



Local Food for Comox Valley K-12 Schools

an Aggregation Feasibility
Report and Business Plan

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Acknowledgements

Funding for this report was generously provided by the Government of British Columbia, through the Ministry of Agriculture’s FeedBC initiative. The report was authored by Upland Agricultural Consulting Ltd. Feedback, guidance, and input was provided by a Steering Committee and LUSH Valley Food Action Society. All photos are used with permission by Megan Cowling, unless otherwise indicated.

Acronyms

AGRI	BC Ministry of Agriculture
ALC	Agricultural Land Commission
ALUI	Agricultural Land Use Inventory
ALR	Agricultural Land Reserve
BCVMC	BC Vegetable Marketing Commission
CFIA	Canadian Food Inspection Agency
CR-FAIR	Capital Region Food and Agriculture Initiatives Roundtable
CSA	Community Supported Agriculture
CVFPC	Comox Valley Food Policy Council
CVRD	Comox Valley Regional District
FEED Comox Valley	Food, Environment, and Economic Development Comox Valley
FPR	Food Premises Regulation
GAP	Good Agricultural Practices
HACCP	Hazard Analysis Critical Control Point
LGA	Local Government Act
NIC	North Island College
OCP	Official Community Plan
PAC	Parent Advisory Committee
SD71	School District No. 71
SWOT	Strengths, Weaknesses, Opportunities, Threats

Executive Summary

Purpose and Scope

The purpose of this project is to explore and assess opportunities for regional food aggregation in the Comox Valley to supply the K-12 school system's salad bar and soup programs and explore other potential markets. This report provides a discussion and analysis of the supply and demand of local food for local schools, along with breakeven analyses for three aggregation business models. While the focus of this feasibility report is on the economic bottom line, it is important to note additional non-monetary impacts that the incorporation of healthy local foods into schools has within a community. These key positive externalities are unable to be fully captured through conventional economic analysis tools. It is therefore important to keep these benefits top-of-mind when considering this aggregation model assessment.

Process

The work undertaken to complete this feasibility report and business plan began by establishing a Steering Committee along with a Terms of Reference, a project methodology, and an engagement strategy. The Steering Committee members included school officials, school parent volunteers, farmers, and community organizations. There was an ex-officio member representing the BC Ministry of Agriculture. The methodology included a review of literature and programs and interviews with over a dozen local food system stakeholders in order to provide additional input.

Supply and Demand

School District No. 71 (SD71) includes just over 7,000 students from the communities of City of Courtenay, Town of Comox and Village of Cumberland, including Black Creek, Merville, and Royston. Twelve elementary schools, three secondary schools, and four community schools were included within the scope of this assessment. A focus was placed upon school salad bar and soup programs, which are most likely to be able to procure local food items from local farms. Approximately \$60,000 per year is spent by SD71 schools on food products for salad bar and soup programs, although not all of it is spent on local produce. A significant barrier is with regard to schools having the resources to coordinate their food procurement orders together in order to negotiate for wholesale pricing from local producers. There is a desire by schools to increase the proportion of ingredients sourced locally throughout the school year, as well as interest in serving new food products, beyond salad bar and soup programs, such as snacks and hot lunches. Over the past year, there were four farms that supplied produce and one farm that supplied eggs to participating schools on a consistent basis.

Aggregation Models

Three aggregation models were explored:

1. Producer-run: a group of farmers who would work together to find a location (e.g. a farm) with space for product aggregation and packing. A farmer would be the dedicated coordinator, or an individual would be hired to take on this role.
2. School-run: school representatives would assign a lead coordinator to aggregate weekly, monthly, and/or annual local produce orders and establish production contracts with farms.
3. Organization-run: a non-profit society would lead the initiative and leverage existing capacity and resources to operate the program.

Business Plans

Business plans were developed using several assumptions. A coordination fee (margin) of 25% was placed on sales in order to help cover the overhead costs associated with the initiative. The baseline of existing

school orders was set at approximately \$60,000 per year (although these dollars are not all spent on local food). In order to breakeven, the sales would need to rise to \$350,000 - \$380,000 per year, all of which would need to be spent on local food items. This level of sales would allow for the 25% coordination fee to cover all variable and fixed expenses.

The expense-related requirements were largely similar for all three models. Each requires the services of a program coordinator (this could start off as a part-time position and move into full time over the longer term). This position represents one of the largest overhead expense items. Based on existing sales channels, the aggregation initiative, regardless of model, is unlikely to breakeven or turn a profit even over the long term. For this reason, it is important to explore additional markets (such as partnering with other post-secondary schools and health care institutions) to amplify sales channels. It is also important to select a program model whereby a leader can come forward who has the capacity and resources to establish the program efficiently, and who is undeterred by the lack of potential profit. One of the main differences in the models is the way in which any annual deficit or shortfall can be managed.

Recommendations

Based on the findings of the feasibility assessment and business plan, four key recommendations for moving forward with the aggregation initiative emerged:

1. Establish an Organization-Run Model led by LUSH Valley Food Action Society
2. Run the initiative as a non-profit program
3. Develop and grow key partnerships to support the initiative and expand sales channels
4. Work towards securing key infrastructure and equipment

Key Success Factors and Next Steps

- Identify the lead organization to host the aggregation initiative (e.g. LUSH Valley).
- Set up a meeting with school salad bar coordinators and re-confirm the interest in gaining efficiencies through coordinated purchasing.
- Establish baseline sale volumes and wholesale prices.
- Work with producers on developing an availability sheet (fresh sheet) for products that are currently being purchased by schools, and for additional products that can meet the needs of school salad bar menus.
- Get commitments from additional farmers to participate in the initiative (e.g. those who participated in previous years and one or two additional).
- Determine specific organizational needs for staffing based on existing resources that can be leveraged.
- Acquire start-up funding through grant applications.
- Investigate cold storage rental options and/or purchase needed equipment.
- Establish an e-commerce platform for centralizing orders.
- Create communications materials that highlight the benefits of aggregation for producers, for schools, for potential new markets.
- Begin drafting a logistics plan around order placement, pick-up, and delivery.
- Continue discussions within the community to secure a dedicated bricks and mortar facility over the long term (e.g. train station).
- Ensure that all data regarding local food procurement is tracked so that the information can be reported back out to funders and also to other organizations wishing to establish and aggregation initiative.

1. Introduction

This *Aggregation Feasibility Report* provides a discussion and analysis of the supply and demand of local food for local school salad bars in the Comox Valley, along with breakeven analysis for three possible aggregation business models:

- Producer-run
- School-run
- Organization-run

For the purposes of this report, “**local food**” describes food produced within the Comox Valley and northern Vancouver Island, which encompasses the jurisdictional boundaries of the Comox Valley Regional District and the Strathcona Regional District.

1.1 Project Purpose

The purpose of this project is to explore and assess opportunities for regional food aggregation in the Comox Valley to supply the K-12 school system and other potential markets.

An **aggregation initiative** is defined as a local food enterprise in which small and medium sized producers or processors work together to aggregate their products and provide them to wholesale or retail customers in the local/regional marketplace¹.

1.2 Limitations of Scope

While the focus of this feasibility report is on the economic components of an aggregation initiative, it is important to note additional non-monetary impacts that the incorporation of healthy local foods into schools has within a community. Farm to Cafeteria Canada² provides an excellent overview of these public health, educational, environmental, and community outcomes, which are summarized here.

Public Health Benefits

- Builds preferences amongst students toward vegetables and fruit
- Increases students’ willingness to try new vegetables and fruits
- Increases healthy food consumption
- Improves quality, freshness, taste, and nutrition of school food

Education and Learning Benefits

- Increases student knowledge, awareness, and interest in the local food system, local foods, and local farmers
- Students are more knowledgeable about nutrition and health
- Enhances food literacy through growing, harvesting, preparing, cooking, and serving local food
- Increases knowledge and interest regarding careers in agriculture

Environmental Outcomes

- Students learn about the connection between soils, plants, and human health
- Opportunity to engage in composting of food scraps
- Leads to a greater understanding of sustainable food systems and impacts of food choices on the environment

¹ [Strategic Analysis of Aggregation Initiatives in BC](#), 2019. BC Ministry of Agriculture.

² [Benefits of Farm to School: Evidence from Canada](#), 2018. Farm to Cafeteria Canada.

Community Connectedness

- Creates new bonds and learning opportunities to hear from farmers who are supplying the food
- Strengthens relationships between students, parent volunteers, and school administrators
- Allows for more opportunities for Elders, knowledge keepers, and parents of Indigenous students to be involved with the school

These key positive externalities are unable to be fully captured through conventional economic analysis tools, such as breakeven analyses, measurement of profit margins, or assessment of risks associated with market pressures. It is therefore important to keep these benefits top-of-mind when considering this aggregation model assessment.



FIGURE 1. NON-MONETARY VALUES OF INCORPORATING LOCAL FOODS INTO SCHOOLS (SOURCE: FARM TO CAFETERIA CANADA)³.

2. Background Scan of Related Regional Services and Initiatives

The work undertaken to complete this feasibility report began by establishing a project Steering Committee along with a Terms of Reference, a project methodology, and an engagement strategy. The Steering Committee included school officials, school parent volunteers, farmers, and community organizations. There was an ex-officio member of the Steering Committee representing the BC Ministry of Agriculture. The methodology included a review of existing literature and programs and the engagement strategy involved interviews with over a dozen local food system stakeholders in order to provide additional input.

³ Farm to Cafeteria Canada. 2019. [Farm to School Learning Circles](#): Bringing local, healthy, and sustainable food to the minds and plates of students across Canada.

Reports and studies that were reviewed included:

- Agriculture in Brief: Comox Valley, 2016 (BC Ministry of Agriculture)
- British Columbia Procurement Strategy (Government of BC)
- Buying Local Resource Guide: Tools for Forward-thinking Institutions (Columbia Institute)
- Canadian Policy Landscape for Local, Sustainable Food Systems (Food Secure Canada)
- Closing the Supply Gap (CR-FAIR)
- Comox Valley Agricultural Land Use Inventory, 2013 (BC Ministry of Agriculture)
- Comox Valley Agri-Food Initiative Gap Analysis, 2008 (Invest Comox Valley)
- Comox Valley Agri-Food Product Guide, 2010 (Invest Comox Valley)
- Comox Valley Agricultural Plan, 2001 (Comox Valley Regional District)
- Comox Valley Sustainability Strategy- Food Security Section (Comox Valley Regional District)
- Farm to School BC resources (Tools from the Shed)
- FEED Comox Valley resources (e.g. Food Secure Canada, North Island College)
- Food Security, Poverty, Housing, and the Local Food System- Closing the loop in the Comox Valley (LUSH Valley)
- Gordon Head Pilot Project: Potential Role of Public Institutions in Increasing Food Access and Food Literacy at the Neighbourhood Level (CR-FAIR)
- Purchasing Power: 10 lessons on getting more local, sustainable and delicious food in schools, hospitals, and campuses (Food Secure Canada and JW McConnell Family Foundation)
- Scaling Up Local Food Procurement in Greater Vancouver Schools (Public Health Association of BC)
- Small/Medium Farm Product Distribution Feasibility Study (FarmFolk/CityFolk)
- Strategic Analysis of Aggregation Initiatives in BC (BC Ministry of Agriculture)
- Study on BC Food Procurement in BC's Public Post-Secondary Sector (BC Ministry of Agriculture)

A number of provincial and regional initiatives exist that align with the overall goal of bringing more local food into local institutions. Some of the most pertinent examples include FEED Comox Valley, the Comox Valley Good Food Box initiative, and Feed BC.

These are each described below:

- **FEED Comox Valley:** Food, Environment, and Economic Development (FEED) Comox Valley, which was funded by the J.W. McConnell Family Foundation and the Comox Valley Regional District was started in 2014 and focused on building pilot partnerships. By 2015, an agreement had been reached to supply five local demonstration crops, on a farm-direct basis, to St Joseph's Hospital, Glacier View Long-Term Care Facility and North Island College⁴. The program results indicated that the institutions were able to source locally-produced food on a cost neutral basis. Furthermore, trade agreements and food safety concerns were not the biggest obstacles. Rather, large group purchasing contracts and public sector buying practices were the most significant barriers. Grow-to-order contracts offered an efficient and effective solution to overcoming these challenges, providing stability of demand for next generation farmers and stability of supply to public sector

⁴ [FEED Comox Valley, 2016](#). North Island College.

institutions. However, this project eventually lost momentum and five years later is currently not active. Anecdotal evidence suggests that a lack of coordination, inability to breakeven, and low sales volumes resulted in program failure.

- **Comox Valley Good Food Box Pilot Project:** The Comox Valley 2019 Good Food Box pilot, supported by SPARC BC, was a 10-week program delivering organic, local produce to 40-50 low-income seniors (weekly participation varied slightly) via four community partners: BC Housing's Washington Inn; John Howard's 'The Station'; Wachiay Friendship Centres Elders program, and Elder members of the K'ómoks First Nation⁵. The 'Good Food Box' program provided regular delivery of high quality produce through a simple model of distribution that met the needs of each of the four partners. Deliveries of produce and logistics of delivery and distribution were the role of the LUSH Valley gleaning program coordinator. The Good Food Box was supplemented with other produce available through the LUSH Valley Fruit Tree Program and Farm Gleaning Program. The pilot project was deemed a success and has recently received secure funding to operate for at least three more years and expand the program to 150 boxes of fresh food for social housing tenants⁶.
- **Feed BC:** Feed BC is an initiative lead by the BC Ministry of Agriculture, working collaboratively to encourage a shift toward more BC-grown and BC-processed foods within BC government institutions and facilities⁷. It is anticipated that a shift towards more BC products will result in building the provincial food supply, support jobs and businesses for farmers, fishers, and food processors, and offer more local foods to patients, students, and clients. The Comox Valley K-12 food aggregation initiative serves to increase the understanding of the supply, demand, procurement system currently in place and how efficiencies can be made to result in an increase in local foods within schools.

3. Agricultural Production in the Comox Valley

In order to provide an assessment of the supply of food produced in the Comox Valley, efforts have been made to characterize the farmland base and the number and type of farms operating within the region. This information was assessed using published data from Statistics Canada, existing reports from the BC Ministry of Agriculture and Invest Comox Valley, the results of stakeholder interviews.

The Comox Valley is a productive agricultural region, with over 400 farms⁸ serving farmers markets, grocery stores, and restaurants within the valley and beyond. The average farm size is 23 hectares⁹ and over 200 agri-food products are produced, with an estimated value of primary agri-food production of over \$43 million¹⁰. There are a large number (>200) of small farms, reporting under \$10,000 gross farm receipts, and a small number (<20) of large farms reporting over \$1,000,000 gross farm receipts in the region.

⁵ [Good Food Box Pilot Project a Great Success](#), 2019. LUSH Valley Food Action Society.

⁶ Personal Communication, LUSH Valley Food Action Society.

⁷ [Feed BC](#), 2019. BC Ministry of Agriculture.

⁸ [Discover Comox Valley](#). Invest Comox Valley.

⁹ [Comox Valley Agriculture in Brief](#), 2016. BC Ministry of Agriculture.

¹⁰ [Comox Valley Agri-food Initiative: Gap Analysis](#), 2008. Invest Comox Valley.

