Strathcona Food Security Project



Food Security Needs Assessment

Cynthia Bendickson, BSc, MSc, RPBio August 2014



Acknowledgements

The author would like to acknowledge the participation of the following people and organizations in contributing to the development of the Strathcona Food Security Project reports.

The Strathcona Food Security Project Team:

Analisa Blake Food Security & Healthy Lifestyles Island Health (Public Health)

Julia Peters Continuing Education North Island College

Anthea Kennelly Community Nutritionist Island Health (Public Health)

Kimberley Black Food Security Dietician Island Health (Aboriginal Health)

Reviewers:

Amber Zirnhelt Sustainability Manager City of Campbell River

Beth Rees Community Services Manager Strathcona Regional District

Brenda Wagman Chair Campbell River Social Planning

Committee

The Strathcona Food Security Project reports were funded through the Community Food Action Initiative of Island Health.

This report is dedicated to the survey respondent who wrote:	
"You cannot do anything about us (the people who have not enough money to shop properly). I enjoy healthy food, but cannot usually afford it."	
We must do better.	

Contents

E	cecutiv	e Summary	4
1.	Inti	oduction	5
	1.1	The Strathcona Food Security Project	5
	1.2	What is Food Security?	6
	1.3	Food History Context of Strathcona	7
2.	Env	vironmental Scan	8
	2.1	Demographic Profile	8
	2.2	Economic Profile	9
	2.3	Strathcona Food Production	9
	2.4	Food Access and Distribution Network	
	2.5	Health	
	2.6	Social/Cultural Factors	
	2.7	Environmental Scan Summary	
3.		et and Gap Analysis	
Э.			
	3.1	Short-Term Reliefd Banks	
		ool Meal Provision	
		od Food Box Programs	
		ort-term Relief Opportunities	
	3.2	Capacity-Building	
		Ication	
		mmunity Gardens and Community Food Initiatives	
		mer's Markets and Community-Supported Agriculture/Fisheries	
		od Skills Programs	
	Cap	pacity-Building Opportunities	24
	3.3	Community Food System Redesign	26
	3.4	Asset and Gap Summary	27
4.	Cor	nclusion	28
Re	eferen	ces	29
		x 1: Interviewees for the Project	
		x 2: Public Survey	
	•	x 3: Closed question survey responses	

Executive Summary

The Strathcona Food Security Project is a joint initiative between Island Health and North Island College that is exploring food security in the Strathcona Regional District. The Project is working with a broad definition of food security, including the concept that a community is "food secure" when everyone obtains a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes self-reliance and social justice (Hamm and Bellows, 2003).

The Project undertook research and public consultation in the autumn of 2013 to obtain views about food security from the written evidence base as well as residents and service providers in Strathcona. There are three documents that are the result of this work: a *Food Security Needs Assessment*; a *Food Security Networking Hub Feasibility Assessment*; and, an *Action Plan Framework*; of which this document is the first in the series. In addition to these documents, the web-based *Island Health Community Food Atlas* has been updated to reflect current food security services and programs in Strathcona.

The population of Strathcona is mostly located in the urban centre of Campbell River, with several rural areas and remote communities also located within its boundaries. The risk of being food insecure increases with decreasing incomes, and Strathcona is disadvantaged compared to provincial averages on most socio-economic indicators. It has above average numbers of single parent families headed by women and aboriginal people. Campbell River has a definite homeless population. The remote communities in Strathcona are often several hours' travel from grocery stores. All of these factors indicate that many of Strathcona's residents are likely to be food insecure.

However, Strathcona has an emerging comprehension of food security issues and there are many organizations and activists working to improve food security in Strathcona. Examples include the development of community gardens and farmer's markets throughout the region, education programs at Linnaea Farm on Cortes Island and North Island College, and the tireless efforts of food providers to ensure that everyone has enough food to eat. First Nations communities are connecting youth to traditional foods and methods of harvesting. The culture of the region encourages many residents to hunt, fish, gather and garden for their own consumption.

However, there is still a long way to go to ensure that everyone is food secure. Community efforts to build capacity are variable and disconnected. Knowledge transfer of food growing, gathering, harvesting and preparation skills is limited to specific communities and segments of the population. Food education for children is patchy. Efforts to redesign the food system at a strategic level, particularly the City of Campbell River's Agricultural Plan, are promising but proving to be slow and piecemeal in implementation.

The Food Security Needs Assessment brings together information gathered from research and public consultation to build an evidence base for the Strathcona Food Security Networking Hub Feasibility Assessment and the Action Plan Framework. This Food Security Needs Assessment is a snapshot of Strathcona's current food security situation.

1. Introduction

The Strathcona Regional District is located in British Columbia, Canada, and covers approximately 18 000 square kilometres. The District stretches from the west coast of Vancouver Island to the adjacent Coast Mountain range on the British Columbia mainland. It is, in general, sparsely populated, with spectacular mountain ranges, abundant forests, thundering rivers, remote inlets and a mosaic of small islands on each side of Vancouver Island. The main population centre is the City of Campbell River with a population of approximately 31 000; the remainder of the district's 12 000 residents are found in rural settlements and isolated villages scattered throughout the district (Statistics Canada, 2012).

Strathcona faces many barriers to food security. There is a particularly acute need for improved food security within remote communities and for low income residents. Excellent food security work is currently being carried out in some Strathcona communities, but it is fragmented. Much more can be done to improve food security for all of Strathcona's residents into the future.

1.1 The Strathcona Food Security Project

The Strathcona Food Security Project undertook research and public consultation in the autumn of 2013 to gather information from residents and service providers in Strathcona about what is currently happening around food security, and where gaps in provision exist. There are three documents that are the result of the public consultation, of which this document is the first in the series:

- The Strathcona Food Security Project: Food Security Needs Assessment details the
 research and public consultation undertaken by the Project, the socio-economic and
 environmental context of Strathcona, and the assets and gaps in the provision of shortterm relief, capacity-building and food system redesign for food security in Strathcona;
- The Strathcona Food Security Project: Food Security Networking Hub Feasibility

 Assessment explains the Island Health Food Security Networking Hub model and how this could be applied in Strathcona; and,
- The Strathcona Food Security Project: Action Plan Framework recommends overarching objectives to improve food security and gives examples of the types of actions which could be implemented to improve food security in Strathcona.

In addition to these documents, the web-based *Island Health Community Food Atlas* has been updated to reflect current food security services and programs in Strathcona.

The Project utilized a number of different outreach options to engage a wide section of the community, including:

 A public survey available online and at the Strathcona branches of the Vancouver Island Regional Library from Oct. 15 – Dec. 16, 2013 which received 146 responses;

- A series of 'Community Conversations' in Zeballos, Sayward, Gold River, Quadra Island, Cortes Island, and Campbell River in Nov/Dec 2013 attended by 64 people;
- Presentations to the Strathcona Regional District Board and City of Campbell River Council
- Interviews with various service providers (see a list in Appendix 1);
- Discussions with attendees at the Salvation Army Lighthouse Centre soup kitchen in Campbell River, the Campbell River Youth Action Committee, and attendees of the First Nations Elder's Lunches in Campbell River and Quinsam; and,
- Discussion and project planning with the Campbell River Social Planning Committee.

Thank you to everyone who has shared their time, ideas, energy and enthusiasm with the project. It would not have been possible without this support.

1.2 What is Food Security?

The Strathcona Food Security Project has been working with several definitions of food security, all of which encompass what it means for the project.

Food security "exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (FAO, 2006). A community is "food secure" when everyone obtains a safe, personally acceptable [including culturally appropriate], nutritious diet through a sustainable food system that maximizes self-reliance and social justice (Hamm and Bellows, 2003).

Food security in our communities is dependent upon these four elements (FAO, 2006):

- Availability of food, (i.e. the quantity of food available to the population);
- Stability of supply, (i.e. the reliability of our food sources over time);
- Accessibility of food, (i.e. the ease with which food may be obtained); and
- Utilization of food, (i.e. the ability and desire to make use of the food [capability, skill & acceptability]).

Food security is sometimes misinterpreted to mean simply "food self-sufficiency", or the ability to grow or harvest all of the food required in the local area. All of the residents of Strathcona live on islands, and most of our food comes from far away. The long length of our food supply chain leads to vulnerability, particularly for remote communities in Strathcona: for example, the communities of Zeballos, Ocluje and Kyuquot were cut-off from access by road for two weeks in September 2010 after three logging road bridges washed out during a heavy rain event (Murphy, 2013). Food self-sufficiency is an important consideration in assisting with the availability and stability of the supply of food, particularly when issues such as climate change or natural disasters are considered; but food self-sufficiency by itself does not

address the other conditions for food security: access and utilization of food. The Project considered all four of these conditions when assessing food security in Strathcona.

