



BX Ranchlands Development Plan

Final Project Report

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Institute for Sustainable Food Systems

Project Partners:



REGIONAL
DISTRICT
NORTH
OKANAGAN

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The BX Ranchlands Development Plan was a collaboration between the Regional District of the North Okanagan (RDNO), the North Okanagan Land to Table Network (L2T), and the Institute for Sustainable Food Systems at Kwantlen Polytechnic University (KPU ISFS). The plan aims to present a vision for the 132 acre BX Ranchlands remainder parcel in the Regional District of North Okanagan, that centers agriculture, education, community, sustainability and reconciliation.

This report has been prepared by the KPU ISFS. Thank you to the following individuals for their contributions to the project:

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Project Partners:



Kwantlen Polytechnic University's Institute for Sustainable Food Systems (KPU ISFS) is an applied research and extension unit at KPU that investigates and supports regional food systems as key elements of sustainable communities. Our programming includes two farm schools in the lower mainland of BC. KPU ISFS has also just completed a 3 year applied research project in the Okanagan on the potentials of a bioregional food system, of which the RDNO was a key partner, and is also working with the BC Ministry of Agriculture and Food on the development of a BC Extension service for the organics sector in the province. KPU ISFS provided technical expertise and overall project management.



The Land to Table Network of the North Okanagan (L2T) is an organization dedicated to strengthening food systems in the North Okanagan, and have strong connections to the local agricultural community, intimate knowledge of the North Okanagan food system. L2T took a lead role in the community engagement components of the project.



The Regional District of North Okanagan (RDNO) is a regional government in the North Okanagan region of BC. Its electoral areas 'B' and 'C' are the landowners of the BX Ranchlands parcel, with a vision for a viable agriculture and community asset. The RDNO has funded the development of this plan and advised throughout the process.

The Institute for Sustainable Food Systems is located in the Southwest BC Bioregion of British Columbia, on the unceded traditional and ancestral lands of the Kwantlen, Musqueam, Katzie, Semiahmoo, Tsawwassen, Qayqayt and Kwikwetlem peoples.

The project team is grateful to work and live on the unceded territories of the Lukwungen, Sn̓Pínk'tn, and S̓p̓latsin, member bands of the Coast Salish, Syilx, and Secwem̓pmc nations.



Image Source: Annelise Grube-Cavers

Executive Summary

The BX Ranchlands Development Plan outlines the planning process and design for the BX Ranchlands property in the Regional District of the North Okanagan, a 132 acre parcel in the Agricultural Land Reserve that has historically been used for agriculture. It was recently purchased by Electoral Areas B and C to preserve it for agriculture and community uses, after a perimeter trail was created. The Institute for Sustainable Food Systems at Kwantlen Polytechnic University (KPU ISFS) and the Land to Table Network of the North Okanagan (L2T) collaborated to undertake a planning process between October 2021 and June 2022, that included

significant community and stakeholder engagement. The resultant plan includes a five-year site development plan, budgets and governance structure, and makes recommendations for an implementation strategy and long-term management of the site. Additional reports detail the findings of the site assessment and community engagement components of the project.

With fertile agricultural soils across the majority of the site, and with improvements to existing irrigation infrastructure, the site has the potential to support a range of

agricultural activities. Key areas are also very important for wildlife habitat, including species at risk. Like other regions in the province, the North Okanagan agriculture sector faces high farmland prices and an aging farmer population, making access for new and young farmers both important and difficult. At the same time, ongoing discussions hosted by the LZT in the food system community have revealed a desire for farmer training and education opportunities in the region. Community interest and engagement in the site is high, and something the Regional District would like to continue to encourage. Simultaneously, the Okanagan Indian Band is undertaking complimentary work and a food security plan for their members.

The site plan for this project aims to improve access to land for new and expanding farmers, develop a community space that maintains passive recreation functions, connects to Vernon's existing network of parks and open spaces, conserves natural habitats and wildlife spaces, and successfully integrates agriculture and education. Key activity areas proposed for the site include habitat protection areas, with other uses occurring on the remaining lands. These uses include farmland leases, a community garden, a food forest and pollinator meadows, community farm, and research and teaching farm. The proposed site plan was designed to align with project values created by the key stakeholders: ecological stewardship, local harvesting, agriculture, education and community building, underlain by a commitment to equity, reconciliation and decolonization.

A hybrid governance structure is proposed which includes joint management by the RDNO and a non-profit organization (NPO), with oversight by an Advisory Board. An evaluation of 6 existing NPOs

and organizations revealed that although each has relevant expertise, none are ideal to take on the site coordination and management at this time. As such, a new NPO is recommended. Recommendations for management in the interim can be found in the recommendations and next steps section of the report.

The budget includes costs incurred and revenues received by the RDNO only. As most activity areas would be run by partner organizations, budget information for these areas is presented in appendices and not included in the overall summary. The summary budget presented is not balanced, due to the salary costs for a necessary site coordinator. However, if the coordinator is funded separately, then revenues from farmland leases more than cover the costs. Additional resources will be needed to support implementation and cover some capital expenditures, and suggestions have been made including grant opportunities, volunteer programs, and corporate/industry donors.

Ventures such as these, which present opportunities for agricultural activities guided by community values, present an opportunity for collaborative agricultural stewardship and food provisioning. While the proposed plan will not bring the RDNO significant revenue, through strong partnerships with other community organizations, it has the potential to achieve its objectives and bring the North Okanagan community and food system significant resilience and co-benefits. The findings may also be a guide for other communities in British Columbia undertaking similar projects.

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1. Introduction

The purpose of the BX Ranchlands Development Plan process is to develop a 5 year phased development plan for the 132 acre BX Ranchlands parcel at 4122 East Vernon Rd. The site is owned by Electoral Areas B and C, and is seen as a community resource for agriculture, passive recreation, and habitat conservation. Developing a community vision for the site is a key part of the process.

1.1 Project Background

In 2016 the RDNO purchased the BX Ranchlands parcel to create a perimeter trail, and discussed subdividing and selling the remaining section. At that time there was much community support expressed in

favor of keeping the lands in public hands, spearheaded by the BX-Swan Lake Community Association, who in 2017 conducted ongoing surveys and circulated petitions to keep the remainder parcel in public hands. Over 1500 signatures were gathered and some 40 separate surveys gathered. Interest ranged from supporting community agricultural uses, as well as maintaining an important piece of habitat and greenspace in the neighborhood (BX Swan Lake Community Association , 2020).

In January 2021, after successfully subdividing 35 acres for the creation of a perimeter trail, the RDNO Board resolved to sell the remaining 132 acre section to Electoral Areas B and

C. There remains keen public interest in the potential use and development of the lands.

Agricultural land prices continue to increase across British Columbia, particularly in the Okanagan. (Farm Credit Canada, 2022). The average cost of farmland in the Okanagan had reportedly risen to nearly \$30,000/acre by the end of 2021 (Penton, 2022). At the same time, the Land to Table Network in the region has heard consistently of the need for more skilled agricultural labor, programming and skills to support new and emerging farmers, and a need to engage the community in local food, especially children. Community groups have developed unofficial visions for the site including an agricultural park, trail connections, critical riparian habitat restoration, carbon sequestration, land access for new farmers, increased local food production, and social services provision (BX Swan Lake Community Association , 2020).

The RDNO asked KPU ISFS to prepare a proposal for a five year development plan to establish agriculture education and extension programs on the BX Ranchlands.

This document outlines the objectives, planning process, program elements, land use plan, phasing, budget, and next steps for the proposed development plan for the BX Ranchlands.

Why Regional Food Systems?

Our current food system faces an array of challenges, including but not limited to economic losses for local economies in support of the global system, supply chain vulnerability, increasing farm profits but not farmer livelihoods, and eroding ecological health.

Communities are increasingly looking to regional food system alternatives to address these challenges.

Evidence suggests that regional food systems can increase local economic benefits as food expenditures remain within the local economy, supply chains are shortened, equity is improved, and greater engagement with our food system is possible (Mullinix, et al., 2021).

This BX Ranchlands Development Plan supports regional food system development in the North Okanagan.

2. Site Assessment

The BX Ranchlands is a large, 132 acre parcel of undeveloped agricultural land in the Agricultural Land Reserve in the North Okanagan region of British Columbia, near the city of Vernon. The lands form part of the traditional, unceded territories of the Okanagan Indian Band (OKIB) of the Syilx Okanagan Nation, and Splitsin Band of the Secwépemc Nation, and was a traditional hunting and foraging area for these nations (Okanagan Indian Band, 2022). Historically, the property provided pasture and hay for horses of the BX Express stagecoach service which served the province through the movement of people, goods, and communications (History - Barnard's Express, 2022).

The following site assessment outlines the biophysical, social, and cultural characteristics of the site that are influenced by the historical use of the land. This analysis will help to determine the suitability of the site objectives and activities outlined by the RDNO and the project Working Group advisors.

This site assessment will include 3 components: soil analysis, site analysis, and context analysis. For greater detail please see the full Site Assessment.



View looking east from farm centre towards old barn site
Image Source: Annelise Grube-Cavers



View south down centre fenceline.
Image Source: Annelise Grube-Cavers



View looking north towards douglas fir stand.
Image Source: Annelise Grube-Cavers



View looking west from farm centre.
Image Source: Annelise Grube-Cavers

2.1. Soil Analysis

Summit Environmental Consultants provided a thorough agricultural capability assessment for the site in 2015 (Summit Environmental Consultants Inc., 2015).

Methods of analysis included reviewing existing soil and agricultural capability mapping, climate data, satellite imagery and mapping, reports, and applicable data files. Analysis was followed by field investigation to verify the latter. Eleven soil pits were dug throughout the property following the Ministry of Environment Land Capability Classification for Agriculture manual (Agriculture and Agri-Food Canada, 1998).

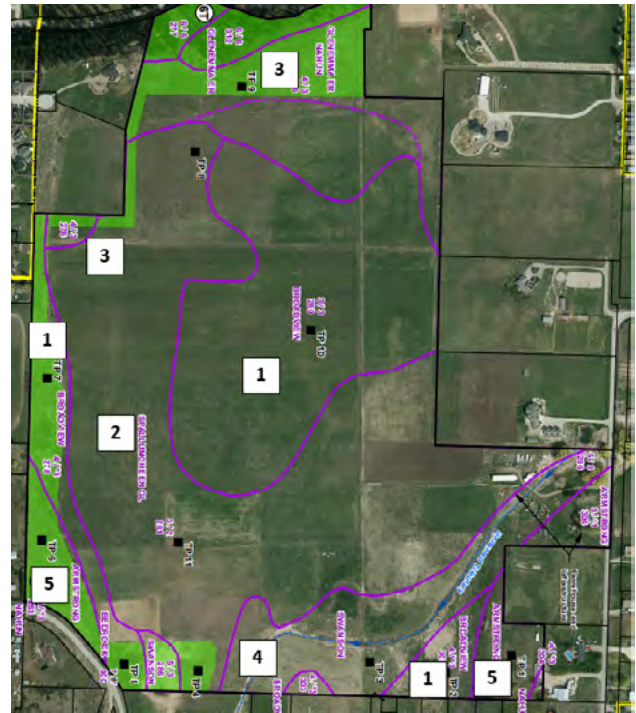
The site contains 5 soil types (seen in map 1):

1. Broadview (clay and clay loam)
2. Spallumcheen (silty clay)
3. Nahun (sandy loam)
4. Swanson/Nisconlith (clay loam)
5. Armstrong (sandy loam)

The soil types found onsite are generally quite good for agricultural production. Clay soil has a high water holding capacity, while silt and sandy loam are well drained, and can be rocky at times. The land has a natural drainage sloping to the centre of the property and to the south (ranging from 0-8%). The property is susceptible to out-of-season frosts, rendering it unusable for fruit orchards, but soil types would be amenable to all other vegetable, forage, and berry production.

2.2. Site Analysis

In 2018 the RDNO contracted Associated Environmental (AE) to conduct a biophysical study and inventory of BX Ranchlands; this included a wildlife and vegetation inventory, and an agricultural suitability assessment. The study characterized six ecological habitat



Map 1: Soil Sample Sites and Types (Summit Agricultural Consultants Inc., 2015)

areas, documented wildlife species present, habitat values, and potential for wildlife use. From this context AE assessed the potential for appropriate agricultural land capability and suitability (Associated Environmental, 2019)).

2.2.1 General Ecology

The site is ecologically diverse, containing 6 different habitat areas that support a mix of vegetation and wildlife. These include:

1. Mature Douglas Fir Forest
2. Agricultural fields
3. East-facing grassy slopes
4. Graminoid wetland
5. Hog's Gulch
6. Farmhouse area

AE's vegetation survey identified 30 different plant species on the site, and 11 different invasive plants (Associated Environmental, 2019).

2.2.2 Wildlife Inventory

Natural wildlife corridors were observed on site in 2018; perimeter fencing has since disturbed some of this movement. Three wildlife surveys were conducted by AE (morning, day, and evening) throughout the 6 existing habitat areas. In general, the BX Ranchlands provides suitable habitat for:

- small mammals
- deer and badger
- reptiles
- amphibians
- bats

13 wildlife species identified on site are provincially listed as species of conservation concern, making BX Ranchlands an important site for its wildlife, vegetative, and ecological importance (Associated Environmental, 2019).

The North Okanagan Naturalist Club collaborated with AE for a substantive bird

survey. Of 101 species that may use the habitats on site, 93 are likely to occur, and 38 were observed during the survey; five provincially listed species were seen during this survey (Associated Environmental, 2019).

2.2.3 Agricultural Suitability and Land Potential

Both AE and KPU ISFS strongly recommend keeping any agricultural activity within the agricultural fields habitat, to conserve and protect the other important habitats found on site. AE found the agricultural fields suitable for agricultural production based on the land's capability to produce, access (road and machinery), and proximity to irrigation sources (Associated Environmental, 2019). Observed limitations to this capability were:

- soil moisture deficiency
- dense and compacted subsoils
- prolonged wetness of fields into the growing season

These limitations do not preclude agricultural production, as the property has been farmed for over 30 years in hay forage. See section 2.4 Opportunities and Challenges for recommendations to address these limitations.