According to the 2013 Agricultural Land Use Inventory (ALUI) by the BC Ministry of Agriculture¹¹ and the 2016 Agricultural Census by Statistics Canada¹², forage and pasture make up the most amount of production on an per-acre basis (Figure 2). However, the Comox Valley is home to many very productive small farms producing a wide range of vegetables (potatoes, pumpkins, peppers, leeks, tomatoes, asparagus, onions, carrots, lettuce, spinach, kale), fruits (apples, grapes, blackberries, blueberries, strawberries, raspberries), nuts (hazelnut, walnut), and cereals (barley, oats). The ALUI noted that there were 74 individual vegetable crop fields with an average crop area of 3 hectares and a median crop area of 1 hectare. This points to the small-scale intensive nature of vegetable crop production in the area. In terms of livestock (not including horses), the most common operations are small scale poultry (<100 birds), small scale beef (< 25 cattle), dairy, and small-scale sheep/lamb (<10 sheep).

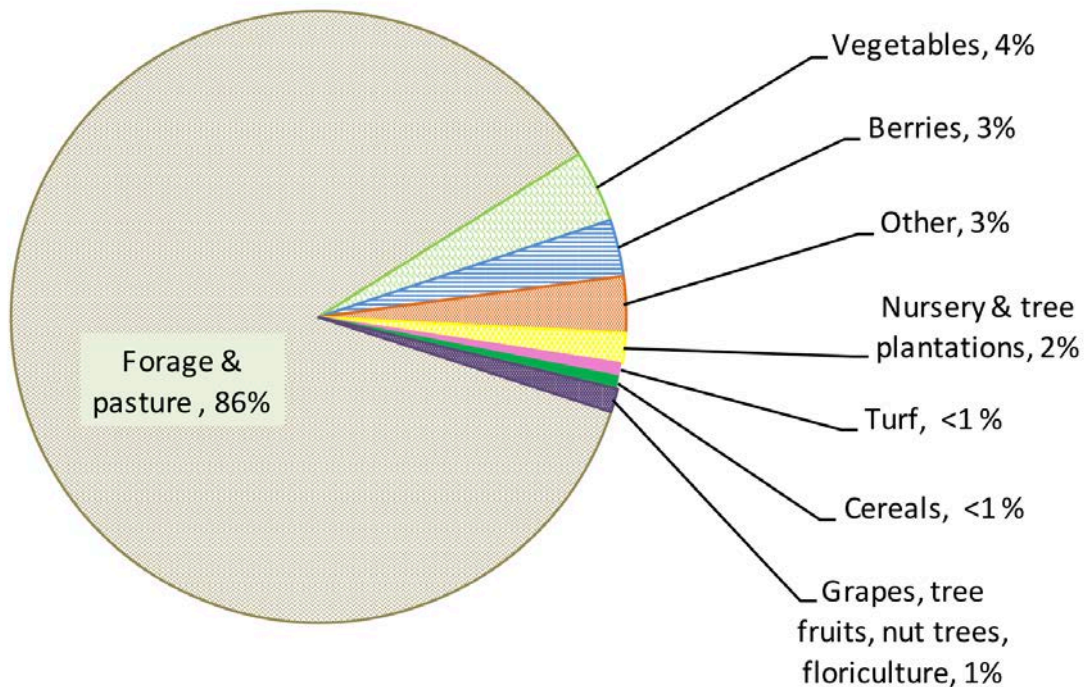


FIGURE 2. PERCENTAGE OF CROPS IN COMOX VALLEY BY ACREAGE. SOURCE: ALUI, 2013.

¹¹ [Comox Valley Agricultural Land Use Inventory](#), 2013. BC Ministry of Agriculture.

¹² [Agricultural Census](#), 2016. Statistics Canada.

4. Current Food Programs in Comox Valley K-12 Schools

School District No. 71 (SD71) is one of 60 school districts in BC. It serves just over 7,000 students from the communities of City of Courtenay, Town of Comox and Village of Cumberland, including Black Creek, Merville, and Royston¹³. Although SD71 schools are also found on Hornby Island and Denman Island, these were not within the scope of this project.

The 12 elementary schools included within scope are:

- Airport
- Arden
- Aspen Park
- Brooklyn
- Courtenay
- École Puntledge Park
- École Robb Road
- Huband Park
- Miracle Beach
- Queneesh
- Royston
- Valley View

There are three secondary schools included in scope:

- Georges P. Vanier
- Highland
- Mark R. Isfeld

Other SD71 schools and programs considered within scope are:

- Cumberland Community School (K-9)
- Glacier View Secondary Centre (Gr. 8-12)
- Lake Trail Community Middle School (Gr. 6-9)
- Nala'atsi Alternate Program

Different food programs at these schools serve different needs. The most common programs found in SD71 schools are salad bars and hot lunch programs:

- **Salad bars:** These are typically offered weekly or monthly. Salad bars are often, but not always, run as a fundraiser by the Parent Advisory Committee (PAC) through a group of volunteers. Parents pay \$3 - \$5 for their children to participate each time. Several salad bars currently source some ingredients locally and have an opportunity to shift towards a greater amount of locally-procured items.

¹³ [Strategic Plan 2015-2018](#). School District 71.

- **Hot lunch programs:** There are two types of lunch programs: those that are offering a nutritious meal for free (as a meal replacement) and those that are providing lunch as a fundraising activity (typically pizza, hot dogs, and sub sandwiches). The prior has a moderate opportunity to shift towards locally-procured ingredients, while the latter would be more challenging to shift towards locally-procured items.

The existing school meal programs and salad bars in SD71 are detailed in Table 1 within section 5.3 of this report. There are several schools currently with active programs, which include:

1. Huband Park Elementary: salad bar
2. Vanier Secondary: hot lunch (soup) program, which serves 12-14 program partners across the region
3. Brooklyn Elementary: salad bar
4. Courtenay Elementary Community School Society: breakfast and lunch programs
5. Lake Trail Community Middle School: hot lunch program and salad bar
6. École Robb Road Elementary: salad bar
7. Isfeld Secondary: salad bar



FIGURE 3. BROOKLYN ELEMENTARY SCHOOL SALAD BAR.

Most of these programs are run by volunteers, however Lake Trail Community Middle School and Vanier Secondary have salaried employees for their lunch programs. These two schools have also partnered with LUSH Valley Food Action Society to assist with food purchasing and delivery coordination. For example, the organization picks up and delivers local food inputs to Vanier Secondary to be sorted by students and then further distributed 12-14 schools across SD 71. The soup is prepared at each of the schools and collectively serves over 800 students per week. There is also a snack component, which has the potential to incorporate more local vegetables and fruits. The LUSH Valley Food Action Society delivery of the local food inputs is cost-shared with the Good Food Box program and is funded in part by a \$25,000 BC Gaming Grant¹⁴.

SD71's Strategic Plan includes a goal to Foster the Environmental Footprint. There is recognition that sourcing and serving local foods helps to meet many of the school district's goals and objectives.

¹⁴ Personal communication, LUSH Valley Food Action Society.

5. Assessing Wholesale Demand for Local Food in the K-12 System

5.1 Current Sales Models

All of the SD71 schools with lunch programs and salad bars currently operate independently from one another in terms of sourcing and purchasing food inputs¹⁵. There are four common sales models used for Comox Valley products get to schools:

1. Direct farm gate sales (either from the primary farm or through shared space at a secondary farm)
2. Farmers market sales (can be spontaneous purchases or a pre-order pick-ups)
3. Retail (grocery store) sales
4. Delivery (e.g. Vanier soup program through LUSH Valley Food Action Society)

According to Statistics Canada¹⁶, over half (51%) of Comox Valley farms report selling directly to consumers. Of those farms, the vast majority (89%) are selling their products at the farm gate, farm stands, and U-picks. Many (29%) are also selling through farmers markets. Only a few (3%) are using the Community Supported Agriculture (CSA) model. Within the CSA model, customers typically pay for a share of farm goods in the winter or spring in exchange for a weekly box of produce during the summer and fall. This model provides much needed resources for farmers at a time of year (winter and spring) when reinvestment in farm supplies and infrastructure is required.

The fact that less than 5% of farms are using the CSA model for sales is an interesting indicator, and points to the importance of aggregation coordination needs. It suggests that even though the CSA model can be a benefit to farmers in theory, in practice the efforts (time and other resources) required in coordinating and distributing the vegetable boxes in the Comox Valley may outweigh the benefits of securing funds for the farm in the off-season.

The time required to market and coordinate product sales is a **key barrier** that new and existing producers face when entering the marketplace or when expanding their operations¹⁷. This is a barrier that an aggregation initiative could help to solve. If many producers are cultivating a mix of vegetables at a small scale, these can be aggregated, packed, and distributed in a coordinated manner to better meet the weekly demands of local schools and of other markets as well (e.g. restaurants, families).

5.2 Current Sales Volumes

During the 2018-2019 school year there were four farms who were consistently supplying the schools with produce. These included:

- Island of Eden Farm (microgreens and salad greens)
- Fiesta Greenhouses (sweet peppers, tomatoes, cucumbers)
- Eatmore Sprouts (mixed sprouts)
- Sieffert's Farm (potatoes, cabbage, cauliflower, broccoli, carrots, lettuce, onions, squash)

¹⁵ Personal communication, various SD71 school representatives.

¹⁶ Agriculture in Brief: Comox Valley, 2016. BC Ministry of Agriculture.

¹⁷ Personal communication, local producer.

Unfortunately, the farms who are currently supplying SD71 schools with their produce do not consistently track sales data, and therefore it is challenging to estimate whether or not the sales transactions fall within wholesale volumes. For example, farmers are not asking those purchasing goods at the farm gate what the food was going to be used for, and there were no specific grower contracts in place for schools.

Fortunately, this data is more consistently tracked by the schools. Based on the information available, it appears that SD71 schools are individually relatively small volume purchasers (as compared to large institutional buyers such as hospitals or universities). The schools are not beholden to contracts or other procurement commitments through broadline distributors.

Local Farm Sales to Local Schools

Fiesta Greenhouses, a farm operation based in Campbell River, supplied vegetables to four Comox Valley schools over the 2018-2019 school year. Orders were placed weekly for the months of May, June, September, and the first half of October.

On average there orders were valued at \$100 - \$120 per week per school or \$400 - \$450 per month per school.

Average weekly orders include:

- 10 - 15 lbs of sweet peppers.
- 12 - 18 Long English cucumbers.
- 6 - 8 lbs of cherry tomatoes.

Based on the evidence found from discussions with stakeholders, the current supply of local foods that school programs typically demand (e.g. vegetables, fruit, berries, eggs, dairy) can be found in adequate supply from local producers. Overall, there is an abundant and diverse local food supply with the Comox Valley. However, the volumes being purchased by individual schools do not constitute wholesale level transactions and therefore full retail pricing is typically incurred. Should food orders be aggregated, then discounted wholesale prices may be offered¹⁸.

In discussion with local school staff and volunteers through the stakeholder interviews conducted in the fall of 2019, in addition to a scan of available resources, the following specific products were noted to be in demand most often by school meal and salad bar programs:

- Potatoes (soup program)
- Onions (soup program)
- Strawberries
- Carrots
- Salad greens
- Spinach, kale
- Fresh herbs
- Micro greens/sprouts
- Cherry tomatoes
- Sweet peppers
- Cucumbers
- Eggs

These are needed in volumes that could easily be procured from a farm gate or a grocery store, without any obstacle. The combined lack of individual volume needs and scarce staff and volunteer resources

¹⁸ Personal communication, several local producers.

indicate that an aggregation model for their purchases could save both time (coordination) and money (through wholesale purchasing).

Here are some examples regarding volumes of local products needed from some of the SD71 schools:

5.2.1 Example 1: Brooklyn Elementary

Brooklyn Elementary¹⁹ purchases inputs on a semi-weekly basis (an average of three times a month), for a salad bar that serves 110 meals. An average order includes:

- Romaine lettuce: 5 heads
- Carrots: 2 lbs
- Cherry tomatoes: 6 lbs
- Sweet peppers: 14 peppers
- Cucumbers: 12 cucumbers
- Sunflower sprouts: 2 lbs
- Eggs: 4 dozen

Costs are typically \$600-\$700 per month for local produce and eggs, which provides enough food for 3 salad bars a month and 110 meals.

This works out to the following equivalents:

- \$200-\$250 of produce and egg expenditures/salad bar
- \$1.82 - \$2.27 expenditure/meal/salad bar



FIGURE 4. A TYPICAL SALAD BAR MEAL AT A SD71 SCHOOL.

5.2.2 Example 2: Courtenay Elementary Community School Society

Food costs to support Courtenay Elementary School's food programs (breakfast program and hot lunches) are on average \$600 per month. Donations of food are also accepted in addition to the food purchases. Staff salaries to support the food programs are about \$900 per month, which includes a dedicated kitchen staff.

5.3 Summary of Comox Valley School Food Programs

The information provided in Table 1 (following page) are details regarding the existing school lunch and salad bar programs that currently exist within SD71 and through other organizations, along with details to help estimate overall demand for local products.

¹⁹ Personal communication, representatives from Brooklyn Elementary staff and PAC.

TABLE 1. SUMMARY OF SD71 SCHOOL FOOD PROGRAMS.

School Name	Number of Meals per Event	Type of Food Program(s)	Frequency	Coordination	Current Local Procurement Level	Capacity (space, equipment, storage)	Financial Details
Huband Elementary	300 – 400 (this represents 60-70% of the student body) for salad bar	Salad bar Hot lunch	Weekly - half of the students (Gr 1-4) participate one week and the other half (Gr 5-7) the other week	Volunteer	High	Well equipped galley-style kitchen School garden	Run as a fundraiser Charge is \$3.50 Some students are subsidized
Vanier Secondary	Up to 800 students across multiple schools	Soup program	Weekly	Salaried staff	Moderate	Commercial kitchen which provides students a learning opportunity	No charge for meals Produces soups for other schools
Brooklyn Elementary	100-120 students and staff	Salad bar	2 or 3 per month Weekly - half of the students (Gr 1-4) one week and the other half (Gr 5-7) the other week	Volunteers (6-8)	High Currently source from: Fiesta Farms Greenhouse, Seifferts Farm, Eatmore Sprouts.	Basic kitchen facilities, similar to what you would find in a home: oven, fridge, sink.	Run as a fundraiser Charge is \$3.00
Lake Trail Community Middle School Grade 6-9	Approximately 100	Salad bar Hot lunch Concession Foods Program - literacy	Weekly	Part time employee (10 hours/week) Volunteers (8 total, (4 for preparation and 4 for service)	Moderate	Full concession and Foods Lab. Includes tables, trays, utensils, etc. as well as commercial grade food processors.	Our costs/week are about \$200 and no charge for the meals Hot lunch is \$2.50
Courtenay Elementary		Breakfast program, Pizza day, hot dog day (weekly), Hot lunch (monthly)	Weekly and monthly	Non-profit society and volunteers	Low	Refrigerator, cupboards, counter space, microwave, oven, dishwasher, and sink. Planning a kitchen renovation in near future.	Run as a fundraiser Charge is \$5.00
Isfeld Secondary	200 with possibility to group	Salad bar	Weekly	Volunteers – mainly PAC parents	Moderate	No dedicated cafeteria	Charge is \$4.00 but can be subsidized for those who need it

School Name	Number of Meals per Event	Type of Food Program(s)	Frequency	Coordination	Current Local Procurement Level	Capacity (space, equipment, storage)	Financial Details
Cumberland Community School	25 (breakfast) 325 (lunch)	Breakfast program Lunch program Snack program (fruits and vegetables) Youth Centre meal program After-school cooking classes	5 days a week (breakfast and snacks) 4 days a week (lunch) Dinner on Fridays, snacks every weekday (Youth Centre) Twice weekly (after-school cooking classes)	Volunteers and instructors	Lunches include a salad bar and hot lunches procured from local restaurants	Cost of local fruits and vegetables is a barrier Often receive donations of local fruit from community members	Charge is \$3.50 to \$4.00 per lunch meal
École Robb Road	260 students and staff	Salad bar	Weekly	Volunteers Dedicated coordinator and grant writer (volunteer)	High School green house and garden provides veggies, herbs School Garden Club Seed to Plate program run by a parent who is a farmer		Started with a grant from Whole Kids Foundation Have 2 salad bar units
Young Cooks Program	>1,100	After school and summer camp programs	After school programs: 9 programs each with 6 sessions (up to 12 children each session). Summer camps: 4 weeks of 5 day summer camps (up to 12 children each week)	LUSH Valley Food Action Society	High		External grant funding

5.4 Wholesale Supply and Demand Barriers and Opportunities

The following provides a summary of barriers and opportunities for wholesale supply and demand that were identified during stakeholder engagement and through the literature review.