The absence of food security is termed "food insecurity". Approximately 11% of BC's population was determined to be "food insecure" in 2011, with 7.6% of the population suffering severe or moderate food insecurity (Tarasuk, Mitchell and Dachner, 2013). Risk of food insecurity increases with decreasing incomes. Segments of the population who are most at risk of food insecurity are: single parent families headed by women; aboriginal peoples, particularly those living on reserves; and marginally housed and homeless people (Ostry, 2010).

1.3 Food History Context of Strathcona

The First Nations people in Strathcona have long been supported by the rich resources of its seas, rivers, estuaries and forests. Abundant salmon were the mainstay of traditional diets, along with other fish and fish products (e.g. eulachon oil, herring spawn). Other food resources included shellfish, terrestrial mammals such as deer and elk, fruits and berries, roots of estuarine plants, and products obtained through trade with neighbouring First Nations.

Following colonization, early settlers farmed to support themselves and supply the many logging camps and canneries along the coast with fresh produce, meat, dairy products and eggs. Staples such as flour and sugar were obtained from the Union Steamships serving the coast. To this day, it is still possible to find the remnants of abandoned orchards dotted along the coast which were planted by early settlers, along with a few historic farms.

Today, the Strathcona economy is still based on the forestry, fishing and mining resources that attracted early settlers. Many historic farms have been abandoned or consumed by urban development. The majority of food consumed in Strathcona is imported; for example, it is estimated that less than 1% of food required by the residents of Campbell River is produced on local farms (City of Campbell River, 2011). Some areas of traditional agricultural activity such as the Sayward Valley and the farms and shellfish farms of the Discovery Islands continue to be small but important centres of local food production. The relatively new industry of salmon aquaculture is also an important contributor to the Strathcona economy, although approximately 70% of the food produced by this industry is currently exported to foreign markets (Elizabeth Young, pers. comm.).

2. Environmental Scan

An environmental scan is a way to identify key variables that offer opportunities to improve community food security and population health (Ross and Simces, 2008). It identifies how the context of a community or region contributes to community food security, such as its demographic, economic and health profiles, as well as its food production, access and distribution network. A summary of the environmental scan can be found in Table 1 (pg. 17).

2.1 Demographic Profile

Strathcona faces demographic challenges similar to many resource-dependent areas throughout British Columbia. The population of Strathcona is growing slightly and aging quickly. Last year population growth was 0.2%; the five-year cumulative growth in population was 0.7% (BC Stats, 2012)¹. The age structure of the population is similar to that of the rest of the province, but with less youth (18-24 years) and more seniors (65+ years). Population projections suggest that the percentage of seniors (65+ years) in Strathcona will increase at a greater rate than that of the province as a whole in the next 10 years, so that seniors will represent over 23% of the population in the district in 2022 (BC Stats, 2012).

According to the 2011 Census, over 13 000 family units were present in the district, with 6 435 of these having children at home. Lone parent families accounted for 31.2% of the family units with children, higher than the provincial distribution of 26.7% (Statistics Canada, 2013). Not captured in the official statistics are an additional number of *de facto* lone parent families where one or both parents have 'camp' jobs and spend significant time away from their families in remote areas for industries such as forestry, aquaculture, commercial fishing and the oil and gas sector.

General education in the district is lower than the provincial average. The percentage of the population aged 25-54 without high school completion is 15.5%, and the same cohort without post-secondary credentials is 45.2%. However, the percentage of 18-year-olds graduating was higher than the provincial average (BC Stats, 2012).

A total of 4 650 people in Strathcona identified having an aboriginal identity in the 2011 National Household Survey (Statistics Canada, 2013), which is approximately 10.8% of the district's population; more than double the provincial distribution (BC Stats, 2012).

Non-aboriginal visible minorities account for 3.1% of Strathcona's population, much less than the provincial distribution of 24.8%. The number of recent immigrant arrivals from 2007-2012, including temporary foreign workers, is 475, with 86.3% speaking English or French, a much higher proportion than the provincial average of 66.2% (BC Stats, 2012).

¹ N.B. BC Stats currently still collates Regional District data using the historical boundaries of the Comox-Strathcona Regional District. Figures included in this report from BC Stats use combined data from Local Health Areas 72 and 84 which closely approximate the current Strathcona Regional District boundary.

2.2 Economic Profile

Strathcona's economy is highly dependent on primary sector resources such as logging, fishing and mining, which means that the area is vulnerable to swings in the economic cycle, and results in economic hardship (BC Stats, 2012). The economic resiliency of Campbell River in particular was tested with the closure of the Elk Falls pulp mill in 2008. The local Campbell River economy has been boosted more recently with an upturn in the forest industry and some major construction projects, but economic instability will lead to continued challenges in the whole of Strathcona in the future.

The average family income is just over \$67 000, with income distribution skewed towards lower incomes relative to the rest of the province. The number of families earning less than \$20 000 annually is 9.3%, higher than the provincial average of 8%. However, the prevalence of low-income persons (the percentage of people who spend 20% more of their after-tax income than average on food, shelter and clothing), at 11.8%, is lower than the provincial average of 13.1%, possibly reflecting a relatively lower cost of housing than in other areas of the province (BC Stats, 2012). The cost of a healthy food basket for a family of four in the Vancouver Island Health Authority region is \$873.08 per month, one of the highest of all of the Health Authorities in British Columbia (Dietitians of Canada, 2011). The cost of food is an issue for many Strathcona residents. In the project survey, the cost of food was identified as a barrier to being able to eat healthily by 32% of respondents. The cost of food was also identified as a barrier to being able to meet food preferences by 39% of respondents.

Housing costs are lower than the provincial average; however, 42.5% of tenants still spend more than 30% of their income on housing costs, and the percentage of households renting is 24.7%. Homelessness is an issue in the region. According to a May 2009 survey by the Campbell River Homelessness Task Force, 37 people identified themselves as absolute homeless, 39 as hidden homeless, and 249 as struggling to maintain their housing (City of Campbell River, 2009).

Beneficiaries of Employment Insurance as a percentage of the population averaged 2.3% over the four quarters from Sept 2011-Sept 2012, higher than the provincial average of 1.5%. Beneficiaries of Income Assistance were also higher than the provincial averages, with 2.6% of the total population receiving Income Assistance, including 5.6% of children 0-14 years and 3.5% of youth 15-24 years (BC Stats, 2012).

Strathcona has above average levels of children on income assistance (5.6%), children in need of protection (23.5 per 1 000 population) and children in care (13.8 per 1 000 population); the numbers of youth receiving income assistance (3.5%), youth receiving income assistance who are employable (1.7%), and youth receiving employment insurance (1.2%) are also above average (BC Stats, 2012). All of these factors indicate increased risk of food insecurity.

2.3 Strathcona Food Production

Food production from traditional agriculture is currently very low in Strathcona. According to the 2006 Census of Agriculture, although the region produces a diverse assortment of farm products, only 98

farms out of a total of 3000 farms on Vancouver Island were located in the Strathcona Regional District. (Statistics Canada, 2011).

The City of Campbell River has recently published an Agriculture Plan to help develop a larger agricultural sector in the City, and it has identified that there is significant opportunity for doing so within the City limits, with 5 000 hectares of land in the Agricultural Land Reserve, a favourable climate, good soils and attractive land prices (City of Campbell River, 2011).

Other areas with agricultural bases, including the Sayward Valley and the Discovery Islands, have significant barriers to increasing the scale of agricultural production so that they can compete with large farms, including climate in Sayward (Gary Rolston, pers. comm.) and market access and irrigation potential in the Discovery Islands. However, current small-scale farm businesses in these areas are successfully producing agricultural products for their communities and there is likely potential in local markets for further diversification of small-scale farm businesses, including value-added products.

Farming, although still a very small industry, appears to be gaining in popularity, with several new farms having been very recently developed in the region. Approximately 150 people were employed as farm operators in the agricultural sector in 2006, with an average age of 54.8 years. Only 7 farms employed staff year-round, although 17 employed staff seasonally. Gross farm receipts in the region were over \$4.3 million in 2010, with the majority of farms (82.7%) reporting receipts of under \$25 000, with only a few (10.2%) reporting receipts of over \$100 000 (Statistics Canada, 2011). The same trend of many small producers with only a few large producers is mirrored throughout Vancouver Island - approximately 10% of farmers produce 80% of the food sold in the Vancouver Island region (Harasymchuk and Rolston, 2012).

Local agricultural products are available from farmer's markets in Campbell River, Sayward, Quadra Island and Cortes Island. There are also several Community Supported Agriculture programs available, including Linnaea Farm on Cortes which provides 30 families with farm-grown vegetables during the summer months, and Coastal Roots and Vegetables in Campbell River and Valdez Farm on Quadra Island, both of which provide 25 families with farm-grown vegetables during the summer months. Several farms offer farm-gate sales. Many residents seeking local food also travel to the Comox Valley Farmer's Market, approximately 50km south of Campbell River. Local food is available seasonally at several grocery retailers and the specialty food stores in Campbell River, and on Quadra and Cortes Islands. Gunter Bros. Meat Co. is a meat processor and distributor that is located in the Comox Valley and is a source of local meat products.

