



# Food Security Emergency Planning in the Alberni-Clayoquot Regional District

## Background Report

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Prepared for: Alberni-Clayoquot Regional District

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## Land Acknowledgement

Alberni-Clayoquot Regional District serves the communities of the central and west coast of Vancouver Island located on the ḥahahuuli (traditional territories) of the Nuuchahnulth Nations of Ahousaht, Ditidaht, Hesquiaht, Hupačasath, Huu-ay-aht, Tla-o-qui-aht, Toquaht, čišaaʔath (Tseshaht), Uchucklesaht, and Yuułuʔiłʔatḥ. Since time immemorial, Nuuchahnulth Peoples have walked gently in these places where we live, work, learn, and play. We are committed to building relationships based in honour and ʔiisaak (respect), and we offer our gratitude.

## Acronyms

ACRD	Alberni-Clayoquot Regional District
ALR	Agricultural Land Reserve
ALUI	Agricultural Land Use Inventory
AVFSS	Alberni Valley Food Security Society
CBT	Clayoquot Biosphere Trust
HACCP	Hazard Analysis and Critical Control Points
IR	Indian Reserve
MAF	Ministry of Agriculture and Food
NTC	Nuuchahnulth Tribal Council
TUCG	Tofino Ucluelet Culinary Guild
TCFI	Tofino Community Food Initiative

## 1.0 Project Background

In recent years, food security and resiliency have become increasingly urgent issues in the Alberni Clayoquot Regional District (ACRD). The region faces emergencies exacerbated by climate change, such as drought, flooding, wildfires, and supply chain disruptions. These events not only threaten the health and safety of residents but also impact agricultural producers, food distribution systems, and transportation corridors, creating additional challenges for the region and its residents.

The very elements that contribute to the ACRD's natural beauty also create vulnerabilities in its food system. Limited road access, the absence of active railway lines, seismic risks, forestry activity, and mountainous landscapes edged by a rugged coastline and river systems mean that the ACRD must be proactive in emergency planning and preparedness.

In 2023, the region experienced drought, wildfires, and prolonged closures of Highway 4, which led to food shortages for both humans and livestock. These events gave agricultural producers and residents firsthand experience of what it means to live in a food-insecure community. While significant progress has been made in the region regarding food security and emergency planning, the increasing threats from climate change demand further work to identify gaps and opportunities for improving food security and resiliency in the ACRD.

This *Food Security Emergency Planning in the Alberni-Clayoquot Regional District* project builds on previous efforts by the ACRD and community organizations such as the Alberni Valley Food Security Society, Coastal Agricultural Roundtable, and Alberni Farmers' Institute by conducting a thorough review of relevant policies and reports, combined with extensive engagement with agricultural and food system actors.

This document provides the background information that sets the regional context required to complete food security assessments for the Alberni Valley and West Coast communities.



**Figure 1. Evergreen Park, September 2024.**

## 2.0 Key Terms

The following are key concepts and definitions used throughout the report.

### **Food System**

The food system encompasses the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural environments in which they are embedded.<sup>1</sup>

### **Food System Resilience**

Resilience is the ability of a system to withstand and recover from shocks and stressors. In the context of a food system resiliency is “the capacity over time of a food system to provide sufficient, appropriate, and accessible food to all living things, in the face of various and even unforeseen disturbances.”<sup>2</sup>

### **Food Security**

Food security encompasses many interdependent aspects of society, not only meaning that everyone has equitable access to food that is affordable, culturally preferable, nutritious and safe; but that everyone has the agency to participate in, and influence food systems; and that food systems are resilient, ecologically sustainable, socially just, and honour Indigenous food sovereignty.<sup>3</sup> Food security can be viewed at both a community level and a household level. For this work, the community level is the main focus.

#### ***Community Level Food Security***

Community food security arises when all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice.<sup>4</sup>

#### ***Household Level Food Security***

Food security at the household level is affected by factors outside an individual’s control, which can impact their access to adequate foods that promote wellbeing. Economic, social, environmental, and geographical factors influence this access.<sup>5</sup>

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<sup>1</sup> UN Food and Agriculture Organization. [Sustainable food Systems: Concept and Framework](#) 2018.

<sup>2</sup> Tendall, D.M., Joerin, J., Kopainsky, B., Edwards, P., Shreck, A., Le, Q.B., Kruetli, P., Grant, M., Six, J. Food system resilience: Defining the concept. *Global Food Security* (6), 17-23. 2015.

<sup>3</sup> BC Centre for Disease Control. [Defining Food Security and Food Insecurity in British Columbia](#).

<sup>4</sup> Hamm, M.; Bellows, A. (2003). Community Food Security and Nutrition Educators. *Journal of Nutrition Education and Behavior* 35 (1): 37–43.

<sup>5</sup> BC Centre for Disease Control. [Defining Food Security and Food Insecurity in British Columbia](#).

## Food Literacy

Food literacy refers to the knowledge, skills and attitudes necessary to choose, grow, prepare and enjoy healthy food to support one's health, community and the environment. It means understanding the impact of our food choices on our health, the environment and our economy.<sup>6</sup>

## Food Assets

Food assets are beneficial components to a food system; they are a places and organizations where people can grow, prepare, share, buy, receive or learn about food.<sup>7</sup>

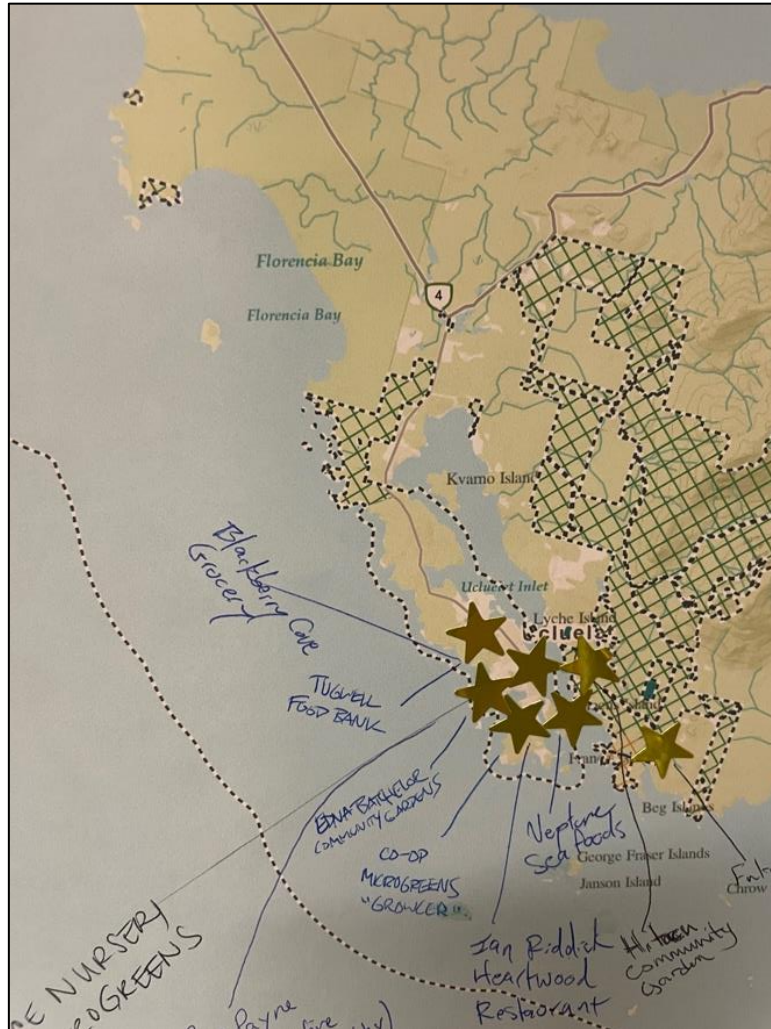
**Table 1. Examples of Food Assets**

<b>Food Asset</b>	<b>Examples</b>
<b>Food production, hunting, fishing, foraging</b>	Farmland, community gardens, parks, ocean, lakes, forests.
<b>Food sources</b>	Grocery stores, farmers' markets, restaurants, food banks, food hampers, and meal programs.
<b>Food organizations</b>	Organizations involved in food rescue, recovery, redistribution, food literacy and education, and food advocacy.
<b>Food waste management</b>	Composting and curbside food collection services.
<b>Food processing facilities</b>	Packing houses, community kitchens, cold storage, commissary kitchens, food hubs.
<b>Community food economy and food culture</b>	Harvest/food festivals, food trucks and mobile food markets, farmers markets, agri-tourism.
<b>Community food literacy</b>	School gardens, cooking classes, recipe sharing, food processing classes, seed libraries, food hub and shared kitchens.

**Source: Urban Food Strategies, Community Food System Planning Strategies**

<sup>6</sup> Fraser Health Authority. (2021). [What is food literacy?](#)

<sup>7</sup> Kathy Romses - Vancouver Coastal Health Public Health Dietitian. 2018. [Vancouver Food Asset Map Glossary.](#)



**Figure 2. Food asset mapping on the West Coast, November 2024.**

### 3.0 Geographic and Community Context

The ACRD encompasses the central west coast of Vancouver Island and is home to a population of approximately 33,500.<sup>8</sup> There are six electoral areas, A through F. Areas A and Area C of the ACRD experience a wet, temperate coastal climate, with high annual rainfall levels typical of the west coast rainforest ecosystem.<sup>9</sup> There is no Agricultural Land Reserve (ALR) in the coastal regions of Electoral Areas A and C, with all ALR lands within the Alberni Valley, Electoral Areas B, D, E, and F.<sup>10</sup>

Electoral Area A (Bamfield) is known for its remoteness, marine access, and ties to tourism. The area features a strong eco-tourism industry and the Bamfield Marine Sciences Centre, attracting visitors and

<sup>8</sup> Statistics Canada. [Results for Alberni-Clayoquot, Regional district \[Census division\], British Columbia](#)

<sup>9</sup> Dennis A. Demarchi. [An Introduction to Ecoregions of British Columbia](#). March 2011. Ministry of Environment.

<sup>10</sup> Heather Shobe and Hannah Roessler. 2018. [Coastal Addendum to the Alberni Agriculture Plan](#).

researchers. Area A includes the treaty lands of Huu-ay-aht First Nations, Yuuʷuʷiʷiʷaʷh, and Uchucklesaht Tribe, as well as being located on the unceded territories of Ditidaht Hupacasath and Tseshaht First Nations. Situated in the Alberni Valley, Electoral Area B (Beaufort) is a rural area with a small population and a focus on agriculture and forestry. It is less influenced by tourism but plays a key role in regional land use and resource management. Beaufort EA has neither a volunteer fire department nor a water system.