5.4.1 Barriers

Barriers for wholesale purchase of local food for schools Include:

1. Lower prices exist (sometimes even at small volumes) at larger retail outlets for ingredients that are not from local sources.
2. Limited capacity of kitchen equipment and storage means only small volumes can be purchased at a time.
3. Menu planning doesn't allow for much flexibility in ingredients, so it is difficult to just accept what producers have available week to week.
4. Elementary school and secondary school menus are not the same, so combining shopping lists may not always result in larger volume orders.
5. Lack of storage equipment (e.g. dehydrator, freezer, cellar) to process and store food to be used into the winter months.
6. No distribution service for large volume orders, typically use personal vehicles of parent volunteers and/or staff.
7. Human resources: time, training, skills.

Barriers for farmers to provide wholesale supply include:

1. Not motivated to offer lower prices (wholesale discounts) unless high volume orders are placed.
2. Hard to commit to growing for schools when peak demand times don't match peak harvest times (what to do with the extra produce in July and August).
3. Hard to commit to diversifying product offering if sales are not guaranteed.
4. Lack of initiatives for collectively or cooperatively marketing products to schools.
5. No full-scale local distribution system to deliver to schools.
6. Lack of organization, point-person or broker (local champion) to connect producers with school buyers and coordinate orders.
7. Limited community storage (dry or cold) when produce is ready to be harvested but schools are not ready to pick up.

5.4.2 Opportunities

Opportunities for schools to purchase wholesale include:

1. Communicate directly with farmers to determine which volumes of specific products would trigger wholesale pricing.
2. Calculate demand across all schools to see if wholesale pricing is possible.
3. Continue to work alongside Farm to School BC to plan for, and anticipate, additional school salad bar programs and include this future food demand within calculations and planning.
4. Reach out to North Island College to determine if there are alignments around local procurement in order to reach wholesale volume demands more quickly.

5. Provide school calendar-based menu ahead of time to farmers and let them choose what items they want to offer at wholesale volumes.
6. Create menus that specify “seasonal vegetables” or allow for easy substitutions of ingredients to provide flexibility for sourcing local ingredients.
7. Identify opportunities for a secondary ‘pick-up point’ (e.g. farmers market, retailer, community organization).
8. Increase sales volume and delivery capacity by piggy-backing on LUSH Valley gleaning and Good Food Box programs.
9. Consider working with schools that have paid staff to leverage the salaried coordinator role to organize purchasing across several schools – cost savings based on reduced product pricing could provide some financial relief.
10. Reach out to existing non-profits and/or charitable organizations to share the volunteer hour needs, thereby reducing reliance and strain on parent volunteers.
11. Incorporate Indigenous Foods into school food program menus to provide additional funding opportunities.
12. Explore possibility of offering a Food Truck service, similar to Gulf Island Secondary School on Salt Spring Island, which would provide another avenue for local produce demand and increase overall volume of orders



FIGURE 5. SALAD BAR VOLUNTEERS.

Opportunities for farmers to provide wholesale pricing include:

1. Provide a list of various produce volumes and associated pricing so that schools can understand how discounted pricing works and plan menus around product availability.
2. Meet with other farms and/or community organizations to coordinate distribution.
3. Visit schools to observe how the food programs work and offer ideas for ingredient substitution to ensure more locally grown products are used.
4. Offer dehydrated goods (e.g. dried herbs) to schools at wholesale volumes and pricing.
5. Offer fermented foods and other items that are low risk from a food safety perspective at wholesale volumes and pricing.
6. Consider offering a CSA for schools model, whereby school buyers purchase produce upfront and are delivered a mix of items (depends on what is available week to week).
7. Work with organizations who are currently offering delivery services to other end users, such as LUSH Valley Food Action Society, to explore whether or not there is space within existing delivery vehicles to distribute produce to schools in a cost-effective manner.

6. Potential Food Aggregation Models

6.1 Existing Services, Infrastructure and Gaps for Model Consideration

The current level of existing infrastructure along with the level of priority for inclusion in an aggregation model is provided in Table 2. This information is based on stakeholder interviews and on the literature review, particularly the following documents:

- Closing the Supply Gap (CR-FAIR)
- Comox Valley Agri-Food Initiative Gap Analysis, 2008 (Invest Comox Valley)
- Comox Valley Agricultural Plan, 2001 (Comox Valley Regional District)
- Purchasing Power: 10 lessons on getting more local, sustainable and delicious food in schools, hospitals, and campuses (Food Secure Canada and JW McConnell Family Foundation)
- Small/Medium Farm Product Distribution Feasibility Study (FarmFolk/CityFolk)
- Tools from the Shed resources (Farm to School BC)

TABLE 2. EXISTING INFRASTRUCTURE, GAPS, AND MODEL PRIORITY LEVEL.

Service or Infrastructure	Current Regional Initiatives and/or Organizations	Gaps and Model Considerations	Priority for Model (High, Medium, Low)
Communication	<ul style="list-style-type: none"> • Mid-Island Farmers Institute meetings • School PAC meetings • Farm 2 School BC events (Comox Valley Coordinating Circle) • Regional salad bar group • Various social media accounts (Facebook pages for school PACs). 	<ul style="list-style-type: none"> • Lack of dedicated, consistent, and coordinated communication method for connecting farmers to schools 	High
Sales Ordering and Coordination	<ul style="list-style-type: none"> • Some farms work together to provide an aggregated CSA model, but this is not targeted to school food programs. • LUSH Valley places orders for the Vanier soup program and coordinates pick up and delivery each week. 	<ul style="list-style-type: none"> • Lack of coordination between schools for ordering larger volumes of produce, which would unlock wholesale pricing. 	High
Aggregation and Packing Space	<ul style="list-style-type: none"> • Previous solutions include order drop off and pick up at one local farmer's greenhouse and farm gate, which includes some cold storage. However, concerns have arisen regarding product mixing and overall congestion around order delivery and pick-up with other CSA customers. • The Farmers Market is a potential order aggregation location, however it is held on a Saturday and is not always convenient for school coordinators to pick up the order unless they can be quickly and efficiently delivered to the school and kept cold. 	<ul style="list-style-type: none"> • A central aggregation point is needed so that farmers or a distributor can pack and organize deliveries as well as store oversupply. • While a dedicated bricks and mortar facility may be ideal, this is an expensive option. • An alternative would be to use an existing facility hosted by one of the schools or another organization. 	High

Service or Infrastructure	Current Regional Initiatives and/or Organizations	Gaps and Model Considerations	Priority for Model (High, Medium, Low)
Dry Storage and Cold Storage	<ul style="list-style-type: none"> • Currently there are limited storage opportunities located in Comox Valley for small and medium scale farmers. The Butchers Block has offered some temporary storage but space is limited. • LUSH Valley mobile cooler may be available during the off-season, albeit with limited capacity. • Many large scale producers and value-added processing businesses rent out storage space. However, this may complicate the collection and delivery services for multiple small-scale producers. 	<ul style="list-style-type: none"> • Both cold and dry storage would be required in order to allow some products to be held for longer periods of time. • Refrigeration, in particular, would be needed to meet food safety requirements for some products (e.g. eggs, dairy). 	Moderate
Basic Processing (Dehydration and/or Freezing)	<ul style="list-style-type: none"> • A number of value-added food products are already being produced within the region. These processors could be added to the list of suppliers. • Some schools are able to do basic processing (e.g. salad dressing) with the kitchen equipment on-hand thanks to volunteers. 	<ul style="list-style-type: none"> • Processing would allow some raw products to be used for longer periods of time and may expand the list of local ingredients that could be used in school meal planning. • Schools have indicated that salad dressings, sauces, purees for muffins and other simple processed goods would be desired, rather than spending volunteer time making their own. 	Low
Deliveries / Distribution	<ul style="list-style-type: none"> • Some farms offer to drop off orders if it works within their plans for other deliveries, but not necessarily on a regular basis. • LUSH Valley Food Action Society distributes fruits and vegetables to several schools, with the majority going to Lake Trail Elementary School, through the society's gleaning program. • LUSH Valley Food Action Society delivers food inputs to Vanier Secondary for their soup program. 	<ul style="list-style-type: none"> • Product pick-up and delivery (distribution) will be a critical aspect of the business plan so that deliveries are made reliably and consistently. • A delivery service must be available to distribute the produce to the schools and/or store it until ready for pick-up. 	High

6.2 Aggregation Models

Opportunities to create an aggregation model that meets both the needs of producers and the needs of schools requires careful consideration of the factors outlined in the previous section:

- Communication
- Order coordination
- Aggregation and packing space
- Storage (dry and cold)
- Processing, and
- Distribution

There are three main aggregation model types described here:

1. Producer-run,
2. School-run, and
3. Organization-run.

“In the fall, cafeteria staff learned how to process local pumpkins into puree for cookie and muffin recipes that we wanted to keep on the menu throughout the school year. It was the peak of the season so we got great prices and schools processed the pumpkin they would need, weighed out for cooking off batches of the recipes. This streamlined food preparation later on in the year and also resulted in food cost savings.”

Rachel Schofield Martin,
Healthy Eating and Social Entrepreneurship
Coordinator,
Conseil Scolaire Francophone

6.2.1 Producer-run Aggregation Model

In a producer-run model, a farmer (or group of farmers) work together to find a location (typically a farm) with space for product aggregation and packing. The farmers also organize and facilitate at least a couple of meetings per year with school representatives in order to help with planting planning. Farmers would coordinate the orders, which could be placed by school food program coordinators online or by phone. This may involve producing a weekly or monthly fresh sheet. Wholesale pricing may be offset by any additional fees associated with costs associated with order coordination and delivery. Distribution would take place using a farm vehicle.

Examples include:

- Merville Organics growers cooperative (based in the Comox Valley), which aggregates produce for sale to a variety of customers.
- Local Motive Organic delivery (based in the Okanagan), which delivers local produce within the Okanagan region.
- Sechelt Farm Collective, based on the Sunshine Coast, which offers a fresh sheet weekly to local customers, including schools.

6.2.2 School-run Aggregation Model

In a school-run model, representatives from individual schools assign a lead coordinator (this may be paid staff or a volunteer) to coordinate weekly, monthly, and/or annual local produce orders and grow contracts. The coordinator would reach out to individual farms to negotiate pricing based on demand volumes. This may involve contracted growing for specific products. The schools would be responsible for order pick-up unless they arranged otherwise. In this model, the aggregation and packing location would likely occur at a designated school space, which ideally would have cold storage capacity.

6.2.3 Organization-run Aggregation Model

This alternative model involves a third party organization running the aggregation model. This may involve a non-profit society who may be eligible for funding grants that neither farmers nor schools are eligible for. The aggregation, packing, and storage location would be in a dedicated space. This may still be at a

farm or at a school or may be in a different neutral location. The organization may be able to leverage funding to support this model for a variety of customer types, of which schools are just one. Distribution would still be the most challenging aspect to consider as order pick-up and delivery service would likely be required in order to succeed. Other business model types, such as co-operative or for-profit, are also possible for this model.

Examples include:

- [LUSH Valley Good Food Box](#) (based in Comox), whose charitable purposes align strongly with increasing local food in local schools. LUSH Valley currently delivers farm fresh goods to low-income residents and to Vanier Secondary and Lake Trail Middle School.
- [Fresh Roots](#) is a non-profit organization that grows food for schools in Vancouver.

6.3 Business Structure and Governance Options

A critical step in the development of an aggregation initiative is to determine which governance model would be most appropriate. The following discussion presents a variety of options for how the model could take shape and be managed. Non-profit organizations, for-profit corporations, cooperatives and social enterprises must be viewed in relation to their benefits and challenges. A Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis is provided in Table 3.

6.3.1 Non-Profit Organization

A non-profit organization is an association, club, or society that is operated exclusively for social welfare, civic improvement, pleasure, recreation, or any other purpose except profit²⁰. Non-profit organizations can be incorporated (registered society) or unincorporated in Canada (see section on unincorporated non-profits below). Incorporated non-profit societies must comply with the BC Society Act²¹. Incorporating a non-profit gives the organization legal status and allows it to enter into contracts, buy land, borrow money, and have bank accounts in its own name. Incorporated non-profits also have a higher chance of receiving government grants as the organization appears to have more stability. An unincorporated non-profit organization has no formal structure that has to be followed and is not governed by the *BC Societies Act*. It is essentially an agreement between two or more persons joined by mutual consent for a common lawful purpose and has no legal status. In order to comply with the BC Society Act, the non-profit organization must have a recognized structure that consists of a Board of Directors (minimum 3 people in BC), some kind of management hierarchy, clear bylaws and a constitution, and regular general meetings of the membership (must hold an Annual General Meeting) at least once every 15 months). Incorporated non-profits must also have a clearly defined mission and purpose. The mission must benefit the greater good of the community, society, or the world and cannot use its funds for anything other than the mission for which it was formed. A non-profit organization can also apply to the Canada Revenue Agency to become a registered charity.

6.3.2 For Profit Corporation

For profit businesses can take the form of sole proprietorships, corporations, or partnerships. Sole proprietorships are owned by one person and income is reported as personal income on taxes. In a corporation, no individual person is responsible or liable for debts. If any members of the business leave or are replaced, it does not affect the business as a whole and operations can continue.²² Partnerships

²⁰ Canada Revenue Agency: [Non-profit societies](#).

²¹ [BC Societies Act](#).

²² [How to Start a Business](#), Small Business BC.

occur when two or more individuals join together to start a business venture, which can take the form of a corporation if desired. When a for-profit business goes out of business or is dissolved, its assets can be liquidated and the proceeds distributed to the owners or shareholders. Funding support is available for new businesses in the form of loans and grants, but a well-developed business plan is generally a necessity for potential funders. The One Stop Business Registry²³ and Community Futures²⁴ are excellent resources.

6.3.3 Co-operative

Co-operatives are owned and democratically controlled by the people who use and benefit from their services. The structure of cooperatives can be either for-profit or non-profit, however most are usually similar to a non-profit organization in that members elect a Board of Directors and decisions are made by voting power of the members. The Board of Directors governs and sets the direction of the co-op and manages the human resources of the organization, but reports to the membership on an annual basis. Senior management is responsible for day to day operations and manages staff, program/business development, administration, etc. For members choosing to leave the cooperative, their membership fee is refundable and may include interest. Co-operative associations must abide by the Cooperative Association Act²⁵ and have the ability to incorporate as a co-operative association²⁶, similar to an incorporated non-profit organization.

6.3.4 Social Enterprise

Social enterprises are a form of revenue generating business with a twist and can be operated by a non-profit organization or a for-profit business. There is no certification or legal avenue to enable a venture to be officially deemed a social enterprise, but the goals of all social enterprises are twofold: (1) to achieve social, cultural, community economic and/or environmental outcomes; and (2) to earn revenue.²⁷ Social enterprises take surplus revenues to be used in pursuit of social and/or environmental goals. Some examples of social enterprises are as follows:

- Farmers' markets – use a business model to create community value
- Theatres and art galleries – these are often under a non-profit model
- Thrift stores

²³ BC Business – [Starting a Business](#).