In contrast to the agricultural base in Strathcona, both wild-capture fisheries and aquaculture produce a lot of food and are large economic drivers locally. Provincially in 2011, the landed value of wild-capture fisheries, including salmon, groundfish and shellfish was \$345 million, and the farm-gate value of aquacultural production, including farmed salmon and shellfish, was \$465 million (BC Ministry of Agriculture, 2012). Sports fishing, including recreational fishing, is also a large economic driver locally, and provincially this industry generates \$288 million annually (BC Ministry of Environment, 2010).

Farmed salmon was British Columbia's largest agricultural export in 2011; approximately 70% of farmed salmon produced in the province is exported for sale, primarily to the US and Japan (BC Salmon Farmer's Association, 2013). The sustainability of salmon farming is still under investigation because of its potential impact on wild salmon stocks (e.g. Cohen, 2012). Wild salmon is an ecological keystone species and a key component of the food systems of Coastal First Nations, as well as being a significant sector in BC's commercial fisheries. Despite the scientific uncertainty of the impacts of salmon farming on wild stocks, it is an industry that is permitted and regulated by government and is likely to continue into the future. Currently, Vancouver Island is home to several experimental operations of closed containment and inland fish farms which aim to improve the sustainability of finfish aquaculture and offer an alternative to current open-pen fish farming practices (e.g. 'Namgis First Nation, 2010; Mason Street Farm, 2014; Taste of BC Aquafarms, 2014).

Commercial fishing of wild fish and shellfish stocks is present in Strathcona, although there have been significant declines in this industry over the past few decades. Every community has a dock where commercial fish is landed. The Walcan and Browns Bay Packing processing facilities are major employers, and they process both wild and farmed fish. Access to commercial fish is variable throughout the district. Campbell River has a specialist seafood retailer located at Fisherman's Wharf, and fishermen often sell at the dock and advertise with roadside signs. Some communities have informal networks where commercial fishermen let people know when fish will be available, and some shellfish farmers have small retail outlets that are readily accessible. In other communities, the fish can be offloaded from the boats and immediately transported to processing facilities or other markets, so that in practice, local people do not have access.

The number of agri-food organizations and programs is very limited in Strathcona. Sayward has a Farmer's Institute and the headquarters of the BC Salmon Farmer's Association is located in Campbell River. Two First Nations fisheries organizations, A-Tlegay Fisheries Society in Campbell River and Uu-a-thluk on the West Coast work to organize access to fish for local First Nations.

Hunting, gathering and fishing for personal use is an ingrained part of many of the cultures of Strathcona. Campbell River is known as the 'Salmon Capital of the World' and its 'Tyee' fishery of Chinook salmon weighing over 30 lbs attracts tourists from around the world. Roderick Haig-Brown's books about fly-fishing on the Campbell River add to the fishing lore of the region. The Sayward area is home to the largest population of Roosevelt Elk in Canada, and the provincial lottery to win the chance to hunt elk is highly competitive. Black-tailed deer are popular targets for all hunters, with some waterfowl also being taken in the area. Foraging for mushrooms in the forests of Strathcona is a high-value industry and sought out for both commercial sale and personal consumption. Fruits such as salmonberries, thimbleberries, salal and Oregon grape are foraged for making desserts, jams, jellies and other preserves. Home gardening is also practiced widely in all of the communities in Strathcona. However, these resources are generally limited to those who have the knowledge and resources to take advantage of them (e.g. land to create a garden, a boat to go fishing).

Climate change and the related ocean acidification are likely to impact on food production in Strathcona in the future. While climate change may lead to opportunities for some agricultural crops in terms of warmer temperatures and extended growing season, this effect is by no means guaranteed. Increased weather variability could lead to fluctuations in crop productivity and changes to the availability of wild foods, and ocean acidification is already causing much concern among local shellfish farmers. Warmer ocean and river temperatures could lead to reduced fish populations. Caution is warranted and a strategy of diversifying agricultural production where possible should be considered.

2.4 Food Access and Distribution Network

The majority of residents in Strathcona (96% of survey respondents) access food through the major grocery retailers in Campbell River, with some residents having to travel very significant distances in order to do so. Some residents and food businesses also access the Costco wholesale retailer in Courtenay for lower-priced bulk foods.

Alternative retailers are present in some communities. There is a health food store, a specialty seafood retailer and two Asian food stores in Campbell River. There is a food co-op on Cortes Island, and a bulk food store and a health food store on Quadra Island. There are farmer's markets in Campbell River, Sayward, Cortes Island and Quadra Island, a seasonal mobile fruit stand on the highway south of Campbell River, and a popular farmer's market in Courtenay that is accessed by some Strathcona residents.

However, there is little availability of any fresh produce at retailers that sell food in Tahsis, Zeballos and Sayward, and selection and quality of fresh produce in other small communities can be variable. Several survey respondents stated that it was difficult to find appropriate food for people with allergies or food intolerances in their communities.

The safety of our food supply was a complex topic during the public consultation. Many survey respondents stated that they were concerned about the safety of their food (43%), citing concerns about Genetically Modified Organisms (GMOs), the multinational food industry and processed foods, and uncertainty with the safety of foreign food sources. Many producers at the community conversations were frustrated by the amount of regulation involved with producing and selling food. Concerns over these regulations were also echoed by residents at other community conversations, with regulations around meat and raw (non-pasteurized) dairy products given as examples of regulations being too strict for local producers.

Every community in the Strathcona Region has at least one restaurant where meals can be purchased. Campbell River has a wide variety of restaurants ranging from fast-food to high-end, with many ethnic and specialty restaurants.

Other ways to access food are described in Section 3 (Asset and Gap Analysis).

2.5 Health

Food insecurity is closely linked to health. Food insecurity in childhood is linked to a greater likelihood of depression and asthma in adolescence and early adulthood; similarly, adults in food insecure households have poorer physical and mental health, and higher rates of chronic health conditions that, once established, are more difficult to manage (Tarasuk, Mitchell, and Dachner, 2013).

Population health in Strathcona is generally similar to the rest of the province when assessing dietrelated health status. Prevalence rates of chronic diet-related disease in 2012, including chronic kidney disease, diabetes, hypertension and heart failure are slightly higher than the provincial average in the Campbell River health area and slightly lower in the Vancouver Island West health area. The percentage of children born with low birth weights follows the same pattern. The infant mortality rate is higher than average in both heath areas (Provincial Health Services Authority, 2013).

However, averages at a population level can mask important trends at either end of the scale, and data quality, particularly from small populations such as Vancouver Island West, can always be highly variable.

2.6 Social/Cultural Factors

There are many Strathcona-specific social and cultural factors that impact community food security, some of which include:

- Transportation;
- Time limitations;
- Availability of locally-produced and environmentally-friendly foods; and,
- Availability of culturally-relevant and traditional foods.

Within Campbell River itself, there is a public transit service that can help people to access food, but it is not particularly convenient for transporting large quantities of food, and food shopping regularly for small quantities of food increases the cost of bus transportation, which is an issue for low-income households. Service is also limited outside of peak hours and users outside of the municipality may not have a bus route close to their homes. Those with mobility issues may also have difficulty getting to bus stops. The Campbell River food bank, while on a bus route, is not centrally located, so several organizations working with low-income populations offer transport for their clients to and from the food bank, but this likely does not provide for all of the people who need it.

Personal transportation for accessing food is essential for the remote communities, but often severely lacking, especially for low-income households. As one survey respondent stated, "access to food is very limited for people without transport in our village. These people rely on others for groceries and often do not have access to fresh foods as we are too far from town. We need... to support these people and

those from the surrounding communities on Islands off the coast." Residents in remote communities without food retailers do what they can to access fresh produce, but often grocery trips are limited to big shopping trips on an irregular basis, which means that their diet can be extremely restricted in terms of fresh produce.

Severe time limitations are also an issue for Strathcona residents. A survey respondent noted that, "time is a resource lacking for the working poor, especially single parent families...canning & gardening

require the precious resource of time & energy, & many of us are exhausted & overburdened (& also the precious security of knowing where one will be living next year)." For those with adequate financial resources, healthy food choices can also be a struggle, such as with this frank response: "We eat more than enough food but not always the right choices due to various factors including tiredness, laziness and cause bad foryoufood [sic] is tasty."

The survey (see

Appendix 2 and Appendix 3) showed that 75% of respondents indicated that they sometimes didn't eat as well as they would like, with 24% of those saying that they didn't eat as well as they would like about half the time or less (Figure 1). Main reasons given for this were the 54% of respondents that said that they didn't have enough energy to cook, and 34% of respondents cited not having enough time to cook (Figure 2).