Electoral Area C (Long Beach) includes the Pacific Rim National Park Reserve, making it a significant hub for tourism, recreational fishing, kayaking, and surfing, especially with the nearby communities of Tofino and Ucluelet. Ucluelet and Tofino are small district municipalities and members of the ACRD, known for their rugged natural beauty and ecotourism; with a resident population of just over 2,000, the region receives nearly 600,000 visitors annually.<sup>11</sup> The administrative boundaries of Electoral Area C surround the unceded territories of three Nuuchahnulth Nations - Hesquiaht, Ahousaht, and Tla-o-qui-aht First Nations - as well as lying adjacent to the territories of the Modern Treaty Nations of Yuuʷuʷiʷiʷaʷh and Toquaht Nation.

Electoral Area D is centred around Sproat Lake; this area is popular for recreational activities and tourism, particularly in summer. It has a mix of permanent and seasonal residents and is located west of the city of Port Alberni. Located directly north of Port Alberni, Electoral Area E (Beaver Creek) is a mix of suburban and agricultural, with a focus on agricultural activity but with residential development also occurring due to the EA having both a volunteer fire department and a water system which sources clean potable water from the city of Port Alberni. This population is significant in its contributions to the broader Alberni Valley economy. Electoral Area F (Cherry Creek) balances rural and residential land use with limited tourism influence. It provides community services that complement the larger urban centres nearby.<sup>12</sup> Cherry Creek is unique in the ACRD in being the only remaining Improvement District, who administers both their own water system and volunteer fire department. The Alberni Valley is home to the most favourable growing conditions in the region, rich with diverse agricultural activity and a favorable climate for many crops.<sup>13</sup> The City of Port Alberni, situated in the heart of the Alberni Valley, serves as a gateway to the West Coast.<sup>14</sup> Located in the traditional, unceded territories of the Tseshaht and Hupacasath First Nations, the city boasts a rich history in logging and fishing.<sup>15</sup>

The ACRD collaborates with all Nuuchahnulth First Nations on projects of mutual benefit and alignment.<sup>16</sup> The Nuuchahnulth Tribal Council (NTC) plays a crucial role in representing all fourteen Nuuchahnulth First Nations and advocating for their cultural, economic, and governance interests.<sup>17</sup> The NTC is instrumental in fostering partnerships for regional development, emergency planning, and services within the ACRD region.<sup>18</sup>

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<sup>11</sup> [Welcome to Tofino.](#)

<sup>12</sup> ACRD. [Board Handbook 2023.](#)

<sup>13</sup> City of Port Alberni. [Community Profile.](#)

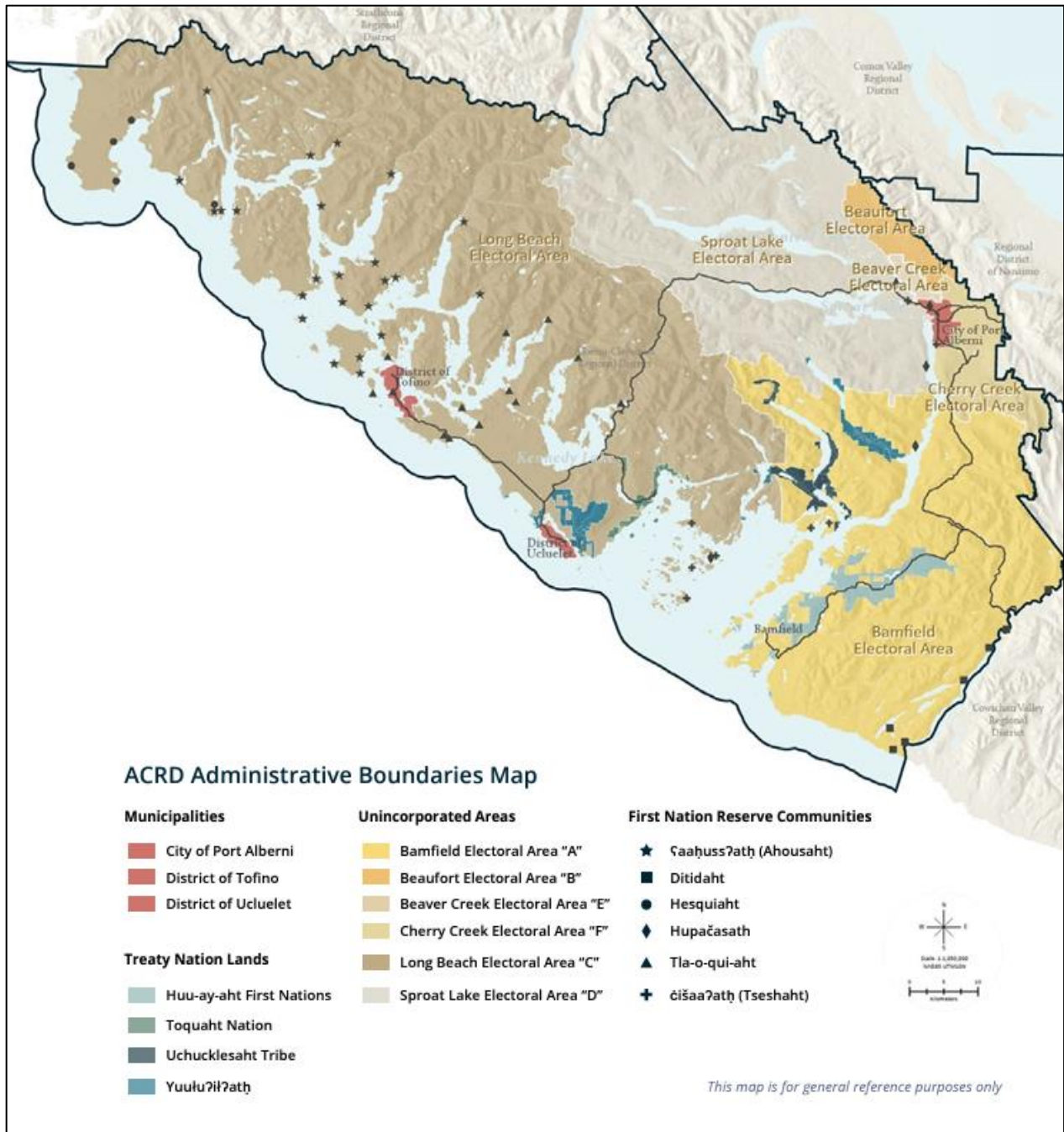
<sup>14</sup> City of Port Alberni. [Community Profile.](#)

<sup>15</sup> Alberni Valley Tourism. [Welcome to the Alberni Valley.](#)

<sup>16</sup> ACRD. 2022. [Systems Change Report.](#)

<sup>17</sup> Nuuchahnulth Tribal Council. [About NTC.](#)

<sup>18</sup> Ibid



**Figure 3. ACRD Administrative Boundaries.**<sup>19</sup>

The region is rich with a diverse food culture and hosts several food organizations supporting agriculture and food systems development throughout the region. A list of some of these organizations is outlined in Table 2 below.

<sup>19</sup> ACRD. 2024. [ACRD Strategic Plan](#).

**Table 2. Food and Agriculture Organizations in the ACRD.**

<b>Organization</b>	<b>Description</b>
<b>ACRD Agricultural Committees</b>	Committees in the ACRD supporting agricultural development, food security, and regional food systems initiatives: the Agricultural Development Committee which helps guide ACRD staff and make policy recommendations to the board of directors, Agricultural Advisory Committee which focuses on land designation and use within the ALR, the Coastal Foods Roundtable which aims to implement the Coastal Addendum to the Alberni Valley Agricultural Plan, and the Council for Agricultural Water Supply which aims to support agricultural producers' need for an adequate and secure source of water. <sup>20</sup>
<b>Alberni-Clayoquot School Food Systems Working Group</b>	A collaborative group focused on improving food literacy, school meal programs, and access to nutritious food in the Alberni-Clayoquot school system.
<a href="#"><u>Alberni District Fall Fair Association</u></a>	Hosts the annual Alberni District Fall Fair, promoting agriculture, local food, and community connection through exhibits, competitions, and events. The Fall Fair Association also owns animal housing infrastructure within the city of Port Alberni that they have signed an MOU with the ACRD on to provide to small livestock owners in the event of an evacuation.
<a href="#"><u>Alberni Farmers' Institute</u></a>	Supporting farmers and advocating for agricultural development, education, and policy improvements in the Alberni Valley.
<a href="#"><u>Alberni Valley 4-H Club</u></a>	Youth-focused organization teaching leadership, agriculture, and life skills through hands-on projects in farming, gardening, and community service.
<a href="#"><u>Alberni Valley Food Security Society</u></a>	Works to enhance food security in the Alberni Valley. Hosts several food security-related initiatives, including the Alberni Valley Gleaning Project.
<b>Clayoquot Campus - Naa'Waya'Sum Coastal Indigenous Gardens and IISAAK Learning Lodge</b>	A space for Indigenous-led education and collaboration, integrating cultural teachings, traditional ecological knowledge, and coastal food systems (temporarily closed).
<b>Coastal Foods Roundtable</b>	A permanent ACRD working group, co-hosted by the Tofino Community Food Initiative, supporting coastal food producers (including non-traditional agriculture and aquaculture), processors, distributors, and food security.
<a href="#"><u>Dock+ Food Hub</u></a>	A shared-use facility supporting local food processors with access to equipment, space, and resources for small-scale food production and value-added food products.
<a href="#"><u>Eat West Coast</u></a>	A regional food security initiative by the Clayoquot Biosphere Trust (CBT), focusing on affordability, access, and culturally relevant food availability in the Clayoquot Region.

<sup>20</sup> ACRD. [Planning and Development](#).

Organization	Description
<a href="#">Food Bank on the Edge</a>	Operates in Tofino and Ucluelet, coordinating food donations and providing ongoing and emergency food assistance.
<a href="#">Mt Klitsa Garden Club</a>	Local community garden club promoting local gardening practices, education, and community engagement in sustainable food production.
<b>Nuu-chah-nulth Food and Nutrition Sovereignty Network</b>	A network focused on advancing food sovereignty, nutrition education, and sustainable food practices within Nuu-chah-nulth communities.
<a href="#">Nuu-chah-nulth Youth Warrior Family Society</a>	Supports Indigenous youth and families through initiatives that include traditional food systems, cultural teachings, and community-building activities.
<a href="#">Shelter Farm</a>	A social enterprise and educational farm that provides training programs, local food production, and community engagement to enhance food security and agricultural knowledge.
<a href="#">Tofino Community Food Initiative (TCFI)</a>	Focuses on food security, education, and community gardening in Tofino. Hosts events like Seedy Saturday and manages community garden spaces.
<a href="#">Tofino Ucluelet Culinary Guild (TUCG)</a>	A non-profit organization supporting local farmers and producers with a direct supply chain for high-quality, seasonal ingredients. Offers online ordering for local produce.