²⁴ [Community Futures BC](#).

²⁵ [Cooperative Association Act of BC](#)

²⁶ BC Registries: [Businesses and Societies](#)

²⁷ BC [Centre for Social Enterprise](#)

TABLE 3. SWOT ANALYSIS FOR AGGREGATION GOVERNANCE TYPES.

Governance Type	Management Structure	Strengths	Weaknesses	Opportunities	Threats
Non-profit Organization	Board of Directors	<ul style="list-style-type: none"> Model is well set-up and easily repeatable Members are not liable for any debts and liabilities incurred by the organization Set-up costs for the organization are minimal 	<ul style="list-style-type: none"> Need to develop bylaws and constitution and hold regular member meetings Need to develop a governance structure with at least 5 board members 	<ul style="list-style-type: none"> Can apply for grant funding If approved as a registered charity, can provide tax receipts for donations Can include a social enterprise as a component 	<ul style="list-style-type: none"> Organization is tied to available funding and funders
	Executive Director				
	Staff				
For-Profit Corporation	Owners/Investors	<ul style="list-style-type: none"> Not dependent on funding availability and grant writing Start-up is very simple – business name and number 	<ul style="list-style-type: none"> Must pay taxes on profits Owners are personally liable if a sole proprietorship Control over business is often in the hands of one or two individuals 	<ul style="list-style-type: none"> Can include a social enterprise as a component of the organization 	<ul style="list-style-type: none"> Cannot access most grant programs
	Board of Directors				
	CEO				
	Staff				
Co-operatives	Board of Directors	<ul style="list-style-type: none"> Multiple orgs can unite towards a common goal Members have full control over governance 	<ul style="list-style-type: none"> Need to develop a governance structure with committed members 	<ul style="list-style-type: none"> Flexibility of structure – can incorporate as a non-profit if desired or be a for-profit 	<ul style="list-style-type: none"> If incorporating as a non-profit then mission, purposes, bylaws and a constitution must be crafted (not require for for-profit co-ops)
	Executive Director				
	Staff				
Social Enterprise	Board of Directors	<ul style="list-style-type: none"> Objectives is to provide social, environmental benefits to the wider community 	<ul style="list-style-type: none"> Challenges with funding – less grants available than a strict non-profit organization 	<ul style="list-style-type: none"> Diversity of social enterprise organizations 	<ul style="list-style-type: none"> No formal oversight into performance objectives Lack of clarity regarding what social enterprises are and what they do
	Executive Director				
	Staff				

6.4 Opportunities to Scale Up

Scaling up the use of local food in local school food programs can occur through one or more of three routes:

1. Increasing production: both the diversity of products being offered
2. Increasing demand: through the number of schools (students) participating in the programs
3. Including other markets: linking with partners that can open up other sales avenues.

6.4.1 Increasing Production

Local vegetable and fruit growers are already producing ample fruits, vegetables, and herbs to meet the demands of schools. Increasing production of specific good, or creating further diversification through value-added products (e.g. sauces, purees, dressings) is possible. However, producers need to be more confident of a guaranteed market prior to dedicating production space and resource and diversification of products. This can only be accomplished if demand and markets are scaled up accordingly.

6.4.2 Increasing Demand

The number of schools (and students participating) in school food programs is harder to control, and much will depend on resource distribution and capacity. However if the model can demonstrate efficiencies in terms of procurement then it stands to reason that other schools will be drawn to participate. Farm to School BC indicates that one to two schools are initiating new salad bars and school food programs per year in the region. If an aggregation model provides efficiencies and reduces the pressure on school parent volunteers, schools will be encourage to join and/or scale up existing programs (e.g. adding more salad bars, meal and snack offerings).

6.4.3 Increasing Markets

Throughout stakeholder discussions, the following ideas for increasing market avenues emerged:

- Additional K-12 school programs: The most popular ideas included connecting with snack programs and afterschool cooking programs.
- Summer camps: This opportunity, in particular, is attractive to farmers because it helps to solve the current issue whereby the peak harvest season (July and August) coincides with school summer holidays.
- Young Cooks Program: LUSH Valley Food Action Society currently hosts both after school and summer camp programs that focus on connecting children to the local food system. This program, called the Young Cooks program, provides space for up to 12 children to complete a 6 week after school session or a weeklong summer session.
- Good Food Box Program: Aligning with the Good Food Box program is another opportunity to leverage existing programs to reach wholesale demand volumes and bridge the seasonal gap that exists for current farm to school dynamic.
- North Island College (NIC): Academic institutions present an additional market to explore, as a farm-to-campus sales avenue. There is an opportunity to identify the local food needs of academic institutions within the region and scale up sales to those locations.

Programs such as these are examples of how the local markets could be expanded in order to secure better year-round volume commitments for growers.

7. Regulatory Considerations

There are a variety of regulatory considerations that an aggregation initiative may need to respect. These will vary somewhat depending on the services and infrastructure ultimately provided, and whether or not there will be a dedicated physical building or location for the initiative. The most pertinent types of regulations to consider include:

- Federal and provincial food safety regulations for food handling and processing.
- Vegetable commodity regulation and business licencing considerations for food sales.
- Land use zoning and regulations.

7.1 Federal Food Safety Regulations and Certifications

The Canadian Food Inspection Agency (CFIA) is responsible for maintaining food safety at the federal level to minimize preventable health risks related to food diseases²⁸. CFIA also receives and acts on food safety complaints through investigations and coordinates food recalls. CFIA certification programs include the Hazard Analysis Critical Control Point (HACCP) program and the Canada Good Agricultural Practices (GAP) program. HACCP is used to help find, correct, and prevent physical, chemical, and biological hazards throughout the food production process²⁹. HACCP is used by most countries around the world and became mandatory for federally-registered meat and poultry establishments in Canada in 2005.

The Canada GAP program was developed specifically for operations that produce, handle and broker fruits and vegetables. It is designed to help implement and maintain effective food safety procedures within fresh produce operations. Certification in Canada GAP requires facilities undergo an inspection at least once per year by a qualified auditor. Canada GAP is voluntary and is increasingly requested by large produce retailers.

While HACCP and GAP are becoming more popular with larger operators, they incur a lot of cost and administrative overhead for smaller farms. The aggregation initiative would only need to ensure that the produce suppliers are certified for these programs if the buyer (the schools) required it. Representatives from Island Health confirmed that food safety concerns from local farms are minimal and can be mitigated through simpler certification processes such as FOODsafe instead (see below).

7.2 Provincial Food Safety Regulations and Certifications

The BC Government has substantial legislation that covers food safety³⁰. The *Food Safety Act* regulates the whole BC food industry from production and manufacturing to retail and restaurants. The Ministry of Health has been delegated the responsibility of administering the *Food Safety Act* at the food product level, while the Ministry of Agriculture administers the *Food Safety Act* at the farm practices level.

The *Food Safety Act* outlines the legal responsibility of food operators with respect to the safety of products; coordinates inspections and enforcement; and specifies offences and penalties for infractions. The aggregation initiative would likely be regulated by the *Act* through the *Food Premises Regulation*, which defines a “food premise” as any place where food intended for public consumption is sold, offered

²⁸ CFIA. [About the Canadian Food Inspection Agency](#).

²⁹ HACCP. [CFIA Information](#).

³⁰ Province of BC. [Food Safety Legislation](#).

for sale, supplied, handled, prepared, packaged, displayed, served, processed stored, transported, or dispensed.”

The *Food Premises Regulation*³¹ requires that the construction or renovation plans of a food premises must be approved by a health officer. Specifications regarding potable water, waste disposal, lighting, ventilation, and kitchen equipment are all regulated. The regulation also requires FOODSAFE³² training by operators and a permit to operate a food service establishment. Island Health is responsible for licensing, inspecting, and administering the FOODSAFE education program within the Comox Valley³³. Food businesses that prepare or serve food for immediate consumption must obtain a Health Operating Permit. School kitchens must secure this permit from the Environmental Health Officer. An Application for Health Approval will need to be submitted to the local Environmental Health Officer and a food safety and a sanitation plan may be required as well. In addition to FOODSAFE certification, operators would be required to consider guidelines for mobile food premises and guidelines for the sale of foods at temporary markets. These have been developed by the BC Centre for Disease Control³⁴.

7.3 Vegetable Commodity Regulations

The BC Vegetable Marketing Commission (BCVMC) regulates the production, transportation, packing, storage and marketing of a variety of crops. The Commission enforces the *Natural Products Marketing Act* and its regulations. In this role the Commission licenses producers by controlling the production and delivery of specific crops. Registration with the BCVMC as a commercial producer is required for all producers of regulated products, unless they are certified organic. Regulated products include:

- Greenhouse vegetable crops including beefsteak tomatoes, tomatoes-on-the-vine, peppers and cucumbers;
- Vegetable crops that are commonly frozen, including peas, beans, corn, broccoli, Brussels sprouts, cauliflower, cold crops, and strawberries.
- Vegetables that are commonly stored for long periods of time, including potatoes, carrots, and rutabagas.

It is unlikely that the aggregation initiative would require regulation through the BCVMC.

7.4 Land Use Regulations

In addition to the operational regulations mentioned above, the Province regulates the types of uses permitted through zoning bylaws and regulations. The Province regulates agricultural activities on land within the Agricultural Land Reserve (ALR) through the Agricultural Land Commission (ALC). The ALC administers the Agricultural Land Commission Act and the Agricultural Land Reserve Use, Subdivision and Procedure Regulation. Meanwhile, local and regional governments regulate land use through Official Community Plans and Zoning Bylaws. These two jurisdictional levels of zoning regulations may impact the physical centre(s), depending upon the final site selection for the facilities.

³¹ [BC Food Premises Regulation](#)

³² FOODSAFE certification process information. <http://www.foodsafe.ca>

³³ The local Health Protection Office.

³⁴ [Food Premises Guidelines](#). BCCDC.

8. Potential Leadership and Partnerships

There are multiple organizations operating at the local, regional, provincial and federal levels that are striving or planning to help develop more efficient pathways for local foods to be distributed through local schools. Working cooperatively, there is great value in sharing resources and using ready-built programs as a potential service offering for a prospective aggregation initiative. Collaboration is an innovative and practical approach to closing the gaps in the local food system and developing key relationships. A number of Comox Valley-area organizations may be suitable partners to lead and/or support an aggregation facility. The following organizations and agencies stand out as particularly relevant.

8.1 LUSH Valley Food Action Society

LUSH Valley was established in 2000 and works across the Comox Valley to assist residents in gaining local food system skills, knowledge, and access to good food. LUSH Valley is recognized by Community Food Centres Canada as a Good Food Organization and is an Island Health Food Security Hub. A specific opportunity with the aggregation initiative may be to have LUSH Valley lead a school food distribution/delivery service. LUSH Valley is already providing this service to Vanier Secondary and Lake Trail Middle School, and successfully piloted the Good Food Box initiative in 2019, whereby local food was delivered to associations and facilities that offer services to low income residents. The success of this pilot project and local research into the 2019 report “Closing the Loop on Food Security in the Comox Valley” has helped to secure \$160,000 of funding over the next 3 years to bring more local food to people living in social housing. This will be done by scaling up the program to 150 weekly boxes of local produce. Furthermore, contracts will be developed between farmers and meal providers. LUSH Valley will act as a broker to set up the programs and relationship as well as aggregation sorting and delivery. The program is a way to support new attitudes and behaviors, where healthy local food and social innovation is at the heart of community well-being. LUSH Valley's Farm Gleaning program works across the region on farms and trades labour for produce that is not marketable, in 2019 harvesting and redistributing \$32,000 worth of local produce. This had led to strong relationships and communication with the farming community (about 15 farms participated in 2019) and has led to the development of farm pick up and delivery systems utilizing a mobile cooler unit.

8.2 Comox Valley Farmers Market Society

The CVFMS aims to provide the public with direct access to food producers, stimulate and support the local economy, provide opportunities to inform and entertain and to support and strongly encourage environmental sustainability. These goals align well with the aggregation initiative and the farmers market would be a natural partner. The vendors who sell at the farmers market may also be interested in selling a portion of their produce to schools through the aggregation initiative. The market location may also provide an easy and accessible order pick-up location during the months that it is in operation.

8.3 Farm-to-Cafeteria Canada

Farm to Cafeteria Canada provides support for the Farm-to-School BC program, which is a provincial initiative that is made possible, in part, through financial support from the Whole Kids Foundation. It aims to bring healthy, local and sustainable food into schools and provides students with hands-on learning opportunities that develop food literacy, all while strengthening the local food system and enhancing school and community connectedness. Farm-to-School offers resources in the form of webinars, educational tools, templates, and funding to support the connection between local food and schools.

Farm-to-School funding often helps schools purchase salad bar and hot lunch kitchen and food preparation equipment. This organization is a natural ally to an aggregation initiative that aims to bring more local food into local schools. A Comox Valley-based Coordinator has been involved as a Steering Committee member for this aggregation initiative project and will continue to offer guidance and support as and when needed.

8.4 Breakfast Club of Canada

The Breakfast Club of Canada is a national organization that currently funds programs in four SD71 schools. The program provides the schools with coupons for the purchase of eggs, pancake mix, and other breakfast-related items from large grocery chains. A partnership opportunity may exist whereby the coupon system could be restructured to be used for local vendors of eggs, fruit, and/or other breakfast ingredients.

8.5 National Coalition for Health School Foods

The Coalition for Healthy School Food is a group of over 70 organizations advocating for increased federal investment in a universal, cost-shared, healthy school food program for all students across Canada. The Coalition recognizes that existing school food programs are run at a classroom, school or school district scale and largely rely on parents and other members of the school community. This patchwork of programs does not meet the needs of all students. The Coalition advocates for significant investment from all levels of government, as well as input from local school communities and other stakeholders, to create a universal program for all children and youth.

8.6 BC Fruit and Vegetable Program

The BC School Fruit & Vegetable Nutritional Program (BCSFVNP) is part of a provincial government initiative to improve the health of BC children and families. Similar programs in the UK and US have been very successful and positively received by students, parents and teachers. As of 2019, the program has grown from an initial launch of 10 schools to 1,443 K-12 public schools and K-12 First Nations schools in BC for the 2018/2019 school year. With the help of nearly 4,000 volunteers and agricultural partners, the program provides fresh fruits and vegetables 12 times in the school year to over 574,027 students. All fruits and vegetables in the Program are grown in BC except for mandarins. On occasion, due to unforeseen circumstance we may need to substitute for other imported products. Should this happen, our mandate is to supply Canadian produce if possible.

8.7 Comox Valley Food Policy Council

Having recently completed a strategic plan, the Comox Valley Food Policy Council (CVFPC) identified the development of a local food procurement policy for Comox Valley Regional District institutions and organizations as a top priority. This food procurement policy could be developed in a manner that meets the needs of SD71. A representative from SD71 is on the CVFPC.

9. Business Plans for the Potential Aggregation Models

A business plan helps to answer the following questions:

- Fee model: What service fees will be charged, if any? E.g. brokerage fees, delivery fees.
- Product sales volume: What level of volume sales needs to be achieved to breakeven?
- Timeline: Will the aggregation initiative ever turn a profit without subsidies?

The following section describes the assumptions used for each of the three business models, followed by a breakeven and risk analysis for each model.

9.1 Baseline Data and Model Assumptions

This section of the report provides an analysis of existing and needed regional infrastructure and other assets most needed in the region with respect to the feasibility of the business plan.

