described the challenges in determining a standard answer as each farm business and farmer is different. By knowing the farmer and understanding their business, helps make the most informed decision and provides the most support for each farmer's success.

When it comes to communal infrastructure, Viva Farms has a wash, pack, and cooler unit that can accommodate about two farmers simultaneously at each site. They have strong values in collaborative effort, and farmers operate in a collective perspective which allows for smooth sharing of communal infrastructure. In terms of shared equipment like a ride-on utility tractor, the sites are close enough that it can be shared between 3 of the 4 sites, where all are within 1 mile of each other. They have another site about 60 miles away, but it has all its own infrastructure and tools.

As an effort to support the financial aspect of being a farmer, Viva Farms partners with a local credit union for financing support. Viva Farms keeps funds with the credit union which their incubator farmers can use as collateral for financing support, such as a line of credit. This allows farmers to borrow money to start their business as well as establish credit history, especially for new immigrants who often do not have that leverage.

Haliburton Community Organic Farm (Victoria, British Columbia)

Haliburton's vision is to be "a leading model of community-supported, small-scale sustainable organic agriculture carries out in harmony with local ecosystems." It is a multi-faceted farm with an educational component that offers gardening and farm workshops and tours, it is a production farm that sells produce to the general public and it also offer land leasing opportunities to aspiring farmers.

Their incubator program offers experienced farmers farmland to operate their farm businesses. They currently have five farm operations and they vary in cut flower and mixed vegetable operations. The site offers shared infrastructure including a cooler, a kitchen in the farm house, a washing and packing area,

a suite of equipment and tools and connection to power and water. Haliburton is committed to building the capacity for the next generation of farmers and so, they offer long-term land leases of 1-acre parcels and up to 8 years to allow farmers to build up knowledge, skill set and capital.

Another collaborative function is the marketing opportunities to sell through the on-site farm stand, farmers market and wholesale channels. This co-operative model is very helpful for small farms as they can pool together resources more efficiently and sell larger quantities to buyers.

Four Successful Incubator Stories

The following highlights former incubator farm businesses that have stemmed from the incubator programs noted above. These farm businesses have finished the incubator programs and have created sustained farm businesses.

Ashala Daniel- Solstedt Organics (Lytton, BC): Ashala transitioned from a career of administrative work into farming by taking KPU's Richmond Farm School program. She became an incubator farmer, alongside two other farm school program graduates, and ran a successful canning company supplied by what they grew on their farm; the land lease was a 3-year term. Her goal was to purchase land and have her own farm, and she made that a reality by purchasing the Solstedt Organics Farm in 2015. It is a 5-acre, off-grid, solar powered, and remote farm. The business came with restaurant customer relationships, a spot at an extremely popular farmers market in Vancouver, BC, and a well-established orchard. Her farm business is thriving after 5 years of owning and managing organic fruit and mixed vegetable farms.

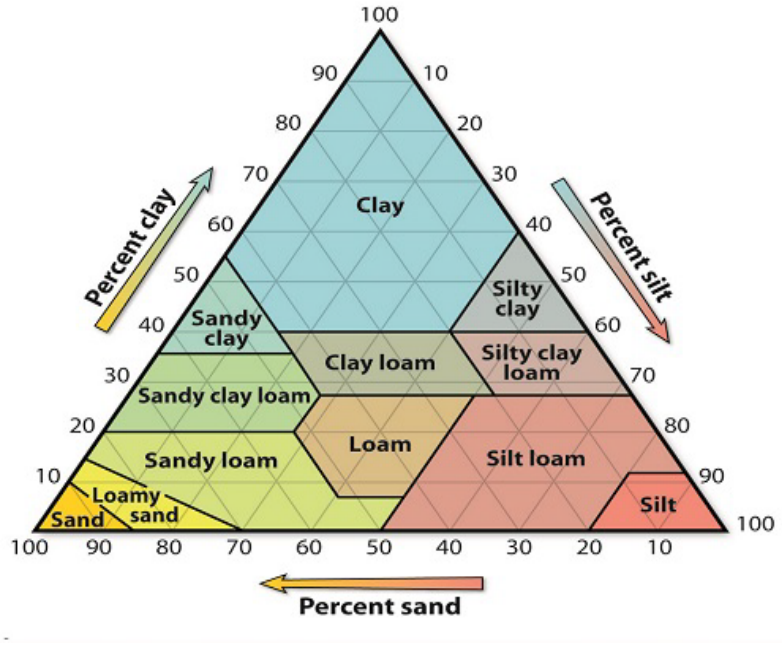
Dan Edmond and Piotr Majkowski- Fractal Farm (Surrey, BC): Inspired by living a life that was better for the environment, better for themselves, and better for their community, Dan and Piotr started farming. Dan transitioned from an engineering career into full-time farming, while Piotr has continued to work as a nurse and nurse educator part-time to supplement the farming income. Dan completed the University of British Columbia's Practicum in Sustainable Agriculture, and then became incubator farmers at Richmond Farm School's incubator lands. Over 4 years they went from growing on ½ acre to 1¼ acres, establishing an incredibly strong and successful mixed vegetable farm business. Through Young Agrarian's Land Matching program, they found a property in Surrey, BC where they have a long-term lease agreement with the landowners.