June 27, 2022

Habitat Areas



Map 2: Habitat areas of the BX Ranchlands

2.3 Context Analysis

The BX Ranchlands property is surrounded by residential single-detached home properties, BX Park, Mutrie Road Dog Park, and Black Rock Park, and is adjacent to the Radies Wetland. Approximately 35 acres have been subdivided and form a part of the RDNO-managed Greater Vernon Parks trail network. This portion is now managed under the oversight and budget of the Greater Vernon Advisory Committee.

The BX Ranchlands property has been tied to a water license on BX Creek since 1873, prior to incorporation of the City of Vernon, and has been utilized as an agricultural field since then, primarily growing forage and hay crops, as well as over-wintering horses and cattle. There are currently 28,500 cubic meters of water available annually from the Greater Vernon Water District, enough water for approximately 19 acres of irrigation (if water is used for irrigation from April 1st to October 31st - if water is used beyond this date range the area under production would be less). This water is treated along with the rest of the municipal water, and is therefore potable.

The other source of irrigation water, and by far the greater volume of water allocated to this parcel of land is from BX Creek. The water license dates back to 1873 and includes 328,000 cubic meters of water, allowing for the watering of more than 132 acres from April 1st to October 31st. In 2017 the existing water intake on BX Creek was washed out by a significant flood event, and has yet to be reconstructed.

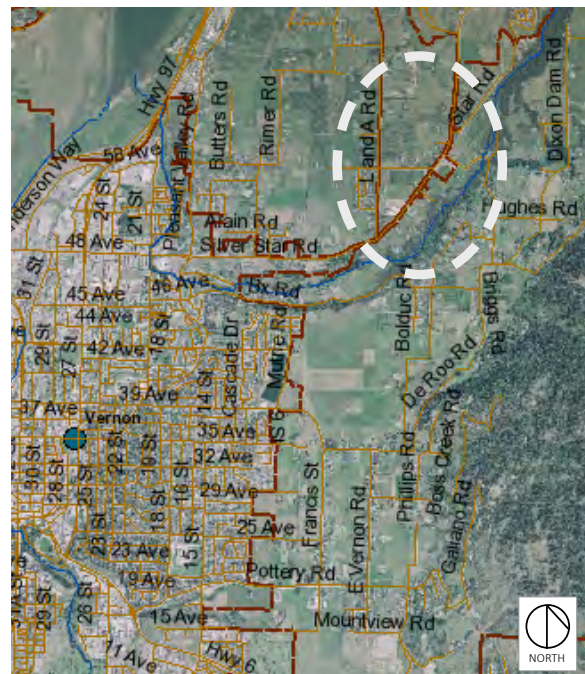
2.3.1. Current Uses

The internal property (agricultural fields) is in forage and hay. The other habitat areas are being utilized by various wildlife species.

The current perimeter trail is utilized daily by neighbors and local residents for walking, dog walking, and nature viewing. The trail is

accessible from both Mutrie Dog Park access gate, and the main parking lot off of East Vernon Road.

Electoral Areas B and C have a pending application with the ALC to create a connecting perimeter trail along the north and east boundaries of the property, thereby creating a full loop for pedestrians, dog-walkers, and equestrian users. Community engagement identified the trail completion as a high priority for the community, and the primary draw for current users of the site.



Map 3: Site context East of Vernon, at the base of Silver Star Mountain



March 29, 2022
 BX Ranchlands Site Plan: Existing

Map 4: Current site conditions including habitat and trail

2.4 Opportunities and Challenges

Based on the three site assessment components (soil, site, and context analysis), opportunities and challenges have been identified for the BX Ranchlands. These challenges affect the current and future use of the site.

Soil moisture deficiencies were identified by Summit Environmental Consultants Inc. in their analysis of the soils at BX Ranchlands. Addressing their challenges will allow for greater production capacity of the land.

The importance of invasive species and weed management was a point of concern of the Advisory Working Group and multiple site neighbors during the community consultation period.

Lastly, without viable and consistent irrigation access, any agricultural production on site will be very challenging.

Table 1: Soil, Site and Context Analysis Challenges and Opportunities

SOIL ANALYSIS	
Soil moisture deficiencies	
Challenges	Opportunities
Dense and compacted soils	Bringing pasture into production to increase soil aeration with organic and regenerative practices (eg. livestock production, subsoiling, adding organic matter).
Prolonged field wetness into the growing season.	Grow appropriate crops in these areas.
Dry fields in the summer.	Add irrigation capacity.

SITE ANALYSIS	
Invasive species and weed management	
Challenges	Opportunities
Needs to become a higher priority as invasive species and weeds are going to seed in certain sections of the property.	Parks department and current tenant to create a more time sensitive detailed management strategy for 2022.

CONTEXT ANALYSIS	
Irrigation	
Challenges	Opportunities
Existing water intake on BX Creek washed out in 2017 from flooding.	Re-installing water intake provides irrigation opportunities for multiple site users.

3. Planning & Design Process

3.1 Stakeholder Engagement and Consultation

The ongoing public interest in the BX Ranchlands after the sale of the lands to Electoral Areas B and C indicates a keen public interest in the site and its future. As such, ongoing community involvement is important. KPU ISFS and L2T worked to engage the OKIB throughout the project, building on L2T’s existing relationship with OKIB (throughout project). The project team (also referred to as the steering committee) created an advisory working group of key community stakeholders to provide vision and input on the plan at each stage of its development (December 2021-April 2022), and conducted wider community outreach and engagement opportunities in the Spring of 2022.

The objective of these activities was to assess the community and key stakeholder needs and vision for the BX Ranchlands site to ensure programming and activities meet the interests of the OKIB, community members, the RDNO, and other relevant stakeholders.

Working group members were asked to participate in approximately 6, one-hour online meetings between December 2021 and May 2022. Participants were offered an honorarium for their time by the RDNO where appropriate. Refer to Appendix A for a full list of working group and steering committee members.

Working group and steering committee members collaboratively created a set of values and guiding principles to direct future decisions in the development plan process (seen in figure 1). Three core values were identified:

- 1. Ecological stewardship and sustainability;
- 2. Local harvesting and agriculture;
- 3. Education and community building.

Woven throughout these core values is a commitment to the principles of **equity, reconciliation and decolonization**. More specifically, this means ensuring that programs and spaces are designed to be accessed and enjoyed by peoples of diverse ages, mobilities, genders and cultural backgrounds. This also means striving towards a socially and environmentally just plan that promotes relationship building and collaboration between OKIB and RDNO citizens and governments.

For detailed information on the working group, see the “Community Engagement Report.”

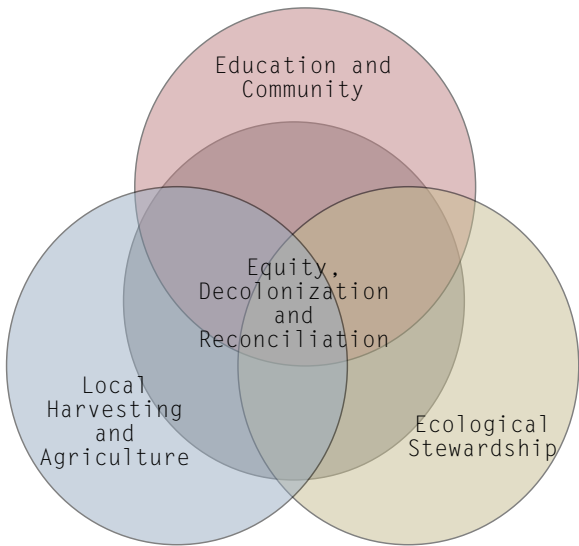


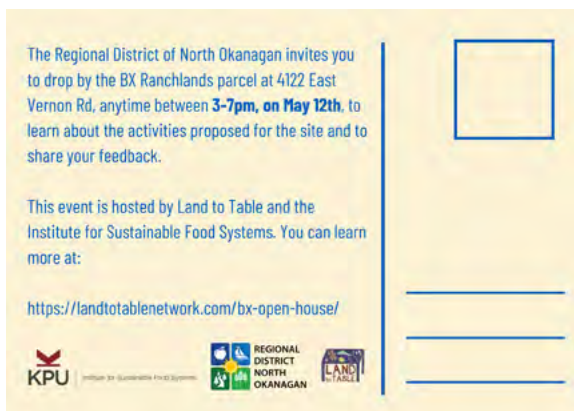
Figure 1: Key Project Values and Guiding Principles

3.2. Public Consultation & Outreach

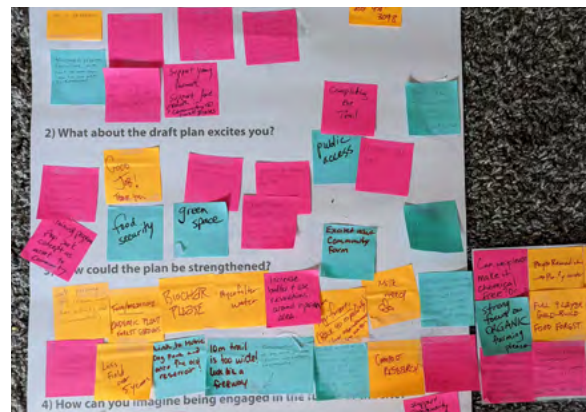
The steering committee used the working group as a proxy for community values early in the process, and brought a draft plan to the general public in the spring of 2022. Online and in-person engagement was conducted. The detailed “Community engagement report” contains the detailed methods and findings. The feedback received from these engagement activities informed the final plan development.



Participants review project information and site plan at the May 12, 2022 open house event at the BX Ranchlands site. Image source: Kristi Tatebe



Postcard invitations were mailed to area residents inviting them to provide feedback online and at the open house.



Feedback was received via post-it notes at the in-person open house. Image source: Kristi Tatebe

4. Market Analysis

Understanding the current state of the agriculture sector in the region is important, to identify gaps and opportunities that could be addressed through this development plan project. Vernon is the second largest municipality in the Okanagan valley, and the key urban center in the RDNO. It has historically experienced rapid growth and development. The community, agricultural, and economic context of Vernon are important in shaping the development plan.

4.1 Vernon's Current Agri-food Sector

Vernon has a long agricultural history, and farming remains important to the community. The RDNO's 2015 Regional Agricultural Plan (RAP) states that "Agriculture is an important part of the North Okanagan's past, present, and future identity and offers everyone an opportunity to become connected to the local food system" (Regional District of North Okanagan et al, 2015).

Agriculture represents an important economic sector of the RDNO, according to the 2016 census data (Statistics Canada, 2016):

- Total farmland area: 81,336 hectares; 68,921 are designated ALR.
- 1,039 farms employing 1,411 people
- Total gross farm receipts: over \$15 million

Of the 81,336 hectares of farmland, 4% of the land is used for crop production. The top four crops and their area, in hectares, are (Statistics Canada, 2016):

1. Hay crops - 12,560;

2. Field crops - 5,657;
3. Fruits, berries, and nuts - 676;
4. Vegetable crops - 4,953 (4,785 in greenhouse production).

The most common types of livestock raised in the RDNO are beef, equine, poultry and dairy (Minsitry of Agriculture, 2016). The livestock sector plays an important role in the region, and is reflected in the significant dedication of land to forage crops.

4.2 Key Themes in the Sector

Challenges for new farmers

According to the 2013-2014 Agricultural Land Use Inventory, the biggest challenges facing the agriculture sector in the North Okanagan region include (Minsitry of Agriculture, 2016):

- Expensive land;
- Access to processing facilities for livestock;
- Competing water demands and increased cost;
- Aging farmer population with no succession plan.

Agricultural Education Opportunities

Despite the region's strong agriculture sector, there are limited education opportunities for farmers, especially those interested in vegetable and livestock production, as the only regional program is a Viticulture Certificate from Okanagan College (Okanagan College, 2022).

British Columbia's Minsitry of Agriculture offers two programs specifically for agri-businesses:

1. B.C. Agri-Business Planning Program - Business Plan Coaching
2. Ministry of Agriculture and Food - Programs and Services for New Entrants

North Okanagan Community Futures has offered the REACH Program, a program designed for agricultural business development. However, there is no current funding to support this program.

Young Agrarians is the only organization in the region offering education opportunities for new farmers through three programs (Young Agrarians, n.d.):

1. Business Boot camp: Online community based and supported program to support farmers in writing a business plan.
2. Mentor Network: Online program that pairs new and seasoned farmers to cultivate business and production skills.
3. B.C. Land Matching Program: Provides personalized land matching and business support services to farmers, and landholders wanting someone to farm their land.

Access to Land

Affordable access to land is one of the key barriers to new and established farmers. (source; Upland Consulting, 2019, Farm Credit Canada, 2021).

With farmland prices at an all-time high in British Columbia, creating stable leases for farmers supporting the local food economy, is essential. In 2021 the price of farmland values across British Columbia rose 18%, with the Okanagan seeing an even greater increase of 21% on average, with the lowest reported selling price being \$20,000/acre (Farm Credit Canada, 2021).

While these programs are beneficial, they do not provide a first step for those starting a career in agriculture.