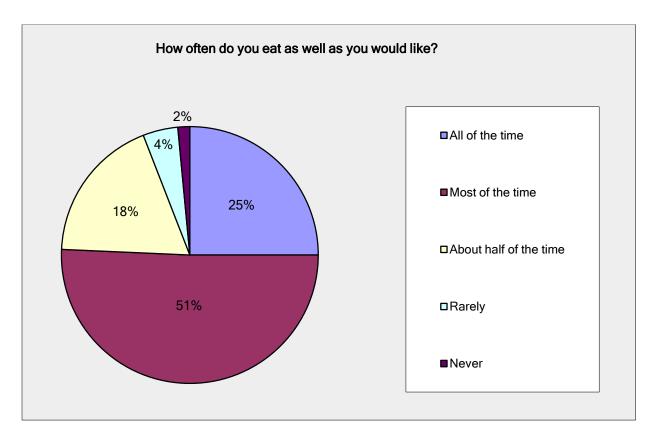


Figure 1: Survey question 5, n=136

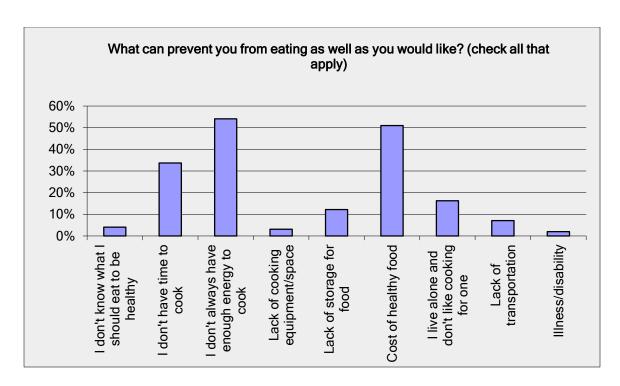


Figure 2: Survey question 6, n=98

Many survey respondents also listed the lack of locally-produced (64%) and environmentally-friendly (41%) foods available in stores as a reason for not being able to get the food that they wanted (Figure 3). This was also reflected in the open question responses as well.

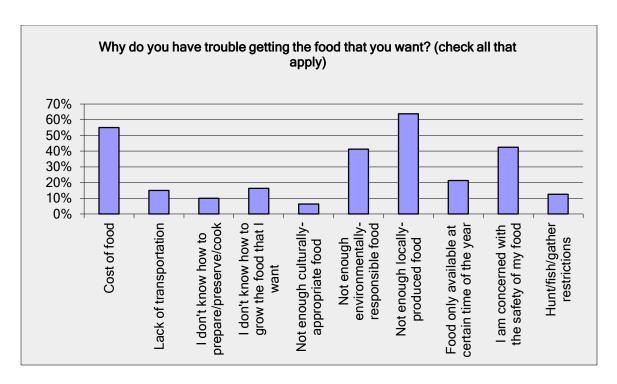


Figure 3: Survey question 4, n=80

Culturally-relevant food for immigrants is available to some extent in Campbell River, with two specialist Asian retailers. Some immigrants do seek out additional resources for culturally-relevant food, particularly a retailer in Nanaimo who carries specialty produce (Wendy Burke, pers. comm.).

Traditional food resources including salmon, shellfish, elk and berries are available to First Nations in Strathcona, but declining populations of salmon particularly have led to a lack of food fish in recent years. Habitat modifications, such as hydroelectric development, removal of old-growth forests, and urbanization in areas that historically provided traditional foods in Strathcona have impacted availability of traditional food resources. In addition to availability concerns, access can be restricted for certain foods For example, restrictions on hunting and fishing, and restrictions to harvesting on private land (much of which was once First Nations traditional territory) has decreased access to important traditional foods sources. Hunting and fishing among First Nations youth is reportedly on the rise and a positive trend for enhancing food security for First Nations in Strathcona as a whole.

2.7 Environmental Scan Summary

The Strathcona Regional District struggles with issues similar to many resource-dependent areas of British Columbia. On nearly every socio-economic indicator, Strathcona performs worse than the province as a whole, although it is by no means last in any of the indicators.

Table 1: Environmental Scan Summary

Profile type Strathcona Summary				
Demographics	,			
	 An aging population with fewer youths and higher numbers of lone parent families than the BC average. Relatively large aboriginal population. Relatively small numbers of immigrants and visible minorities. General education levels are below average. 			
Economics				
	 Local economy based on primary resources, leading to economic instability. Household incomes are lower than average. High food costs and high shelter costs for tenants. There is a homeless population. Greater numbers of Income Assistance and Employment Insurance beneficiaries than average. 			
Food Production	1 /			
	 Very small amount of traditional agriculture, but potential to expand. Salmon aquaculture a large economic driver but not a main food producer for local consumption. Hunting, fishing and gathering of other wild foods are part of the cultural fabric of the area. Home gardening also practiced. 			
Food Access and Distribution Network				
	 Major grocery retailers in Campbell River are the main food distribution points for the district. Remoteness of some communities leads to poor access for those residents. Some communities have alternative distribution methods, but not all. 			
Health				
	 Overall population health with regards to chronic diet-related diseases and birth weights is worse than provincial averages. 			
Social/cultural factors				
	 Lack of transportation. Time limitations. Limited availability of locally-produced and environmentally-friendly foods. Limited availability and accessibility of culturally-relevant and traditional foods. 			

3. Asset and Gap Analysis

An asset and gap analysis involves collating available information on the needs of the target population; current strengths and assets within existing programs and services supporting food security in the region; and gaps in programs, services, policies, structures, community capacity, etc. It can be useful to separate food security initiatives into three types as per Ross and Simces (2008):

- Short-term relief: providing food to relieve hunger, programs may have additional social goals;
- Capacity-building: programs developed in the community by the community to improve the availability and access to nutritious food;
- System redesign: actions designed to enhance the community food system, integrating key elements and improving the potential for long-term sustainability.

The information present in this analysis was gleaned from literature review (including relevant information available on the internet), the public survey, community conversations, and interviews with service providers as described in the introduction.

3.1 Short-Term Relief

Short-term relief programs and services provide food to relieve hunger. They generally do not work to increase food security in the long term as capacity-building and food system redesign does. A list of the identified Strathcona assets for short-term relief programs can be found in Table 2 (pg. 21). Examples of short-term relief programs include food banks, soup kitchens, Meals on Wheels, and emergency food hampers. Some of these programs, particularly meal provision, are designed to provide additional social value, such as social support, access to other service providers, and contributing to a sense of community.

Some of the challenges for short-term relief programs highlighted by the Strathcona communities include:

- Difficulties in providing nutritious food, particularly fresh fruits and vegetables;
- Gaps in provision for remote communities;
- Access to relief food, particularly for those without their own vehicles or outside of peak hours;
- The limitations of relying on donations this can lead to shortages of some items and oversupply of others;
- Variability of the quantity and quality of meal provision in schools.

Most, but not all, communities have some form of organized food provision to relieve hunger. Campbell River has a well-developed emergency food provision system and charitable services that can currently provide at least one hot meal seven days a week. There are services available for vulnerable populations, including low-income residents, residents with mental health issues, seniors, and residents

who are house-bound. Food banks are present in Campbell River, Cortes Island, Quadra Island, and Gold River. In other communities, more informal emergency food provisions, such as collections for families in crisis, assist in relieving hunger.

Other services for vulnerable people in the smaller communities, such as hot meal provision, are piecemeal. The Quadra Circle community kitchen, which provides weekly lunches by donation and is run entirely by volunteers, is a fantastic example of a community service providing food as well as providing a valuable social service to build community. There are likely gaps in other communities.

Food Banks

Food banks are important assets to address short-term relief of hunger, particularly in emergency situations and for those who lack life skills. However, traditional food banks have challenges to addressing long-term food insecurity, such as limited nutrition and stigma for clients (Tarasuk, 2010).

Currently there is a growing trend among food banks to address some of the issues inherent in the traditional food bank model, such as improving the availability of fresh fruits and vegetables and other healthier choices through their services. Furthermore, some food banks are making transformational changes and moving away from the traditional concept of a food bank and toward a Community Food Centre structure, which allows them to address a variety of food-related needs in the community in order to reduce food insecurity in the long term.

A model of the Community Food Centre concept is The Stop in downtown Toronto. At The Stop, they "strive to meet basic food needs and, at the same time, foster opportunities for community members to build mutual support networks, connect to resources and find their voices on the underlying causes of hunger and poverty... When program participants are involved -- as front-line volunteers, program advisory committee members, gardeners or cooks -- the stigma associated with receiving free food is often diminished or erased" (The Stop, 2014).