Mauricio Soto and Senaida Vela- Arado Farms (Washington, USA): Mauricio and Senaida both grew up farming crops like coffee and bananas but immigrated from Nayarit to the United States to gain experience farming crops like pears and apples. They joined Viva Farms agricultural incubator program in 2014 and established a berry farm on incubator land that they have continued to this day. They have spent years innovating their farm production and business by trialing various growing techniques to maximize flavor, yield, and sustainability. This has resulted in an expansion in the variety of fruit crops they grow on their 5-acre parcel.

Appendix C – Soil Texture Summary

Soil Texture: the percentage of clay, silt, and sand particles in the soil; see *Figure 1* to understand the meaning of each soil texture mentioned in *Table 2*. Ideal soil texture varies depending on production goals, but mixed vegetables tend to grow best in loam/loam mixture texture.

Figure 1: Soil Textural Triangle:



Source: https://www.soils4teachers.org/physical-properties/

Soil pH: ideal pH for growing most vegetable crops is between 5.8-7.0, so we can see that on all sites the soil pH is in the lower range. The relatively low pH is in contrast with the good-to-high calcium content in the soils evaluated. On agriculture soil, that happens when one applies amendments with calcium. For future soil management it is advised to apply lime as an amendment and a well matured compost.

Organic matter (OM): OM percentage levels are good; a percentage range between 8-12% is considered appropriate. However, it is recommended good practice to try and increase the OM over time through practices like using cover crops, green manure crops, and mature compost/manure additions.

Carbon-to-nitrogen (C:N) ratio: the ratios of these parcels are considered low, and we recommend finding more stable and mature organic amendments (i.e., compost) to apply to the soil; a C:N ratio of 25 – 30 is ideal. When choosing cover crops make sure they are ones that catch the nitrogen that may be released from the soil when trying to balance out the C:N ratios. This will prevent nitrate release into the surrounding environment.

P**hosphorus:** the level of phosphorous available in most of the samples is incredibly low considering the generally high levels of OM; optimum range is between 35-50. Phosphorous levels can be increased by adding mature compost to the soil.

Each individual site assessment will have more specific soil management suggestions. However, the following sections are our recommended uses for each site based on our overall assessment.

Canadian System of Soil Classification: Slope Classes

Slope Classes			
Slope Class	**Slope Percentage (%)**	**Approximate Degrees**	**Terminology**
1	0-0.5	0	Level
2	>0.5-2	0.3-1.1	Nearly lev
3	>2-5	>1.1-3	Very gentle slopes
4	>5-10	>3-5	Gentle slopes
5	>10-15	>5-8.5	Moderate slopes
6	>15-30	>8.5-16.5	Strong slopes
7	>30-45	>16.5-24	Very strong slopes
8	>45-70	>24-35	Extreme slopes
9	>70-100	>35-45	Steep slopes
10	>100	>45	Very steep slopes

Source: (Agriculture and Agri-Food Canada, 1998)