The feasibility study indicates the following current needs that must be met in order for an aggregation model to be successful:

- Staffing: a dedicated individual to ensure the smooth operation of ordering logistics.
- Space: a physical location for food aggregation, order packing and cold storage.
- Distribution: a vehicle for food pick-up and delivery.

These basic needs do not change whether the model is run by producers, schools, or a third-party organization. However, the manner in which the costs associated with these needs can be covered will vary depending on which business model is selected.

The baseline data used to develop the business model uses the following categories of time for projections:

- Short Term (1-2 years)
- Medium term (3-4 years)
- Long term (>5 years)

The business plan addresses aggregation and coordination needs by making specific assumptions, which will likely need to be adjusted as actual circumstances change over time. These assumptions are described and explained within the following sections of the report. The business plan should be revisited from time to time, particularly if targets are either not being met or are being exceeded.

9.1.1 Business Governance

The main business governance options are for-profit and non-profit. These can be run by enterprises (for-profits), non-governmental organizations (non-profits, social enterprises), or co-operatives (for-profit, non-profit, or social enterprises).

Current Situation Re-Cap

There are no formalized purchase agreements or contracted growing occurring between schools and farms. Rather, purchases to supply salad bar programs are being made on an ad-hoc, week-to-week basis. A local non-profit organization, LUSH Valley, does provide a farm produce pick-up and delivery service for the Vanier Secondary soup program. This involves approximately \$5,000 per year of local food purchases (potatoes, carrots, cabbage, onions, garlic and parsley) and is anticipated to scale up over the next three years as new funding has recently been granted to the organization. LUSH Valley's total local food procurement across all programs is projected at \$50,000 per year starting in 2020. Their role will also be to increase investment in local food from social service partners.

Existing Resources and Gaps

A local champion will need to step forward to govern and lead a formalized aggregation service. This local champion could be a farmer (or group of farmers), a school representative, or a non-governmental organization – these are all described as possible business models. Based on engagement results and outreach conducted to-date within the greater community, the likelihood of a farmer or school representative to step forward to take on a leadership role of the aggregation initiative is extremely low. This is due to lack of capacity, prior commitments, and more pressing priorities. LUSH Valley presents an existing local resource that may be in the position to take on the role of aggregation initiative leader.

Business Model Assumptions

As the business model numbers indicate in the following sections of the report, there is no argument to be made for the initiative to be run as a for-profit enterprise. Rather, it is assumed that a non-profit model will need to be used until a time when the full sales volume required to breakeven will be attained. This may take more than 10 years.

9.1.2 Project Start-up Funding

Public or private funding (or a combination of both) could be used to help move the aggregation initiative forward. Without this funding, the main risk is that a full-time coordinator could not be hired. It is assumed that a minimum of \$40,000 will be required to start the aggregation initiative in Year 1. This influx of resources at the start of the program will assist in ensuring that the overhead costs are met even if growth of sales in the early years is slow. The financial risk in not obtaining startup capital is further described in the report.

The opportunities to utilize the various types of funding available will depend on the business model (i.e. producer-run, school-run, or organization-run). Specific types of funding that can help to offset some of the costs associated with fixed expenses include:

- **Coordination fees:** these fees represent a markup (or brokerage fee) to assist in covering all the required overhead. These fees are further discussed in the following section of the report
- **Grants:** this form of income can be attractive because there is no need to pay back the funding, however the reporting and other overhead can be somewhat onerous. Furthermore, grants to cover salaries can be challenging to find. Several grant opportunities may exist for the food hub, including provincial or federal agricultural and economic development initiatives, BC Gaming Grants, Investment Agriculture Foundation, Farm to School BC, Real Estate Foundation BC, or a grant from a credit union.
- **In-kind support:** all model types may be offer to provide some level of in-kind support, by utilizing resources from within the host farmers group, school group, or non-governmental organization and by partnering with the regional Farm to School Coordinator. This type of support could be provided by hosting a webpage, providing advertising, meeting room space, and other overhead and administrative needs. This support could be provided by SD71, farmers, LUSH Valley, Farm to School BC, and/or other partners.
- **Volunteers:** the school-run model would continue to have a large part of the coordination work covered by volunteer hours. Stakeholders note the importance of keeping parents and teachers

involved in the salad bar program as volunteers as it encourages ownership of the initiative and is a source of pride.

The coordination fees are based on the amount of food sold, and therefore will not vary between business models. However, the amount of remaining income required to break even (annual income gap) can be split differently depending on the model. The proportion of the different types of other income in the business plan (aside from coordination fees) for each model is described in Table 4.

TABLE 4. PROPORTION OF OTHER INCOME (NON-COORDINATION FEES) FOR EACH MODEL.

Model	Grants	In-Kind Support	Volunteer
Producer-run model	60%	30%	10%
School-run model	10%	40%	50%
Organization-run model	45%	30%	25%

9.1.3 Staffing

Lack of coordination between schools has emerged as a major gap in the current Comox Valley local food procurement setup. The most important component to ensure efficiencies in operating a successful aggregation initiative will be to hire a coordinator. Without the right coordinator, it will be more challenging to achieve the targets required to reach a breakeven point and to achieve overall success.

Current Situation

There is no one person coordinating food purchases across schools, nor are there any farmers representing growers who are communicating what is available for schools to purchase in a coordinated fashion. There is a Farm to School coordinator position that has recently been established and is currently funded for two years. This individual may be able to spend a portion of their time (in-kind) helping to pilot a coordinated procurement project.

Existing Resources and Gaps

LUSH Valley is leading the Good Food Box program, which provides local food to low-income seniors and people living in social housing, and has received sustained funding to continue and expand this program for the next three years. While not focused on providing local food to schools, the coordination role and distribution network is similar, and seasonal part-time resources (coordinator, delivery truck) are already in place.

Future Potential

By funding the coordinator role so that it is a full time position (whether for a producer-run model, a school-run model, or an organization-run model), additional efficiencies can be made and existing positions can be leveraged to take advantage of local skills and resources. By having one coordinator and providing this economy of scale, the opportunity to expand into other markets and/or school food programs (such as the hot lunch programs) can also be unlocked. In addition to the breakeven analysis, capacity and interest will be critical in determining which business model should be used for the initiative.

Business Model Assumption

The model assumes that a salary associated with 0.75 full time employee (FTE³⁵) coordinator will be required, at the level of \$35,000 in the Short Term, 1.0 FTE at \$45,000 in the Medium Term, and 1.0 FTE

³⁵ FTE = full time equivalent position or 37.5 hour work week. Therefore a 0.50 FTE is equivalent to a 18.75 hour work week and 0.75 FTE is equivalent to a 28.125 hour work week.

at \$50,000 in the Long Term. Although the program will be operating 10 months out of the calendar year, this is anticipated to be a year-round position. This will allow for time to provide program reporting, assessing and adjusting the business model, meeting with farmers and school representatives to discuss program improvements, and so on.

The main role of the coordinator staff person is detailed in Table 5.

Table 5. Aggregation coordinator role and tasks.

Job Component	Examples of Tasks
Coordinate Order Placement	<ul style="list-style-type: none"> • Develop a weekly fresh sheet. • Communicate fresh sheet amongst school representatives (customers) • Receive an document weekly orders. • Communicate with farms to determine supply/availability.
Organize and Deliver the Orders	<ul style="list-style-type: none"> • Place orders. • Pick up produce from multiple farms. • Store produce (dry, cold storage) until orders are packed ready to be delivered. • Sort and pack orders. • Deliver the orders to multiple schools. •
Seek Funding and New Markets	<ul style="list-style-type: none"> • Apply for grant funding, seek sponsorship opportunities, investigate additional markets to grow the initiative. • Document success and challenges of the initiative. • Report back to funders. • Advertise and promote the program.

9.1.4 Expected Value of Product Orders (Demand)

The estimated numbers provided here are based on the detailed summary of the current and potential demand for local produce and on discussions with the Steering Committee.

Current Situation

Currently, Comox Valley schools spend an average of \$2.00 for every salad bar meal served. The feasibility work documented at least six schools currently participating in salad bar programs. These schools are collectively offering over 1,680 meals per salad bar event (i.e. weekly), for a total average of 30 events per school per calendar year. This ranges from about 120 to 400 meals served per school, depending on the size of the school.

LUSH Valley currently coordinates a school soup program, which purchases \$5,000 worth of local produce per year. This amount is anticipated to grow to \$8,000-\$10,000 next year. LUSH Valley also currently spends an additional \$8,000 annually on local produce to service a Good Food Box program, and this is anticipated to triple to \$25,000 per year for the next 3 years.

Existing Resources and Gaps

Many, if not all schools, are purchasing at least a portion of the produce required for their salad bar programs from local farms. This local portion typically ranges from 10%-90% (on a budget basis), depending on the menu theme, time of year (local product availability) and meal budget. The most popular local ingredients are cherry tomatoes, salad greens, sprouts, carrots, sweet peppers, and

cucumbers. However, without a dedicated coordinator the proportion of ingredients procured locally may vary widely depending on the interest and capacity of specific volunteers. LUSH Valley and Farm to School Cafeteria Canada are two resources that can assist in bridging these gaps.

Future Potential

The services offered by the aggregation model could attract schools with existing salad bar programs that want to expand and those who are considering starting a program but who don't currently have the capacity required to fully coordinate local procurement. LUSH Valley will be coordinating a local food snack box delivery program starting in September 2020. This new program will run for 9 weeks, with 10 schools participating. From a business planning scenario it is important to attract the schools with the largest student population base (such as Isfeld Secondary, where 1,000 students are served weekly) in order to provide additional program security.

Business Model Assumptions

For the purposes of the business model calculations, it is assumed that 40% of existing school salad bar meals (therefore 672 of the current 1,680) would be comprised of local produce purchased through a coordinated aggregation initiative.

- Short term (1- 2 years) business model demand targets: 5 existing salad bar programs
- Medium term (3 – 4 years) business model demand targets: 8 salad bar programs
- Longer term (+5 years) business model targets: 10 salad bar programs

Other markets, such as snack programs, hot lunches, summer camps, after school programs, seniors centres, and other health institutions may also be investigated as the need and opportunity arise. However, in order for the business plan calculations to be done conservatively, these are not presented as reliable customers.

Table 6 provides an overview of the salad bar meal numbers and associated expenditures that could be shifted to local products over the short, medium, and long term. These numbers are important to understand as they form the backbone of the income (coordinator fee) component of the business plan (see Section 10).

TABLE 6. VALUE OF LOCAL FOOD EXPENDITURES FOR SCHOOL SALAD BAR PROGRAMS.

Timeframe	Number of salad bar meals per week	# salad bar meals served per week	Average Salad Event Expenditures ³⁶	Average Total Annual Expenditures ³⁷	Average Per School Expenditures
Current salad bar numbers (Baseline)	5 schools Huband Elementary: 300 Brooklyn Elementary: 120 Lake Trail Community Middle School: 100 École Robb Road: 260 <u>Isfeld Secondary: 200</u> Total: 980	980	\$1,960	\$58,800	\$11,760
Short term (1 – 2 years)	Assumes 5 baseline schools procuring local produce for 40% of current existing meals served using local products = 980 x 40% = 392	392	\$784	\$23,520	\$4,704
Medium term (3 - 4 years)	8 schools (Baseline of 5 and 3 of which are “new”) Assumes a conservative average of 150 meals per week for each “new school” all using 40% local products: =(980 + 450)*40% = 572	572	\$1,144	\$34,320	\$4,290*
Long term (5+ years)	10 schools (Baseline of 5 and 5 of which are “new”) Assumes a conservative average of 200 meals per week for each “new school” all using 40% local products = (980 + 1,000)*40% = 792	792	\$1,584	\$47,520	\$4,752^

* Note that this number dips due to the addition of schools with a lower average meals per week than the baseline average.

^The average per school expenditure then rises slightly in the Long Term as it is anticipated that the average meals served rises to 200 for new schools and also for schools that expand current programs.

³⁶ Assumes \$2.00 of produce expenses per meal. Does not include egg purchases.

³⁷ Assumes an average of 3 weeks per month of salad bars, over 10 calendar year months, for a total of 30 active salad bar weeks per 12 months.

9.1.5 Product Storage and Aggregation Space

Once orders are placed, the coordinator will be required to collect and bring the food to a central aggregation point. This location would ideally have access to cold storage (either within a dedicated space or a mobile unit, such as a shipping container or a mobile trailer, within a safe and secure area). In early years this could be a cold storage space that is rented, while in the longer term the goal could be to have a bricks and mortar facility with integrated cold storage.

In terms of order packing, it is assumed that in the short and medium term that the orders will be organized at a single location provided free-of-charge, such as a school supply room, a farmers' outbuilding, or part of an existing office space.

In the long term it is anticipated that this would be located within a dedicated bricks & mortar space. The potential site must be:

- In a central location.
- Large enough to physically arrange produce orders.
- Include cold storage on-site (or the ability to purchase a walk-in fridge to place on-site).
- Suitable in terms of delivery truck access, parking, and loading.
- Able to accommodate a FoodSafe kitchen for the production of value-added products

Cold storage options:

A 8ft x 20ft cold storage unit (approximately the size of a single car garage) could be rented or purchased. This can be accomplished by using a shipping container with power, which can then be connected to the exterior of an existing barn, school or office building.

Coastal Transportation and Storage (CTS) is located in Comox. CTS rents out pallet space within their cold storage facility for \$45/month. Their 5,000 ft² storage facility can also be used as a location to sort produce.

Based on projected financials, a bricks & mortar location will not likely be feasible during the short or medium term, unless the space and all overhead costs (e.g. rent, hydro) are donated. Instead, it is recommended that the business model compensate the individual or organization offering the existing storage space.

9.1.6 Produce Pick-up and Order Delivery

The food orders will be collected by a coordinator from multiple farm locations. The orders would then be organized, packed, and delivered to multiple schools. Until such a time that a dedicated pick-up truck is purchased (expected long term), the initiative will need to borrow a truck several times a week during the school year to ensure that the orders are picked-up and dropped off at the designated locations. More than one farmer has already come forward to offer a refrigerated truck for this purpose. The business model considers this donation and offsets the expenses accordingly. It is anticipated that fuel and insurance will need to be included in the budget.

10. Coordination Fees (Markup)

In order to help cover the services and overhead that the aggregation initiative provides to both farmers and schools, a coordination fee (or markup) will need to be factored into the budget. In determining an appropriate coordination fee rate to include in the business model, several resources were consulted³⁸ including discussions with existing food co-operatives, food hubs, and by referencing existing food hub business plans.

Based on the information gathered, the coordination fee rate is set at 25% of total product sales.

100% of coordination fees is equivalent to 25% of product sales

Farmers will set their own product pricing, and depending on volumes that the aggregation initiative can commit to purchasing, may be able to offer wholesale pricing, thereby offsetting some of markup. However, the aggregation initiative is ultimately a price “taker”, not a price maker.

The 25% brokerage fee will provide several services for the farm and school members. These services will include:

- Access to more sales: additional school programs (e.g. those that may not have had the capacity to purchase from farmers market or the farm gate previously) will be able to buy from more local producers.
- Order coordination, aggregation, and delivery.
- Promotion and public awareness of the farm and farm’s products.
- Time savings that can be redirected into additional production or other on-farm or off-farm activities.

Transparency and direction from the coordinator, as well as communication with farmers on an ongoing basis, will ensure that both farmers and schools understand where and how the coordination fees are being used.

Table 7 indicates how the coordination fee is directly related to the amount of food being sold to the schools.

Coordination Fees – How Will it Work?