School Meal Provision

School meal provision is also variable in both the quantity and the quality of the food provided in each school. As one survey respondent noted, "I believe as a teacher, that all schools should have a breakfast program... as some students come to school without having eaten sufficiently to sustain them through the school day." Every school in Strathcona accesses the BC School Fruit & Vegetable Nutrition Program, which provides local BC fruit and vegetable snacks to schoolchildren every two weeks. The Tahsis Farm to School program is an excellent example of what school meal provision can be, with some of the recipes prepared by a local chef and the meals (usually a soup and salad bar) prepared using ingredients partly from dedicated beds in the community garden.

In Campbell River, in an example of great collaborations, the United Church has partnered with Pinecrest Elementary School to offer a breakfast program for children attending the school.

Good Food Box Programs

Bulk buying or 'Good Food Boxes' are programs that are designed to increase access to nutritious foods, often fresh fruits and vegetables. They usually work by providing a regular 'box' of identical produce to people participating in the program. The food is generally more affordable than that found in grocery stores because there is an economy of scale with every box being identical, and volunteer labour is used to cut packing and delivery costs. The food can be sourced through either a local grocery store supply chain, or food wholesalers. Sometimes these programs incorporate local fresh produce when it is available and affordable. There might be the possibility of working with the BC Fruit & Vegetable Nutrition Program to 'piggy-back' deliveries to remote communities. There are currently no such programs in Strathcona and there is interest in developing one, particularly for very remote communities such as Zeballos, and for low-income residents in Campbell River. The Campbell River and North Island Transition Society has expressed interest in assisting with such a program.

Short-term Relief Opportunities

Examples of some of the changes in short-term relief which could be considered include:

- Increasing quantity and quality school meal provision
- Integrating capacity-building programs with schools to provide greater access to local, healthy food (e.g. Farm to School)
- Developing a 'Good Food Box' or bulk buying program
- Using capacity-building programs which are developed in the community, by the community, to improve the availability and access to food to address gaps where possible (considered below)

Table 2: Short-term relief (food provision)

Short-Term Relief (food provision) in Strathcona communities					
Region-wide					
	 Various hot lunch and/or breakfast programs in schools BC School Fruit & Vegetable Nutrition Program (BCSFVNP) Babies and toddlers groups with snacks and lunches for parents and their children (e.g. Strong Start, Canadian Prenatal Nutrition Program) 				
Campbell River area					
	 Food Bank Salvation Army Lighthouse Centre soup kitchen Radiant Life Church weekend hot meals and breakfast program United Church lunches Campbell River Beacon Club weekly lunch Campbell River Meals on Wheels Laichwiltach Family Life Society prepared meals and takeaways First Nations Elders Lunches in Campbell River CR Senior's Centre daily lunches at the Sportsplex Evergreen Care Home prepared and delivered meals for seniors Thrifty Foods Sendial grocery shopping and delivery program for house-bound residents Society of Saint Vincent de Paul emergency food hampers Salvation Army emergency food supplies and hampers Campbell River Family Services Society emergency food supplies Other religious organizations offer various support for emergency food 				
Cortes Island	provision to members				
Cortes island	 Food bank Informal collections for families in crisis Christmas dinner Community dinner (recently started) 				
Quadra Island					
	 Food bank Quadra Circle home meals program and senior's lunch Quadra Circle Community Kitchen (Wednesday lunches) Cape Mudge Elder's Lunch 				
Gold River					
	 Food bank Legion and the Senior's Centre have meals for members 				
Tahsis	 Breakfast and lunch programs at the school (open to the community) Church weekly breakfast 				
Sayward					
Vananat	Occasional lunches prepared by the Women's Auxiliary at the Legion				
Kyuquot	Lunch programs at the school (open to the community)				

3.2 Capacity-Building

Capacity-building programs are developed in the community, by the community, to improve the availability and access to food. They have the ability to empower participants through education and training, and help raise awareness of food issues. Examples of capacity-building programs include education programs, community gardens, community kitchens, and farmer's markets. A list of capacity-building programs in Strathcona can be found in Table 3 (pg. 25). Among survey respondents, 75% were aware of food programs (both capacity-building and short-term relief) that were happening in their communities.

Some of the challenges to capacity-building highlighted by the Strathcona communities include:

- Lack of program funding, particularly for wages
- Lack of knowledge in how to develop some types of programs
- Very limited partnership working
- Gaps in provision
- Some programs are very difficult for remote communities to access

Education

There are some fantastic capacity-building programs in Strathcona, including the popular 'Lettuce Grow' program through the North Island College continuing education program, which aims to give gardeners and potential farmers tools to increase production. Lettuce Grow does not focus on food preservation and storage (canning, freezing, drying, etc.), so increasing its range of food-related course content would be an excellent way for the program to grow. Unfortunately, this program is difficult for more remote communities to access, and while there are other communities giving training (e.g. workshops in Tahsis and at Linnaea Farm on Cortes), there are gaps in education provision in many of the smaller communities.

Community Gardens and Community Food Initiatives

Community and school gardens have been developed in many parts of the district, with several more potentially in the planning stages (Kyuquot, Maple Park south of Campbell River, Radiant Life Church in Campbell River, Gold River), but there is certainly room for expansion of both garden infrastructure and programming to build the capacity for residents to develop their food-growing skills and grow their own food. In remote communities with seasonal population movements and insecure housing (such as tenants on Cortes with housing in the winter but no housing during the summer), community gardens might be the only option for producing one's own food, as well as serving other social goals such as creating a sense of stability and belonging in the community.

In the United Kingdom, allotment (community garden) plots have a long history and are generally provided at a rate of about 15 plots per 1 000 residents and in some areas there are long wait lists (Campaign for More Allotments, 2012). Current community garden provision in Strathcona is approximately 100 plots, or 2.5 plots per 1 000 residents. If Strathcona were to follow the same rates of provision as the UK, community garden infrastructure could expand substantially to over 600 plots in time.

The City of Campbell River is currently working on a land registry initiative to identify areas within the City that may be suitable for community garden development and urban agriculture. The registry will also connect landowners with available land to people that are looking for spaces to grow food for pleasure, or as a business venture such as SPIN (Small Plot INtensive) farming.

Fruit gleaning is another area that could be explored by Strathcona communities. Fruit gleaning programs use volunteers to pick fruit from private garden trees which would otherwise go to waste. The fruit can then be distributed through emergency food providers, used in preserving programs or community kitchens, or processed into juice, apple butter or applesauce and sold to raise funds for food program development. In exchange for participating, the landowner receives a portion of the fruit picked.

Farmer's Markets and Community-Supported Agriculture/Fisheries

Farmer's markets are also a good way to support local farmers and for residents to access local food. In some of the smaller communities with no agricultural base, farmer's markets might be impractical, but other alternatives for local food could be possible, such as home gardeners' fruit and veggie exchanges or other forums that offer opportunities for bartering or purchase of locally-produced foods. After reviewing farmer's market research in Vancouver, where it was found that food purchases increased significantly when craft vendor participation was restricted, Quadra Island residents developed a food-only market where at least 80% of market participants are selling food. Many comments submitted during the consultation suggested that there is a desire for a similar market in Campbell River because the Pier Street Market in Campbell River is too craft-focussed and many residents travel to the Comox Valley Farmer's Market instead to purchase food. Offering access to Farmer's Markets for low-income families is also necessary; one survey respondent stated, "My low-income family would benefit from farmers market vouchers or for local stores."

Community-Supported Agriculture (CSA) is a form of farming whereby members pay in at the start of the farming season for a weekly box of farm produce, and the farmer can use that capital for purchasing seeds and other inputs. These programs are good for encouraging local farming as it reduces the financial risk for the farmer. However, the initial purchase is likely unaffordable for most low-income residents without some form of subsidy or payment plan. There are a few CSA schemes running in Strathcona. The CSA in Campbell River currently has a waiting list and there is likely room for expansion if new farms wish to start other CSA schemes in the area. Community-Supported Fisheries (CSF) utilize

the same concept, but they are much less common than CSAs, and it might be prudent to work with the various Chambers of Commerce and local fishermen to see if there is a viable market for CSF development in Strathcona, or possibly opportunities for fishermen to sell their products more locally in all of the Strathcona communities.

Food Skills Programs

Acquiring new food skills is also an important way to build capacity in the community. Food skills programs teach cooking and preserving in many different settings. Community kitchens are programs in which participants gain cooking skills and can access low-cost foods. Often these programs are designed so that a set number of participants get together to prepare several meals, some of which is eaten, and some of which can then be frozen and taken home for use during the week. As noted by one survey participant, "community meal with 'to go' option in yogurt containers would be really helpful for me." Preserving kitchens teach the skills for food preservation through methods such as canning, pickling, dehydrating and fermenting. Preserving food is an important way to stretch out the harvest, and can be a cost-effective way to keep food over many months, often without refrigeration. Learning traditional food skills for First Nations is important for sustaining and celebrating First Nations culture, as well as maintaining a healthy diet. There are a few food skills programs operating in Campbell River, but they are currently limited to very specific segments of the population. These programs could be expanded to a wider segment of society including youth and remote communities, and in the home and in schools.