*Figure 4. Alberni District Fall Fair, September 2024.*

## 4.0 ACRD Key Policy and Document Review

Key policies, reports and planning documents relating to emergency planning, the agriculture sector and food security were reviewed to understand the work completed to date in the ACRD. Over thirty documents were reviewed to inform the food security emergency planning work of this project. Several foundational policies and documents are outlined in this section. A full list of documents reviewed is provided in Appendix A.

### 4.1 Emergency Planning

The ACRD has completed or commissioned numerous policies and reports on emergency planning. In December 2024 a new Disaster and Emergency Management Plan was approved by the ACRD Board of Directors. The plan encompasses scenarios for all potential hazards and outlines roles and responsibilities for the ACRD during emergencies. The ACRD also has community specific evacuation route plans, and several resources for the agriculture sector and livestock owners. The ACRD *Farm Emergency Plan Template & Guide* are two important resources for livestock owners. The Emergency Plan template and guide help farmers identify and focus on the critical decisions and actions that should be addressed before an emergency occurs and what actions to take during an emergency. The Plan includes a Decision Guide for Livestock Protection outlining various options and steps to ensure the safety of livestock during an emergency. In 2020, during the COVID-19 pandemic, the ACRD identified concerns with the agriculture and food supply chain and outlined potential actions the ACRD could take to mitigate negative impacts from supply chain disruptions.<sup>21</sup> These actions are transferrable to any hazard that may disrupt supply chains in the future.

### 4.2 Agriculture

An extensive volume of reports, policy and planning documents relating to agriculture and food security in the Alberni Valley have been produced over the past twenty years. In 2011, the *Alberni Valley Agricultural Plan* was created, which outlined twelve goals and dozens of actions for the ACRD, the farming community and other key players to implement to support the agriculture sector and improve local food self-sufficiency. In 2014, the ACRD contracted a team of Agricultural Support Workers as part of the *Agricultural Plan Implementation Project* to assist with implementation of the Plan. An Agricultural Development Committee was also established to facilitate implementation. In 2018, the *Coastal Addendum to the Alberni Agriculture Plan* was created for the coastal communities of the ACRD. This document determined the needs, perspectives, and attributes of the region's unique population and geography, and offers actionable recommendations to help stimulate local, appropriate, and efficient agricultural development that is inclusive of marine and land based food systems. The ACRD is currently in the process of updating their Solid Waste Management Plan, which will ideally support producers in managing organic and green wastes.

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<sup>21</sup>ACRD.2020. [Covid Mitigation Action Plan](#).

### 4.3 Food Security

Several organizations in the ACRD have conducted and commissioned reports related to food security in the ACRD. Since 2012, The *Alberni Valley Food Charter* has provided guiding principles for creating a just and sustainable food system. The *Alberni-Clayoquot Regional District's (ACRD) System Change Project (2023)* has led to increased collaboration between the region's agri-food organizations, growth and strengthening of local agri-food organizations, and increasing collaboration in support of Nuuchahnulth food sovereignty. The Investment Agriculture Foundation-funded project *Nuuchahnulth Food Sovereignty: Learnings of the Alberni-Clayoquot Regional District (2022)* recommended ways to better incorporate Nuuchahnulth perspectives in regional food systems planning processes. The Alberni Valley Food Security Society (AVFSS) has authored numerous reports and resources including the *Alberni Valley Food Community Offerings* which provides information on food access. The *Coastal Agricultural Roundtable Strategic Plan (2023)* outlines the work done to date in coastal communities related to food security and sets strategic priorities to support food security on the West Coast.

### 4.4 Water

The availability of water to meet agricultural and food security needs both now and into the future, under the influence of climate change, has become a growing concern for producers and First Nations communities in the Alberni Valley and West Coast communities. The impacts of drought and flooding threaten the health and safety of residents and can compromise local food security. For the agricultural sector to thrive, a safe and reliable source of water for irrigation, livestock watering, and food processing must be secured. Key challenges include water availability, cost, and quality. In 2017, the ACRD released "*Water for Growth: Recommendations and Findings from the Agricultural Use of Water Project.*" The report presented seven sets of policy recommendations ranging from economic tools (such as rebates, tax discounts, or credits) to infrastructure upgrades (such as twinning water lines) and advocacy to other levels of government. The report also recommended amending the existing community water license to include emergency water use and the development of a drought management plan.

The ACRD's Council for Agricultural Water Supply emerged from this work and was established in 2021. In 2023, the Council published the findings of the *Water Supply and Producer-Led Watershed Data Collection Project*. The project involved research and review of existing and historical monitoring projects, engagement with local producers and water use and fire services regarding water delivery, and discussions with the ACRD and other parties regarding the development of a community water license. The producer-led data collection model involved measurements of groundwater wells. The report included several recommendations for next steps, including investigating the possibility of an irrigation district, re-establishing the McKenzie Road water supply pump station as a possible agricultural water source, a community irrigation water license for the Stamp River, and others. Currently, a project is being undertaken, the *ACRD Agricultural Water Plan*, which will assess agricultural water needs and examine the feasibility of water supply options for the areas of Beaufort, Beaver Creek, Cherry Creek, the eastern portion of Sproat Lake, the City of Port Alberni, and federal reserve lands.

## 5.0 Agriculture Sector Profile

Agricultural production occurs primarily in the Alberni Valley area of the ACRD which has good soils and climactic conditions for growing a variety of crops and raising livestock. Small amounts of gardening and greenhouse growing occur on the West Coast, which is described at the end of this section. As such, this agriculture profile focuses on the Alberni Valley and illustrates the current characteristics of the agriculture sector; it highlights challenges and gaps and helps to identify opportunities for sector growth. The agriculture profile was constructed using the 2021 Census of Agriculture data from Statistics Canada and the 2016 Agricultural Land Use Inventory (ALUI).

The Census of Agriculture data includes all the member municipalities, Electoral Areas and First Nation reserve lands in the ACRD. A limitation in the Census data for 2021 is that the data only captures farms that report revenues and expenses for tax purposes, which excludes smaller-scale producers and homesteaders with gardens, backyard hens, etc. In addition, the data was collected in 2020, so is now four years old. However, it is useful to use the Census as a rough estimation of the amount of crops and livestock production occurring in the region. There are many homesteaders and backyard gardeners in the Valley who are not captured here but also provide food for residents.

In the summer of 2016, the BC Ministry of Agriculture and Food (MAF) conducted an ALUI within the ACRD. The ALUI was conducted using visual interpretation of aerial imagery combined with a vehicle based “windshield” survey to capture a snapshot in time of land use and land cover. Land cover is defined as the biophysical material at the surface of the earth while land use is defined as how people utilize the land. A parcel may have numerous land covers and can be assigned up to two land uses beyond agricultural use. The ALUI data is helpful in answering the type and scale of agricultural activities and what proportion of the ALR and agricultural land may be available for farming.

The vast majority of productive agricultural land in the ACRD is located in the ALR. The ALR is a provincially designated zone that preserves agricultural land for the future. However, there are lands outside of the ALR that are suitable for certain types of crop production or livestock, particularly in lands zoned as ‘Rural Use’ in the ACRD official community plans. It should also be noted that not all land in the ALR is suitable for farming due to existing land uses such as schools, golf courses, residential structures and other uses. In addition, not all ALR land is of the same quality for agricultural activities due to factors such as soils and topography. While ALR lands are identified on Federal Indian Reserve (IR) lands and can indicate potential soil viability, the Provincial *ALC Act* and regulations are superseded by federal policies and regulations. Therefore, there is no requirement to submit applications to the ALC for non-farming uses in those areas. In the ACRD Official Community Plans and Zoning Bylaws, most land in the ALR is designated as ‘Agriculture Use.’

## 5.1 Land and Water Use

There are 7,776 ha of ALR in the ACRD. In 2016 the ALUI found that 18% (1,312 ha) of the ALR was farmed and an additional 149 ha of land outside the ALR was farmed bringing the total farmed land cover area to 1,462 ha.<sup>22</sup> There were 1,394 ha of cultivated field crops in ACRD (1,259 ha in the ALR and 135 ha outside the ALR). Forage & pasture was the most common crop accounting for 97% of all cultivated land.<sup>23</sup> Forage accounted for 837 ha, pasture accounted for 307 ha, and fields used for both forage and pasture accounted for 208 ha. The ALUI noted that 75% (5,383 ha) of ALR was not being farmed and was in a natural or semi-natural state.<sup>24</sup> While the ALR in a natural state can be important to preserve ecosystem functioning, there are additional areas of agricultural land suitable for production in the Alberni Valley. The ALUI found that there are 502 parcels of ALR land available for farming. This means that the existing land uses and land cover are compatible with agriculture on the parcels.

In the 2021 Agricultural Census, 52 farms reported 853 ha of land in crops.<sup>25</sup> The vast majority of land in cultivation is in tame hay and fodder crops (827 ha).<sup>26</sup> Unfortunately, the Census did not report the total farm area of all 76 farms reporting to the Census in the ACRD, due to data constraints. There are many reasons for the differences in the total farmed area found in the 2016 ALUI (1,462 ha) and the 2021 Agricultural Census (827 ha). The 2021 Agricultural Census only captures farms that report expenses and/or revenues, while the ALUI captures any agricultural land use. This means that the ALUI is more robust at capturing smaller farms, homesteaders, farms not reporting to the Agricultural Census, and horse farms. However, this data does capture the fact that land used for farming has decreased over time in the Alberni Valley, which is corroborated by observation and discussion with key agricultural leaders in the ACRD.

Concerning water use, irrigation is not overly common in ACRD with only 26% (365 ha) of the cultivated land utilizing irrigation.<sup>27</sup> Over one-third (35%) of forage fields were irrigated, while only 2% of pasture fields were irrigated. Giant gun systems were by far the most common irrigation type (86%), followed by sprinklers and then a limited use of trickle systems. In the 2021 Agricultural Census, 15 farms reported irrigating a combined total of 891 acres (361 ha).<sup>28</sup> This number is very similar to the ALUI area found in 2016 to use irrigation, indicating that there has likely been limited additional use of irrigation in the ACRD.