The coordination fee is sometimes referred to as a “margin”, “markup” or “broker fee” that is paid to the coordinator at the time of sale.

The fee is used to help pay for the services offered (e.g. order consolidation, produce pick up and delivery).

Example 1: If carrots are being sold to a school for \$1.00/lb, and the coordination fee is 25%, then \$0.75 is returned to the farmer and \$0.25 is retained by the aggregation initiative. The total price (in this example, \$1.00) is set and controlled by the farmer.

Example 2: If school meals budgets are increased by 25% (from \$2.00 to \$2.50) to accommodate the coordination fee, the meals could still be sold as a fundraiser but increasing the price for parents by \$0.50. Schools who are not charging for meals would need to find the additional resources or work with other schools to obtain an intra-school subsidy (e.g. parents at fundraising schools purchasing meals for children and non-fundraising schools).

Example 3: A combination of the two methods are possible, whereby farmers provide a modest discount and schools increase the meal budgets slightly.

³⁸ A food hub on Vancouver Island with a brokerage fee of 20% indicated that if it could change one thing it would choose a higher brokerage fee in order to be able to be financially self-sustaining. It is currently considering raising its fee. Personal communication with existing producer-run co-operatives noted a 23% service fee to require coverage of costs. The Maple Ridge Food Hub Business Plan uses a 25% brokerage fee.

TABLE 7. ANTICIPATED COORDINATION FEES RECOVERED FROM FOOD SALES OVER THE SHORT, MEDIUM, AND LONG TERMS.

Line #	Parameter	Short Term	Medium Term	Long Term
1	Number of participating schools	5	8	10
2	Average local food purchase value per school per year (See Table 6 for details)	\$4,704	\$4,290	\$4,752
3	Total value of local salad bar products (Line #1 x Line #2)	\$23,520	\$34,320	\$47,520
4	Total value of local soup program products	\$8,000	\$10,000	\$10,000
5	Total value of local products procured	\$31,520	\$44,320	\$57,520
6	Coordination fees (%)	25%	25%	25%
7	Coordination fees (\$) (Line #5 x Line #6)	\$7,880	\$11,080	\$14,380

11. Business Plans for the Three Aggregation Models

The type of aggregation model that is ultimately selected (e.g. producer-run, school-run, or organization-run) will influence several of the business model factors. Some of these differences can help to reduce overhead expenses, and these are summarized in Table 8 and further discussed within the business plans.

TABLE 8. SUMMARY OF HOW DIFFERENT BUSINESS MODELS CAN AFFECT THE BUSINESS PLAN.

Parameter	Producer Model	School Model	Organization Model
Sales volume (and therefore coordination fee) and break even point	Consider offering wholesale or discount pricing, thereby offsetting some of the markup	Leverage existing salad bar program infrastructure and equipment to start snack programs or other programs that would require additional volume of local products	Build on existing programs that require local food procurement (e.g. soup program, Good Food Box program) to help to achieve higher sales
Wages for a coordinator	Offer in-kind support and/or seek grants that compensate a farmer doing this work	Leverage the existing part-time staff at 1 or 2 of the schools and turn it into a full time position	Identify staff already working part time on similar initiatives and seek out grants to create a full time position
Cold storage and aggregation space	Identify and offer a farm-based location for aggregation and cold storage	Identify and offer a school-based location for aggregation and cold storage	Seek grants to purchase cold storage and/or rent out storage facilities. Work with community partners to secure a bricks & mortar location
Delivery truck	Borrow a truck from a farmer (or rotate among several farmers)	Use the personal vehicles of volunteers	Leverage the part time use of a delivery truck for other programs to be used for a school aggregation initiative
E-commerce website	Use a fresh sheet that is emailed to school coordinators and use an e-commerce platform	Leverage existing web platforms used for school food programs	Use an e-commerce platform

11.1 Business Plan for the Producer-Run Model

The following discussion presents the income and expense projections (Table 9) for the producer-run model along with an explanation of assumptions used throughout all calculations.

TABLE 9. ANTICIPATED INCOME AND EXPENSES FOR PRODUCER-RUN MODEL.

#	Statement of income and expense	Short Term	Medium Term	Long Term
1	Income (Coordination Fees³⁹)	\$7,880	\$11,080	\$14,380
	Variable Expenses			
2	Aggregation space and cold storage at 12% of coordination fees	\$946	\$1,330	\$1,726
3	Delivery at 8% of coordination fees	\$630	\$886	\$1,150
4	Merchant fees (bank account, credit card and debit card processing fees) (10% of coordination fees)	\$788	\$1,108	\$1,438
5	Contingency (5% of coordination fees)	\$394	\$554	\$719
6	Total variable costs (35% of coordination fees)	\$2,758	\$3,878	\$5,033
	Fixed Expenses			
7	Wages and benefits	\$35,000	\$45,000	\$50,000
8	Repairs and maintenance	\$500	\$300	\$200
9	Utilities and telephone/telecommunication	\$600	\$700	\$800
10	Equipment and Infrastructure	\$1,200	\$800	\$800
11	Bank charges	\$120	\$120	\$120
12	Professional and business fees	\$500	\$1,000	\$1,000
13	E-commerce website	\$3,000	\$1,000	\$1,000
14	Insurance	\$3,000	\$3,000	\$3,000
15	Total fixed expenses	\$43,920	\$51,920	\$56,920
16	Total expenses (variable and fixed)	\$46,678	\$55,798	\$61,953
17	Net operating income (Line 1 minus Line 16)	-\$38,978	-\$44,718	-\$47,573

11.1.1 Assumptions for the Producer-Run Model

Variable expenses are estimated to be 35% of coordination fees (Lines #2 to #5). These expenses are for components that will depend largely on how much food is being purchased and are anticipated to be the same as those calculated for the Producer-Run model and the Organization-Run. This 35% will consist of:

- The rent required for cold storage and aggregation (order packing), or to provide compensation to a farmer in exchange for the use of existing cold storage and packing space (12% of fees);
- The costs associated with pick-up from schools and deliveries to schools (includes fuel) (8% of fees).
- Merchant fees associated with bank fees, processing credit card and debit card payments (10% of fees).

³⁹ The income is the coordination fee, which is set at 25% of sales. The numbers in Line 1 of Table 9 align with Line 7 in Table 7.

- A additional standard contingency rate of 5% of total fees is included as a financial safety net.

Wages are the main component of the fixed expenses (Line #7)⁴⁰. As previously described, a coordination manager will need to be hired right away to develop the logistics for a smoothly run aggregation system. This wage represents a relatively high fixed expense at start-up.

Additional fixed expenses built into the income and expense projection assumptions include the following:

- Line #8: Repairs and maintenance: \$500 per year to start, and these will decrease somewhat over time for some minor equipment.
- Line #9: Utilities and telephone: \$50 per month (\$600 per year) for cellphone and internet. This rises over the medium and long term to account for inflation.
- Line #10: Equipment and infrastructure: It is assumed that for a producer-run model that this line item will be relatively low, as the producers will be using exiting equipment. This represents small equipment such as sorting tables, boxes, packing tape and other supplies.
- Line #11: Bank charges: Assumes \$20 per month (\$240 per year).
- Line #12: Professional and business fees: Accounting fees, bookkeeping fees, legal fees, and permits.
- Line #13: E-commerce website: This line item includes initial funds to build an online sales platform and \$1,000 per year for overhead management fees thereafter.
- Line #14: Insurance: Assumes \$3,000 per year to help cover delivery truck insurance and allow for some liability insurance.

The net operating income, which is the coordination fee income less the variable and fixed expenses, is presented as a net loss of between \$39,000 to \$48,000 per year (Table 7, Line 17).

11.1.2 Breakeven Analysis for Producer-Run Model

The breakeven point will occur when net income is positive. Since 35% of the coordination fees will be dedicated to variable expenses, the remaining 65% will be available to pay for fixed expenses (this is referred to as the contribution margin). Over the long term, fixed expenses are projected to be about \$57,000/yr (see Table 9, Line 15). Calculations indicate that the initiative should therefore breakeven once income (e.g. coordination fees) reach a level of over \$87,000 over the long term (Table 10).

TABLE 10. BREAKEVEN ANALYSIS FOR THE PRODUCER-RUN MODEL.

Line #	Breakeven Analysis	Short Term	Medium Term	Long Term
1	Income (Coordination fees)	\$7,880	\$11,080	\$14,380
2	Variable expenses	\$2,758	\$3,878	\$5,033
3	Contribution margin (subtract Line 2 from Line 1)	\$5,122	\$7,202	\$9,347
4	Contribution margin %	65%	65%	65%
5	Fixed expenses	\$43,920	\$51,920	\$56,920
6	Fixed expenses (Line #5) as a % of coordination fees (Line #1)	557%	469%	396%
7	Net operating income	-\$38,978	-\$44,718	-\$47,573
8	Required threshold of coordination fees to breakeven	\$67,569	\$79,877	\$87,569

⁴⁰ Note that corporate income taxes are not included as it is anticipated that the initiative will be run as a non-profit.

Therefore, if the coordination fee represents 25% of total sales, then \$87,000 in coordination fees is equivalent to product sales of roughly \$348,000.

This number may be out of reach based on the current demand from the existing and anticipated school food programs. One of the most direct methods of achieving breakeven status is to seek additional opportunities to scale up and bring on more sales channels through new markets in order to try to raise the product sales over the \$348,000 per year threshold.

Another strategy to help reach breakeven is to seek other income. This can be accomplished through grants, in-kind support or volunteer support. For a producer-run model the assumption is that the following sources will be explored for other income (Table 11).

TABLE 11. OTHER INCOME OPTIONS FOR THE PRODUCER-RUN MODEL.

	Short Term	Medium Term	Long Term
Net operating income gap	\$38,978	\$44,718	\$47,573
Grants (60%)	\$23,387	\$26,831	\$28,544
In-kind Support (30%)	\$11,693	\$13,415	\$14,272
Volunteer (10%)	\$3,898	\$4,472	\$4,757

11.1.3 Risk and Sensitivity Analysis: Producer-Run Model

The following three scenarios were tested against the financial model in order to determine how they might impact the income & expense projections:

- Scenario 1: Tests what occurs if \$5,000 or \$40,000 of startup capital is obtained through grants and used as income in the Short Term.
- Scenario 2: Tests what occurs when product sales (and therefore coordination fees) do not meet targets.
- Scenario 3: Tests changes in projected variable and fixed expense levels in the Short Term and Long Term.

Scenario 1:

This scenario assumes that the efforts to raise \$40,000 of startup capital is successful, against what may occur if only \$5,000 of startup funding is obtained (Table 12). The calculations indicate that raising the full \$40,000 would result in a positive cash flow at the end of the first year.

TABLE 12. RISK ANALYSIS SCENARIO WITH \$5,000 VS. \$40,000 OF STARTUP CAPITAL IN THE FIRST YEAR OF A PRODUCER-RUN MODEL.

Projected Income and Expense Projections	\$5,000 in Start-Up	\$40,000 in Start-Up
Coordination fees	\$7,880	\$7,880
Income from other sources	\$5,000	\$40,000
Total expenses	\$46,678	\$46,678
Net cash inflow	-\$33,798	\$1,202

Scenario 2:

The second scenario tests the impacts that adjustments made to the targeted product sales (and associated coordination fees) have on the net income in the Short Term and Long Term.

If product sales (and therefore coordination fees) are 50% lower than anticipated in the Short Term, net income would be 6% lower than projected (Table 13). In the Long Term, a 50% variance in coordination fees would impact the bottom line by 10% (Table 13).

Once sales exceed projected fixed expenses, sales variances will magnify the changes reflected in the net income. This reinforces the notion that the efforts of the initiative must be focused on driving sales (and therefore coordination fees).

TABLE 13. CHANGE IN COORDINATION FEES AND ASSOCIATED NET INCOME OVER THE SHORT TERM AND LONG TERM FOR THE PRODUCER-RUN MODEL.

Change in brokerage fees – Short Term				Change in brokerage fees – Long Term			
% Change in Fees	Coordination Fees	Net Income \$	% Change Net Income	% Change in Fees	Coordination Fees	Net Income \$	% Change Net Income
-50	\$3,940	-\$41,359	-6%	-50	\$7,190	-\$52,247	-10%
-40	\$4,728	-\$40,847	-5%	-40	\$8,628	-\$51,312	-8%
-30	\$5,516	-\$40,335	-3%	-30	\$10,066	-\$50,377	-6%
-20	\$6,304	-\$39,822	-2%	-20	\$11,504	-\$49,442	-4%
-10	\$7,092	-\$39,310	-1%	-10	\$12,942	-\$48,508	-2%
0	\$7,880	-\$38,978	0%	0	\$14,380	-\$47,573	0%
+10	\$8,668	-\$27,833	+1%	+10	\$15,818	-\$46,638	+2%
+20	\$9,456	-\$26,370	+2%	+20	\$17,256	-\$45,704	+4%
+30	\$10,244	-\$24,908	+3%	+30	\$18,694	-\$44,499	+6%
+40	\$11,032	-\$23,445	+5%	+40	\$20,132	-\$43,834	+8%
+50	\$11,820	-\$21,983	+6%	+50	\$21,570	-\$42,900	+10%

Scenario 3:

In the Short Term, a change in variable expenses (which are directly related to coordination fees) will be less impactful (or risky) than potential changes in fixed expenses, which do not correspond directly to the collected coordination fees (Table 14).

TABLE 14. SENSITIVITY ANALYSIS FOR SHORT TERM – VARIABLE AND FIXED EXPENSES FOR THE PRODUCER-RUN MODEL.

Change in Variable Expenses over the Short Term			
% Change	Variable Expenses \$	Net Income \$	% Change Net Income
-20	\$2,206	-\$38,246	+2%
-10	\$2,482	-\$38,502	+1%
0	\$2,758	-\$38,978	0%
10	\$3,034	-\$39,074	-1%
20	\$3,310	-\$39,350	-2%
Change in Fixed Expenses over the Short Term			
% Change	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$35,136	-\$20,511	+30%
-10	\$39,528	-\$24,903	+15%
0	\$43,920	-\$29,295	0%
10	\$48,312	-\$33,687	-15%
20	\$52,704	-\$38,079	-30%

In the Long Term, changes to variable expenses are less critical. A 20% variance in variable expenses will impact net income by the same 2% and a variance of 20% in fixed expenses will impact net income by 24% (Table 15).

TABLE 15. SENSITIVITY ANALYSIS FOR VARIABLE AND FIXED EXPENSES IN THE LONG TERM.

Change in variable expenses over the Long Term					
% Change	Revenue \$	Variable Expenses \$	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$14,380	\$4,026	\$56,920	-\$46,566	+2%
-10	\$14,380	\$4,530	\$56,920	-\$47,070	+1%
0	\$14,380	\$5,033	\$56,920	-\$47,573	0%
10	\$14,380	\$5,536	\$56,920	-\$48,076	-1%
20	\$14,380	\$6,040	\$56,920	-\$48,580	-2%
Change in fixed expenses over the Long Term					
% Change	Revenue \$	Variable Expenses \$	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$14,380	\$5,033	\$45,536	-\$36,189	+24%
-10	\$14,380	\$5,033	\$51,228	-\$41,881	+12%
0	\$14,380	\$5,033	\$56,920	-\$47,573	0%
10	\$14,380	\$5,033	\$62,612	-\$53,265	-12%
20	\$14,380	\$5,033	\$68,304	-\$58,957	-24%

11.2 Business Plan for the School-Run Model

The following discussion presents the income and expense projections (Table 16) for the school-run aggregation model along with an explanation of assumptions used throughout all calculations.