Capacity-Building Opportunities

Examples of some of the opportunities to enhance capacity-building programs include:

- Developing a Food Security Networking Hub to connect stakeholders and give program ideas (see below for more details)
- Increasing funding from both local and external funding providers to develop programs and address gaps in provision (e.g. community kitchens for priority populations, food exchanges, a fruit gleaning program, feasibility study for a Community-Supported Fishery)
- Building upon programs that are already doing well by expanding their capabilities and geographic range (e.g. expanding the *Lettuce Grow* program to include food preservation and work with smaller communities)

Table 3: Food security capacity-building

Food security capacity-building programs in Strathcona communities				
Region-wide				
<u> </u>	Food Skills for Families and other public health programs throughout region			
	Vancouver Island & Coastal Communities Indigenous Foods Network programs			
Campbell River area				
	Lettuce Grow agriculture and gardening workshops at North Island College			
	Pier Street Farmer's Market			
	Greenways Land Trust's Laughing Willow community garden & community			
	garden at St. Peter's Church/Compost Education Centre			
	Gardens at Timberline Secondary, Ecole Willow Point, Laichwiltach Family Life			
	Society, Robron Centre, Palmer Place			
	CR Family Services Society program for at-risk pregnant and post-natal women			
	Salvation Army Dinner Bell commercial kitchen training and meal program			
	Rose Harbour Supportive Housing community kitchen program			
	Homalco community kitchen program			
	John Howard Society & Second Chance Recovery House cooking skills			
	CR Head Injury Support Society garden and cooking classes			
	Coastal Roots and Vegetables CSA (25 members)			
	Sybil Andrews monthly local food potluck			
	Thrifty Foods and City of CR Young Chefs program			
Cortes Island				
	Three Farmer's Markets			
	Food co-op			
	School garden School garden			
0 1 1	Linnaea Farm educational programs & CSA (30 members)			
Quadra Island				
	Old Farm community garden & Cape Mudge community garden			
	Cape Mudge community kitchen program These Famour's Mandata assumption and dedicated food and assumptions.			
	Three Farmer's Markets – summer, winter, and dedicated food-only Valdes Farme (SA (35 marshaus))			
	Valdez Farm CSA (25 members) School garden			
	School gardenGarden club workshops			
Gold River	Garden club workshops			
Joiu Rivei	Ladybugs gardening club (private)			
	 Ladybugs gardening club (private) Some programs through the Gold River Literacy Society 			
Tahsis	- Some programs amough the Gold River Literacy Society			
TUTIJIJ	Community garden and greenhouse through the Produce Availability Initiative			
	Gardening and preserving workshops			
Sayward	- Gardening and preserving workshops			
Jaywara	Summer Farmer's Market			
	8-plot community garden (new in 2013)			
	School greenhouse (possibly unused)			
Zeballos	- School greenhouse (possibly unuseu)			
Lebanos	Community garden and greenhouse through the Produce Availability Initiative			
	Ehattesaht/Chinehkint community garden and upcoming community kitchen			
Kyuquot				
Nyaquot	Traditional foods programs			
	- Haditional Toods programs			

3.3 Community Food System Redesign

Community food system redesign is composed of actions that enhance the community food system by integrating key elements and improving the potential for long term change and sustainability. Examples of action that can be taken include creating a food policy council, developing food policies in organizations (e.g. schools, hospitals, local government), increasing availability of fresh local produce, and food sector community economic development/social enterprises such as encouraging more farming or developing food co-ops.

Some of the food system challenges highlighted by the Strathcona communities include:

- A need for access to affordable healthy food, particularly for low-income families and remote communities
- A need for more local food, particularly agricultural products but also increased access to well managed, wild-harvested resources
- Better quality and quantity of food provision and more food education in schools
- More education and capacity-building to enable greater food self-sufficiency, including reducing wasted food, accessing wild foods, growing food, and how to cook and preserve
- Developing better policies and regulations with decision makers to enable greater food security

The City of Campbell River has been leading changes to bring about food system redesign, primarily through the creation of *Agriculture Now*, an Agricultural Plan for the City; a Campbell River Food Map to promote farms, retailers and restaurants selling food grown or produced in Campbell River, the Strathcona Region, or Vancouver Island and a land registry of public and private land potentially available for urban agriculture; and bylaw changes to allow urban hens. However, the implementation of the *Agriculture Now* plan has been slow and the top priority identified, the establishment of an independent agricultural advisory body, has not yet taken place.

The Produce Availability for Remote Communities Initiative allowed the communities of Tahsis and Zeballos to examine their food systems, which has led to a greater awareness of the importance of healthy eating and solid action to increase fresh produce consumption and production in these communities.

Several Strathcona communities have produced food security plans. The Ehattesaht/Chinehkint First Nation near Zeballos has an excellent plan developed in 2013. Older food security plans for many of the Strathcona communities, including Cortes Island, Gold River and Campbell River were developed using special Community Food Action Initiative funding in 2005-2006, but the limited funding meant that many of the actions identified were not pursued, or were pursued on an ad-hoc basis.

Policy and regulation are important ways to assist in redesigning community food systems. Examples of some of the policy changes which could be examined include:

- Connecting farmers with affordable land through allowing smaller land parcels in rural zones, or other forms of long-term tenure
- Protecting the Agricultural Land Reserve and potentially carrying out land swaps with Forest Land Reserve to enable better use of land
- Addressing food safety and environmental concerns around genetically-modified organisms,
 which was of significant concern to many Strathcona residents in the survey
- Changing the boundaries of the SlaughterSafe program to include remote communities in Strathcona (particularly Sayward), which would allow the small-scale slaughter and sale of livestock products locally
- Better management (including conservation, enhancement and allocation) of fisheries resources to enable a recovery of fish populations and adequate food fish for First Nations
- Development of a commercial hunt at sustainable levels (possibly by local First Nations) to allow non-hunters access to local wild game

The creation of a Strathcona Food Security Networking Hub, as detailed in the companion document: *Strathcona Food Security Project: Food Security Networking Hub Feasibility Assessment,* would be a valuable resource for redesigning the Strathcona food system. A Food Security Networking Hub works to share information and resources between stakeholders and can represent the region's food security interests at a strategic level. Hubs are supported by a small amount of funding from Island Health. Hubs act as connectors and leaders within a region – identifying opportunities for collaboration and alignment between the many stakeholders who are working to improve food security. The coordination and animation provided by Food Security Hubs supports collective action toward a common set of goals and priorities for a region, and improves the capacity of stakeholders to address their own aims related to food security.

3.4 Asset and Gap Summary

The absence of an overarching food security body such as a food policy council or a food action committee in Strathcona means that while current grassroots programs and activities to address food security in the district are doing some fantastic things, and are true assets to Strathcona communities, they are isolated and lacking the support and partnership development that coordination of service providers, local government, school districts, and health authorities can offer through an organization such as a dedicated food policy council. There are many food security champions in Strathcona, and harnessing their knowledge and building upon their foundations is essential to improving Strathcona's food security going forward. Food security is a very real issue for many of Strathcona's residents and there is a genuine desire for change in the food system.

4. Conclusion

Strathcona has real food security needs. The region as a whole faces economic challenges, and lower incomes are highly correlated to an increased risk of food insecurity. Simply accessing fresh food is a challenge for Strathcona's remotest communities. Some of the youngest members of our communities go to school without enough food to get through the day. Almost everyone relies on imported food to meet their basic needs, and because of the limited agricultural base, all of Strathcona's residents are vulnerable to disruption in supply chains from causes as diverse as earthquakes and storms to transportation problems.

There is still a long way to go to ensure that everyone is food secure. Community efforts to build capacity are variable and disconnected. Knowledge transfer of food growing, gathering, harvesting and preparation skills is limited to specific communities and segments of the population. Food education for youth is patchy. Efforts to redesign the food system at a strategic level, particularly the City of Campbell River's Agricultural Plan, are promising but proving to be slow and piecemeal in implementation.

But there are some fantastic things blossoming in our communities as well. People are coming together to help one another, share their knowledge and build a better future. There are many organizations and activists working to improve food security, including through the development of community gardens and farmer's markets, education programs, and the tireless efforts of food providers to ensure that everyone has enough food to eat. First Nations communities are reinvigorating their food traditions and connecting youth to traditional foods and methods of harvesting. Food skills are being shared with some of our most vulnerable community members. Land that has been abandoned for decades is starting to produce food once again. Families continue to hunt, fish, garden and gather, and share this knowledge with the next generation.

There are many opportunities to build on these successes and improve the food security of Strathcona's residents into the future. Suggestions for how to do so are contained in the *Strathcona Food Security Networking Hub Feasibility Study* and the *Action Plan Framework*. We can deliver a more equitable and sustainable food system in Strathcona, but it will take a sustained and coordinated effort from every facet of our community.