4.3 Local Policy Supporting BX Ranchlands Development

The RDNO's development is guided by its Regional Growth Strategy (RGS), which provides a policy framework for growth management, amongst other priorities. It recognizes the "diverse natural habitat" and that "agricultural lands are protected and a sustainable regional food system is supported and encouraged" (Regional District of North Okanagan, 2011;2019). Two other guiding policy documents are Vernon's Official Community Plan (OCP) from 2013 and the RDNO Regional Agricultural Plan (RAP) from 2015. Supporting the development of this land aligns with priorities 1,2,3,5 and 7 from the RAP (Regional District of North Okanagan et al, 2015):

1. Protecting Farmland and Farmers
2. Strengthening the Local Agricultural Economy
3. Encouraging Sustainable Agricultural Practices and Climate Change Resilience
4. (5) Ensuring Farmland Availability for Emerging and Multigenerational Farmers
5. (7) Raising awareness through Education and celebration of Agriculture

Additionally, congruence with the OCP is seen in the following 4 statements from the RAP (Regional District of North Okanagan et al, 2015):

1. Maintain and diversify the agricultural land base.

2. Support a robust and diverse agricultural economic sector.
3. Encourage a healthy, accessible and resilient food system.
4. Support regional governance based upon a foundation of regional cooperation.

4.4 Emerging Trends and Opportunities

Three regional organizations provided insight to emerging trends and opportunities in the RDNO agriculture sector and food system.

Land to Table Network

The L2T hosted two forums (2019 and 2020) engaging North Okanagan residents on themes of local food systems. 2019's theme was 'Growing Local Connections Between Food and the Environment', and 2020's was 'Bridging Gaps: Exploring Local Food Access in the North Okanagan.' The stakeholders included local farmers, food systems workers and advocates, policy makers, and community members (Land to Table Network, n.d.). Key themes emerging from these forums included **supporting farmer education** and **building support for local food within the broader community; enhancing equity and economic opportunity for farmers; promoting environmental stewardship;** and **expanding Indigenous relations and decolonization.** Across these themes, emerging trends, challenges, and opportunities can be distilled as follows:

Emerging Trends

- Shifting consumer attitudes towards purchasing local seasonal food over imported food
- Increased attention on supporting pollinators and habitat protection
- Exploration of collaborative tourism ventures
- Belief in the importance of protecting regional farmland

Challenges

- Limited education opportunities for new and aspiring farmers
- Difficult for new farmers to access land (high land values)
- Limited water availability on existing farmland

Opportunities

- Improving education and engagement with schools and families through gardening and food programs
- Increasing viability of small to medium scale farms through external supports (financial, social)
- Expanding market opportunities for local farmers
- Identifying opportunities to align with or support Indigenous food sovereignty actions
- Adopting a relationship-first approach to food security
- Encouraging sustainable farming practices and the use of ecologically-based conservation programs specific to farmlands; i.e. Environmental Farm Plan
- Taking collaborative action on food justice

Young Agrarians

Young Agrarians (YA) is a farmer-to-farmer education and network resource, and they run a very successful land matching program in the Province of British Columbia (Young Agrarians, n.d.). Regional YA staff provided some insight to the emerging trends, challenges, and opportunities of farmers in the RDNO (Thompson, 2021).

Emerging Trends

- Increase of vineyards and cideries in the area
- Move of tree fruit orchards north due to climate change
- Adaptation of vegetable producers to online markets because of the Covid-19 pandemic
- Increasing demand for local food

Challenges

- Minimal start-up financing available for new farmers
 - Access to land due to high land values
 - Access to farming training and education
 - Shortage of farmers to take on leased land
-

Opportunities

- High demand and need for grazing land and forage production
 - Low competition for livestock farming
 - ALR land owners wanting to lease out land
 - Productive agricultural region
-

North Okanagan Community Futures

North Okanagan Community Futures (CF) offers employment, business and economic development, and loan services in the North Okanagan to help residents build their futures and community. The Business Services Manager for CF offered insight to challenges, opportunities, and emerging trends for the farming community in the North Okanagan (Mullin, 2022).

Emerging Trends

- Need for farm businesses to create contingency and disaster planning, coming in the wake of a worldwide pandemic and regularly occurring climate and environmental disasters

Opportunities

- Build regional food hub facilities
- Create funding and support for facilitating the REACH program
- Automation efficiencies for farm business

Challenges

- Lack of business support in human resources (salary and wage subsidy programs)
- Lack of skilled labor regionally
- Need for processing spaces and commercial kitchens

This insight comes from running the REACH program for two years; REACH is a 22-week, five phase program where farmers can access learning, growth planning tools and resources to reach their business goals; individualized to each farmer and their business (Community Futures, 2022). An important component of the REACH program is the peer networking between farmers. Unfortunately, CF does not currently have funding to continue this program.

Across these observations, common challenges and opportunities emerge. These include:

1. Challenges accessing land for new and aspiring farmers;
2. The need for education and training for farmers, and food system education within the school system, and for the larger community;
3. Building the market for a regional food system to support supply (farmers) and demand (consumers).

The site plan developed seeks to address these key gaps and opportunities, to support and advance the regional food system in the North Okanagan.

5. Site Development

Based on feedback from the working group, the project team determined the activities that would best fit the site and community context.

Initially, some basic infrastructure development will need to occur (detailed in section 5.2.1 Site Servicing and Infrastructure), followed by specific site activity development. Six main

site activities have been identified. This section presents these 6 activities, and a few additional plan elements, their alignment with the project values and principles, and a brief description of their siting and area allocations. Phasing will be discussed in a subsequent section.

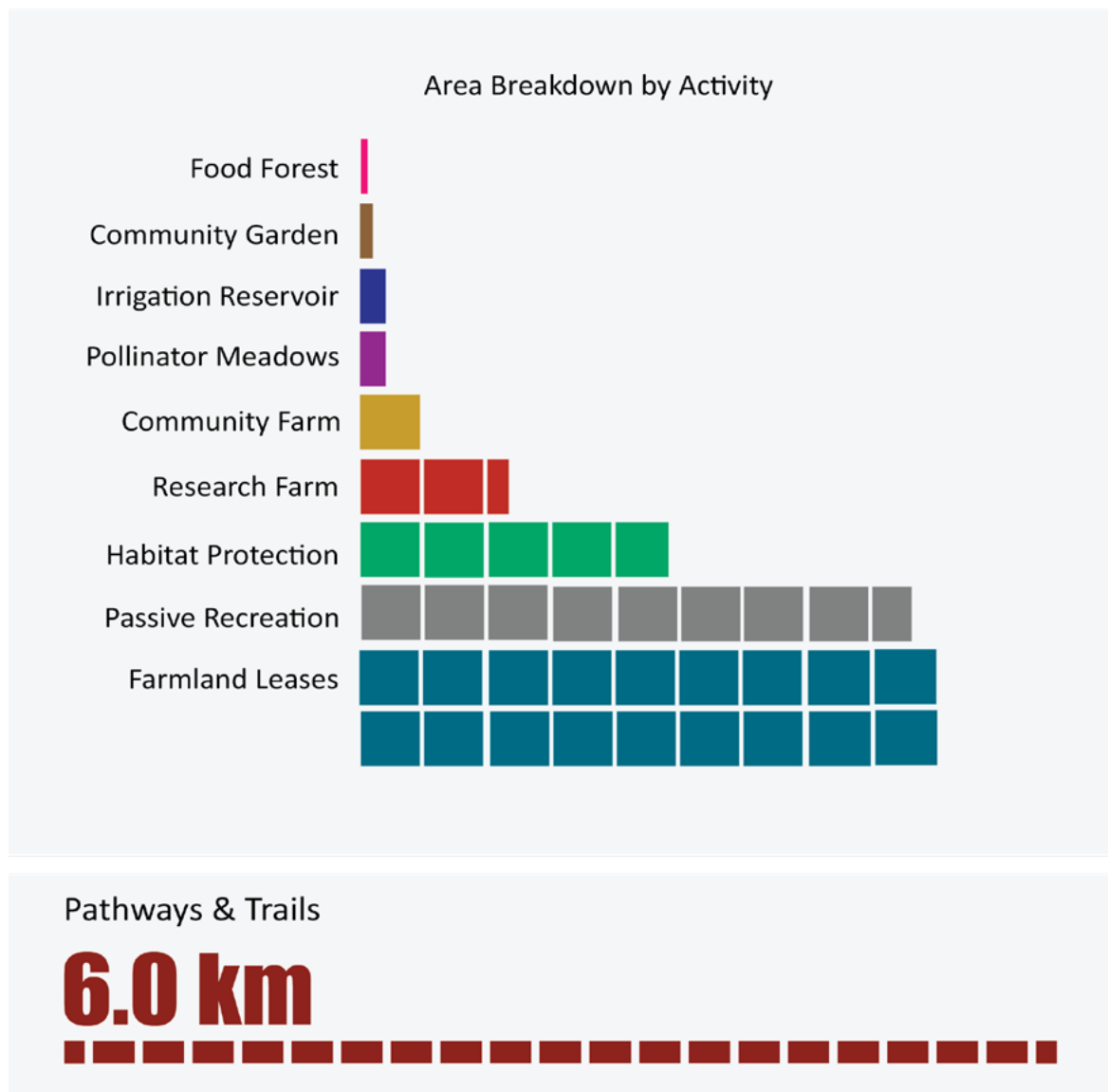


Figure 2: BX Ranchlands Activity Area Breakdown

5.1. Site Plan



Map 5: Proposed land use plan for the BX Ranchlands site, at the end of the five year development timeframe.

5.1.1 Habitat Areas: 24 acres

Existing habitats include a mature Douglas fir forest, cattail wetland, hog's gulch, and graminoid wetland riparian areas. Badger dens can also be found. These spaces could support Indigenous harvesting practices and contribute to the health of local ecosystems. As such, they should be protected from development or disturbance and with appropriate partnerships and funding, restoration should also be pursued. The exact setback areas should be determined by a qualified environmental professional and may require expansion. Long term, these areas would be connected by hedgerows throughout the site to allow movement of wildlife through the site and on to the neighboring Radies Wetland, and Black Rock Park. Hedgerows also provide windbreaks, enhance biodiversity, and provide food for pollinators. Habitat protection fulfills the principles of **ecological stewardship** as well as offering opportunity spaces for **education and community building**.

5.1.2 Leasehold Plots: 90 acres

To contribute to land access for farmers, the majority of the site will be dedicated to farmland leases. The area allocated to leasehold plots consists of prime agricultural soils. Providing farmers with reliable access to land will support local agriculture and strengthen regional food systems. Leases could range in size from 1 to 20+ acres, depending upon the type of agricultural business. These areas are located farthest away from the farm "centre" area near the access point on East Vernon Road, to minimize foot/vehicular traffic to these farming areas. Access would still be via East Vernon Road, via a farm ring road. Lessees would have access to irrigation and the opportunity to collaborate with other land-

users. Individual lease locations would be determined by the types of crops being farmed and their irrigation needs, and the willingness of lessees to farm without chemical inputs. The northernmost areas of the site have slightly poorer agricultural soils. One suggestion from the community for this area was a native plant nursery/seed production business, due to the low availability of plant and seed stock locally (Davidson, 2022). As this area is bounded by the perimeter trail, it could also serve an education function via signage and demonstration plantings.

Managed without the use of chemical inputs, this land use supports opportunities for **local harvesting and agriculture**, including enhancing food security in the area as well as adhering to the principles of **ecological stewardship**.

5.1.3 Community Garden: 1 Acre

Community garden spaces have proved to be highly effective initiatives for community and neighborhood building, which is a key element in developing sustainable communities (Institute for Sustainable Food Systems , 2022). There are currently 3 community gardens in Vernon proper: East Hill Community Garden, West Vernon Community Garden, and Trinity United Church; all currently are full and have waiting lists. Patchwork Garden has been a community garden space since 2012 but their lease is ending at the Okanagan College Campus March 2022, effectively making 2021 the last season of production (Regional District of North Okanagan , 2021).

A community garden could be built close to the parking lot and perimeter trail, providing access to 40 raised beds for community

members of all ages and abilities. This space would replace recently lost community garden space, and will provide accessible opportunities for **local harvesting and agriculture**, and **education and community building**.

5.1.4 Food Forest: 0.5 acre

Food forests are biodiverse ecosystems, combining food forestry and agroforestry methods, and are rooted in Indigenous methods of cultivation and designed to encourage the growth of plant foods, medicines and materials. Establishing one on site would support ecological stewardship through local harvesting and a space for education and community building. The proposed location near the entrance and parking would facilitate ease of access and public interaction with the education potential of such a food forest. That said, additional food-forest like plantings could also be established in hedgerows throughout the site. Establishment of a food forest would provide opportunities for **ecological stewardship** through **local harvesting and agriculture**, and a space for **education and community building**.

5.1.5 Pollinator Meadows: 2 acres

Pollinator meadows attract birds and insects that will support the surrounding ecosystem through pollination. 2 acres could be allocated for the creation of two pollinator-friendly meadows. However, pollinator-friendly plants could be included throughout the site, in semi-natural areas or in hedgerows. Having these plants on site is an act of ecological stewardship and an excellent education opportunity. The designated area near the farm centre is located in a frost pocket that may be unsuited for other uses,

and also borders the historic barn. Given that the barn is intended to be used occasionally for events/photos, pollinator friendly plantings like sunflowers, lavender and other flowers would fit well here. The other main area is located along the slope near the Western portion of the trail. Having pollinator meadows as part of the landscape is a way of providing **ecological stewardship** and passive **education** opportunities.

5.1.6 Community Farm: 5 acres

Unlike a community garden which has plots for community members, a community farm would be a demonstration production farm, run by a non-profit organization, and would sell half of its produce, and provide the rest to community organizations like local food banks, school lunch programs, or the Good Food Box. The farm could also host field trips for K-12 students, student internships, and workshops for the wider community. As such, it functions as both a community/education space, and an agricultural production area. To encourage ease of access and interaction with the public using the perimeter trail, the community farm is located adjacent to the trail and farm centre area. With a focus on chemical-free food production, food provision, and food education for the community, this land use supports the project principles of **ecological stewardship**, as well as opportunities for **local harvesting and agriculture**, and **education and community building**.

5.1.7 Research and Teaching Farm: 12 acres

This area will be allocated to research and knowledge mobilization around regenerative agricultural practices and will support the agriculture community. The space could also include a farm school, with education

opportunities for local farmers like workshops, field days, farm tours and conferences. This could be managed by KPU in collaboration with local organizations and educational institutions. Research projects could also be carried out on these lands, in partnership with these same institutions. As with the community garden, the research and teaching farm is located nearby the farm centre for ease of access.