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<sup>22</sup> Ministry of Agriculture. [Agricultural Land Use Inventory Alberni-Clayoquot Regional District](#). 2016.

<sup>23</sup> Ibid.

<sup>24</sup> Ministry of Agriculture. [Agricultural Land Use Inventory Alberni-Clayoquot Regional District](#). 2016.

<sup>25</sup> Statistics Canada. [Table 32-10-0249-01 Land use, Census of Agriculture, 2021](#)

<sup>26</sup> Statistics Canada. [Table 32-10-0309-01 Field crops and hay, Census of Agriculture, 2021](#)

<sup>27</sup> Ministry of Agriculture. [Agricultural Land Use Inventory Alberni-Clayoquot Regional District](#). 2016.

<sup>28</sup> Statistics Canada. [Table 32-10-0368-01 Land inputs, manure and irrigation, Census of Agriculture, 2021](#)



**Figure 5. Livestock farm in the Alberni Valley.**

## 5.2 Farm Characteristics

There are a variety of farm types in the region, which speaks to the diversity of livestock and crops that can be grown. The 2021 Agricultural Census reported that beef and hay were the most common farm types in the ACRD, followed by farms raising several different types of livestock (Table 3).

**Table 3. Number of each type of farm in ACRD. <sup>29</sup>**

	2021	
	# of farms	%
<b>Total</b>	<b>76</b>	<b>100</b>
<b>Beef cattle</b>	14	18
<b>Hay</b>	13	17
<b>Animal combination</b>	11	14
<b>Poultry and egg</b>	8	11
<b>Horse and equine</b>	5	7
<b>Apiculture</b>	5	7
<b>Vegetable</b>	4	5
<b>Fruit, grapes, tree nuts</b>	3	4
<b>Sheep</b>	3	4
<b>Goat</b>	2	3
<b>Crops under cover</b>	2	3
<b>Dairy cattle</b>	1	1
<b>Nursery</b>	1	1
<b>Maple syrup</b>	1	1
<b>Other crop farming</b>	3	4

<sup>29</sup> Statistics Canada. [Table 32-10-0231-01 Farms classified by farm type, Census of Agriculture, 2021](#)

According to the Agricultural Census, 15 farms reported growing field vegetables, which covered an area of 41 acres (17 ha). Cucumbers make up over half of the growing area with 24 acres (10 ha) in production (6 farms reported growing cucumbers).<sup>30</sup> Other field crops grown include sweet corn, tomatoes, green peas, green beans, cabbage, cauliflower, broccoli, brussels sprouts, carrots, rutabagas and turnips, beets, radishes, onions, garlic, celery, lettuce, kale, rhubarb, spinach, peppers, pumpkins, squash and zucchini and other vegetables. Thirteen farms reported growing a variety of fruits including, apples, pears, plums, cherries, peaches, grapes, strawberries, raspberries, blueberries, saskatoon berries, and currants.<sup>31</sup> Cucumbers make up 98.8% of the crops grown in greenhouses, with 31,841m<sup>2</sup> in production.<sup>32</sup> Other crops grown under protection include tomatoes, peppers, herbs, flowers, and potted plants.

It is difficult to get an accurate picture of the number of livestock in the region due to the limited data available. However, it is clear that there are a diversity of livestock animals in the region (Table 4, next page). There are no large-scale poultry operations. There are three dairy farms; two dairy cow and a water buffalo operation.

**Table 4. Animal number on farms in ACRD in 2021.** <sup>33</sup>

	2021	
	# of farms	# of animals
<b>Cattle &amp; calves</b>	24	x
<b>Poultry: layers</b>	32	x
<b>Honeybees</b>	10	x
<b>Sheep &amp; lambs</b>	9	312
<b>Horses &amp; ponies</b>	8	x
<b>Poultry: broilers</b>	8	x
<b>Pigs</b>	8	x
<b>Ducks</b>	5	x
<b>Goats</b>	5	266
<b>Rabbits</b>	4	31
<b>Turkeys</b>	3	x
<b>Other poultry</b>	3	x
<b>Dairy cows</b>	1	240
<b>Deer</b>	1	39
<b>Donkeys &amp; mules</b>	1	x
<b>Llamas &amp; alpacas</b>	1	x

(Note “x” indicates Statistics Canada has not published results because the data collected was unreliable).

<sup>30</sup> Statistics Canada. [Table 32-10-0355-01 Field vegetables, Census of Agriculture, 2021](#)

<sup>31</sup> Statistics Canada. [Table 32-10-0315-01 Fruits, Census of Agriculture, 2021](#)

<sup>32</sup> Statistics Canada. [Table 32-10-0360-01 Greenhouse products, Census of Agriculture, 2021](#)

<sup>33</sup> Statistics Canada. 2021. [Animal Production Tables.](#)

The BC Assessment farm class data is another source of information to understand agricultural activities.<sup>34</sup> The data provides details about the number of commercial farm operations within the ACRD (Table 5, next page).<sup>35</sup> There are 150 parcels with farm tax class in the ACRD. Parcels are classified based on their predominant use. The “Other” farm type indicates that the classifications of BC assessment aren't applicable and could include activities such as apiculture, floriculture, and other activities. The “Mixed” farm type is used when there is no predominant form of agriculture, particularly on a small hobby farm which has several ongoing activities used to meet the requirements of the farm standards.

**Table 5. Number of parcels assessed as farm tax class in ACRD in 2023.**

Farm Type	Number of Parcels
Other	56
Grain & Forage	27
Mixed	24
Beef	17
Dairy	12
Vegetable	5
Poultry	3
Small Fruits	2
Tree Fruits	1
<b>Total</b>	<b>147</b>

The farms in the ACRD are small, with 32% being under 10 acres and 43% having between 10-69 acres (Table 6).

**Table 6. Farm sizes in the ACRD.**<sup>36</sup>

	2021	
	# of farms	%
<b>Total</b>	<b>76</b>	<b>100</b>
<b>Under 10 acres</b>	24	32
<b>10 - 69 acres</b>	33	43
<b>70 – 129 acres</b>	6	8
<b>130 – 179 acres</b>	5	7
<b>180 – 239 acres</b>	3	4
<b>240 – 399 acres</b>	2	3
<b>400 – 559 acres</b>	3	4

<sup>34</sup> The *Assessment Act* is administered by BC Assessment, a provincial Crown Corporation responsible for the classification of properties in for property assessment and tax purposes. Farm classification is a voluntary program providing the benefit of a lowered tax rate for assessed properties. Even though property may be zoned as agricultural land, or located in the provincial ALR, farm classification will only be granted if the land (or at least a portion of it) is being actively used for agricultural production and it meets the other requirements of the Act. Only land can be classified as farmland - buildings (residences and outbuildings) are classified separately. Farm status properties may or may not be located within the ALR and are valuable for noting the distribution of farmed land in both the urban and rural areas. A certain minimum amount of gross income must be produced from the primary agricultural production, and these requirements vary depending on the total land area. Minimum gross income requirements are calculated as follows: \$10,000 on land less than 0.8 ha (1.98 acres); \$2,500 on land between 0.8 ha (1.98 acres) and 4 ha (10 acres); and On land larger than 4 ha (10 acres), you must earn \$2,500 plus 5% of the actual value of any farmland in excess of 4 ha (10 acres).

<sup>35</sup> BC Farm Tax Assessment parcel data, 2023. BC Assessment.

<sup>36</sup> Statistics Canada. [Table 32-10-0232-01 Farms classified by total farm area, Census of Agriculture, 2021](#)

The average age of a farmer in the region is 60. There are 10 farm operators under 35, 25 farm operators between 35-54 and 85 farm operators over 55 years old.<sup>37</sup> Of the 76 farms in the region, 75% of them do not have succession plans. Of the 19 farms that do have succession plans, 13 farms have a verbal plan and 6 farms have written succession plans that include family members.<sup>38</sup>

It is important to note that the Agricultural Census underestimates areas and numbers of crops and livestock within the Alberni Valley. There are horse farms with animals and growing hay, homesteaders growing crops and raising livestock and backyard gardeners, all of whom contribute to the total amount of food produced within the region.

### 5.3 West Coast Agricultural Production

While there is no Agriculture Land Reserve on the West Coast, there is some small-scale agricultural production occurring in the West Coast Communities. While the soil and climactic conditions are not as favourable as the Alberni Valley for food and livestock production, there are a couple of farms, food growing initiatives and backyard gardeners in the region. Forest harvesting for mushrooms and berries also occurs. Soil-based producers run very small operations generally, including produce grown in raised boxes, a farm growing vegetables near the Tofino Airport, and the off-grid Medicine Farm outside of Ucluelet.<sup>39</sup> Many backyard farmer/gardeners have committed buyers for their products and products reported include micro-greens, vegetables, eggs, fruits, rabbits, chickens, and pork.<sup>40</sup> Ucluelet First Nation also had a community garden and aquaponics operation. An agrologist report completed in 2018 noted that using compost, soil amendments and/or growing protection (e.g. a greenhouse or hoophouse), a variety of crops can be grown in the region, such as kale, salad greens, spinach, herbs, peppers, onions, potatoes, tomatoes, and others.<sup>41</sup>



*Figure 6. Yuułuʔiłʔatḥ Garden in hitaču, November 2024.*

<sup>37</sup> Statistics Canada. [Table 32-10-0381-01 Characteristics of farm operators: Age, sex and number of operators on the farm, Census of Agriculture, 2021](#)

<sup>38</sup> Statistics Canada. [Table 32-10-0244-01 Succession plan for the agricultural operation, Census of Agriculture, 2021](#)

<sup>39</sup> Heather Shobe and Hannah Roessler. 2018. [Coastal Addendum to the Alberni Agriculture Plan.](#)

<sup>40</sup> Ibid

<sup>41</sup> Ibid

## 6.0 Fisheries, Shellfish and Marine Plants

Aquatic animals and plants are an important part of the culture and food of the Alberni Valley and West Coast communities. Port Alberni provides direct access through the Alberni Inlet to the abundant waters of Barkley Sound and the West Coast, providing a gateway to a variety of seafood species.<sup>42</sup> Oysters, clams, groundfish, hake, salmon, prawns, crab, halibut, geoduck, urchin, seaweed and kelp are among the species harvested from the Alberni Inlet and Barkley Sound. While abundant, the marine environment is regulated by federal, provincial, and First Nations, for harvesting rights, processing, and overall access to marine foods.<sup>43</sup>