It can be done. We must do better.

References

'Namgis First Nation. 2010. 'Namgis Closed Containment Salmon Farm. Accessed from http://www.namgis.bc.ca/CCP/Pages/default.aspx

BC Ministry of Agriculture. 2012. British Columbia Seafood Industry 2011 Year in Review. Accessed from http://www.env.gov.bc.ca/omfd/reports/Seafood-YIR-2011.pdf

BC Ministry of Environment. 2010. Sports Fishing. Accessed from http://www.env.gov.bc.ca/omfd/fishstats/sport/index.html

BC Salmon Farmer's Association. 2013. The Value of Coastal B.C. Salmon Farms (2011 data). BC Salmon Farmer's Association.

BC Stats. 2012. Socio-Economic Profile – Local Health Area 72. Accessed from http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices/Profiles.aspx

Campaign for More Allotments. 2012. Allotments and the Law. Accessed from http://www.allotmoreallotments.org.uk/legislation.htm

City of Campbell River. 2011. Agriculture Now: Growing a Strong Agriculture Sector in Campbell River. City of Campbell River.

City of Campbell River. 2009. City of Campbell River Homelessness Task Force Report September 2009. Accessed from http://www.campbellriver.ca/docs/default-source/Document-Library/reports/homelessness-task-force-report---september-2010.pdf?sfvrsn=3

Cohen, B. 2012. The Uncertain Future of Fraser River Sockeye: Vol. 3: Recommendations – Summary – Process. Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River.

Dietitians of Canada. 2011. Cost of Eating in British Columbia 2011. Accessed from http://www.dietitians.ca/Downloadable-Content/Public/CostofEatingBC2011 FINAL.aspx

Food and Agriculture Organization. 2006. Policy Brief Food Security. June 2006 Issue 2. Accessed from: ftp://ftp.fao.org/es/ESA/policybriefs/pb_02.pdf

Hamm, M. And Bellows, A. 2003. Community food security: background and future directions. J Nutr Educ Behav. Jan-Feb; 35(1):37-43

Harasymchuk, S. and Rolston, G. 2012. Vancouver Island Coast Regional Agriculture Framework for Action. Island Coast Economic Trust and the Government of British Columbia. Accessed from http://www.gov.bc.ca/jtst/down/VI Coast Ag Framework Aug17 2012 FINAL.pdf

Manson Street Farm. 2014. Victoria Aquaponics. Accessed from http://masonstreetfarm.com/victoria-aquaponics/

Murphy, C. 2013. Ehattesaht/Chenahkhint Food Security Plan.

Ostry, A. 2010. Food for Thought: The Issues and Challenges of Food Security. Provincial Health Services Authority. Accessed from http://www.phsa.ca/NR/rdonlyres/C3E70150-66FF-48E1-B2F1-45BB83B03019/0/FoodforThought ResearchBooklet FINAL.pdf

Provincial Health Services Authority. 2013. *BC Community Health Atlas*. Provincial Health Services Authority, British Columbia, Vancouver. Accessed from: http://www.phsa.ca/communityhealthatlas

Ross, S. and Simces, Z. (2008) Community Food Assessment Guide. British Columbia Provincial Health Services Authority. Accessed from http://www.phsa.ca/NR/rdonlyres/10ADB2B7-DD0F-49FA-AC58-E40D642E412B/0/CommunityFoodAssessmentGuide.pdf

Tarasuk, V. 2010. Do food banks work? University of Toronto. Accessed from http://www.research.utoronto.ca/do-food-banks-work/

Tarasuk, V, Mitchell, A, Dachner, N. 2013. Household food insecurity in Canada 2011. Research to identify policy options to reduce food insecurity (PROOF). Retrieved from http://nutritionalsciences.lamp.utoronto.ca

The Stop. 2014. The Stop Community Food Centre: The Mission. Retrieved from http://thestop.org/mission

Statistics Canada. 2011. Census of Agriculture, Farm and Farm Operator Data, catalogue no. 95-640-XWE.

Statistics Canada. 2012. Strathcona, British Columbia (Code 5924) and Campbell River, British Columbia (Code 5924034) (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E

Statistics Canada. 2013. Strathcona, RD, British Columbia (Code 5924) (table). National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013.

http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E

Taste of BC Aquafarms Inc. 2014. About. Accessed from https://www.facebook.com/modelaquafarm/info

Appendix 1: Interviewees for the Project

France Bendickson – Campbell River Meals on Wheels

Wendy Burke – Immigrant Welcome Centre

Keith Hudson – Hudson Farm

Sean Junglas – Salvation Army

Linda Kempling – Campbell River Family Services Society

Mary McIntosh – Quadra Circle

Renee Mitchell - Nuu-cha-nulth Tribal Council

Amanda Stewart-Webb – Quadra Island Food Market

Alex Turner – Sayward Garden Club

Debbie Willis - Campbell River and District Food Bank Society

Heather Warwick – Gold River Food Bank

With additional thanks to Gary Rolston of From the Ground Up Agricultural Consulting for his thought-provoking and engaging comments.

Appendix 2: Public Survey

Food Security Survey for the Strathcona Region 2013

Welcome to the Food Security Survey for the Strathcona Region! The Vancouver Island Health Authority and North Island College are studying food security in the Strathcona Regional District, which includes compiling a list of current food-related activities happening in the region. Please let us know what you think our food security priorities should be by participating in this short survey. This is an anonymous survey, and no personal information will be collected. The results of this survey will help to develop an Action Plan for Food Security in the Strathcona Regional District, including the population centres of Campbell River, Oyster River, Gold River, Tahsis, Zeballos, Kyuquot, Sayward, and the Discovery Islands.

What is Food Security?

Food security "exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life." (FAO 1996)

Further to this, food security implies that "food is produced; processed and distributed in a manner that does not compromise the land, air or water for future generations" (Food Security Standing Committee 2004), that there is access to culturally appropriate food, and that local communities are involved in maintaining and creating healthy relationships within the food system.

By completing this survey, you are helping to shape the future of food security in the Strathcona Region. Thank you!

Please return this survey by Nov. 30, 2013 to:

Cynthia Bendickson@gmail.com

Project Coordinator

By mail: 350A 6th Avenue, Campbell River, BC V9W 8G3

To give your responses by telephone: (250) 202-1320

For more information, and to fill out the survey online, please visit the project blog: www.strathconafoodsecurity.wordpress.com

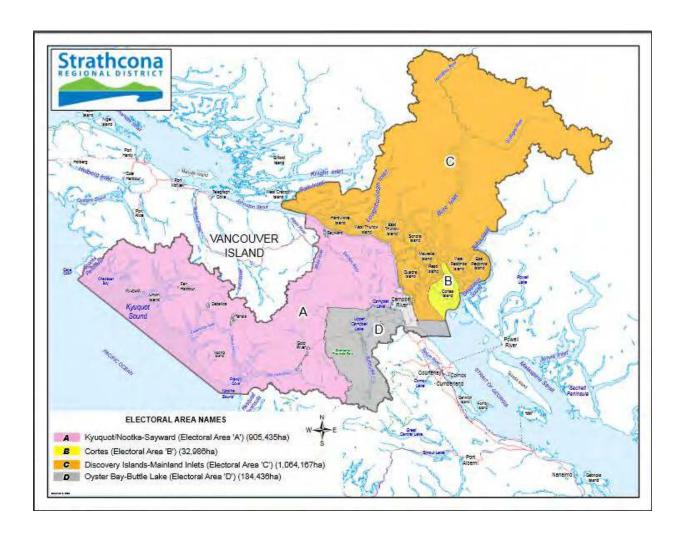
You can also access the blog by scanning the QR code to the right with your smartphone.