Appendix D - Basic Infrastructure and Tools Details

Item	Cost with tax	Description
Washing station	$5,600	The absolute basic infrastructure needed for any farmer is a place to process (wash, pack, etc.) what they have grown post-harvest.
Packing Unit w/cooler	$44,800	The next essential after post-harvest is a place to store the harvest adequately and safely; cold storage is essential for business success.
Propagation high tunnel	$3,360	Vegetable farmers extend the growing season by starting seeds and plants to transplant out into the field later; it is a very common practice of small-scale growers across North America.
Storage shed	$5,600	Having a weatherproof and lockable space to keep tools extends the lifetime of the tool and prevents theft from happening.
Drainage Tiles (cost/acre)	$1,680	Installing drainage tile underground in very seasonally water-saturated areas results in extending the growing season by drying out the area in early spring to get plants in the ground.
Utility Tractor - Kubota MX5400 4WD 55HP w/ front loader	$50,396	Utility tractors are common tools used by small- and large-scale farmers alike. They reduce time and labor needed for many farm tasks like soil cultivation, mowing, moving amendments around the farm (i.e., compost, manure), and general landscape management. Smaller size is versatile for movement and reducing soil compaction of a heavier weighted tractor.
implement - disc harrow DH15 series	$4,810	A harrow with concave metal discs in a row; may be set up scalloped, set at an oblique angle. Its function is to till the soil where crops are to be planted and can also chop up unwanted weeds or crop residue.
implement - flail mower	$11,933	A mower that is used to deal with heavier grass/scrub; many models are PTO driven to get the power needed to deal with heavier grasses, scrub, and crop residue.
implement - rotary tillage	$9,336	A plough made up of a series of blades whose function is to break up large clods of soil in preparation of planting, also useful on weedy areas.
implement - plow	$3,655	A plow may have a wooden, iron or steel frame, with a blade attached to cut, loosen, and/or turn the soil before sowing seed or planting.
BCS - model 749 (PS)	$7,056	A walk-behind motor-powered tractor that is the power source that operates up to 20 implements/attachments of varying functions.
implement rotary plow	$2,016	Plough with 4 spiral blades that spin vertically to loosen soil (up to 12-inches in depth); used for prepping planting areas and weed control.
implement - rear tine tiller	$2,240	An implement with 4 tines in the rear that are used for breaking up hard ground that has not been worked before.
implement - spreader	$2,744	30-inch-wide compost spreader with galvanized side-panels and a heavy-duty rubber conveyor belt; it has 6-inch ground clearance and the distance between the spreader wheels is 36-inches.
implement - flail mower	$3,136	A mower with rotating 'Y' blades that pulverize plant material into a fine pulp that is evenly spread across the mowing width.

Hand tools	$5,600	Various tools like shovels, hoes, rakes, broad forks, and seeders are extremely helpful for the small-scale farmer in their day-to-day activities.
Pick-up truck F150	$54,880	A farm vehicle is essential for the site caretaker to use for travel, tools and supplies collection and distribution, etc.
Trailer, flat bed, hitch hookup	$3,763	If tools are moving from one site to another (i.e., utility tractors) a trailer is essential. Extremely helpful to have when purchasing supplies like compost, irrigation equipment, tools, transporting animals, etc.
Irrigation - expert contractor for connection to city line with back flow preventer	$12,320	Water connection is essential for any farmer to irrigate their crops or provide drinking water to their animals.
Irrigation header - plot	$448.00	Since each parcel will be divided into multiple plots for different farmers, each plot needs water access. Each header will also require a water meter to record water usage for paying for municipal water use; rates should be agricultural rates.
Water meter	$1,120	Needed for each irrigation header to record water usage of each farmer on their individual plots.