Seafoods and sea vegetables are often overlooked in food systems planning and documents that are typically focused on land-based production. In the *Alberni Valley Agricultural Plan* seafood is only mentioned once in reference to Federal Policy.<sup>44</sup> Marine access is highlighted as an opportunity for trade and tourism in regional documents, while the opportunities for local seafood production appear to be underrepresented. The 2017 Islands Agriculture Show, held in Port Alberni, was the first to include aquaculture and seafood.<sup>45</sup> The *Coastal Addendum to the Alberni Valley Agriculture Plan* highlights these silos and attempts to bridge the gaps between land based and marine based food systems, emphasizing that marine culture is not included within BC's agricultural framework.<sup>46</sup>

The vast majority of locally produced seafood is exported for consumption; thousands of tonnes of surplus fin fish and crustaceans are produced in the ACRD for export markets.<sup>47</sup> BC seafood processors must comply with rigorous safety protocols and reporting standards; small-scale fishers experience challenges in meeting the standards required for retail markets.<sup>48</sup> Fishers can make direct sales from their boats under a Fisher's Vending Licence, which mitigates processing needs and transportation logistics if customers purchase direct from fishers.<sup>49</sup>

Aquaculture producers face unique difficulties of long distances from Clayoquot and Barkley Sound farms to markets, access to labour in remote areas, the need for unique processing equipment, and the necessity of transporting items from farms to consumer markets while keeping product cold (typically on ice or frozen).<sup>50</sup> These logistical complications often compromise profits.<sup>51</sup> Salmon farming, mainly controlled by multinational corporations in Clayoquot Sound, leads regional aquaculture production as seasonal toxin closures and strict health authority testing are cited as limiting the expansion of shellfish operations.

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<sup>42</sup> Alberni Valley Agricultural Plan. 2011-2031. Prepared for: Alberni-Clayoquot Regional District. April 2011. Accessed October 2024.

<sup>43</sup> Interim Report. Coastal Addendum to the Alberni Agricultural Plan. July 2018. Accessed October 2024.

<sup>44</sup> Ibid

<sup>45</sup> Heather Shobe and Hannah Roessler. 2018. [Coastal Addendum to the Alberni Agriculture Plan](#).

<sup>46</sup> Ibid

<sup>47</sup> KPU data

<sup>48</sup> Robert Gunn. 2016. [Support for Shellfish and Marine Plant Culture in the ACRD](#).

<sup>49</sup> British Columbia. Seafood Licensing. <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/fisheries-and-aquaculture/seafood-industry-licensing#licences>

<sup>50</sup> Robert Gunn. 2016. [Support for Shellfish and Marine Plant Culture in the ACRD](#).

<sup>51</sup> Heather Shobe and Hannah Roessler. 2018. [Coastal Addendum to the Alberni Agriculture Plan](#).

As a result of these complications several aquaculture tenures in Barkley Sound are not actively producing.<sup>52</sup>



*Figure 7. Access to Barkley Sound through Alberni Inlet.*

Oyster farming has a deep-rooted history on the west coast, with Nuu-chah-nulth communities cultivating oyster beds for thousands of years. Clam farming has long been a source of local food for First Nations communities in the region and could also offer economic benefits. However, logistical and policy challenges add complexity to expanding this potential. In 2022, the Nuu-chah-nulth Tribal Council partnered with the ACRD to advance food sovereignty initiatives. The initiative identified specific actions for the ACRD to provide support for marine-based food systems, including through restoration of tidal gardens and support through funding initiatives, communications, and capacity building.<sup>53</sup> Table 7 provides a summary of local seafood producers in the ACRD; however it is not an exhaustive list.

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<sup>52</sup> Ibid.

<sup>53</sup> Bringing Nuu-chah-nulth Perspectives to Regional Agri-food Planning. Heather Shobe. 2022. Accessed October 2024.

**Table 7. Seafood producers in the ACRD.**

<b>Producer</b>	<b>Location</b>	<b>Products</b>	<b>Ownership</b>
<b>Tsu-ma-uss Seafoods</b>	Port Alberni	Salmon (sockeye, chinook, chum, coho), geoduck, sea urchins, oysters	Indigenous (Tseshah and Hupacasath Nations)
<b>Nova Harvest Ltd.</b>	Bamfield	Shellfish and shellfish seed (primarily oysters and geoducks)	Private
<b>Effingham Oysters</b>	Barkley Sound	Pacific oysters	Private
<b>Cascadia Seaweed</b>	Barkley Sound	Kelp value add products and seaweed for crop and livestock feed	Private
<b>Nuu-chah-nulth Seafood LP</b>	Port Alberni	Wild smoked salmon, candied salmon, albacore tuna, smoked oysters, canned seafood (Gratitude Seafood brand)	Indigenous
<b>Canadian Kelp Resources Ltd.</b>	Barkley Sound	Sea vegetables (dried sheet and flake products)	Private
<b>Fishful thinking</b>	Ucluelet	Commercial fin fish, crab, prawns available	Private
<b>Neptunes</b>	Ucluelet	Variety of fresh fish, candied salmon, smoked salmon, value add products such as: crab cakes, salmon burgers	Private
<b>Ukee Seafood and Fish Pak</b>	Ucluelet	Salmon, Smoked Salmon, Halibut, Tuna, Crab, Oysters, Prawns and more.	Private
<b>Naas Foods</b>	Tofino	Kelp and value-added products, processing for sport catch.	Indigenous
<b>West Pacific Seafoods</b>	Tofino	Scallops, Dungeness Crab, Clams, Mussels, Oysters, Shrimp, Prawns, Salmon, Albacore Tuna, Ahi Tuna, Sablefish, Halibut, Ling Cod, Rockfish	Private
<b>Dockside Smoked Fish Store</b>	Tofino	Specialize in wild locally caught salmon: chinook, sockeye and chum. Smoked, canned, candied, and a number of value-add products.	Indigenous (Tla-o-qui-aht)
<b>The Fish Store</b>	Tofino	Fresh seafoods like chinook, halibut, ling cod, sockeye, crabs, clams, scallops, Argentina prawns, and value add products.	Private
<b>Lions Gate Fisheries Ltd.</b>	Tofino	Wholesale salmon, crab, halibut, groundfish, shrimp, shellfish, sardine, roe and hake.	Private



**Figure 8. Processed fish storage at the Dock+ in Port Alberni.**

In addition to shellfish, kelp harvesting is another local marine food source. Kelp producers such as Cascadia Seaweed produce locally grown kelp in two Barkley Sound aquaculture operations, and process products at Dock+ in Port Alberni. These operations are conducted in partnership with Alberni Ice to provide critical ice and cooling access and distribution is provided through Kove Ocean Foods.<sup>54</sup> Indigenous-owned Naas Foods engage in wild harvesting of a variety of kelp and value-added product development while ensuring sustainable practices.<sup>55</sup>

Most seafood production in the ACRD occurs in the ocean foreshore or deepwater sites highlighting the need for integrated management of both land and marine-based food systems.<sup>56</sup> Policy barriers across levels of government are highlighted as creating limited opportunities for local access to seafoods as marine tenure application is still managed by the Province and all seafood production and harvest are subject to DFO regulations.<sup>57</sup> This is true for several coastal regions in BC and requires involvement from the Provincial government and policy to support local efforts.

While there are active farms cultivating on seeded lines the majority of kelp and sea vegetable production is managed through wild harvest.<sup>58</sup> Knowledge of the necessary depths and water exchange volumes for successful cultivation can be challenging to replicate in an aquaculture environment, and specialized equipment is required. Harvesting regulations are complex and may limit the expansion of sea vegetable

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<sup>54</sup> Cascadia Seaweed. We are a Growing Company. <https://www.cascadiaseaweed.com/farms>

<sup>55</sup> Naas Foods. <https://naasfoods.com/>

<sup>56</sup> Heather Shobe and Hannah Roessler. 2018. [Coastal Addendum to the Alberni Agriculture Plan.](#); Bringing Nuu-chah-nulth Perspectives to Regional Agri-food Planning. Heather Shobe. 2022. Accessed October 2024.

<sup>57</sup> Heather Shobe and Hannah Roessler. 2018. [Coastal Addendum to the Alberni Agriculture Plan.](#)

<sup>58</sup> Robert Gunn. 2016. [Support for Shellfish and Marine Plant Culture in the ACRD.](#)

production and consumption regionally as the Pacific Rim National Park Preserve, BC Parks, Tla-o-qui-aht Tribal Parks, and other jurisdictional boundaries present complications for harvesters to navigate.<sup>59</sup>

## 7.0 Agriculture and Food Security Infrastructure

Local food system infrastructure is required for the ACRD to increase its food security and resiliency in the face of emergencies. There are several food system key infrastructure facilities in both the Alberni Valley and the West Coast communities; however, more is required to increase economic stability for producers and processors and to bring local foods to residents and tourists.

### 7.1 Meat Processing

Meat processing is regulated at the federal and provincial levels. To sell produce across provincial boundaries and internationally, the facility requires a federal license from the Canadian Food Inspection Agency. There are no federally licensed red or white meat facilities in the Alberni Valley. The Ministry of Agriculture and Food is in charge of regulating and inspecting meat to be sold within the province. In 2007, the province amended meat processing regulations such that licensing and certification was more stringent and involved additional administrative oversight. These changes, along with other challenges in the industry such as the Bovine Spongiform Encephalopathy crisis, resulted in more than 300 abattoirs closing throughout BC. In 2021, following years of review, and in response to shortages of slaughter and processing options, the BC government updated the meat processing licensing system. The new system replaces a Class A, B, D, and E licensing system with new categories of “Abattoir,” “Farmgate Plus,” and “Farmgate” licenses.

Farmgate licenses only allow for the slaughter of 1-5 animal units (an animal unit meaning a combined animal weight, when measured alive, of 455 kg/1,000 lbs) of a farmer’s own animals, and sales are restricted to direct to consumer at Farmgate, and at farmers markets in the regional district and within 50 km of where the meat is produced. There are no Farmgate licenses issued in the ACRD.

Farmgate Plus allows for the slaughter of a farmer’s own animals and limited custom slaughter for other producers, with sales throughout BC to the retail market and direct to consumers. The Farmgate Plus licenses allow producers to slaughter to a maximum of 25 animal units. Currently, there are four Farmgate Plus licenses in the Alberni Valley. Three process cattle, 2 process sheep/lamb, 2 process poultry and 1 processes hogs.<sup>60</sup>

The Abattoir license allows for slaughtering of an unlimited number of animals (a producer’s own and custom slaughter for other producers) with sales to retail or direct to customer across the province. There are no Abattoir licenses within the ACRD. The following is a list of the closest Abattoir facilities for a variety of meats at the time of this document’s publication:

- Gunter Bros Meat Co Ltd: Bison, Cattle, Goat, Hog, Sheep, and Rabbit- Courtenay (120 kms from Port Alberni)

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<sup>59</sup> Ibid.