The research farm encompasses all 3 core values and principles: **ecological stewardship, local harvesting and agriculture, and education and community building.**

5.1.8 Farm Centre

The farm centre is the area immediately adjacent to the entrance and includes the parking lot, access gate, pole barn area, and historic barn site. This is the main access to the site. Signage here could indicate the overall site plan and goals.

5.1.9 Irrigation Reservoir: 2 acres

Due to the limitations imposed by seasonal water restrictions when creek levels drop below an acceptable threshold, an irrigation reservoir has been proposed to extend potential irrigation on the BX Ranchlands site. The first phase of the irrigation holding pond, or reservoir, is proposed to be 1 acre, while the second phase would expand the reservoir to be 2 acres in total. Phase one of this project is anticipated to be constructed and completed by the end of 2022.

Mountain View Electric, a locally based agricultural service company, has been contracted to do the initial quote and construction of the pond. Engineers specified that the holding pond needs to be located 30 meters from the top of the slope leading

down to BX Road to avoid the potential for any erosion or alteration to the topography. To permit gravity feed, minimize distance to the creek intake, and to minimize disruption to prime agricultural soils in the central and southern sections of the site, the reservoir has been located at the northern end of the site.

5.2. Phasing & Implementation

Phasing of site activities was determined based upon assumptions made around irrigation, governance, partnerships, funding, and length of time required to implement each activity. For example, the phasing in of farmland leases could begin immediately, but was limited by irrigation availability. Similarly, the research farm partnerships and funding would likely take some time to establish and so were placed later in the development plan timeline. The following implementation phasing has been divided into anticipated phasing to demonstrate how the site may be developed over time depending on available funding and resources.

Table 2: Development Plan Activity Phasing

Activity	Phasing
Habitat Areas	Year 1
Farmland Leases	Year 1
Community Garden	Year 1
Food Forest & Pollinator Meadows	Year 2-3
Community Farm	Year 3
Research Farm	Year 5

Maps 6 through 9: Development Phasing Years 1-5 (NB there is no Year 4 map as no additional development occurs until Year Five)



BX Ranchlands Phasing: Year 1



BX Ranchlands Phasing: Year 2



BX Ranchlands Phasing: Year 3



BX Ranchlands Phasing: Year 5

There are also a number of necessary infrastructure upgrades to be completed to facilitate site development.

5.2.1 Site Servicing & Infrastructure

This section outlines the components needed to support both the agricultural production-oriented activities as well as the conservation, recreation, and education spaces and programs proposed for the property. This includes adding new irrigation infrastructure, power access, shared roadways, washroom facilities, trail extension, and signage. Where possible, it is recommended that green infrastructure (eg. rainwater capture, solar PV) be incorporated into infrastructure development as demonstration projects.

5.2.1.1 Irrigation

Access to water is the key factor limiting the site's agricultural capacity.

As detailed in the site assessment report - Irrigation section, irrigation water is currently available from five Greater Vernon Water metered connections on the site. This is high-quality treated, potable water, but is only sufficient for approximately 19 acres. Access to these points will require moving three of the points currently on the Greater Vernon Parks portion of the property. The BX Creek Water license could supply significantly more water, enough to irrigate 135 acres from April through October. However, this equipment requires upgrading to be brought into use, and the construction of a holding pond/reservoir to provide irrigation later in the season. As irrigation is the limiting factor to agricultural production on the site, we recommend (and the RDNO is currently pursuing) the development of this infrastructure be prioritized. The RDNO could consider working with an Irrigation Qualified Professional to design an irrigation system that is efficient, can

meet the needs of the property and users, and may include green technologies; i.e. Irrigation Industry Association of British Columbia (About IABC, n.d.).

For additional details about the status of the various irrigation sources, see the site assessment report.

Table 3 outlines the different water sources, the volumes of water available, or allocated, by each source, and the start and end dates from which irrigation is available.



BX Ranchlands Infrastructure
Map 10: Site Infrastructure

Table 3: Water Source Information

Water Source/License	Total Volume (cubic meters)	Acre-feet	Actual Area Irrigated (acres)	Season	Cost
Greater Vernon Water District	28,500	23	19	Year round	\$1710(\$0.06/cubic meter)
BX Creek - License C042387	328,722	266.5	135 +	April 1st to July 15th	\$300/year license fee + electricity costs
Reservoir (1 acre)	19,733	16	18.5	July 15th to September 15th	*construction/maintenance
Reservoir (2 acres)	39,466	32	37	July 15th to September 15th	*construction/maintenance

5.2.1.2 Electrical Provision

There is currently a standard domestic (220 V) electrical service where the old farmhouse was removed at the entrance to 4122 East Vernon Rd. In order to create an access point for equipment repairs, and possible installation of coolers at the farmyard centre, this report includes the recommendation that a power pole be added and electricity extended to the farmyard centre. In later phasing, more meters would be added (as per the proposed budget) as diversity of land uses increases, along with land users.

Electricity would not be included in the lease fees, though it is assumed that electricity would be provided free of charge to the public-oriented aspects of the site (i.e. community gardens, community farm, and research and teaching farm).

5.2.1.3 Roadways

There is current road access to the site off of East Vernon Road, which includes a gravel parking lot used to access the adjacent trail network (soon to be extended around the

full perimeter of the property). A seasonal farm road leads through the current farmyard centre and continues through the site, as seen in map 5.

All roads on-site are basic roadways dividing thus far separately treated areas and fields. While they will have resulted in some compaction, they have not been separately treated or reinforced with gravel or other road building materials. Some follow existing fence lines (fences are old and would need to be removed to reallocate lease areas). Removal of fencing would also be necessary to allow farming of contiguous areas as suggested in the phasing portions of this report.

The access from East Vernon Rd will continue to be the main site access point.

Dugout materials from irrigation reservoir construction could be used to create an internal perimeter road around the west, north and east sections, providing greater access for farmers leasing land at BX Ranchlands; see Map 5 above for proposed ring road. The proposed perimeter road would serve a dual purpose of also being the equestrian trail on the west side

of the property, where the existing RDNO trail is too narrow and sloped to permit equestrian access.

5.2.1.4 Washroom Facilities

As the BX Ranchlands site development takes place there will be an increase in users and the necessity for washroom facilities provision. According to past funding allocations from the RDNO parks department, the established budget for developing, and supporting, community gardens in Vernon includes provision of a porta potty. It is recommended that a porta potty is purchased for use by long-term lease tenants and park users, with regular servicing throughout the growing season. The Parks Department will determine if, and when, it may be necessary to build a permanent washroom facility for park users.

5.2.1.5 Trail Extension

The BX Ranch Trail is a 2.25km multi-use trail that follows the perimeter around the north western edge of the property, passing Mutrie Dog Park and ending at BX Ranch Dog Park; dogs are permitted on-leash (Parks, 2022). In May of 2021, an application was submitted to the Agricultural Land Commission (ALC) for approval to extend the trail along the southern edges of the property to become a mixed use recreational trail.

Any trails on site have been and will continue to be maintained by the RDNO Parks Department, with financial contributions from the Parks budget for Areas B and C.

5.2.1.6 Directional & Interpretive Signage

Incorporating directional and interpretive signage will provide information for visitors on the site, or those accessing the RDNO trail recreationally. Signage will provide passive education opportunities alongside the food forest and pollinator gardens, as well as

designating areas of the property that can and cannot be accessed by the general public. The RDNO and site administration NPO will work with the Parks Department to determine the information provided on the signs, and the location of each sign. In consultation, OKIB expressed the beneficial impact to cultural safety that could be made by including bilingual signs in English and Nsyilxcen. Partnerships with OKIB should be pursued in this regard. Table 4 provides recommendations for numbers of signs per program area.

Table 4: Signage Summary

Program Area	Number of Signs
Site Entrance & Parking	1
Farmland Leases	2
Community Garden	1
Food Forest & Pollinator Meadows	3
Community Farm	1
Research Farm	1
Habitat Areas:	
Cattail Wetland	1
Riparian Buffer Zone	1
Douglas Fir Forest	1
Graminoid Wetland	1

5.2.2 Community Garden

Beginning Year 1

Community garden development could begin immediately in an effort to stimulate community engagement and increase public presence on the site, and to provide community garden spaces to replace plots lost elsewhere. Since the RDNO already has a budget and precedent for supporting community gardens, garden development could be administered through the RDNO Parks function, like the 3 other Vernon-area gardens.

5.2.3 Food Forest

Beginning Year 2-3

Ideally, food forest development would be spearheaded by a community group or organization, and the ongoing maintenance also undertaken by this group. Potential organizations could include local permaculture clubs, or similar organizations. Consultation and inclusion of OKIB are important to this activity, as OKIB expressed interest in the wild harvest and educational opportunities offered by a food forest. It is anticipated that such partnerships would take some time to build and hence the slight delay in development of this activity on site.

5.2.4 Pollinator Meadows

Beginning Year 2-3

Planting and maintaining pollinator meadows could be the responsibility of the Parks Department, and water allocation would be available to support these areas starting in Year 2. As with all activities on site, OKIB should be consulted on plant selection, and efforts should be made to choose plants which, if self-seeding, will not create problems for neighboring areas or properties.

5.2.5 Community Farm

Beginning Year 3

Water allocation for this farm would be available starting Year 3. It may also take some time for a non-profit organization (NPO) with the mandate to run this farm to be found or created. There are precedents for similar farms around the province, profiled in this report.



Image Source: The Sharing Farm

The Sharing Farm, Richmond, BC

In 2001 a group of volunteers started collecting surplus fruit and donating it to the local food bank. This spirit of generosity and concern for adequate food provision for the community is how the Sharing Farm began. It has since grown into a 4 acre production farm that donates 50% of its produce to the Richmond Food Bank, selling the remainder to sustain operations. Over 1000 annual volunteers and a small management team provide opportunities to grow, share, and learn.



Image Source: TYoung Agrarians

Edible Garden Project, North Vancouver, BC

Founded as a unique partnership between the North Shore Neighborhood House, the City of North Vancouver and the University of British Columbia, the Edible Garden Project (EGP) has been growing, sharing, and teaching about fresh local food in North and West Vancouver, BC, since 2005. On two small parcels of land, EGP is growing and donating over 6,000lbs of fresh produce to over 1200 residents monthly. Loutet Farm (0.5 acre) and Sutherland Schoolyard Market (0,25 acre) host farmer markets, tours, workshops, field trips, and volunteer sessions for both adults and children.



Image Source: Do Some Good

Helen's Acres Community Farm, Kelowna, BC

In 2015 a generous couple donated their 24 acre farm to Trinity Church in Kelowna, with the vision to serve the under-resourced in their city. It is now a community farm comprised of multiple NPOs and private farms growing food to donate, addressing local food insecurity. The NPOs work with many volunteers to grow and harvest the food that is donated to social agencies in the Okanagan.

5.2.8 Research Farm

Beginning Year 5

Establishing the necessary partnerships to enable the research and teaching farm to establish will take some time. Hence, it has been slated for development in year 5 of the plan. In addition, irrigated portions of this activity area (some 7 acres) will need to wait for adequate water allocation after the development of the reservoir expansion.

Prior to its functionality in year 5 however, it can be leased out as semi-irrigated land to local farmers as part of the farmland lease area, with the caveat of eventual conversion to the research farm.

6.0 Governance Structure & Management Model

A project of this scope needs to have a strong governance structure that considers day to day operations as well as long-term management.

The 6 proposed activity areas will require their own internal management, as well as coordination from a governing body. The recommended governance structure is a hybrid government (Regional District) and NPO model that is overseen by an advisory board of key regional and property stakeholders (Figure 1).

The hybrid structure capitalizes on the strength of each partner. As the landholder ultimately responsible for the site, the Regional District would ensure that the site programming meets

local and regional goals, defined in the OCP, RGS, RAP, and this project’s Working Group visions and goals. Including an NPO allows greater funding opportunities through grant-based funding than the regional district could access on its own. Day to day management of the site could be overseen by agricultural experts within the NPO. Oversight of the NPO from a society board provides resiliency in the case of personnel changes, and ensures accountability to the surrounding community and stakeholders.

This project is unique in that it is publicly owned and held land currently being managed by the Regional District. There are a few examples in other municipalities that support the idea of a hybrid governance and management model for this property.

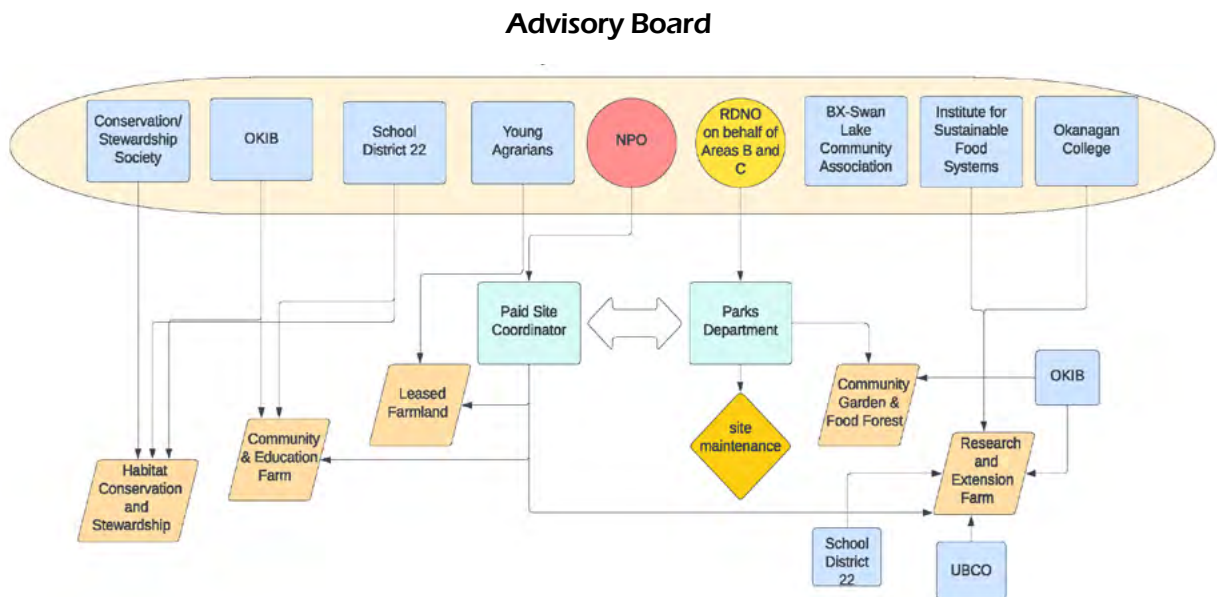


Figure 3: Proposed BX Ranchlands Governance Structure



Image Source: Beacon Food Forest

Beacon Food Forest, Seattle WA

Founded by students with the vision of public food grown on public land, volunteers worked with the City of Seattle to negotiate land access. With a community-backed and architecturally designed site plan, the land is publicly owned, and the managing volunteer group has now become a non-profit, with administration support provided by the City, in a unique example of hybrid management.