TABLE 16. ANTICIPATED INCOME AND EXPENSES FOR THE SCHOOL-RUN AGGREGATION MODEL.

#	Statement of income and expense	Short Term	Medium Term	Long Term
1	Income (Coordination Fees⁴¹)	\$7,880	\$11,080	\$14,380
	Variable Expenses			
2	Aggregation space and cold storage at 12% of coordination fees	\$946	\$1,330	\$1,726
3	Delivery at 8% of coordination fees	\$630	\$886	\$1,150
4	Merchant fees (bank account, credit card and debit card processing fees) (10% of coordination fees)	\$788	\$1,108	\$1,438
5	Contingency (5% of coordination fees)	\$394	\$554	\$719
6	Total variable costs (35% of coordination fees)	\$2,758	\$3,878	\$5,033
	Fixed Expenses			
7	Wages and benefits	\$35,000	\$45,000	\$50,000
8	Repairs and maintenance	\$500	\$300	\$200
9	Utilities and telephone/telecommunication	\$600	\$700	\$800
10	Equipment and Infrastructure	\$1,200	\$800	\$800
11	Bank charges	\$0	\$0	\$0
12	Professional and business fees	\$500	\$1,000	\$1,000
13	E-commerce website	\$1,000	\$500	\$500
14	Insurance	\$1,000	\$1,000	\$1,000
15	Total fixed expenses	\$39,800	\$49,300	\$54,300
16	Total expenses (variable and fixed)	\$42,558	\$53,178	\$59,333
17	Net operating income (Line 1 minus Line 16)	-\$34,678	-\$42,098	-\$44,953

11.2.1 Assumptions for the School-Run Model

Variable expenses are estimated to be 35% of coordination fees (Lines #2 to #5). These expenses are for components that will depend largely on how much food is being purchased. These expenses are anticipated to be the same as those calculated for the Producer-Run model and the Organization-Run model.

Wages are again the main component of the fixed expenses (Line #7)⁴². As previously described, a coordination manager will need to be hired right away to develop the logistics for a smoothly run

⁴¹ The income is the coordination fee, which is set at 25% of sales. The numbers in Line 1 of Table 4 align with Line 5 in Table 3.

⁴² Note that corporate income taxes are not considered as the assumption is that the initially will be run as a non-profit.

aggregation system. There is an opportunity for the schools to combine this position with another part-time position at the school. This is further discussed under “other income” below.

Additional fixed expenses built into the income and expense projection assumptions include the following:

- Line #8: Repairs and maintenance: \$500 per year to start, and these will decrease somewhat over time for some minor equipment.
- Line #9: Utilities and telephone: \$50 per month (\$600 per year) for cellphone and internet. This rises over the medium and long term to account for inflation.
- Line #10: Equipment and infrastructure: It is assumed that for a school-run model that this line item will be relatively low, as many schools have kitchens with existing sorting and preparation areas. This represents small equipment such as sorting tables, boxes, packing tape and other supplies.
- Line #11: Bank charges: These are set at \$0 for the school-run model as it is assumed that an existing school food program bank account can be used.
- Line #12: Professional and business fees: Accounting fees, bookkeeping fees, legal fees, and permits.
- Line #13: E-commerce website: This line item includes \$1,000 initial funds to build an online sales platform and \$500 per year for overhead management fees thereafter. It is lower than fees for the producer-run and organization-run model because most schools already have an online meal ordering platform.
- Line #14: Insurance: Assumes \$1,000 per year. This is also lower than the producer-run and organization-run models as it is assumed that the schools and/or PACs already have some liability insurance.

The net operating income, which is the coordination fee income less the variable and fixed expenses, is presented as a net loss of between \$35,000 to \$45,000 per year, which is somewhat lower than the net loss associated with the Producer-Run model and the Organization-Run model (Table 16, Line 17).

11.2.2 Breakeven Analysis for School-Run Model

The breakeven point will occur when net income is positive. Since 35% of the coordination fees will be dedicated to variable expenses, the remaining 65% will be available to pay for fixed expenses (this is referred to as the contribution margin). Over the long term, fixed expenses are projected to be about \$54,000 per annum. Calculations indicate that the initiative should therefore breakeven once income (e.g. coordination fees) reach a level of over \$83,000 over the long term (Table 17).

TABLE 17. BREAKEVEN ANALYSIS FOR SHORT, MEDIUM, AND LONG TERM FOR THE SCHOOL-RUN MODEL.

Line #	Breakeven Analysis	Short Term	Medium Term	Long Term
1	Income (Coordination fees)	\$7,880	\$11,080	\$14,380
2	Variable expenses	\$2,758	\$3,878	\$5,033
3	Contribution margin (subtract Line 2 from Line 1)	\$5,122	\$7,202	\$9,347
4	Contribution margin %	65%	65%	65%
5	Fixed expenses	\$39,800	\$49,300	\$54,300
6	Fixed expenses (Line #5) as a % of coordination fees (Line #1)	505%	445%	378%
7	Net operating income	-\$34,678	-\$42,098	-\$44,953
8	Required threshold of coordination fees to breakeven	\$61,231	\$75,846	\$83,538

Therefore, if the coordination fee represents 25% of total sales, then \$83,000 in coordination fees is equivalent to product sales of roughly \$334,000.

This number may be out of reach based on the current demand from the existing and anticipated school food programs. One of the most direct methods of achieving breakeven status is to seek additional opportunities to scale up and bring on more sales channels through new markets in order to try to raise the product sales over the \$334,000 per year threshold. Another strategy to help reach breakeven is to seek other income or leverage existing resources. This can be accomplished through grants, in-kind support or volunteer support, totalling about \$40,000 per year.

For a school-run model the assumption is that the following sources will be explored for other income:

TABLE 18. OTHER INCOME OPTIONS FOR THE SCHOOL-RUN MODEL.

	Short Term	Medium Term	Long Term
Net operating income gap	-\$34,678	-\$42,098	-\$44,953
Grants (10%)	\$3,468	\$4,210	\$4,495
In-kind Support (40%)	\$13,871	\$16,839	\$17,981
Volunteer (50%)	\$17,339	\$21,049	\$22,477

The in-kind support represents funds that could be leveraged in part by utilizing existing staff resources. If this is not a possibility then those funds could be shifted to grant sourcing.

11.2.2 Risk and Sensitivity Analysis: School-Run Model

The following three scenarios were tested against the financial model in order to determine how they might impact the income & expense projections:

- Scenario 1: Tests what occurs if \$5,000 or \$40,000 of startup capital is obtained through grants and used as income in the Short Term.
- Scenario 2: Tests what occurs when product sales (and therefore coordination fees) do not meet targets.
- Scenario 3: Tests changes in projected variable and fixed expense levels in the Short Term and Long Term.

Scenario 1:

This scenario assumes that the efforts to raise \$40,000 of startup capital is successful, against what may occur if only \$5,000 of startup funding is obtained (Table 19). The calculations indicate that raising the full \$40,000 would result in a positive cash flow of \$8,080 at the end of the first year.

TABLE 19. RISK ANALYSIS SCENARIO WITH \$5,000 vs. \$40,000 OF STARTUP CAPITAL IN THE FIRST YEAR FOR THE SCHOOL-RUN MODEL.

Projected Income and Expense Projections	\$5,000 in Start-Up	\$40,000 in Start-Up
Coordination fees	\$7,880	\$7,880
Income from other sources	\$5,000	\$40,000
Total expenses	\$39,800	\$39,800
Net cash inflow	-\$26,920	\$8,080

Scenario 2:

The second scenario tests the impacts that adjustments made to the targeted product sales (and associated coordination fees) have on the net income in the Short Term and Long Term.

If product sales (and therefore coordination fees) are 50% lower than anticipated in the Short Term, net income would be 7% lower than projected (Table 20). In the Long Term, a 50% variance in coordination fees would impact the bottom line by 10% (Table 20).

Once sales exceed projected fixed expenses, sales variances will magnify the changes reflected in the net income. This reinforces the notion that the efforts of the initiative must be focused on driving sales (and therefore coordination fees), particularly to schools with larger meal/event numbers.

TABLE 20. CHANGE IN COORDINATION FEES AND ASSOCIATED NET INCOME OVER THE SHORT TERM AND LONG TERM FOR THE SCHOOL-RUN MODEL.

Change in brokerage fees – Short Term				Change in brokerage fees – Long Term			
% Change in Fees	Coordination Fees	Net Income \$	% Change Net Income	% Change in Fees	Coordination Fees	Net Income \$	% Change Net Income
-50	\$3,940	(\$37,239)	-7%	-50	\$7,190	(\$49,627)	-10%
-40	\$4,728	(\$36,727)	-6%	-40	\$8,628	(\$48,692)	-8%
-30	\$5,516	(\$36,215)	-4%	-30	\$10,066	(\$47,757)	-6%
-20	\$6,304	(\$35,702)	-3%	-20	\$11,504	(\$46,822)	-4%
-10	\$7,092	(\$35,190)	-1%	-10	\$12,942	(\$45,888)	-2%
0	\$7,880	(\$34,678)	0%	0	\$14,380	(\$44,953)	0%
+10	\$8,668	(\$34,166)	+1%	+10	\$15,818	(\$44,018)	+2%
+20	\$9,456	(\$33,654)	+3%	+20	\$17,256	(\$43,084)	+4%
+30	\$10,244	(\$33,141)	+4%	+30	\$18,694	(\$42,149)	+6%
+40	\$11,032	(\$32,629)	+6%	+40	\$20,132	(\$41,214)	+8%
+50	\$11,820	(\$32,117)	+7%	+50	\$21,570	(\$40,280)	+10%

Scenario 3:

In the Short Term, a change in variable expenses (which are directly related to coordination fees) will be less impactful (or risky) than potential changes in fixed expenses, which do not correspond directly to the collected coordination fees (Table 21).

TABLE 21. SENSITIVITY ANALYSIS FOR SHORT TERM – VARIABLE AND FIXED EXPENSES FOR THE SCHOOL-RUN MODEL.

Change in Variable Expenses over the Short Term			
% Change	Variable Expenses \$	Net Income \$	% Change Net Income
-20	\$2,206	(\$34,126)	+2%
-10	\$2,482	(\$34,402)	+1%
0	\$2,758	(\$34,678)	0%
10	\$3,034	(\$34,954)	-1%
20	\$3,310	(\$35,230)	-2%
Change in Fixed Expenses over the Short Term			
% Change	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$31,840	(\$26,718)	+23%
-10	\$35,820	(\$30,698)	+11%
0	\$39,800	(\$34,678)	0%
10	\$43,780	(\$38,658)	-11%
20	\$47,760	(\$42,638)	-23%

In the Long Term, changes to variable expenses are similar. A 20% variance in variable expenses impacts the net income by 2% and a variance of 20% of fixed income impacts the net income by 24% (Table 22).

TABLE 22. SENSITIVITY ANALYSIS FOR VARIABLE AND FIXED EXPENSES IN THE LONG TERM.

Change in variable expenses over the Long Term					
% Change	Revenue \$	Variable Expenses \$	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$14,380	\$4,026	\$54,300	(\$43,946)	+2%
-10	\$14,380	\$4,530	\$54,300	(\$44,450)	+1%
0	\$14,380	\$5,033	\$54,300	(\$44,953)	0%
10	\$14,380	\$5,536	\$54,300	(\$45,456)	-1%
20	\$14,380	\$6,040	\$54,300	(\$45,960)	-2%
Change in fixed expenses over the Long Term					
% Change	Revenue \$	Variable Expenses \$	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$14,380	\$5,033	\$43,440	(\$34,093)	+24%
-10	\$14,380	\$5,033	\$48,870	(\$39,523)	+12%
0	\$14,380	\$5,033	\$54,300	(\$44,953)	0%
10	\$14,380	\$5,033	\$59,730	(\$50,383)	-12%
20	\$14,380	\$5,033	\$65,160	(\$55,813)	-24%

11.3 Business Plan for the Organization-Run Model

The following discussion presents the income and expense projections (Table 23) for the organization-run aggregation model along with an explanation of assumptions used throughout all calculations.

TABLE 23. ANTICIPATED INCOME AND EXPENSES FOR THE ORGANIZATION-RUN AGGREGATION MODEL.

#	Statement of income and expense	Short Term	Medium Term	Long Term
1	Income (Coordination Fees⁴³)	\$7,880	\$11,080	\$14,380
	Variable Expenses			
2	Aggregation space and cold storage at 12% of coordination fees	\$946	\$1,330	\$1,726
3	Delivery at 8% of coordination fees	\$630	\$886	\$1,150
4	Merchant fees (bank account, credit card and debit card processing fees) (10% of coordination fees)	\$788	\$1,108	\$1,438
5	Contingency (5% of coordination fees)	\$394	\$554	\$719
6	Total variable costs (35% of coordination fees)	\$2,758	\$3,878	\$5,033
	Fixed Expenses			
7	Wages and benefits	\$35,000	\$45,000	\$50,000
8	Repairs and maintenance	\$500	\$300	\$200
9	Utilities and telephone/telecommunication	\$600	\$700	\$800
10	Equipment and Infrastructure	\$4,000	\$1,500	\$6,000
11	Bank charges	\$120	\$120	\$120
12	Professional and business fees	\$500	\$1,000	\$1,000
13	E-commerce website	\$3,000	\$1,000	\$1,000
14	Insurance	\$4,000	\$4,000	\$4,000
15	Total fixed expenses	\$47,720	\$53,620	\$63,120
16	Total expenses (variable and fixed)	\$50,478	\$57,498	\$68,153
17	Net operating income (Line 1 minus Line 16)	-\$42,598	-\$46,418	-\$53,773

11.3.1 Assumptions for the Organization-Run Model

Variable expenses are estimated to be 35% of coordination fees (Lines #2 to #5) and are anticipated to be the same as those calculated for the Producer-Run model and School-Run model. Wages are again the main component of the fixed expenses (Line #7)⁴⁴. As previously described, a coordination manager will need to be hired right away to develop the logistics for a smoothly run aggregation system. For the organization-run model there is a strong opportunity to leverage existing staff and offset some of the wages internally, thereby reducing the overall fixed expenses. This is further discussed under “other income” below.

⁴³ The income is the coordination fee, which is set at 25% of sales. The numbers in Line 1 of Table 4 align with Line 5 in Table 3.

⁴⁴ Note that corporate income taxes are not considered as the assumption is that the initially will be run as a non-profit.

Additional fixed expenses built into the income and expense projection assumptions include the following:

- Line #8: Repairs and maintenance: \$500 per year to start, and these will decrease somewhat over time for some minor equipment.
- Line #9: Utilities and telephone: \$50 per month (\$600 per year) for cellphone and internet. This rises over the medium and long term to account for inflation.
- Line #10: Equipment and infrastructure: It is assumed that for an organization-run model that this line item will be relatively high, as some basic equipment and supplies will need to be purchased. With the overall goal of moving into a dedicated bricks & mortar facility in the long term, the expense rises at that time.
- Line #11: Bank charges: These are set at \$120 for (\$10 per month).
- Line #12: Professional and business fees: Accounting fees, bookkeeping fees, legal fees, and permits.
- Line #13: E-commerce website: This line item includes \$3,000 initial funds to build an online sales platform and \$1,000 per year for overhead management fees thereafter. It is lower than fees for the producer-run and organization-run model because most schools already have an online meal ordering platform.
- Line #14: Insurance: Assumes \$4,000 per year to assist with delivery truck insurance and some liability insurance.