1. Where do you live? (choose all that apply)

□ Campbell River
 □ South of Campbell River: Shelter Point – Oyster River
 □ Gold River
 □ Tahsis
 □ Zeballos
 □ Kyuquot
 □ Sayward
 □ Discovery Islands (Quadra Island, Cortes Island, Read Island, etc.)
 □ Remote camp or other area within the Strathcona Regional District

☐ Area outside of the Strathcona Regional District



2. In the last year, how have you and your dependents obtained food? (choose all that ap			
		Grocery store	
		Corner store/small neighbourhood store	
		Meals on Wheels	
		School meal programs	
		Food Bank	
		Soup kitchens	
		Community kitchen	
		Specialty food stores (health food store, international foods, fresh seafood store)	
		Farmer's market	
		Local farms	
		Commercial fishermen	
		Community garden	
		Own garden	
		Own hunting/fishing/gathering from the wild	
		Barter with others	
		Restaurants	
		Other: (please specify)	
3.	a) D	o you ever have trouble getting the food that you want?	
		Yes	
		No	
	b) If	yes, why? (choose all that apply)	
		Cost of food	
		Lack of transportation to places that have the food that I want	
		I don't know how to prepare/preserve/cook the food that I want	
		I don't know how to grow the food that I want	
		There is not enough food that is appropriate to my culture available	
		There is not enough food that is produced in an environmentally-responsible way available	
		There is not enough locally-produced food available	
		The food that I want is only available at certain times of year	
		I am concerned with the safety of my food	
		Restrictions on hunting/fishing/gathering	
		Other: (please specify)	

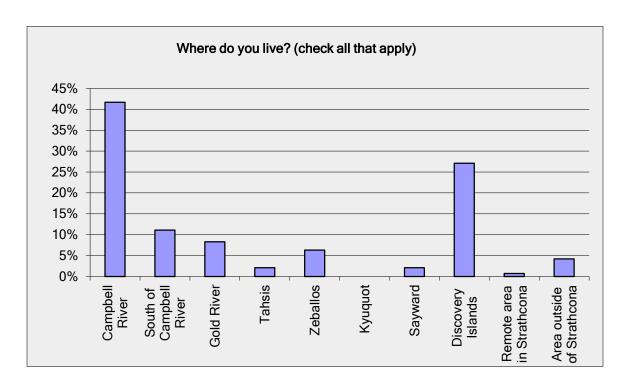
4. a) H	a) How often do you eat as well as you would like?			
	All of the time			
	Most of the time			
	About half of the time			
	Rarely			
	Never			
4. b) W	/hat can prevent you from eating as well as you would like? (choose all that apply)			
	I don't know what I should eat to be healthy			
	I don't have time to cook			
	I don't always have enough energy to cook			
	Lack of cooking equipment/space			
	Lack of storage for food			
	Cost of healthy food			
	I live alone and don't like cooking for one			
	Lack of transportation to places that sell healthy food			
	Illness/disability			
	Other: (please specify)			

5. Do you know about any food-related programs and services in your area? (e.g. community garden, food/gardening workshops, soup kitchen, meal programs, etc.)
6. Do you take part in any food-related programs and services in your area? If so, please tell us which.
7. What policies or funding (e.g. in schools, hospitals, governments, charities, etc.) support food security in your area?
8. What are some positive aspects in your community that make it easy to obtain good food (i.e. good bus transportation, store nearby, local blackberry patch, farmer's market)?
9. What would you like to see happen in your community to improve access to the food that you want?
10. Do you have any other comments about food security in your area?
Thank you for completing our survey! Your responses will help to inform the Food Security Action Plan for the Strathcona Regional District, which will be completed in the spring of 2014.

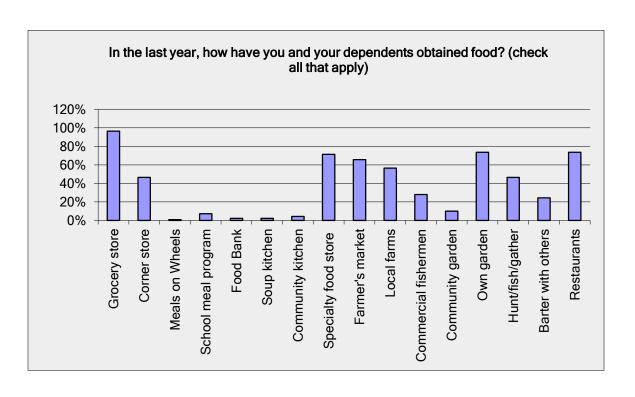
Appendix 3: Closed question survey responses

Q. 1

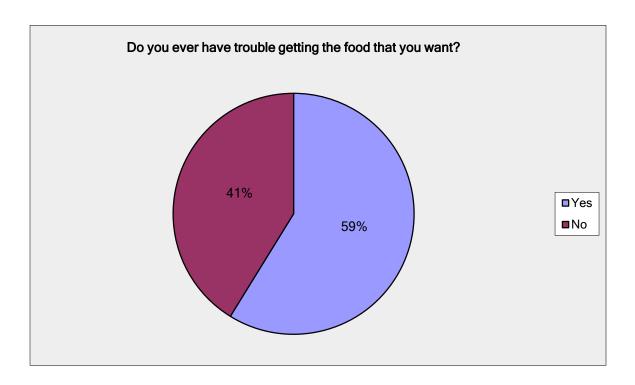
Where do you live? (check all that apply)			
Answer Options	Response Percent	Response Count	
Campbell River	42%	60	
South of Campbell River	11%	16	
Gold River	8%	12	
Tahsis	2%	3	
Zeballos	6%	9	
Kyuquot	0%	0	
Sayward	2%	3	
Discovery Islands	27%	39	
Remote area in Strathcona	1%	1	
Area outside of Strathcona	4%	6	
Other (please specify)		6	
, , , , , , , , , , , , , , , , , , ,	answered question	144	
	skipped question		



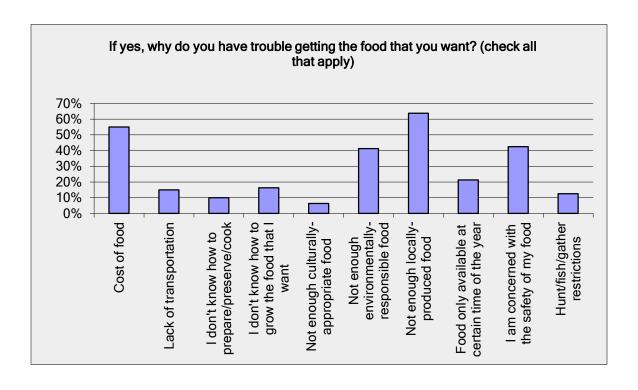
In the last year, how have you and your dependents obtained food? (check all that apply)			
Answer Options	Response Percent	Response Count	
Grocery store	96%	135	
Corner store	46%	65	
Meals on Wheels	1%	1	
School meal program	7%	10	
Food Bank	2%	3	
Soup kitchen	2%	3	
Community kitchen	4%	6	
Specialty food store	71%	100	
Farmer's market	66%	92	
Local farms	56%	79	
Commercial fishermen	28%	39	
Community garden	10%	14	
Own garden	74%	103	
Hunt/fish/gather	46%	65	
Barter with others	24%	34	
Restaurants	74%	103	
Other (please specify)		11	
	answered question	140	
	skipped question	6	



Do you ever have trouble getting the food that you want?		
Answer Options	Response Percent	Response Count
Yes No	59% 41%	80 56
	swered question kipped question	136 10

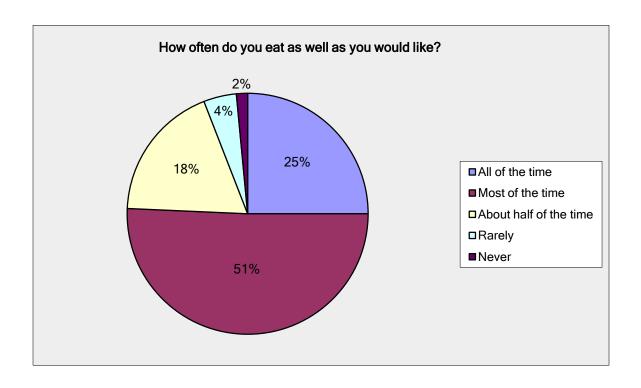


If yes, why do you have trouble getting the food that you want? (check all that apply)			
Answer Options	Response Percent	Response Count	
Cost of food	55%	44	
Lack of transportation	15%	12	
I don't know how to prepare/preserve/cook	10%	8	
I don't know how to grow the food that I want	16%	13	
Not enough culturally-appropriate food	6%	5	
Not enough environmentally-responsible food	41%	33	
Not enough locally-produced food	64%	51	
Food only available at certain time of the year	21%	17	
I am concerned with the safety of my food	43%	34	
Hunt/fish/gather restrictions	13%	10	
Other (please specify)		27	
· · · · · · · · · · · · · · · · · · ·	answered question	80	
	skipped question	66	



Q. 5

How often do you eat as well as you would like?		
Answer Options	Response Percent	Response Count
All of the time	25%	34
Most of the time	51%	69
About half of the time	18%	25
Rarely	4%	6
Never	2%	2
aı	nswered question	136
	skipped question	10



What can prevent you from eating as well as you would like? (check all that apply)			
Answer Options	Response Percent	Response Count	
I don't know what I should eat to be healthy	4%	4	
I don't have time to cook	34%	33	
I don't always have enough energy to cook	54%	53	
Lack of cooking equipment/space	3%	3	
Lack of storage for food	12%	12	
Cost of healthy food	51%	50	
I live alone and don't like cooking for one	16%	16	
Lack of transportation	7%	7	
Illness/disability	2%	2	
Other (please specify)		24	
. , , ,	nswered question	98	
	skipped question	48	