Image Source: Garden City Lands

Garden City Lands, Richmond, BC

136 acres of Agricultural Land Reserve (ALR) in Richmond, owned by the City and being developed in phases in accordance with their Park Development Plan, shaped by the City and community members over years of consultation. The site has a License to Use agreement with KPU's Sustainable Agriculture Program, who are building a 6 acre farm. Other uses on site include public trails and peat bog conservation.



Image Source: Edible Vancouver Island

Sandown Centre for Regenerative Agriculture (SCRA) North Saanich, BC (SCRA)

A non-profit was created to lease and manage an 83 acre, District owned parcel of ALR land. SCAR has 3 main goals:

- 1) Stewarding Biodiversity, 2) Fostering Growers, and 3) Engaging Community. SCRA manages day-to-day operations, while the District provides high-level administration and oversight. Its work is primarily funded by the District's Agricultural fund.



Image Source: Regional Foodlands Access Program

Foodlands Trust, Capital Regional District, Vancouver Island

This program's primary goal is to provide District-owned land to local farmers at market rates, since affordable land access is the biggest challenge to farmers on Vancouver Island. The Foodlands Trust is Capital Regional District initiative to strengthen the local food system and food security. The proposed governance model is a hybrid NPO/local government model.

6.1 Stakeholders

Within the hybrid governance structure, the main stakeholders are the RDNO (administration and funding), the NPO (operations and site management), the Parks Department (site maintenance), and those on the Advisory Board (the Board). The proposed governance model focuses on building a supportive and collaborative relationship between these groups, and creating additional capacity within the community.

6.1.2 Regional District of North Okanagan

RDNO would be responsible for the high-level administrative tasks, and oversight of on-site programs through their role in the Advisory Board. There would need to be a staff member with time dedicated to coordinating work with the NPO, likely 0.5 FTE in the first year, reduced to 0.3FTE in subsequent years.

6.1.3 Non-Profit Organization

A new or existing NPO would be responsible for the daily operations of the site, supporting partner organizations in the 6 activity and program areas. The NPO would bring expertise in agricultural production, community partnerships and education, and land use management. It is recommended that the NPO have a dedicated Site Coordinator to provide stability and the necessary time and energy necessary to support farmers in growing successful businesses, to successfully deliver public and educational programming, and to ensure proper and mutually beneficial management of the site for both users and neighbors. This position would be 0.5 FTE for the first two years, and 1 FTE moving forward, however would need to flex dependent upon the needs of the site operations.

6.1.4 Advisory Board

The NPO would be led by a voluntary Board that would include various stakeholders with expertise and experience relevant to managing

such an operation. This would include members who:

- Have experience 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.
- Represent various regional education institutions

It is highly recommended that members of this development plan project's Working Group are invited to the Advisory Board to provide continuity of the plan's vision.

Recommended Advisory Board Members

Community

- OKIB
- L2T
- BX-Swan Lake Community Association

Food & Agriculture

- Young Agrarians
- Ministry of Agriculture and Food: Regional & New Entrant Agrologists

Environmental Stewardship

- Permaculture Association
- Okanagan Similkameen Stewardship Society

Education

- KPU ISFS
- Okanagan College
- School District 22
- University of British Columbia Okanagan
- North Okanagan Community Futures
- Public Health Association of BC

6.1.5 B & C Parks Department

The RDNO Parks Department currently works with the BX Ranchlands tenant to manage and maintain the property (i.e. invasive species management, mowing, fence maintenance, etc.). The Greater Vernon Advisory Council Parks funding supports maintenance on the north and west trail sections, while Electoral Area B and C will fund maintenance on the north and west perimeter trails once built.

As owners of the property, Electoral Areas B and C are responsible for capital investments, including potential long-term projects like permanent multi-use structures that could be used for education, farm operations, and community uses.

6.2 Stakeholder Roles & Responsibilities

Table 5 outlines the various roles and responsibilities of project stakeholders.

6.3 Potential Governance Challenges

There are some potential challenges with the non-profit structure as proposed. These include limited financial and human resources which severely challenge non-profit led initiatives. In addition, multiple non-profit organizations sharing overlapping spaces may wind up competing with each other for these scarce resources.

To mitigate some of these issues, the Regional District could consider the kinds of supports that could be lent to the managing non-profit organization. These could include straight funding, or in-kind resources such as office space (to minimize overhead costs), legal assistance, grant-writing support, etc.

Should the non-profit model prove too difficult to establish in the current context, alternative structures such as co-operatives could be explored, or municipally-operated agricultural enterprises.

Table 5: Stakeholder Responsibilities

RDNO Staff/Administration	NPO Site Coordinator	Advisory Board	B & C Parks Department
Property/lease management – Work with NPO to establish standards and expectations for all acquired properties’ overall management and site maintenance, in coordination with the Young Agrarians Land Matcher.	Site Program/Activity Operations Management	Governance of NPO	Conduct site maintenance in coordination with NPO
Contracting and legal oversight – In partnership with an appropriate organization (Young Agrarians is well positioned to fill this role through their ongoing B.C. Land Matching Program), administer lease agreements/contracts and provide legal oversight.	Stakeholder Engagement – Foster current and establish new relationships with First Nations and other community organizations with consistent communication.	Advisory role to site coordinator / RDNO on site governance, partnerships, and operations	Responsible for Greater Vernon Parks trail sections of site
External Funding – With the NPO, apply for and support external funding applications	Monitoring – Develop annual reports (operational and financial) for stakeholders and the RDNO	Assist with community engagement and liaison with partner organizations in the community	
Additional Support - Provide support as needed, such as providing meeting space for the Advisory Board.	Public Relations – With the RDNO, support outreach with the public and promote the site programs, including offering site tours.		
Reporting and Communications – Oversee reporting and communicate results to the NPO Advisory Board and RDNO Area B&C Directors.	People Management – Ensure that farmers uphold the end of their agreements, ensure that the Parks Department performs their duties, and all partner organizations are performing their duties.		
Financial Support - Bring requests for financial support from NPO to appropriate RDNO departments.	RDNO Liaison – Communicate consistently with the RDNO.		
	Solicit partners for Community Farm and the Research and Teaching farm		

7. Evaluation of Existing Management Organizations

The RDNO can decide whether a new non-profit organization (NPO) should be created to manage and coordinate the day to day operations of the BX Ranchlands. The NPO would be governed by the Advisory Board, and work closely with the RDNO and Area B & C Parks Department. Managing an agricultural land parcel of this scope requires skilled individuals with knowledge and experience in the agricultural sector, and the capacity to bring together partner organizations, government, and the community.

7.1 Existing Organization Evaluation

KPU evaluated the following existing organizations with potential to manage the BX Ranchlands:

- North Okanagan Land to Table Network (L2T)
- Young Agrarians (YA)
- Kwantlen Polytechnic University's Institute for Sustainable Food Systems (KPU ISFS)
- North Okanagan Community Futures (CF)
- Shuswap Food Action Society (SFAS)
- Food Action Society of the North Okanagan (FASNO)

7.2 Criteria

This evaluation was based on an assessment of each organization's vision/mission; relevant experience (current scope of projects); expertise in farmland management and farming

programs; and current management capacity.

7.3 Evaluation Results

The full evaluation can be found in Appendix 2.

The evaluation found that although each organization has relevant experience, none of the organizations are currently appropriate to take on the management, coordination, and administration of the BX Ranchlands development, as outlined below:

L2T – Current mandate does not include continuous program coordination and administration. L2T is a strong regional leader in food system strengthening, and would be an incredible stakeholder and asset to the continuation of this development project.

YA – Current organizational capacity is not sufficient to be the managing organization. However, it is strongly recommended that YA be brought on as a partner to administer the land leasing aspect of the BX Ranchlands, as part of their B.C. Land Matching program.

KPU ISFS – Mandate is limited to agriculture and food system applied research and extension, which excludes overall site development. However, KPU ISFS would be willing to advise during start-up and formation of the NPO, and to take the lead on the Research and Teaching Farm component of the project.

CF - Current staff expertise and funding availability is not sufficient to be the managing organization. However, there is significant interest within CF to partner and potentially provide business training and support to future

lessees at BX Ranchlands.

SFAS – SFAS is supporting and fostering their local food network by facilitating lasting relationships between producers and consumers. Their expertise and programming aligns with the BX Ranchlands development plan. However, they are particular to Salmon

Arm.

FASNO – Current mandate does not include continuous program coordination and administration. L2T is a strong regional leader in food system strengthening, and would be an incredible stakeholder and asset to the continuation of this development project. At the time of writing however, the organization had been dissolved.

As a result of this evaluation, the project team recommends that a new NPO be created to manage, coordinate, and administer the daily operations of the BX Ranchlands site.

8. Partnership Opportunities

With such a diverse range of activities proposed for the site, collaborative partnerships are critical to ensure success.

First and foremost, given KPU ISFS's belief in the fundamental importance of reconciliation, decolonization, and First Nations food sovereignty in creating a just and sustainable food system, relationship building and partnership with the OKIB must continue at every step of the development process. To date, Colleen Marchand and Ruby Alexis in OKIB's Territorial Services Division, and Nikki Lorenz, OKIB's Food Security Coordinator,

have been the main contacts, and have provided valuable feedback, as detailed in the Community Engagement Report ([link](#)). All site elements/program areas could benefit from OKIB involvement. Therefore, while OKIB is recommended to sit on the advisory board of the future governing organization, additional, direct engagement should be pursued at relevant, regular times.

Recommendations for partnerships for each of the specific program areas are outlined in Figure 4 below, and detailed in the following section.



Figure 4: Activity areas and potential partners

8.1. Pre-development Phase

A number of habitat conservation organizations operate in the region (Figure 4) and would be potential partners in pursuing habitat restoration in the riparian and Douglas fir areas of the site. The RDNO Parks Department has existing connections with many of these groups based upon previous habitat enhancement projects in the region.

8.2. Farmland Leases

Young Agrarians is the main potential partner to assist with linking land-seeking farmers to the site and negotiating the lease agreements with the RDNO. In addition, L2T has a network

of local farmers and food system stakeholders who could be of assistance in finding leases suitable for the site. The BC Ministry of Agriculture and Food Regional Agrologist for the North Okanagan would also be a resource.

8.3. Community Gardens

Until recently, all community gardens within Vernon have been managed by the Food Action Society of the North Okanagan (FASNO) through a contract with the RDNO. FASNO is no longer holding this contract and the RDNO has issued an Expression of Interest (EOI) to find a new organization to manage the region's community gardens. The community gardens established at BX Ranchlands would be under this new

organization's management (Regional District of North Okanagan). The RDNO has an annual community gardens budget of \$13,500 total for all garden sites: \$2,500 towards operations and maintenance and an \$11,000 management grant. There are multiple grants available to municipalities that could cover establishment costs of a new community garden at BX Ranchlands; see Appendix E.

8.4. Research & Teaching Farm

As an applied research and extension unit at KPU, the Institute for Sustainable Food Systems would be well positioned and interested to take the lead on the research and teaching farm component, pending adequate funding. There is the possibility for an extension agent to be based out of this location to serve surrounding farmers. Critical to the success of this venture would be partnerships with the Ministry of Agriculture and Food and local educational institutions and those offering farmer training such as Okanagan College, UBC-Okanagan, School District 22, and research networks like the Climate & Agriculture Initiative of BC, North Okanagan Community Futures Business Development programs, and Young Agrarians.

8.5. Community Farm

While a non-profit organization with the mandate to run a community farm does not currently exist, such an organization could be formed or an RFP issued seeking such an organization. This lead organization would need to partner with local social service agencies and education institutions in the community, including the Good Food Box program, food banks, farm to school/farm to cafeteria programs, and the school district, to deliver on the intended outcomes for this program area.

8.2. Food Forest & Pollinator Meadows

The food forest could potentially be managed by the same organization as the community garden, since it is located on an adjacent site, and is another publicly-oriented space promoting food security in the community. That said, the community garden budget would likely not apply here and there are other community organizations (i.e. local permaculture groups etc.) that would be important partners to include due to their expertise. As the pollinator meadows would be fairly straightforward and adjacent to Parks amenities (the trail), they could be established by the RDNO Parks Department, in consultation with habitat organizations.

9. Budget & Project Financing

This section provides an overview of anticipated capital and operating expenses to be borne by the RDNO Areas B and C. The numbers presented here include a base level of revenue from farmland leases but do not include any grant funding or funds from other sources. Potential grant funding is outlined in the next section.