<sup>60</sup> Licensed Seafood and Meat Processors: [Online Map](#). Accessed September 2024. BC Ministry of Agriculture and Food.

- Stone Croft Farm: Chicken and Turkey - Black Creek (125kms from Port Alberni)

Further meat processing, including cut and wrap, requires a Food Premises Permit obtained from a health authority (e.g., Island Health) for all levels of licensing.

There are a few other meat processing facilities in the Comox Valley and Cowichan Valley. However, it can be very difficult to book processing appointments as there is a high demand on these abattoirs from producers across Vancouver Island and beyond. It is particularly challenging for small-scale producers to book time at processing facilities, as the processors often reserve time slots for larger numbers of animals. The need to ship livestock out of the region to be finished and/or processed is a major economic and logistical concern for producers. During the Cameron Lake wildfire in 2023, multiple producers were faced with getting their animals to market with the only highway into the Valley closed, or using a detour route that increased transport time by hours.

In 2016, an abattoir feasibility study was completed for the Alberni Valley. The study found that with an investment of \$500,000, adequate labour, and an appropriate ownership and management structure (either individual owners or an organization), an abattoir could be established to process the majority of red meat produced in the Valley.<sup>61</sup> Farmers were surveyed as part of this study and 67% of them would expand livestock production if there was a local abattoir. This study noted that the tourism industry within the ACRD could be a substantial market for locally produced and processed meats. Since this report in 2016, several beef producers involved in the survey have stopped raising cattle, citing a lack of an abattoir as one reason for ceasing production.

## 7.2 Seafood Receivers and Vendors and Processing

There are several vendors, receivers and processors of fish, shellfish, and kelp in Port Alberni.<sup>62</sup> Table 7 below is a summary of seafood processors, receivers, and vendors who are either based in the ACRD, or whose product is shipped or sold locally. This is a summary list and is not intended to be exhaustive. Ucluelet is a processing hub for wild-caught finfish, while Port Alberni handles processing of both finfish and shellfish.<sup>63</sup> Selling fresh shellfish locally, especially during summer, is complicated by transportation, processing, and cooling needs, seasonal toxin closures, and health regulations.<sup>64</sup> While there are processing facilities in the ACRD, the majority of the seafood in the ACRD is processed outside the region, primarily in Vancouver.<sup>65</sup>

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<sup>61</sup> ACRD. Abattoir Feasibility Study. <https://www.acrd.bc.ca/cms/wpattachments/wpID254atID2264.pdf>

<sup>62</sup> Licensed Seafood and Meat Processors: [Online Map](#). Accessed September 2024. BC Ministry of Agriculture and Food.

<sup>23</sup> Seafood industry licensing. Accessed October 2024. BC Ministry of Agriculture and Food.

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<sup>65</sup> Robert Gunn. 2016. [Support for Shellfish and Marine Plant Culture in the ACRD](#).

**Table 8. Seafood processors, receivers, and vendors significant to the region.**

<b>Business</b>	<b>Location</b>	<b>Service</b>	<b>Ownership</b>
<b>Dock+</b>	Port Alberni	Ice Plant, cold storage, processing infrastructure	Port Alberni Port Authority
<b>Canadian Seafood Processing Inc.</b>	Port Alberni	Finfish, crustacean, shellfish (cold storage and live tanks)	Private
<b>Cascadia Seaweed</b>	Port Alberni	Seaweed processing and distribution through Kove Ocean Foods	Private
<b>Flurer Smokery</b>	Port Alberni	Smoked fish products (wholesale, custom, value-added processing)	Private
<b>The Codfather</b>	Port Alberni	Smoke house	Private
<b>The Salty Woodsman Goods</b>	Port Alberni	Smoked, frozen fish, value add products	Private
<b>Naas Seafoods</b>	Tofino	Processing fish, wild harvest kelp, dried kelp, value add products	Indigenous
<b>Trilogy Fish Co.</b>	Tofino	Processing of fin fish	Private
<b>Cermaq</b>	Tofino	Commercial fish processing for export	Private multinational
<b>Fishful Thinking</b>	Ucluelet	Cut and seal sport catch, locally caught seafood: Chinook Salmon, Smoked Salmon, Halibut, Prawns, Crab	Private
<b>Neptune Seafood</b>	Ucluelet	Sport-caught fish processing with convenient dockside drop off to custom processing options	Family
<b>Ukee Seafood and Fish Pak</b>	Ucluelet	Sport fish processing, vacuum sealing, freezing, ground or air transport for your catch and international shipping	Private
<b>St. Jean's Smokehouse and Cannery</b>	Nanaimo	Processing of seafoods from Barkley Sound and West Coast	Nuu-chah-nulth Seafood LP



*Figure 9. Fish processing at the Dock+ in Port Alberni.*

### 7.3 Community Food Security Infrastructure, Food Hubs and Storage

Food hubs frequently fall into two categories, those that focus on household food security and food sovereignty, and food hubs that are geared towards community food security. The former often facilitates fresh meals, food literacy, and community development around food, the latter provides storage, processing, and marketing resources for producers and food processors. Several organizations are working on improving household food security in the ACRD through food literacy in community kitchens. For example, the Port Alberni Shelter Society has a teaching kitchen for food workshops, and the Tofino Community Food Initiative hosts workshops at the community hall. Many organizations also exist that provide food for those in need, such as the Salvation Army, school programs, and faith-based organizations, among several others (See Table 2 in Section 3).<sup>66</sup>

The TUCG acts as a distribution hub for farm direct BC grown foods for Tofino and Ucluelet. TUCG provides distribution to many local restaurants in both communities and about 30 household orders each week. With their model centered around weekly orders and freshness, their current storage infrastructure is limited to a week's worth of food; they have received funding through IAF for a generator to power their fridge and freezer in the event of a power outage, although sourcing a generator of that scale on the west coast has proven challenging. There is one larger-scale community food processing hub in Port Alberni, the Dock+. This facility has freezer storage space, a commercial kitchen, and equipment used for processing vegetables, meats, fish, baked goods and preserves. There are several anchor tenants that use the facility to process a variety of foods such as fish, shellfish, seaweed, wild foraged products, chocolate

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<sup>66</sup> Alberni Valley Community Foundation. 2024. [Community Food Offerings](#).

and fermented foods. There is currently space available for new food businesses to become members of the facility to rent the space and equipment.<sup>67</sup>

Food storage is a critical piece of infrastructure for locally grown and processed foods due to the seasonality of production in the Valley and fishing on the West Coast. In 2020, during the COVID-19 pandemic, gaps were identified in food storage capacity.<sup>68</sup> One of the main gaps was the lack of storage for food, livestock feed, and agricultural supplies. These gaps still exist today. Currently, locally produced foods are primarily stored on-site by individual farmers. While the Dock+ facility has freezer storage space that is underutilized, there is no fridge storage space at this facility suitable for storing produce such as root vegetables. This speaks to an overall lack of refrigeration capacity in the region.



*Figure 10. Cold (freezer) storage available at the Dock+ in Port Alberni.*

## 7.4 Distribution and Retail

Food moves through the region along Highway 4, which is the main road into and out of the Alberni Valley and West Coast communities to the east and the west. Highway 4 to the east connects the ACRD to the rest of Vancouver Island, which is the main route taken by distributors of food and goods. Other than Hwy 4, there is a network of logging roads that weave throughout the mountains, which are not suitable for the everyday transportation of goods, livestock and people. In 2023, Hwy 4 was closed between Port Alberni and eastern Vancouver Island due to a wildfire and remained closed following landslide concerns. This closure resulted in a 4-hour detour for foods, medicines, and other essential goods to be re-routed through logging roads in the Cowichan Valley. Having one access road into and out of the Alberni Valley

<sup>67</sup> The Dock+. Welcome to the Dock+. <https://thedockplus.ca/>

<sup>68</sup> ACRD. [Covid Mitigation Action Plan](#). 2020.

and the West Coast communities is a major concern for food security. Additional routes for food supply into and around the region are marine transportation of seafoods via the Port Authority in Port Alberni and docks in Tofino and Ucluelet. There are also airports near Port Alberni and Tofino, through which food is not currently distributed but, in an emergency, these routes could be possible options.

Support systems and infrastructure for collecting, storing, processing, and distributing food to major grocery retail markets have long been established and operate efficiently within the ACRD when Hwy 4 is open. Port Alberni has numerous large-to-medium-scale grocery stores including Walmart, No Frills, Quality Foods, and Buy-Low Foods and there are Co-op grocery stores in Tofino and Ucluelet. The retail grocery industry is increasingly consolidated and operates with a combination of contract and proprietor transportation and storage facilities. Often, opportunities for small volumes of locally produced foods to be sold to these larger grocery stores depend on building relationships with purchasing managers at each store.

Numerous smaller food retail markets in the Valley also sell fresh produce, meats, preserves, and some stock locally produced and processed goods. Some of these include Wesco Foods, Riverbend Café, Fresh Coast market, and several others. Many restaurants also purchase local produce, meats and seafood.

Selling products directly to consumers is a major channel through which local producers access the local market. The 2021 Agricultural Census reported that 43 farms are selling their products directly to consumers, primarily direct delivery to consumers and through farm gate stands (Table 8). Almost half (33 farms) of the 76 reporting farms get 75-100% of their operating revenues by selling direct to consumers. In contrast, 33 farms do not sell any products direct to consumers and obtain their revenues by selling through other channels such as wholesale.

**Table 9. Producers selling direct to consumers in the ACRD.<sup>69</sup>**

	<b>Number of Farms</b>
<b>Total number of farms reporting direct sales</b>	43
<b>Using Farm Gate, Stands, Kiosks, U-pick</b>	24
<b>Using Farmers' Markets</b>	8
<b>Using off-site farm stores or stands</b>	6
<b>Sales of Value-added Products</b>	5
<b>Direct Deliveries to Consumers</b>	26

There are two main farmers markets in the Alberni Valley, one in Cherry Creek and one in Port Alberni that run year-round on Saturdays. They both host a mix of vendors selling fresh foods, processed foods and artisans selling crafts. In 2023 a study found that the economic impact<sup>70</sup> of the Spirit Square Farmers Market in Port Alberni was \$1.06 million with annual direct sales at \$704 thousand.<sup>71</sup> This market has 30

<sup>69</sup> Statistics Canada. [Table 32-10-0242-01 Direct sales of agricultural products to consumers, Census of Agriculture, 2021](#)

<sup>70</sup> This is a measure of the “ripple effect” for every dollar spent at farmers markets, including monies vendors spend on inputs for the products sold.