Appendix E – Potential Grants

Grant Program	Type	Website
Canada Summer Jobs	Wage subsidy for youth employees in agriculture related jobs	Funding: Canada Summer Jobs – Overview - Canada.ca
Youth Employment Skills Program	Wage subsidy for youth interns in agriculture related jobs and projects	Youth Employment and Skills Program: Step 1. What this program offers - agriculture.canada.ca
United Nations Associations of Canada – Green Spaces	Wage subsidy for professional development training and will elevate their knowledge, passion, and experience of working in the green economy	Green Spaces | UNA-Canada (unac.org)
Local Food Infrastructure Funding	Funding for mainly infrastructure and capital costs for food and agriculture related projects	Local Food Infrastructure Fund: Step 1. What this program offers - agriculture.canada.ca
Co-op Community Spaces	Funding for protecting, beautifying and improving greens spaces, mainly capital funding	Community Spaces | Co-op
Vancouver Foundation	Systems Change Stream – support projects that addresses root cause of social, environmental and cultural issues Indigenous Priorities Stream – support initiative that encourage community inclusiveness, belonging and healing	Grants | Vancouver Foundation
Maple Leaf Feed Opportunity Fund	Funding supporting projects that contributes to a reduction in food insecurity	https://www.feedopportunity.com/apply-for-funding/funding-process/
Vancity Community partnership Program	Support initiatives that lead to financial empowerment and address climate justice by removing barriers to economic well-being and opportunity.	Program guidelines and criteria - Vancity
MetroVan Ag Awareness	Support initiatives that educate the public about local agriculture production	Metro Vancouver Agriculture Awareness Grants - BC Food Security Gateway
BC Indigenous Agriculture Development Program	Supports Indigenous peoples' success in the food and agriculture sector.	B.C. Indigenous Agriculture Development Program - Province of British Columbia (gov.bc.ca)

Appendix F – Newman Farm Cost Breakdown

Initial Capital Investment

Infrastructure	**Cost with tax**
Packing unit with cooler	$44,800.00
Washing station	$5,600.00
Propagation house	$3,360.00
Storage shed	$5,600.00
Subtotal	**$59,360.00**
Equipment and Machinery	**Cost with tax**
Utility Tractor - Kubota MX5400 4WD 55HP w/ front loader	$50,396.64
Implement-disc	$4,810.40
Implement-rototiller	$9,336.32
Implement-plow	$3,655.68
Implement-flail mower	$11,933.60
BCS - model 749 (PS)	$7,056.00
Implement - rotary plough	$2,016.00
Implement - rear tine tiller	$2,240.00
Implement - flail mower	$3,136.00
Weed Eater- 2 Cycle 26cc gas multi-function	$222.88
Pick-up truck F150	$54,880.00
Subtotal	**$149,683.52**
Tools	**Cost with tax**
Shovels	$72.63
Rakes	$72.63
Stirrup hoes	$504.00
Wheelbarrows	$672.00
Wheel hoe	$567.84
Subtotal	**$1,889.10**
Site Development Subtotal	**$94,190.13**
TOTAL COSTS	**$305,122.75**

Variable Operating Costs

Variable Costs	**Cost with tax**

Annual repair and maintenance - 1 utility tractor	$1,680.00
Annual repair and maintenance - 1 BCS	$560.00
Annual repair and maintenance - for 1 pickup truck	$1,680.00
Fuel cost	$1,960.00
Portable restroom service - monthly charge	$128.80
Irrigation repair and maintenance	$2,800.00
Garbage collections - monthly charge	$67.20
Water Usage	$1,736.00
Electricity Usage	
Subtotal	**$10,612.00**
Human Resources	
Program Manager	$71,136.00
Site Caretaker	$34,200.00
CRD Staff	$64,500.00
Subtotal	**$169,836.35**
TOTAL COSTS	**$180,448.35**

Appendix G – Panama Flats Cost Breakdown

Initial Capital Investment

Infrastructure	**Cost with tax**
Packing unit with cooler	$44,800.00
Washing station	$5,600.00
Propagation house	$3,360.00
Storage shed	$5,600.00
Subtotal	**$59,360.00**
Equipment and Machinery	**Cost with tax**
Utility Tractor - Kubota MX5400 4WD 55HP w/ front loader	$50,396.64
Implement-disc	$4,810.40
Implement-rototiller	$9,336.32
Implement-plow	$3,655.68
Implement-flail mower	$11,933.60
BCS - model 749 (PS)	$7,056.00
Implement - rotary plough	$2,016.00
Implement - rear tine tiller	$2,240.00
Implement - flail mower	$3,136.00