Additional detailed budgets for establishment of specific program areas and activities that would be managed by bodies other than the Electoral Areas B and C budget (i.e. Community Farm, Community Garden,

Food Forest, and Native Plant Nursery) are not included here as they would be the responsibility of other organizations - only the required costs and revenues related to irrigation are included for those enterprises/ programs. These budgets can be found in Appendix C and have been provided for information to assist in future program development.

9.1. Revenues

Table 6 is a summary of revenue projections for the first five years, with items described in more detail below.

Table 6: Five Year Revenue Projections

Revenue	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Site Development	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Farmland Leases	\$37,825.00	\$37,825.00	\$37,310.00	\$39,635.00	\$37,135.00	\$189,730.00
Community Garden	\$121.69	\$121.69	\$90.42	\$90.42	\$90.42	\$514.63
Community Farm	\$0.00	\$0.00	\$452.08	\$452.08	\$452.08	\$1,356.25
Research & Extension Farm	\$0.00	\$0.00	\$0.00	\$0.00	\$271.26	\$271.26
Site Coordinator	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$37,946.69	\$37,946.69	\$37,852.50	\$40,177.50	\$37,948.76	\$191,872.14

9.1.1 Farmland Leases

Estimating revenue is challenging due to the variable lease rates. The rates used in this budget were based on those supplied by the Young Agrarians B.C. Land Matching Program manager for the Okanagan region. There are two rate designations: fully irrigated and semi-irrigated, with rates of \$550.00/acre and \$250.00/acre, respectively. Assumptions on area for each were derived from the site plan and phasing, which was derived from available irrigation capacity.

9.1.2 Community Garden, Community Farm, and Research Farm

The only revenue associated with these activity areas is the cost-recovery irrigation fee to the user, as establishment and construction costs would be borne by the establishing organization as part of their internal budgets.

9.2 Expenses

Table 7 is a summary of the budget expenses projections for the first five years, with costs described in more detail below.

Table 7: Five Year Expense Projections

Expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Site Development Costs	\$6,129.90	\$0.00	\$334.95	\$0.00	\$0.00	\$6,464.85
Farmland Leases	\$10,760.18	\$5,054.94	\$4,957.45	\$5,457.45	\$4,957.45	\$31,187.47
Community Garden	\$124.22	\$5,054.94	\$90.42	\$90.42	\$90.42	\$5,450.41
Community Farm	\$0.00	\$0.00	\$452.08	\$452.08	\$452.08	\$1,356.25
Research & Extension Farm	\$0.00	\$0.00	\$0.00	\$0.00	\$271.25	\$271.25
Site Coordinator	\$31,200.00	\$31,200.00	\$62,400.00	\$62,400.00	\$62,400.00	\$249,600.00
Total	\$48,214.31	\$41,309.89	\$68,234.90	\$68,399.95	\$68,171.20	\$294,330.23

9.2.1 Site Development Costs

Most costs are specific to different areas, and users. One that will broadly benefit all users is reinstating electrical service to the farmyard area. Also included in the budget is the addition of four electrical meters in year 3 when more users have been added to the land, requiring individual utility metering.

9.2.2 Farmland Leases

Expenses associated with Farmland Leases include irrigation water costs, permanent structures, and other associated costs:

1. Irrigation water costs: license fees, utility fees and municipal water charges;
2. Washroom facilities: porta potty purchase and annual servicing fees;
3. Other associated costs: contribution to Young Agrarians for their services.
4. Permanent Infrastructure: suggested fenced equipment storage area for lessees to use to store equipment away from public access with a minimal cost of \$3,447.81

9.2.3 Community Garden, Community Farm, and Research Farm

The only expense associated with these activity areas is the irrigation fees where Electoral Areas B and C are recouping costs paid to either GV Water or fees and costs associated with the BX water license and associated water provision fees; see Appendix C for more detailed budgets of those programs. Also in Appendix D is a full breakdown of all irrigation costs.

9.2.4 Site Coordinator

The site coordinator will be critical to the success of the project and is the single largest expense in this budget. Note that at the time of this report, the salary presented was considered a fair wage, however this should be evaluated and increased in line with the living wage for the region as required, since cost of living is increasing quickly. In addition, it may be necessary to increase or decrease the full or part-time status of the coordinator depending upon the activities occurring on site and time required. As such, this budget may underestimate these salary costs in the future.

9.3 Revenues less expenses

Table 8 is a summary of the budget revenues less expenses for the first five years, described in more detail below.

Table 8: Projected Five Year Revenues less Expenses

Revenues Less Expenses	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Site Development Costs	\$ (6,130)	\$ -	\$ (335)	\$ -	\$ -	\$ (6,465)
Farmland Leases	\$ 27,065	\$ 32,770	\$ 32,353	\$ 34,178	\$ 32,178	\$ 158,543
Community Garden	\$ (3)	\$ 0	\$ 0	\$ 0	\$ 0	\$ (4,936)
Community Farm	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)	\$ 0
Research & Extension Farm	\$ -	\$ -	\$ -	\$ -	\$ 0	\$ 0
Site Coordinator	\$ (31,200)	\$ (31,200)	\$ (62,400)	\$ (62,400)	\$ (62,400)	\$ (249,600)
Total	\$ (10,268)	\$ 1,570	\$ (30,382)	\$ (28,222)	\$ (30,222)	\$ (102,458)

Note that as presented, this is not a balanced budget. The revenues do not cover all costs presented, largely due to the inclusion of the salary cost of the site coordinator, which is the largest expense. However, if this HR expense is removed (if funded through another budget or funding source- see subsequent sections for funding strategies and potential sources), the budget is actually net positive, meaning that the revenues from farmland leases cover the minimal site expenses incurred by the RDNO.

10. Funding and Partnerships

As mentioned above, in order to balance the budget, additional resources will be required to supplement revenues generated from site leases and support the dedicated site coordinator. There are a number of options to secure such funding and mitigate costs. Such opportunities include grants, volunteer labor, and corporate/industry partnerships and donors.

Grants

The management/governance structure of the RDNO working alongside an NPO creates opportunities to apply for diverse grant streams. Appendix E provides a detailed list of potential grant funding sources for the 6 program areas of the BX Ranchland development plan; funding opportunities range from \$3,000-\$100,000.

Volunteer Programs

Several agriculture and food organizations have extensive volunteer programs to supplement on-farm labor and such programs can be a viable option for on-site labor. The community engagement events held as part of this project identified a number of individuals and groups who would be interested in volunteering. Corporate groups often volunteer for community projects as well and can provide significant person-power. In general, a dedicated volunteer coordinator is needed to manage these opportunities. The Edible Garden Project in North Vancouver, BC, and the Sharing Farm in Richmond, BC, are two organizations with successful volunteer

programs.

Corporate/Industry Partnerships/Donors

To address infrastructure and equipment costs, partnerships with industry/corporate donors could be pursued, as projects with community support and exposure are often appealing partnerships. As an example, the Edible Garden Project has a greenhouse donated by Telus, while other farms have had donations of tractors etc. by equipment companies. Such partnerships could be pursued by the site coordinator and/or RDNO staff liaisons.

1 1. Implementation

1 1.1 Key Considerations

As the development plan has evolved, key considerations have arisen. The recommendations below outline these considerations:

Site Coordination

A dedicated Site Coordinator is highly recommended due to the multiple activity areas, programs, and partners involved. Ideally this position would exist within an NPO, with oversight from the RDNO and Advisory Board. This site coordinator could even be responsible for establishing the new NPO. However, this position requires consistent funding that may take multiple years to establish. As such this Coordinator position may begin as an RDNO staff position until appropriate organizations, partnerships and funding are established.

Site Management

Site management is an essential, ongoing action that needs to be done in coordination with the Parks Department and RDNO's appointed Site Coordinator, to prevent invasive species issues and respect neighbors and all land users. Current management is achieved by the existing tenant and Parks department in collaboration. Other models to consider for the future include the park caretaker model (such as that in Sovereign Park whereby the caretaker maintains the washrooms, gate access, and provides a physical presence on site to deter inappropriate activities in the park in exchange for rent, so is cost-neutral); and a potential for collaboration with OKIB to provide housing for a resident knowledge keeper who could perform the above duties while also

integrating OKIB perspectives and teachings into park activities.

Community Engagement

It is recommended that engagement be ongoing to ensure the sustainability and success of the project. Relationships should be pursued with engaged stakeholders to formalize relationships and determine interest and capacity among different organizations with regards to different proposed site activities.

Production Practices

With a number of different farmland leases and farming enterprises on one site, a shared set of practices and principles/guidelines is critical. These should be developed with the RDNO and leaseholders/NPO's operating on-site, to minimize conflicts. At minimum, the RDNO has expressed a desire to promote regenerative practices and prohibit chemical pesticides. Organic certification standards could be encouraged, and opportunities could exist for collective assistance in certification, administration, and input purchases for lessees.

1 1.2 Implementation Plan

This section provides recommended key actions. The intention is that phases are worked through sequentially for plan implementation. However, priorities are subject to change based on challenges and opportunities that may arise. The completion of actions will largely depend on resources (funding and organizational capacity). Dedicated staff resources will thus support timely implementation. The RDNO may either lead or support these implementation actions. In the latter case, another organization

will need to lead. However, at this time, no external organization has yet been approached to do so. As such, moving forward, the success of this plan will depend on strong collaborative partnerships.

Priority Actions

Specific actions are divided into three phases: Phase 1: 2022, Phase 2: 2023, and Phase 3: 2024.

Ongoing Actions

These specific actions span all three phases.

Pre- Implementation

Prior to the Implementation plan, a few preliminary steps must occur or are in process at the time of writing:

1. RDNO receive and approve/adopt this development plan for the BX Ranchlands.
2. Implementation of irrigation connecting to BX Creek and construction of a related water holding reservoir, including any necessary power upgrades; including ring road from extra materials.
3. Completion of Greater Vernon Parks recreation trail on property.

Table 9: Priority Implementation Actions

Priority Actions 2022 - Phase 1		
Action	Department or Organization	
	Lead	Support
1.1 Task staff member with initial site development work.	RDNO	
1.2 Explore with L2T and KPU ISFS roles and opportunities for site management collaboration and NPO development.	RDNO	
1.3 Develop funding plan to fund site coordinator position	RDNO	
1.4 Develop partnership with Young Agrarians to establish leases on site, including development of site operations standards. Include existing tenant. Ideally establish farmers on site by fall 2022	RDNO	Young Agrarians
1.5 Hire Site Coordinator; Site Coordinator to establish NPO.	RDNO & Site Coordinator	
1.6 Site Coordinator to convene the Advisory Board in fall of 2022.	RDNO & Site Coordinator	L2T; KPU ISFS
1.7 Site Coordinator to develop a Site Use Agreement in collaboration with other stakeholders	RDNO & Site Coordinator	Advisory Board; KPU ISFS; YA; L2T
1.8 Create a funding plan to support the overall implementation of the development plan and program development.	Site Coordinator	Advisory Board

Priority Actions 2023 - Phase 2		
Action	Department or Organization	
	Lead	Support
2.1 Install irrigation mainlines and hydrants for lessee access.	Parks	Young Agrarians, Site Coordinator
2.2 Liaise with Parks Department on Community Garden establishment.	Site Coordinator	RDNO and Parks
2.3 Define role and relationship with KPU in regards to the future Research Farm.	RDNO & Site Coordinator	
2.4 Issue Request for Proposal for Community Farm organization and operations.	RDNO & Site Coordinator	L2T

Priority Actions 2024- Phase 3		
Action	Department or Organization	
	Lead	Support
3.1 Create Site Caretaker position and arrangement (i.e. Sovereign Park in Coldstream or Knowledge Keeper model with OKIB).	Parks	Site Coordinator
3.2 Issue RFP for food forest design, installation and maintenance	RDNO	Site Coordinator

Ongoing Actions		
Action	Department or Organization	
	Lead	Support
4.1 Continued relationship building with OKIB established contacts	RDNO; Electoral Area B & C Directors; Site Coordinator	All program area liaisons
4.2 Continued funding research and application submissions	RDNO and Site Coordinator	Advisory Board
4.3 Regular Advisory Board Meetings	Site Coordinator; RDNO	RDNO
4.4 Young Agrarians to continue assisting with lease establishment and management.	Site Coordinator; RDNO	YA
4.5 Continued community engagement with neighbors, Vernon residents, and other identified stakeholders.	Site Coordinator, RDNO	L2T

12. Conclusion

The BX Ranchlands site presents a unique opportunity to enhance agriculture and contribute positively to the food system in the North Okanagan. This 132 acre parcel boasts fertile agricultural soils and an agrarian history, and is currently valued as greenspace, wildlife habitat, and a recreation amenity. Strong community support exists for public access and enhancement of the site as an agricultural amenity. A working group of stakeholders identified ecological stewardship, education and community building, and local harvesting and agriculture as guiding principles, with an underlying commitment to decolonization and reconciliation, making the Okanagan Indian Band important partners in this project. A site plan including habitat protection, farmland leases, a food forest, pollinator

meadows, community farm, and research and teaching farm was strongly supported by the community. Implementing such a plan however, will require a strong governance and management structure, supported by funding. Ventures such as these, which present opportunities for agricultural activities guided by community values, present an opportunity for collaborative agricultural stewardship and food provisioning. While the proposed plan will not bring the RDNO significant revenue, through strong partnerships with other community organizations, it has the potential to achieve its objectives and those of the RDNO, and bring the North Okanagan community and food system significant resilience and co-benefits.