<sup>71</sup> BC Association of Farmers’ Markets. 2023. [BC Farmers’ Market Economic Impact Study FINAL REPORT: Spirit Square Farmers’ Market.](#)

vendors and participates in the Nutrition Coupon program which provides coupons to lower-income families, pregnant people and seniors to purchase vegetables, fruits, nuts, eggs, dairy, herbs, vegetable & fruit plants, honey, meat and fish (\$36,500 in coupons were distributed in 2023).



**Figure 11. Spirit Square Farmers Market, Port Alberni.<sup>72</sup>**

## 8.0 Climate Change Projections

Responding to weather changes and weather-dependent planning are critical for producers. Adapting to climate change, however, involves a more systematic assessment and coordinated response from all food system participants. Agriculture is highly vulnerable to changes in climatic conditions and even small shifts could have significant consequences for farm viability and food production.

The ACRD has a higher average summer maximum temperature than all other regions on the Island.<sup>73</sup> Projected warming is consistent across the coastlines and valleys of the ACRD even when baselines vary with topography.<sup>74</sup> The ACRD receives the largest amount of annual rainfall on Vancouver Island (mostly on the west coast); climate change modeling predicts an overall increase in annual precipitation of 5% by the 2050s<sup>75</sup> with this concentrated on the coastline and mountains. Agricultural regions in the Alberni

<sup>72</sup> Alberni Valley Tourism. [Port Alberni Farmers' Markets.](#)

<sup>73</sup> BC Agriculture & Food Climate Action Initiative. 2020. Vancouver Island Adaptation Strategies. BC Agriculture & Food Climate Action Initiative. Accessed October 2024

<sup>74</sup> Ibid.

<sup>75</sup> Ibid.

Valley receive considerably less precipitation and drought conditions arise in summer months, with local groups having expressed the need for a water strategy.<sup>76</sup> Projections show both increasing and decreasing precipitation seasonally; increases are expected to occur in winter months in the form of rainfall, with decreases in summer rainfall and winter snowfall, changing the water holding capacity and hydrological systems.<sup>77</sup>

For the ACRD, climate projections from the *BC Agriculture & Climate Change Vancouver Island Regional Adaptation Strategies* suggest significant increases in temperature as early as the 2050s: overall reduced snowfall in winters with increased precipitation as rain, and an extension of the productive season through increased growing degree days and frost-free days.<sup>78</sup> Table 9 offers a more detailed look at the current projections for Vancouver Island inclusive of the ACRD.

**Table 10. Climate Projections for Vancouver Island in the 2020s, 2050s, and 2080s.<sup>79</sup>**

Characteristic	Season or Annual	2020 change from 1961-1990 baseline	2050 change from 1961-1990 baseline	2080 change from 1961-1990 baseline
Temperature	Annual Average	+1.3°C	+2.6°C	+4.2°C
Precipitation	Spring	0%	+2%	+5%
	Summer	- 7%	-13%	-22%
	Fall	+4%	+12%	+20%
	Winter	+5%	+4%	+12%
Growing Degree Days	Annual	+308 degree days	+660 degree days	+1154 degree days
Frost-free days	Annual	+28 days	+48 days	+67 days

These climate changes are likely to increase the risk of extreme precipitation events and extreme heat events.<sup>80</sup> Regional precipitation that was previously a mix of snow and rain is projected to become exclusively rain. This impacts snowpacks and will alter groundwater resources.<sup>81</sup> Warmer and drier

<sup>76</sup> Ibid.

<sup>77</sup> Climate and Agriculture Initiative BC. Regional forecasting. Accessed October 2024.

<sup>78</sup> BC Agriculture & Food Climate Action Initiative. 2020. Vancouver Island Adaptation Strategies. BC Agriculture & Food Climate Action Initiative. Accessed October 2024

<sup>79</sup> Adapted from the BC Agriculture & Food Climate Action Initiative Vancouver Island Adaptation Strategies 2020, accessed October 2024.

<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

summer conditions are a key concern in correlation with increasing precipitation and extreme rainfall events. Potential impacts to agriculture in the ACRD from these changing environmental conditions are described in Table 10.

**Table 11. Climate change conditions and impacts to agriculture within the ACRD.** <sup>82</sup>

<b>Climate Change Conditions and Impacts</b>	<b>Potential Agricultural Impacts</b>
<b>Warmer and drier summer conditions</b>	<ul style="list-style-type: none"> <li>- Decrease in productivity and quality of crops and livestock</li> <li>- Reduction in water supply during times of high demand</li> <li>- Surface water sources are at risk</li> <li>- Adjacent forestry activities use impacting watershed and increasing water runoff</li> </ul>
<b>Increasing precipitation and variability of precipitation (especially in winter)</b>	<ul style="list-style-type: none"> <li>- Shifted planting, input application, and harvesting schedules</li> <li>- Increase in crop losses and risk due to unpredictable frost timing and extreme precipitation events</li> <li>- Increase in soil erosion and moisture management challenges</li> <li>- Interruptions to pollination</li> <li>- Increase in nutrient and input leaching</li> <li>- Increased need for farm management tracking tools to improve resilience and preparedness for changing conditions</li> </ul>
<b>Changing crop suitability due to temperature increases, growing degree days and frost-free days</b>	<ul style="list-style-type: none"> <li>- Inconsistent productivity and quality</li> <li>- Changes to irrigation needs and possible land use competition</li> <li>- Increase in suitability for new crop varieties; opportunity for season extension and additional harvest of certain crops</li> </ul>
<b>Changes in pests and beneficial insect populations</b>	<ul style="list-style-type: none"> <li>- Increase in winter survival rates of pests</li> <li>- Increase in the number of pest cycles in a year</li> <li>- Introduction of new pests and diseases</li> <li>- Increase in delays or prevention of pollination</li> <li>- Impacts on livestock health due to increased pests and diseases</li> <li>- Reduction in pollinator opportunities</li> <li>- Disruption of habitat and populations that enhance crop resilience</li> </ul>
<b>Increase in extreme weather events (rain events, extreme heat)</b>	<ul style="list-style-type: none"> <li>- Decrease in productivity and quality of produce</li> <li>- Increase in building maintenance and damage costs</li> <li>- Increase in cooling and ventilation costs</li> <li>- Interruptions to regional infrastructure and supply lines</li> <li>- Impacts on livestock health and productivity</li> <li>- Increase in waterlogged soil</li> </ul>
<b>Ocean changes including increased temperatures and acidification</b>	<ul style="list-style-type: none"> <li>- Threats to shellfish production by impacting healthy shell development and increasing the risk of disease</li> <li>- Compromises viability of current aquaculture production sites for shellfish and kelp specifically selected for temperature ranges<sup>83</sup></li> <li>- Changes to flow and washout in spawning habitat, damaged estuaries</li> <li>- Increased water temperatures threaten wild salmon population's long term viability and survival.</li> </ul>

<sup>82</sup> Pacific Climate Impact Consortium. [Plan 2 Adapt – Alberni Clayoquot](#). Accessed October 2024.

<sup>83</sup> Robert Gunn. 2016. [Support for Shellfish and Marine Plant Culture in the ACRD](#).

More extreme weather events and longer drier summers with less snowpack availability threaten agricultural production in the region over the next 30 years. Non-agricultural food production methods are also at risk as many seafood habitats will be stressed by climate change. Additionally, the reduction of freshwater availability can limit fish processing which is necessary to access seafood in many coastal communities. An integrated response plan from all food system participants inclusive of water is critical to successfully adapt to the changing climate.

## 9.0 Hazards and Impacts to Food Security

Due to the geographic location of the ACRD and changes in climate, there are numerous environmental hazards and other events that pose a threat to food security. The scope of this project includes examining the following hazards and disruptions:

- Flooding (including tsunami)
- Wildfire
- Drought
- Supply chain interruptions

Each hazard is described in more detail below and Table 11 on Page 32 describes how they may impact food security of the Alberni Valley and West Coast communities.

### **Flooding**

The communities in the ACRD are vulnerable to several forms of flooding events, such as a tsunami, overland and riverine flooding, and dam breaches. Overland and riverine flooding from high rain events and rain-on snow events have caused cause river swelling and localized or extensive flooding of rivers such as the Stamp River and Somass River in the past. Historically, the wet months for the ACRD are between November and March with the highest risk of stormwater flooding in November. With current and future climate trends, stormwater flooding may likely occur on an annual basis.<sup>84</sup>

With respect to dam breaches, BC Hydro operates several dams located within ACRD and up-stream of Port Alberni, Catalyst Paper operates several dam infrastructure on the Stamp River, Great Central Lake, Sproat Lake and Robertson Creek, and the Cherry Creek Waterworks District owns and operates a dam at Lacey Lake. Failure of these dams could result in the flooding of parts of the residential area of the Alberni Valley and may cause Hwy 4 impacts.<sup>85</sup>