Weed Eater- 2 Cycle 26cc gas multi-function	$222.88
Pick-up truck F150	$54,880.00
Subtotal	**$149,683.52**
Tools	**Cost with tax**
Shovels	$72.63
Rakes	$72.63
Stirrup hoes	$504.00
Wheelbarrows	$672.00
Wheel hoe	$567.84
Subtotal	**$1,889.10**
Site Development Subtotal	**$95,836.47**
TOTAL COSTS	**$306,769.09**

Variable Operating Costs

Variable	**Cost with tax**
Annual repair and maintenance - 1 utility tractor	$1,680.00
Annual repair and maintenance - 1 BCS	$560.00
Annual repair and maintenance - for 1 pick up truck	$1,680.00
Fuel cost	$1,960.00
Portable restroom service - monthly charge	$128.80
Irrigation repair and maintenance	$2,800.00
Garbage collections - monthly charge	$67.20
Water Usage	$1,680.00
Electricity Usage	
Subtotal	**$10,556.00**
Human Resources	
Program Manager	$71,136.00
Site Caretaker	$34,200.00
CRD Staff	$64,500.00
Subtotal	**$169,836.35**
TOTAL COSTS	**$180,392.35**

Appendix H – Bear Hill Parcel Cost Breakdown

Initial Capital Investment

Infrastructure	**Cost with tax**
Packing unit with cooler	$44,800.00
Washing station	$5,600.00
Propagation house	$3,360.00
Storage shed	$5,600.00
Subtotal	**$59,360.00**
Equipment and Machinery	**Cost with tax**
Utility Tractor - Kubota MX5400 4WD 55HP w/ front loader	$50,396.64
Implement-disc	$4,810.40
Implement-rototiller	$9,336.32
Implement-plow	$3,655.68
Implement-flail mower	$11,933.60
BCS - model 749 (PS)	$7,056.00
Implement - rotary plough	$2,016.00
Implement - rear tine tiller	$2,240.00
Implement - flail mower	$3,136.00
Weed Eater- 2 Cycle 26cc gas multi-function	$222.88
Pick-up truck F150	$54,880.00
Subtotal	**$149,683.52**
Tools	**Cost with tax**
Shovels	$72.63
Rakes	$72.63
Stirrup hoes	$504.00
Wheelbarrows	$672.00
Wheel hoe	$567.84
Subtotal	**$1,889.10**
Site Development Subtotal	**$17,608.60**
TOTAL COSTS	**$228,541.23**

Variable Operating Costs

Variable	**Cost with tax**

Annual repair and maintenance - 1 utility tractor	$1,680.00
Annual repair and maintenance - 1 BCS	$560.00
Annual repair and maintenance - for 1 pick up truck	$1,680.00
Fuel cost	$1,960.00
Irrigation repair and maintenance	$2,800.00
Portable restroom service - monthly charge	$128.80
Garbage collections - monthly charge	$67.20
Water Usage	$1,400.00
Electricity Usage	
Subtotal	**$10,276.00**
Human Resources	
Program Manager	$71,136.00
Site Caretaker	$34,200.00
CRD Staff	$64,500.00
Subtotal	**$169,836.35**
TOTAL COSTS	**$180,112.35**

Appendix J - City of Victoria Community Garden Campaign

Purpose: To support gardens and urban food production on city and private lands.

Process: A city-wide consultation was conducted in 2016, asking communities across the city what they wanted to see in terms of gardening and urban food production. The consultation received a wide range of feedback and the notion of a "community garden space" was very well-supported.

Definition: A community garden is not exclusively for food production. It has a more diverse definition of a space that could be for vegetables, flowers, fruit trees, native plants – a demonstration and educational space to raise awareness about food production and biodiversity.

Outcome (to date):

1. Approximately seven community garden spaces have been created since the consultation.
2. Approximately 21 small urban farms have been established.
3. The creation and on-going operations of the South Island Farm Hub, which is an essential infrastructure for farmers.
4. Successful programs include Urban Food Trees Stewardship program that encourages community members to plant trees, and Boulevard Gardening which allows community members to use boulevard greenspaces that would otherwise be in grass.
5. Through this consultation, the city also removed many restricting policies surrounding selling food locally. This allowed even the smallest scale of gardeners/farmers to sell their products to local businesses and community members.