Image Source: Kristi Tatebe

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13. Appendices

Appendix A: Working Group and Steering Committee Members

Advisory Working Group Members:

Ruby Alexis	Okanagan Indian Band
Colleen Marchand	Okanagan Indian Band
Tessa Thompson	Young Agrarians
Jane Lister	Okanagan College
Lindsay Benbow	Ministry of Agriculture & Food
Linda Boyd	Interior Health Authority
Jordan Marr	Organic Farmer
Keli Westgate	Permaculture Landscaper & Compost Educator
Kathy Jenkins	Property Neighbor/ Conservationist
Josh Vance	School District #22
Paul Williamson & Mike McNabb*	BX/Swan Lake Community Association

Project Steering Committee:

Bob Fleming	RDNO Area B Director
Amanda Shatzko	RDNO Area C Director
Liz Blakeway	Land to Table Network Director
Kelly Panchyshyn	Land to Table Network Food Access Coordinator
Kristi Tatebe	Kwantlen Polytechnic University Research Associate
Jenn Cline	Kwantlen Polytechnic University Research Associate
Annelise Grube-Cavers	Kwantlen Polytechnic University Research Associate

*Shared seat on the Advisory Working Group.

Appendix B: Existing Management Organization Evaluation

Organization & Location	Mandate	Scope of Projects	Management Structure	Evaluation
<p>North Okanagan Land to Table Network</p> <p>North Okanagan, BC</p>	<p>Strengthen and support the North Okanagan regional system through building networks, projects, and actions. Guided by 5 pillars: relationships, regeneration, action, adaptation, and reciprocity</p>	<ul style="list-style-type: none"> -Convene meetings and forums -Develop and maintain communication systems -Host community events -Support action teams and specific working groups -Undertake projects -Consult the government to create a picture of a sustainable regional food system 	<ul style="list-style-type: none"> -Staff: Network Director, Food Access Coordinator, and Communications Coordinator -Steering Committees 	<p>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.</p>
<p>Community Futures (CF)</p> <p>North Okanagan, BC</p>	<p>Offers employment, business and economic development services in the North Okanagan to help residents build their futures and community.</p>	<ul style="list-style-type: none"> -Business services (starting and growing a business, loans, and workshops) -Employment Services (with WorkBC and Employ for Youth) -Programs (variety of programs for youth, people with disabilities, entrepreneurs, etc.) 	<ul style="list-style-type: none"> -Staff: Executive Director, Management Team (Client, Financial, Business, Employment, and Community Engagement services) -Board of Directors (Volunteer) -Committee Members (Volunteer) 	<p>Initial discussions with CF Business Services Manager suggests potential for Business services support for local farmers, in conjunction with the BX Ranchlands development. No capacity to manage the site coordinator and activities, but a strong potential partner in agricultural services.</p>
<p>Young Agrarians (YA)</p> <p>North Okanagan, BC</p>	<p>Farmer to farmer educational resource network for new and young ecological, organic and regenerative farmers in Canada. Guiding principles: Agro-Ecology, Capacity Building, Collaboration, Community, Diversity, Equity, Food Sovereignty, Inclusion, Workers & Migrant Rights, Land-Access, Mentorship, Participatory Frameworks, Reconciliation, Support for Start-Ups</p>	<ul style="list-style-type: none"> -On and off farm: educational events, business mentorships, and land access programming -Reconciliation training and support (in partnership with KinSHIFT) -Business boot camps, apprenticeship and training program 	<ul style="list-style-type: none"> -Executive Director -Community and Operations Managers -Land Matching Program Manager -Provincial Land Matchers -Business Mentorship 	<p>YA has a strong presence in the Okanagan, and currently works with regional farmers. It is highly recommended YA is brought on as a partner to manage land leasing at BX Ranchlands, and offer outside support to the lessees. The organization does not currently have the capacity to take on the coordination and management of the BX Ranchlands development.</p>
<p>Kwantlen Polytechnic University (KPU) - Institute for Sustainable Food Systems</p> <p>Lower Mainland, BC</p>	<p>Applied research and extension unit at KPU that investigates and supports regional food systems as key elements of sustainable communities.</p>	<ul style="list-style-type: none"> -Applied research foci: agriculture and food, economics, community health, policy, and environmental integrity -Extension programming: provides information and support for farmers, communities, businesses, policy makers, etc. 	<ul style="list-style-type: none"> -Director -Research and Extension Associates -Graduate and undergraduate students -Affiliates from other KPU departments and other institutions 	<p>KPU – KPU ISFS does not have a broad enough mandate to conduct site-specific management and operations oversight on the BX Ranchlands, however would be well-positioned to oversee the Research and Teaching Farm component of the site.</p>

Organization & Location	Mandate	Scope of Projects	Management Structure	Evaluation
<p>Shuswap Food Action Society (SFAC) Salmon Arm, BC</p>	<p>To build community around local food and raise awareness of food security issues directly affecting their community.</p>	<ul style="list-style-type: none"> -Salmon Arm Farmers Market -Coldest Night of the Year event -Shuswap Food Conversations -ShuBoxes: Family Food Box Program -Shuswap Community Teaching Garden -School Based Programs 	<ul style="list-style-type: none"> -Executive Director -Multiple Directors -Garden Coordinator -Treasurer 	<p>SFAC is an excellent example of the expertise needed for an NPO to manage the BX Ranchlands site through a site coordinator position. Their geographical location is the only reason they would not be appropriate.</p>
<p>Food Action Society of the North Okanagan (FASNO) North Okanagan, BC</p>	<p>Members have a mission to improve local food security, accomplished by cultivating a healthy, sustainable, regional food system through education and community action.</p>	<ul style="list-style-type: none"> -Monthly cooking skills program -Sharing community stories from the field -Youth Education: program empowering youth to grow and cook their own food -Managing regional community gardens -Food-related public workshops and seminars 	<ul style="list-style-type: none"> -Board of Directors (Executive Directors and General Directors) 	<p>FASNO is no longer in operation. It would have been an excellent partner to run community and school based programs for the BX Ranchlands. Experience and resources in food literacy skills would have fit well with the development plan.</p>

Appendix C: Activity Area Sample Budgets

Expenses

NB- These budgets are taken from case study enterprises and will differ from actual BX activity area budgets, which will be the responsibility of the operating organizations. They are included for reference purposes.

Community Farm

Categories	Total Cost	Cost/tax	Year 3	Year 4	Year 5	Source	Notes
Irrigation							
Irrigation System	\$20,000.00	\$22,400.00	\$7,466.67	\$7,466.67	\$7,466.67	Colorado State University	Labor not included
Water costs	\$994.58		\$180.83	\$361.67	\$452.08	Site Irrigation & Water Fees	
Permanent Structures							
Greenhouse structure	\$2,270.00	\$2,542.40	\$2,542.40			Farmers Friend Caterpillar Tunnel	
Cooler (20ftx20ft)	\$15,000.00	\$16,800.00	\$16,800.00			KPU Musqueam Agriculture Development Plan Budget	
Storage shed	\$5,000.00	\$5,600.00	\$5,600.00			KPU Capital Regional District Foodlands Trust Business Case Budget	
Post-harvest washing station	\$5,000.00	\$5,600.00	\$5,600.00			KPU Capital Regional District Foodlands Trust Business Case Budget	
Tools and Supplies							
Utility tractor & implements	\$64,616.00	\$72,369.92	\$72,369.92			KPU Musqueam Agriculture Development Plan Budget	
BCS & implements	\$15,350.00	\$17,192.00	\$17,192.00			KPU Musqueam Agriculture Development Plan Budget	
Basic Suite of hand tools	\$1,686.70	\$1,889.10	\$1,889.10			KPU Capital Regional District Foodlands Trust Business Case Budget	Total of year 1 tools
Seeder	\$2,163.00	\$2,422.56	\$2,422.56			KPU Musqueam Agriculture Development Plan Budget	
TOTAL	\$108,815.70	\$146,815.98	\$121,873.58	\$0.00	\$7,918.75		

Categories	Total Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Source	Notes
Pre-site development								
Interpretative signage	\$3,000.00	\$3,360.00					Brad - Parks	\$3,000/sign
Irrigation; Yard Hydrants	\$1,400.00	\$1,568.00					Iconix in Vernon, BC	
Includes necessary attachments, but not installation (for eight shared yard hydrants, to service 5 plots each with splitters)								
Irrigation installation	\$1,200.00	\$1,260.00						
Semi-Permanent Structures								
Garden Shed (lockable)	\$600.00	\$672.00					Home Depot	
Garden Beds; supplies	\$5,178.40	\$5,799.81					Home Depot	For 40 raised beds, 10 feet by five feet. 240 x (2x6x10)= 160 full length for the sides (two high) and 80 to be cut in half for the ends (two high).
Garden Beds; construction	\$500.00	\$525.00						
Garden bed soil	\$6,530.00	\$6,856.50					Vernon Landscape Centre Ltd.; including delivery cost	40 beds; 2/3 soil mix. 110 yards. Including delivery.
Garden bed compost	\$857.20	\$900.06					City of Kelowna compost	40 beds; 1/3 compost. 40 yards. Not including delivery.
Tools and Supplies								
Tools and Wheelbarrows	\$1,179.70	\$1,321.26					KPU Capital Regional District Foodlands Trust Business Case Budget	includes wheelbarrows, and basic hand tools (shovels, and hoes)
Irrigation Supplies (hoses, sprinklers)	\$560.00	\$627.20					Canadian Tire	
Cost of water	\$270.00	\$45.00	\$45.00	\$45.00	\$45.00	\$45.00		
Total Costs	\$15,675.30	\$16,746.83	\$45.00	\$45.00	\$45.00	\$45.00		

Food Forest & Pollinator Meadows

Categories	Total Cost	Cost inc. Tax	Year 1	Year 2	Year 3	Year 4	Year 5	Source
Pollinator Meadows								
Ground preparation & Seeding	\$1,344.00	\$1,505.28		\$1,344.00				Bryce Rashleigh \$600/acre
Seed Cost: Sunflowers	\$468.88	\$492.32		\$468.88				Vessey Seeds
Seed Cost: Interior Pollinator Wildflower Mix	\$468.88	\$468.79		\$468.88				Canadian lbs/acre source; American Meadows Seed
Cost of water	\$243.00			\$243.00				
Irrigation set-up	\$0.00							
Total:	\$2,524.76	\$2,466.39	\$0.00	\$2,524.76	\$0.00	\$0.00	\$0.00	
Food Forest								
Plant cost	\$1,120.00	\$1,254.40			\$1,120.00			Galiano Conservancy
Irrigation - sub-contractor	\$0.00							
Consultant	\$6,720.00	\$7,526.40			\$6,720.00			Galiano Conservancy
Water costs	\$196.47		\$0.00	\$60.84	\$45.21	\$45.21	\$45.21	
Total:	\$8,036.47	\$8,780.80	\$0.00	\$60.84	\$7,885.21	\$45.21	\$45.21	

Revenues

Farmland Leases

NB – Area allocations for leased land are based upon assumptions about interested lessees and irrigation available. Actual uptake will differ from these figures.

Year 1		
Amount of leased land (Acres)	Rent/acre*	Total Revenue
36.5	\$550.00	\$20,075.00
71	\$250.00	\$17,750.00
Total Gross Revenue		\$37,825.00

Year 5		
Amount of leased land (Acres)	Rent/acre*	Total Revenue
46.7	\$550.00	\$25,685.00
45.8	\$250.00	\$11,450.00
Total Gross Revenue		\$37,135.00

Year 2		
Amount of leased land (Acres)	Rent/acre*	Total Revenue
36.5	\$550.00	\$20,075.00
71	\$250.00	\$17,750.00
Total Gross Revenue		\$37,825.00

Market rate cost from Young Agrarians*



Year 3		
Amount of leased land (Acres)	Rent/acre*	Total Revenue
46.7	\$550.00	\$25,685.00
46.5	\$250.00	\$11,625.00
Total Gross Revenue		\$37,310.00

Year 4		
Amount of leased land (Acres)	Rent/acre*	Total Revenue
46.7	\$550.00	\$25,685.00
55.8	\$250.00	\$13,950.00
Total Gross Revenue		\$39,635.00

Community Garden

Year	Water Allocation (acres)	Cost/acre	Total Revenue
1	1	\$121.69	\$121.69
2	1	\$121.69	\$121.69
3	1	\$90.42	\$90.42
4	1	\$90.42	\$90.42
5	1	\$90.42	\$90.42
Total Gross Revenue			\$514.63

No revenue for use of land; water costs paid by Parks.

Community Farm

Year	Water Allocation (acres)	Water Fee/Acre	Total Revenue
1	0	\$0.00	\$0.00
2	0	\$0.00	\$0.00
3	5	\$90.42	\$452.08
4	5	\$90.42	\$452.08
5	5	\$90.42	\$452.08
Total Gross Revenue			\$1,356.25

No Revenue for use of land, water fees covered by operator

Food Forest

Year	Water Allocation (acres)	Cost/acre	Total Revenue
1	0	\$0.00	\$0.00
2	0.5	\$121.69	\$60.84
3	0.5	\$90.42	\$45.21
4	0.5	\$90.42	\$45.21
5	0.5	\$90.42	\$45.21
Total Gross Revenue			\$196.47

No revenue for use of land; water costs paid by Parks.