The net operating income, which is the coordination fee income less the variable and fixed expenses, is presented as a net loss of between \$42,000 to \$53,000 per year, which is somewhat higher than the net loss associated with the producer-run model and the school-run model. However, the existing capacity and opportunities available to offset some of the expenses and to increase sale volumes (and therefore coordination fees) in the short term exceed those of the Producer-Run and School-Run models. These opportunities are further discussed below.

11.3.2 Breakeven Analysis for Organization-Run Model

The breakeven point will occur when net income is positive. Since 35% of the coordination fees will be dedicated to variable expenses, the remaining 65% will be available to pay for fixed expenses (this is referred to as the contribution margin). Over the long term, fixed expenses are projected to be about \$63,000 per annum. Calculations indicate that the initiative should therefore breakeven once income (e.g. coordination fees) reach a level of over \$97,000 over the long term (Table 24).

TABLE 24. BREAKEVEN ANALYSIS FOR SHORT, MEDIUM, AND LONG TERM FOR THE ORGANIZATION-RUN MODEL.

Line #	Breakeven Analysis	Short Term	Medium Term	Long Term
1	Income (Coordination fees)	\$7,880	\$11,080	\$14,380
2	Variable expenses	\$2,758	\$3,878	\$5,033
3	Contribution margin (subtract Line 2 from Line 1)	\$5,122	\$7,202	\$9,347
4	Contribution margin %	65%	65%	65%
5	Fixed expenses	\$47,720	\$53,620	\$63,120
6	Fixed expenses (Line #5) as a % of coordination fees (Line #1)	606%	484%	439%
7	Net operating income	-\$42,598	-\$46,418	-\$53,773
8	Required threshold of coordination fees to breakeven	\$73,415	\$82,492	\$97,108

If the coordination fee represents 25% of total sales, then \$97,000 in coordination fees is equivalent to product sales of roughly \$388,000.

There is no doubt that achieving this level of sales may be a challenge, however an organization such as LUSH Valley can leverage existing local food procurement programs to secure additional funding while striving to reach the target product sales over the projected timeframe.

These include the following projects with approximately \$35,000 confirmed annual funding directly allocated to local food procurement:

- Snack program: \$5,000
- Good Food Box program: \$25,000 - \$30,000

Another strategy to help reach breakeven is to seek other income or leverage existing resources to help offset expenses. This can be accomplished through grants, in-kind support or volunteer support.

If LUSH Valley were to lead the initiative, existing soup program and Good Food Box staff could be expanded and leveraged upon in order to reduce fixed expenses. BC Gaming Grant and other funding opportunities are specifically available to non-profit organizations as well. The proportions and amount of other income anticipated with the organization-run model is presented in Table 25. Some of the long term expenses, such as new equipment that would need to be purchased for a bricks and mortar facility, could be put on hold unless grants are obtained.

TABLE 25. OTHER INCOME OPTIONS FOR THE ORGANIZATION-RUN MODEL.

	Short Term	Medium Term	Long Term
Net operating income gap	-\$42,598	-\$46,418	-\$53,773
Grants (45%)	\$19,169	\$20,888	\$24,198
In-kind Support (30%)	\$12,779	\$13,925	\$16,132
Volunteer (25%)	\$10,650	\$11,605	\$13,443

If the organization obtain grants that exceed the 45% target (see Table above) these funds could be shifted to offset coordination fees, thereby reducing the total amount of volume sales needed to breakeven and/or decreasing the coordination fee margins.

11.3.3 Risk and Sensitivity Analysis: Organization-Run Model

The following three scenarios were tested against the financial model in order to determine how they might impact the income & expense projections:

- Scenario 1: Tests what occurs if \$5,000 or \$40,000 of startup capital is obtained through grants and used as income in the Short Term.
- Scenario 2: Tests what occurs when product sales (and therefore coordination fees) do not meet targets.
- Scenario 3: Tests changes in projected variable and fixed expense levels in the Short Term and Long Term.

Scenario 1:

This scenario assumes that the efforts to raise \$40,000 of startup capital (e.g. grants) is successful, against what may occur if only \$5,000 of startup funding is obtained (Table 26). Both amounts would result in negative cashflow. Therefore, a higher target of \$45,000 of startup capital is recommended.

TABLE 26. RISK ANALYSIS SCENARIO WITH \$5,000 VS. \$40,000 OF STARTUP CAPITAL IN THE FIRST YEAR FOR THE ORGANIZATION-LED MODEL.

Projected Income and Expense Projections	\$5,000 in Start-Up	\$40,000 in Start-Up
Coordination fees	\$7,880	\$7,880
Income from other sources	\$5,000	\$40,000
Total expenses	\$50,478	\$50,478
Net cash inflow	-\$37,598	-\$2,598

Scenario 2:

The second scenario tests the impacts that adjustments made to the targeted product sales (and associated coordination fees) have on the net income in the Short Term and Long Term. If product sales (and therefore coordination fees) are 50% lower than anticipated in the Short Term, net income would be 6% lower than projected (Table 27). In the Long Term, a 50% variance in coordination fees would impact the bottom line by 9% (Table 27). Once sales exceed projected fixed expenses, sales variances will magnify the changes reflected in the net income.

TABLE 27. CHANGE IN COORDINATION FEES AND ASSOCIATED NET INCOME OVER THE SHORT TERM AND LONG TERM FOR THE ORGANIZATION-RUN MODEL.

Change in brokerage fees – Short Term				Change in brokerage fees – Long Term			
% Change in Fees	Coordination Fees	Net Income \$	% Change Net Income	% Change in Fees	Coordination Fees	Net Income \$	% Change Net Income
-50	\$3,940	(\$45,159)	-6%	-50	\$7,190	(\$58,447)	-9%
-40	\$4,728	(\$44,647)	-5%	-40	\$8,628	(\$57,512)	-7%
-30	\$5,516	(\$44,135)	-4%	-30	\$10,066	(\$56,577)	-5%
-20	\$6,304	(\$43,622)	-2%	-20	\$11,504	(\$55,642)	-3%
-10	\$7,092	(\$43,110)	-1%	-10	\$12,942	(\$54,708)	-2%
0	\$7,880	(\$42,598)	0%	0	\$14,380	(\$53,773)	0%
+10	\$8,668	(\$42,086)	+1%	+10	\$15,818	(\$52,838)	+2%
+20	\$9,456	(\$41,574)	+2%	+20	\$17,256	(\$51,904)	+3%
+30	\$10,244	(\$41,061)	+4%	+30	\$18,694	(\$50,969)	+5%
+40	\$11,032	(\$40,549)	+5%	+40	\$20,132	(\$50,034)	+7%
+50	\$11,820	(\$40,037)	+6%	+50	\$21,570	(\$49,100)	+9%

Scenario 3:

In the Short Term, a change in variable expenses (which are directly related to coordination fees) will be less impactful (or risky) than potential changes in fixed expenses, which do not correspond directly to the collected coordination fees (Table 28).

TABLE 28. SENSITIVITY ANALYSIS FOR SHORT TERM – VARIABLE AND FIXED EXPENSES FOR THE ORGANIZATION-RUN MODEL.

Change in Variable Expenses over the Short Term			
% Change	Variable Expenses \$	Net Income \$	% Change Net Income
-20	\$2,206.40	(\$42,046.40)	+1%
-10	\$2,482.20	(\$42,322.20)	+1%
0	\$2,758	(\$42,598)	0%
10	\$3,033.80	(\$42,873.80)	-1%
20	\$3,309.60	(\$43,149.60)	-1%
Change in Fixed Expenses over the Short Term			
% Change	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$38,176.0	(\$33,054.0)	+22%
-10	\$42,948.0	(\$37,826.0)	+11%
0	\$47,720	(\$42,598)	0%
10	\$52,492.0	(\$47,370.0)	-11%
20	\$57,264.0	(\$52,142.0)	-22%

In the Long Term, changes to variable expenses are similar. A 20% variance in variable expenses will impact net income by 2% and a variance of 20% in fixed expenses will impact net income by 23%.

TABLE 29. SENSITIVITY ANALYSIS FOR VARIABLE AND FIXED EXPENSES IN THE LONG TERM FOR THE ORGANIZATION-RUN MODEL..

Change in variable expenses over the Long Term					
% Change	Revenue \$	Variable Expenses \$	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$14,380	\$4,026	\$63,120	(\$52,766)	+2%
-10	\$14,380	\$4,530	\$63,120	(\$53,270)	+1%
0	\$14,380	\$5,033	\$63,120	(\$53,773)	0%
10	\$14,380	\$5,536	\$63,120	(\$54,276)	-1%
20	\$14,380	\$6,040	\$63,120	(\$54,780)	-2%
Change in fixed expenses over the Long Term					
% Change	Revenue \$	Variable Expenses \$	Fixed Expenses \$	Net Income \$	% Change Net Income
-20	\$14,380	\$5,033	\$50,496	(\$41,149)	+23%
-10	\$14,380	\$5,033	\$56,808	(\$47,461)	+12%
0	\$14,380	\$5,033	\$63,120	(\$53,773)	0%
10	\$14,380	\$5,033	\$69,432	(\$60,085)	-12%
20	\$14,380	\$5,033	\$75,744	(\$66,397)	-23%

11.3 Business Plan Risks

In addition to the risk scenarios and sensitivity analysis provided in the previous discussion, there are a number of other risks associated with each of the business models, summarized in Table 30.

TABLE 30. RISKS ASSOCIATED WITH BUSINESS MODELS

Producer Model	School Model	Organization Model
Lack of capacity amongst farmers to undertake coordination of aggregation, even if funding is available.	Existing volunteers are feeling overly stretched without the thought of having to take on another initiative (even applying for funding to hire staff is onerous).	Existing programs may be well-funded at present, but may run out of funding in the long term.
Challenges with agreeing to be a host farm location for aggregation, sorting, packing, and storing (e.g. lack of space, concerns around property access).	Lack of a specific school organization (PAC or other) leader willing to coordinate on behalf of other schools.	Charitable status (if applicable) may create some limitation for the ability to run the aggregation as a for-profit in the future.
Uncertainty around availability of funding from grant sources unless farmers establish a non-profit society.	Challenges around finding a location within a school for providing aggregation and cold storage of a size large enough to accommodate the needs of the initiative.	Lack of funds to purchase a delivery truck (must rely on a truck lending/donation set up).



FIGURE 6. SALAD BAR READY FOR STUDENTS AT BROOKLYN ELEMENTARY SCHOOL, COMOX.

12. Recommendations for Implementation

12.1 Establish an Organization-Run Model through LUSH Valley Food Action Society

Based on the data and information collected during this research project, the aggregation model recommended for the Comox Valley K-12 schools program is an **organization-run model**. LUSH Valley has indicated a willingness to leverage their capacity to take on the school food aggregation initiative in a leadership role. This organization provides a natural fit to leading the aggregation initiative. LUSH Valley Food Action Society has the unique potential to leverage existing programs and resources to reduce the financial burden associated with administrative oversight and staffing. In addition to providing the capacity, resources, and energy to undertake the initiative, an organization-run model will benefit from the various partnerships and relationships that have been cultivated across the region.

The organization can offer multiple services for small-scale producers and processors such that they are better able to aggregate and coordinate the sale of their products to schools, and to leverage funding to access other markets in order to scale up efficiently over time. In this sense, the organization-led model can also assist by optimizing economies of scale to allow producers and processors to efficiently grow their businesses.

Key stakeholders will be local farmers and processors, SD71 and Comox Valley Community Schools, and the non-governmental organization and funding partners.

12.2 Run the Initiative as a Non-Profit Program

Based on the financial projections and breakeven analysis it is recommended that the initiative be run with the goal of being a non-profit program. This will help to eliminate making too many efficiencies and reducing the prices that farmers obtain for their goods in order to strive to create profits. The numbers clearly indicate that a for-profit model is unlikely to succeed unless a very high volume of annual food sales are achieved (over \$350,000 per year) with a coordination fee (markup) of 25%.⁴⁵ Under this governance model, all funds would be returned to the initiative for re-investment into infrastructure and equipment.

With established relationships within the local food system, a dedicated food delivery truck, and committed funding for the Good Food Box program over the next three years, LUSH Valley has some of the capacity required to take on the Comox Valley K-12 school food aggregation initiative. However, additional funding would be necessary particularly at start-up, in order to breakeven.

12.3 Develop and Grow Key Partnerships to Support the Initiative

An organization-led aggregation model will be capable of developing and building upon formalized collaboration opportunities. Scaling up and accessing new markets can also be accomplished by working alongside new and existing partners. Several potential partners are identified in this report and include local, regional, provincial, and federal organizations. Partnerships will also ensure that the lead

⁴⁵ For example: the Cowichan Cow-Op, Sechelt Farm Collective, and Merville Organics have followed this route (either formally or informally).

organization benefits from learning about opportunities for funding and for generating efficient use of resources by tapping into the capacity of larger, more well-resourced organizations.

Potential partners include:

- BC Fruit and Vegetable Program
- BC Ministry of Agriculture: BuyBC and FeedBC programs
- BC Ministry of Health
- Breakfast Club of Canada
- Comox Valley Farmers Institute
- Comox Valley Farmers Market Society
- Comox Valley Food Bank
- Comox Valley Ministries – The Salvation Army
- Farm to Cafeteria Canada
- Island Health Authority
- LUSH Valley Good Food Box Program
- Mid-Island Farmers Institute
- National Coalition for Healthy School Food
- SD71 and Strategic Plan

12.4 Work Towards Securing Key Infrastructure and Equipment

One of the biggest determinants to the success of the aggregation model will be not only sorting and packing the produce, but ensuring that it is kept at temperature until the school is ready to receive it. Identifying and/or developing a bricks and mortar building can be a daunting and expensive part of the aggregation puzzle to sort out. However, in the short term it need not be overly-complicated. A simple office space with sorting/packing tables and a commercial-sized refrigerator may be enough to get started. While web and phone-based contact is likely to be adequate for initial order coordination, bricks & mortar infrastructure for product aggregation, dry and cold storage, sorting and packing, and truck access will eventually be required. Further, a physical location will bring a “face” the initiative and allow for in-person meetings. Over time, a more sophisticated set-up can be developed as the initiative scales up.

13. Key Success Factors

The following concrete actions are required to ensure that the aggregation initiative gets underway smoothly and is successful over the long term:

1. Identify the lead organization to host the aggregation initiative (e.g. LUSH Valley).
2. Set up a meeting with school salad bar coordinators and re-confirm the interest in gaining efficiencies through coordinated purchasing.
3. Establish baseline sale volumes and wholesale prices.
4. Work with producers on developing an availability sheet (fresh sheet) for products that are currently being purchased by schools, and for additional products that can meet the needs of school salad bar menus.

5. Get commitments from additional farmers to participate (e.g. those who participated in previous years and one or two additional).
6. Determine specific organizational needs for staffing based on existing resources that can be leveraged.
7. Acquire start-up funding through grant applications.
8. Investigate cold storage rental options and/or purchase needed equipment.
9. Establish an e-commerce platform for centralizing orders.
10. Create communications materials: benefits of aggregation for producers, for schools, for potential new markets.
11. Begin drafting a logistics plan around order placement, pick-up, and delivery.
12. Continue discussions within the community to secure a dedicated bricks and mortar facility over the long term (e.g. train station).
13. Ensure that all data regarding local food procurement is tracked so that the information can be reported back out to funders and also to other organizations wishing to establish and aggregation initiative.

As previously mentioned, a local champion (such as LUSH Valley) who can commit to leading the initiative will be one of the most important success factors.



FIGURE 7. HIGHSCHOOL STUDENTS AT ISFELD SECONDARY ENJOYING A SALAD BAR LUNCH (CREDIT: COMOX VALLEY RECORD).