Benefits:

- Spaces to revive native or Indigenous plants, and to highlight traditional Indigenous foodways based on wild foraging of edible food and medicinal plants;
- Community building is key where people feel the connection and ownership to their neighbourhood;
- These spaces encourage one's connections to and interactions with food and growing.
- These spaces encourage physical activity and a healthy lifestyle of community members to be active and outside more;
- Holistic health is linked to one's natural environment and is "increasingly recognized in public health studies by the use of an ecological approach (Tharrey & Perignon, 2019)";
- Community garden spaces contribute to biodiversity through varied production methods and plant choices, which are key to sustainable food systems.

References

About the RHTF. (2021, June 2nd). Retrieved from Capital Regional District: https://www.crd.bc.ca/about/what-we-do/regional-housing/regional-housing-trust-fund#:~:text=About%20the%20Regional%20Housing%20Trust%20Fund&text=The%20Fund%20provides%20capital%20grants,moderate%20incomes%20in%20the%20region.

About Us. (2021, June 2nd). Retrieved from Sooke Region Farmland Trust Society: https://sookefarmlandtrust.weebly.com/

Affordable Housing. (2021, June 2nd). Retrieved from Capital Regional District: https://www.crd.bc.ca/crhc/about-us/what-we-do

Agriculture and Agri-Food Canada. (1998). *The Canadian System of Soil Classification.* Ottawa: NRC - Research Press.

Alliance, V. I. (n.d.). *Vancouver Island Map os First Nation*. Retrieved from Vancouver Island Economic Alliance: https://viea.ca/business-living-on-vancouver-island/first-nations/

Board Representation. (2021, June 2nd). Retrieved from Capital Regional District: https://www.crd.bc.ca/about/board-committees/board-representation

Capital Regional District. (2016). *Setting Our Table: Capital Regional District Food & Agriculture Strategy.*

Clam Garden Restoration. (2021, August 18th). Retrieved from WSANEC Leadership Council: https://wsanec.com/avada_portfolio/clam-garden-restoration/

Community Gardens. (2021). Retrieved from City of Victoria: https://www.victoria.ca/EN/main/residents/parks/community-gardens.html

Farm Credit Canada. (2021, March 15). *FCC Farmland Values Report 2020.* Retrieved from Farm Credit Canada: https://www.fcc-fac.ca/fcc/resources/2020-farmland-values-report-e.pdf

Fawcett-Atkinson, M. (2020, August 12th). Young BC Farmers can't afford farmland. Canada.

First Nations Health Authority. (2020). *Planning for Food Security: A Toolkit for the COVID-19 Pandemic.* First Nations Health Authority.

Greene, B., Geggie, L., Eastman, A., Harrison, S., & Rashleigh, J. (2018, August). *Sandown Community Farm Plan Overview.* Retrieved from City of North Saanich: https://northsaanich.ca/wp-content/uploads/2018-09-04-Sandown-Community-Farm-Plan-Overview-FINAL.pdf

Grimmer, B. J. (2021, January 1st). *Leasing farmland a vital strategy for farmers*. Retrieved from Country Life in BC: https://www.countrylifeinbc.com/leasing-farmland-a-vital-strategy-for-farmers/

Grimmer, B. J. (2021, January 1st). Leasing farmland is a vital strategy for farmers. British Columbia, Canada.

Haliburton Community Organic Farm. (2021, August). Retrieved from Haliburton Community Organic Farm: https://haliburtonfarm.org/

How we are governed. (2021, June 2021). Retrieved from Capital Regional District: https://www.crd.bc.ca/about/how-we-are-governed

Inc., L. L. (2014). *Panama Flats Concept Plan.* Saanich: District of Saanich Parks Department.