Pollinator Meadows

Year	Water Allocation (acres)	Cost/acre	Total Revenue
1	0	\$0.00	\$0.00
2	2	\$121.69	\$243.38
3	0	\$0.00	\$0.00
4	0	\$0.00	\$0.00
5	0	\$0.00	\$0.00
Total Gross Revenue			\$243.38

NB- water required for establishment only

Research Farm

Year	Water Allocation (acres)	Cost/acre	Total Revenue
1	0	\$0.00	\$0.00
2	0	\$0.00	\$0.00
3	0	\$0.00	\$0.00
4	0	\$0.00	\$0.00
5	3	\$90.42	\$271.26
Total Gross Revenue			\$271.26

No revenue for use of land: water fees paid by operator

Appendix D: Water Cost Breakdown

Water Costs - Annual										
Categories	Total Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Source	Notes		
Water license fee - BX Creek	\$1,395.00	\$279.00	\$279.00	\$279.00	\$279.00	\$279.00	Bob Fleming	Annual Water License Fee		
Irrigation - utility fee (electricity April 1st to July 30th)	\$11,500.00	\$2,000.00	\$2,000.00	\$2,500.00	\$2,500.00	\$2,500.00	based on Allen Arndt's previous billing	The \$2,500 is attempting to account for additional energy used to pump additional water		
GVWD Usage Fee (per 5500 cubic metres)	\$8,334.60	\$1,666.92	\$1,666.92	\$1,666.92	\$1,666.92	\$1,666.92	Allen Arndt	\$0.06/cubic metre		
Water Meter Charges	\$3,087.00	\$617.40	\$617.40	\$617.40	\$617.40	\$617.40	Bob Fleming			
Extended Agricultural Water Fee	\$95	\$95					RDNO	Fee to use water at agricultural rates beyond October (for season extension, wash house use, etc).		
Cost of water per acre										
37.5 acres irrigated		\$124.22	\$121.69							
56 acres irrigated				\$90.42	\$90.42	\$90.42				

Funding Organization	Grant Program	Eligibility	Maximum Funding Amount	Applicable Area
Investment Agriculture Foundation	Environmental Farm Plan	Farms	\$70,000	Farmland Leases and Habitats
Investment Agriculture Foundation	Beneficial Management Practices Program	Farms	\$70,000	Farmland Leases, Community Farm
Economic Trust of the Southern Interior	Economic Development (capacity building, business resilience, innovative clusters, and human capital)			All
Ministry of Agriculture and Food	B.C. Agribusiness Planning Program	Farms		Farmland Leases, Community Farm
Ministry of Agriculture and Food/Investment Agriculture Foundation	Buy BC Partnership Program	Agrifood Sector		Farmland Leases, Community Farm, NPO
Ministry of Agriculture and Food	Knowledge and Technology Transfer Program	NPO	\$7,500	NPO
Ministry of Agriculture and Food	Indigenous Agriculture Development Program	Indigenous governments, communities, and organizations	\$21,000	Indigenous Food Sovereignty
Climate and Agriculture Initiative BC	Regional Adaptation Program		-	Research Farm
Climate and Agriculture Initiative BC	Farm Adaptation Innovator Program	Researchers, farmers, agricultural organizations, educational institutions, technical experts	-	Research Farm
AgriService BC	Beneficial Management Practices	Farm or First Nations agricultural operation	\$70,000	Farmland Leases Community Farm
Ministry of Agriculture and Food	Bee BC	First Nations	\$7,000	Habitat
Habitat Conservation Trust Fund	Stewardship Grants	Municipality	\$80,000	Habitat
Regional District of North Okanagan	North Okanagan Conservation Fund	NPO	\$80,000	Habitat

Funding Organization	Grant Program	Eligibility	Maximum Funding Amount	Applicable Area
BC Wildlife Federation	Wetlands Education Program	NPO/First Nations	-	Habitat
Okanagan Basin Water Board	Water Conservation and Quality Improvement	NPO/Municipality	\$100,000	Habitat
Vancouver Foundations	Systems Change	Municipality	-	Community Farm
BC Food Security Gateway	Metro Vancouver Agriculture Awareness	NPO	\$6,000	Community Farm
Vancity	Community Project	NPO	\$10,000	Community Farm
Vancity	enviro Visa	NPO	\$70,000	Community Farm
BC Grant Watch	Garden Grant	NPO	\$3,000	Community Farm
Max Bell Foundation	Education Program	NPO	\$200,000	Community Farm
Farm to Cafeteria Canada	Farm to School	School	\$10,000	Community Farm
Civic Info BC	Community Outdoor Revitalization	NPO	\$10,000	Community Gardens
Civic Info BC	Community Places	Municipality	\$30,000	Community Gardens
Civic Info BC	Recreation Infrastructure	NPO	\$100,000	Community Gardens
Government of Canada	Green and Inclusive Buildings	Municipality	\$100,000	Community Gardens

Seed and Sparrow Design – 400m Hedgerow quote

Seed and Sparrow Design

624 Coronation Ave
 Kelowna BC V1Y 7A1
 778 940 6175
 Hello@SeedandSparrow.ca
 GST/HST Registration No.: 71299 4326
 RT0001



Estimate

ADDRESS

Fresh Valley Farms
 1346 Mountain View Rd
 Armstrong, BC

ESTIMATE # 1020
DATE 14/04/2022

ACTIVITY	DESCRIPTION	QTY	RATE	AMOUNT
Project Materials	Native shrubs	400	12.00	4,800.00
Project Materials	Native trees (small deciduous)	20	75.00	1,500.00
Project Materials	Native perennial seed mix	1	500.00	500.00
Project Materials	Soil amendments	1	200.00	200.00
Design Consultation	Consulting and Project Management	1	1,050.00	1,050.00

Estimate does include labour costs for installation.

SUBTOTAL	8,050.00
GST @ 5%	402.50
TOTAL	\$8,452.50

Suggested Plant Material

Native Shrubs:

- Mahonia aquifolium - Oregon Grape
- Symphoricarpos albus - Snowberry
- Rosa nutkana - Nootka rose
- Philadelphus lewisii - Mock-Orange
- Holodiscus discolor - Ocean Spray

Small Deciduous Trees:

- Amelanchier alnifolia - Saskatoon
- Crataegus douglasii - Black Hawthorn

Native Perennial Seed Mix:

- Pseudoroegneria spicata - Bluebunch Wheatgrass
- Aster conspicuus - Showy Aster
- Antennaria neglecta - Field Pussytoes
- Anaphalis margaritacea - Pearly Everlasting
- Achillea millefolium - Western Yarrow
- Lupinus sericeus - Silky Lupine

Growers Supply Co. – Installation not included

ATTN: ANNALISE



PURCHASED FROM:

2605 ACLAND ROAD KELOWNA B.C. V1X 7J4
PH. 250-765-4500 FAX. 250-765-4545

QUOTE

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

QUOTE DATE	QUOTE NO.	PAGE
03/25/22	CE857861	1

2605 ACLAND ROAD KELOWNA B.C. V1X 7J4
PH. 250-765-4500 FAX 250-765-4545

272 DAWSON AVENUE PENTICTON, B.C. V2A 3N6
PH. 250-493-2885 FAX 250-493-8153

PST #: 00974.200

1200 WADDINGTON DRIVE VERNON, B.C. V1T 8T3
PH. 250-545-1278 FAX. 250-545-5859

5911 SAWMILL ROAD OLIVER, B.C. V0H 1T0
PH 250-498-6405 FAX. 250-498-4022

Terms: C.O.D.

754 35TH AVENUE S ERICKSON, B.C. V0B 1K0
PH. 250-428-2125 FAX. 250-428-2343

Due Date:

S 108139
O FRESH VALLEY FARMS
L STEVEN MEGGAT
D 1346 MOUNTAIN VIEW RD
T ARMSTRONG, BC V0E 1B8
O CA

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FRESH VALLEY FARMS
STEVEN MEGGAT
1346 MOUNTAIN VIEW RD
ARMSTRONG, BC V0E 1B8
CA

Quote #	Quote Date	Customer #	Slip#	Purch. Order #	Ship Via	Ship Date	Terms		
CE857861	03/25/22	108139	VIC	4122 E VERNON	No ship via	ASAP	C.O.D.		
Quantity		Item Number	Item Description	Unit Price	U/M	Amount	Tax Code		
Ordered	U/M	Shipped	B/O						
3000.00	P/FT	3000.00		P160040	PIPE CLS 160 4' SDR26 QTY = # of ' PRICED P/100	554.35	100	16,630.50	N
20.00	P/FT	20.00		P40020	PIPE SCH 40 2" P/ QTY = # of ' Priced p/100	252.00	100	50.40	N
7.00	EACH	7.00		401-420	PVC RED TEE 4" x 4" x 2" SCHEDULE 40 S x S x S	19.69	EAC	137.83	N
1.00	EACH	1.00		406-040	PVC 90 ELBOW S x S 4" SCHEDULE 40 CASE = 8	14.92	EAC	14.92	N
1.00	EACH	1.00		437-420	PVC REDU.BUSH 4" X 2" SCHEDULE 40 SPIG x SOC	8.79	EAC	8.79	N
4.00	EACH	4.00		887-120	PVC NIPPLE 2" x 12" SCHEDULE 80	7.50	EAC	30.00	N
REC'D BY:				SIGNATURE:		HST/GST VENDOR NO. R102214995		SUB TOTAL	
* IN CASE OF EMERGENCY CALL CANUTEC 613-996-6666 24 HOUR NUMBER (COLLECT).				* NOTICE TO PESTICIDE USERS - THE PRODUCT LABEL SUPERSEDES ALL OTHER SOURCES OF INFORMATION, RECOMMENDATIONS OR ADVICE. It is unlawful to use a pesticide for non-label uses.		* MINIMUM CHARGES \$10.00 PER INVOICE - THIS ACCOUNT IS DUE 30 DAYS FROM DATE OF INVOICE. A SURCHARGE OF 1.5% PER MONTH WILL BE CHARGED ON OVERDUE ACCOUNTS.		HST / GST	
prices subject to change				vic				MISC. CHARGES	
								PST	
								FREIGHT	
								TOTAL	
								PAYMENT RECEIVED	
								INVOICE BALANCE	

Continued on next page

Growers Supply Co. – Installation not included



PURCHASED FROM:

2605 ACLAND ROAD KELOWNA B.C. V1X 7J4
PH. 250-765-4500 FAX. 250-765-4545

QUOTE

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

QUOTE DATE	QUOTE NO.	PAGE
03/25/22	CE857861	2

2605 ACLAND ROAD KELOWNA B.C. V1X 7J4
PH. 250-765-4500 FAX 250-765-4545

272 DAWSON AVENUE PENTICTON, B.C. V2A 3N6
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1200 WADDINGTON DRIVE VERNON, B.C. V1T 6T3
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PH 250-498-6406 FAX. 250-498-4022

Terms: C.O.D.

754 35TH AVENUE S ERICKSON, B.C. V0B 1K0
PH. 250-428-2125 FAX. 250-428-2343

Due Date:

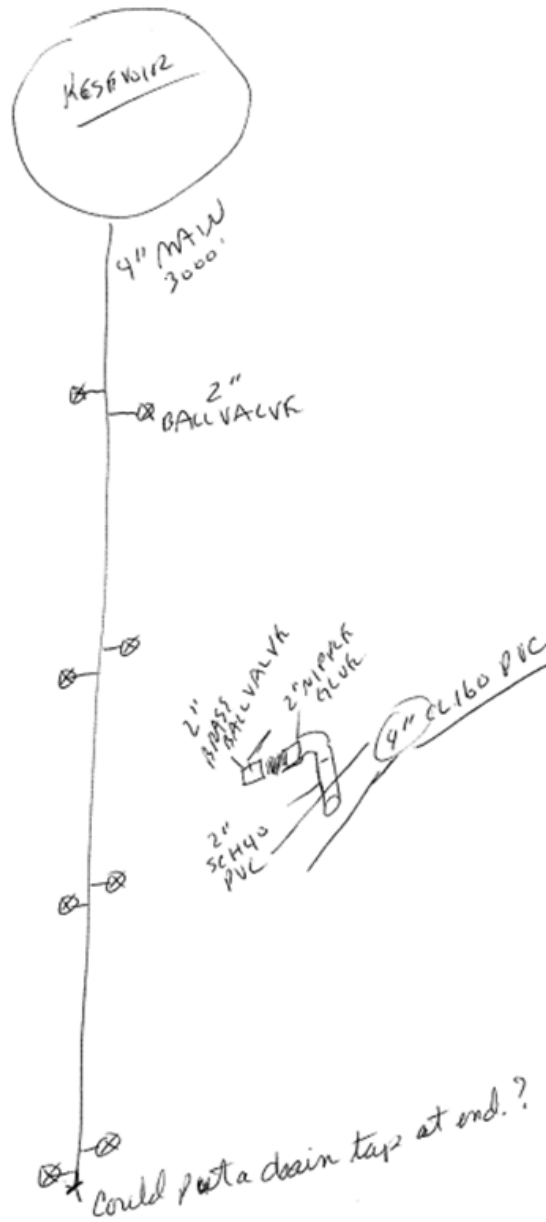
S 108139
O FRESH VALLEY FARMS
L STEVEN MEGGAT
D 1346 MOUNTAIN VIEW RD
T ARMSTRONG, BC V0E 1B8
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FRESH VALLEY FARMS
STEVEN MEGGAT
1346 MOUNTAIN VIEW RD
ARMSTRONG, BC V0E 1B8
CA

Quote #	Quote Date	Customer #	Sispsn	Purch. Order #	Ship Via	Ship Date	Terms		
CE857861	03/25/22	108139	VIC	4122 E VERNON	No ship via	ASAP	C.O.D.		
Quantity				Item Number	Item Description	Unit Price	U/M	Amount	Tax Code
Ordered	U/M	Shipped	B/O						
8.00	EACH	8.00		BBV020	BRASS BALL VALVE 2" FULL PORT 600 WOG FULL PORT	82.16	EAC	497.28	N
REC'D BY:				SIGNATURE:		HST/GST VENDOR NO. R102214996		SUB TOTAL 17,369.72	
* IN CASE OF EMERGENCY CALL CANUTEC 813-996-8668 24 HOUR NUMBER (COLLECT).				* NOTICE TO PESTICIDE USERS - THE PRODUCT LABEL SUPERSEDES ALL OTHER SOURCES OF INFORMATION, RECOMMENDATIONS OR ADVICE. It is unlawful to use a pesticide for non-label uses.		* MINIMUM CHARGES \$10.00 PER INVOICE - THIS ACCOUNT IS DUE 30 DAYS FROM DATE OF INVOICE. A SURCHARGE OF 1.5% PER MONTH WILL BE CHARGED ON OVERDUE ACCOUNTS.		HST / GST 868.49	
prices subject to change				vic		MISC. CHARGES 0.00		PST 0.00	
						FREIGHT 0.00		TOTAL 18,238.21	
						PAYMENT RECEIVED 0.00		INVOICE BALANCE 18,238.21	

Growers Supply Co. – Installation not included



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