James, T. (2021, November 19th). (J. Cline, Interviewer)

Kenney, M., Dale, A., & Newman , L. (2016, April 25). *L'Ange Gardien: A Model Incubator Farm*. Retrieved from CRC Research: https://www.crcresearch.org/book/export/html/4777

KPU Farm Schools. (2021, July 29th). Retrieved from Kwantlen Polytechnic University: https://www.kpu.ca/farmschools

LADR Landscape Architect Inc. (2014, February 17). *Panama Flat Concept Plan.* Retrieved from City of Saanich: https://www.saanich.ca/assets/Parks~Recreation~and~Community~Services/Documents/Panama-Flats-Concept-Plan-2014.pdf

Masselink Environmental Design. (2007, June). *Newman Farm Preparing A Way Forward.* Retrieved from City of Central Saanich: https://www.centralsaanich.ca/sites/default/files/uploads/documents/newman_farm_master_plan.pdf

Metrovancouver. (2011, December 30). *Metro Vancouver Colony Farm Regional Park*. Retrieved from Metrovancouver: http://www.metrovancouver.org/services/regional-planning/PlanningPublications/ColonyFarmRegionalParkIncubatorFarmProgramReportDec2011.pdf

Mission & Purpose. (2021, June 2nd). Retrieved from Foodlands Cooperative of BC: https://www.foodlands.org/mission-purpose/

Nationwide. (2021, July 26th). *What is a trust fund, and how does it work?* Retrieved from Nationwide: https://www.nationwide.com/lc/resources/investing-and-retirement/articles/how-to-set-up-a-trust-fund

North Island College. (2021, 10 3). *Sustainable Farming*. Retrieved from North Island College: https://www.nic.bc.ca/programs/continuing-education-and-training/vocational-training/sustainable-farming/

Our Priorities. (2020). Retrieved from Sandown Centre for Regenerative Agriculture: https://www.sandowncentre.com/

Our Shared Vision. (2021, June 2nd). Retrieved from Haliburton Community Organic Farm: https://haliburtonfarm.org/about-us/

Scott, W. G. (2020). *A Review of Farmland Trusts: Communities Supporting Farmlnad, Farming, and Farmers.* The Land Conservancy of British Columbia and Farmfolk Cityfolk.

Smith, D. (2019, May 7th). *Cost of land just keeps going up: FCC Farmland Values Report*. Retrieved from Young Agrarians: https://youngagrarians.org/cost-land-just-keeps-going-fcc-farmland-values-report/

Smith, R. (2021, June 9th). Director of Progams and Operations. (J. C. Chiu, Interviewer)

South Island Farmhub. (2021, August). Retrieved from South Island FarmHub: https://shop.sifarmhub.ca/

Sussman, C., Dorward, C., Polasub, W., Mullinix, K., & Mansfield, B. (2016, March). *Home on the Range.* Retrieved from Kwantlen Polytechnic University: https://kpu.ca/sites/default/files/ISFS/Sussmann%20et%20al%202016_Home%20on%20the%20Range.pdf

Tharrey, M., & Perignon, M. (2019, May 17). *Does participating in community gardens promote sustainable lifestyles in urban settings? Design and protocol of the JArDinS study.* Retrieved from BMC Public Health: https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-019-6815-0

Upland Agricultural Consulting. (2019). *Capital Regional District Regional Foodlands Access Program Feasibility Study* .

Upland Agriculture Consulting, & District of Saanich. (2018, August). *Agriculture and Food Security Plan.* Retrieved from City of Saanich: https://www.saanich.ca/assets/Community/Documents/Planning/afs/Agriculture%20and%20Food%20Security%20Plan%202017%20August%2031,%202018%20Web.pdf

Welcome. (2021, June 2nd). Retrieved from Farmland Trust (Greater Victoria) Society: Farms today, food tomorrow: http://farmlandstrust.org/

What We Do. (2021, June 2nd). Retrieved from Capital Regional Housing Corporation: https://www.crd.bc.ca/crhc/about-us/what-we-do

W̱SÁNEĆ Leadership Council. (2021, August 18). *Who We Are*. Retrieved from WSANEC Leadership Council: https://wsanec.com/

Young Agrarians. (2021, August). Retrieved from Young Agrarians: https://youngagrarians.org/