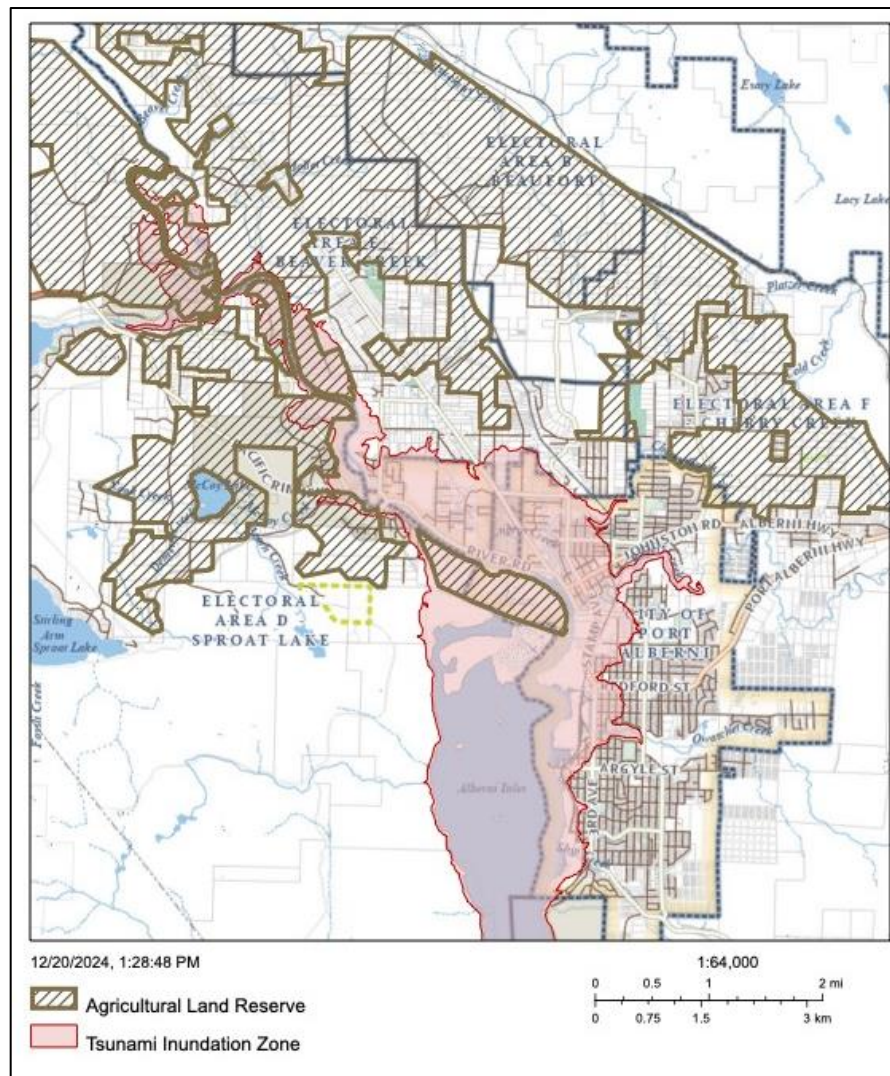
A tsunami could cause impacts to Hwy 4 and communities along the Alberni Inlet, Somass Watershed, Bamfield, Ucluelet, Long Beach and Tofino. Since the ACRD has only experienced one notable tsunami event in the past 100 years, the occurrence of a damaging tsunami event is improbable/rare for the ACRD. However, many communities within the ACRD are located in the one to fifteen metre run up zone, leaving individuals, infrastructure and agricultural land vulnerable to flooding, injury or illness from debris and

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<sup>84</sup> Ibid.

<sup>85</sup> Calian Emergency Management Solutions. 2022. [Evacuation Route Plan for the Alberni Valley](#).

floodwaters, and loss of revenue at commercial operations.<sup>86</sup> Figure 11 (next page), illustrates the ALR land in the Alberni Valley that are within the tsunami inundation zone.



**Figure 12. ALR lands in the tsunami inundation zone.**

## Wildfire

Wildfire is a common hazard in the ACRD and is likely to increase in frequency as global temperatures rise. Wildfires may damage property, critical infrastructure, contribute to poor air quality, and consequently create respiratory challenges. The 2023 Cameron Lake fire and subsequent closure of Hwy 4 between Port Alberni and Parksville highlighted the vulnerability of the ACRD to impacts from wildfires. In the Alberni Valley, wildfires may cause localized or larger-scale evacuations, and farms are often the first areas

<sup>86</sup> Calian Emergency Management Solutions. 2023. [Risk and Vulnerability Assessment to the Alberni-Clayoquot Regional District.](#)

impacted as wildfires approach populated areas. Wildfires damaging property and infrastructure are less of a concern for the West Coast communities, but they are vulnerable to road closures caused by wildfires.

### **Drought**

Both the West Coast communities and the Alberni Valley are vulnerable to seasonal droughts. Between 2016-2023 the West Coast of Vancouver Island experienced “very dry” (Level 3 drought) conditions at least once per year. The consequences of drought may vary depending on the length and severity of conditions in any given year. If the water supply is not significantly disrupted, consequences may range from insignificant to minor in the short-term.<sup>87</sup>

In the Alberni Valley, climate data projects that Beaver Creek will experience the highest number of days with temperatures above 29°C per year between 2021 and 2050. Beaver Creek may also experience the highest temperatures on the hottest day of the year in comparison to surrounding electoral areas. Drought is an annual occurrence in the Alberni Valley that impacts farmer's ability to water crops. With impacts to human and animal health, potential disruptions to outdoor commercial operations, and the opportunity for secondary hazards to occur (e.g. wildfires), extreme heat and drought can have major consequences within the ACRD.<sup>88</sup>

### **Supply Chain Disruption**

The ACRD is vulnerable to several other events, such as earthquakes, landslides/debris flows, severe weather, and global pandemics that may also cause supply chain disruptions. Some of these events will impact transportation interruptions through debris on the road from high wind/rain events, snow/avalanches, falling trees, washouts, downed powerlines, and rockslides.<sup>89</sup> Highway 4 has a history of being closed for both short and extended periods due to events such as storms blowing trees down and wildfires. The ACRD is also vulnerable to other major supply chain disruption events in which impacts extend beyond road closures, such as earthquakes and global pandemics. An earthquake can vary in magnitude which would in turn determine the event of damage to property and infrastructure in the ACRD. Global pandemics and other events outside of the ACRD have the potential to disrupt the food and livestock feed supply chains that the ACRD relies on.

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<sup>87</sup> Calian Emergency Management Solutions. 2023. [Risk and Vulnerability Assessment to the Alberni-Clayoquot Regional District.](#)

<sup>88</sup> Ibid.

<sup>89</sup> Ibid.

**Table 12. Hazards of focus and their potential impact to food security in the ACRD.**

EVENT	POTENTIAL IMPACTS TO FOOD SECURITY
<b>WILDFIRE</b>	Wildfire along Hwy 4 may cut off Tofino, Ucluelet, and the Alberni Valley from the rest of the Island. This could cause disruptions to supply chains and limit access to food supplies, delaying food transport and deliveries (as seen in the 2023 Cameron Lake fires). Food stores may face shortages, and increased demand could impact affordability. Wildfires can cause localized evacuation which would impact farmers with livestock and limited alternative evacuation routes in many communities may make evacuation challenging. Wildfires could damage food security infrastructure like farm crops and agricultural lands, farm infrastructure, and food storage.
<b>DROUGHT</b>	Droughts in the Alberni Valley have to potential to cause crop failures, and livestock stress/death, especially as irrigation systems are not widely used. Severe droughts would likely impact the entire Alberni Valley, leading to additional foods and livestock feed required to be imported from outside of the region. High temperatures could cause negative impacts to farm worker health and labour availability.
<b>FLOODING: TSUNAMI, OVERLAND, RIVERINE AND DAM BREACH FLOODING</b>	All flooding events could damage agricultural areas by contaminating soil and water sources with saltwater and debris, damaging crops and negatively impacting future agricultural capability on the land. Flooding could cause farm infrastructure damage and erode agricultural land. Transportation routes like Hwy 4 could be closed, limiting food access, while prolonged disruptions could impact livestock, water quality, and food processing facilities, leading to both immediate and long-term food security challenges. Flooding can cause localized evacuation which would impact farmers with livestock and limited alternative evacuation routes in many communities may make evacuation challenging.
<b>SUPPLY CHAIN DISRUPTION EVENTS:  EARTHQUAKES, LANDSLIDES/DEBRIS FLOWS, SEVERE WEATHER, GLOBAL PANDEMICS</b>	<p>These events can cause damage to roads and critical infrastructure leading to supply chain disruptions. Local markets may face delays/shortages in food and livestock feed supply, while damage to water systems/ infrastructure could also impact local food production. Road closures also prevent veterinary services from reaching area livestock (as there are no large animal vets within the ACRD) and prevent producers getting their livestock to slaughter (as there are no abattoirs within the ACRD) and their crops to market (e.g. milk). Power outages could lead to refrigeration failure and food loss. Crop damage due to extreme temperatures or winds may affect local production, leading to reduced food accessibility.</p> <p>Global disruptions can reduce food imports, increasing dependency on local food supplies, which may not fully meet demand. Shortages in essential items and increased prices could reduce food access. Labour limitations for processing, and transportation as seen during COVID 19 could exacerbate issues, leading to prolonged supply instability. Some events may cause localized evacuation which would impact farmers with livestock and limited alternative evacuation routes in many communities may make evacuation challenging.</p>

While each event presents its unique impacts on food security, overall these events are similar in that repairs and recovery from each event could take time, affecting continued access and affordability of food.

There are several mitigating strategies for these impacts such as the consideration and development of alternate transportation routes, increasing food and livestock feed storage capacity in the ACRD, and implementing fire and flood resilience practices on farms. Mitigating strategies will be explored further in the Food Security Needs Assessments.

## 10.0 Strengths, Weaknesses, Opportunities, Threats Assessment

A SWOT assessment is a framework used for understanding a situation by studying its strengths, weaknesses, opportunities, and threats. In this case, the SWOT assessment is applied to the regional food system of the Alberni Valley from the lens of food security and emergency management. The strengths and weaknesses are *internal* factors that key food system players such as producers, fishers and food businesses and NGOs have some control over. The opportunities and threats are *external* influences that these key food system players have little control over, but which impact the agriculture and food system. This SWOT assessment (following pages) uses the information gathered in this background report and will inform the food security needs assessments.

<b>Food System Component</b>	<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<i>Environment/ Geography</i>	<ul style="list-style-type: none"> <li>• Extensive access to marine ecosystems throughout the region providing opportunities for seafood cultivation and wild harvesting.</li> <li>• Access to productive forested lands with a diverse number of foods available for harvest.</li> <li>• Numerous lakes, rivers and watersheds traverse the region, including salmon bearing streams.</li> </ul>	<ul style="list-style-type: none"> <li>• Much of the ALR remains forested and has not yet been cleared and/or is owned by private forestry companies.</li> <li>• Many farms are operating outside of the ALR – land is vulnerable to development.</li> <li>• No established ALR in Electoral Areas A or C.</li> </ul>	<ul style="list-style-type: none"> <li>• Climate change increasing growing degree days and the diversity of what can be grown.</li> <li>• Good water and soil quality in the valley.</li> <li>• Growing climate conducive to a variety of crops (extremely long growing season, one of the highest hardiness zones in Canada, and low number of days below 0).</li> <li>• Ocean provides an environment for good fishing and other seafood production.</li> </ul>	<ul style="list-style-type: none"> <li>• Natural disasters such as earthquakes, tsunamis, wildfires, floods, etc.</li> <li>• Only one main route into and out of the community (Hwy 4).</li> <li>• Climate change may increase flooding, fires, drought and extreme weather events.</li> <li>• Invasive species and crop pests/diseases.</li> <li>• Wildlife conflicts (eagles, coyotes, elk, bear, etc.).</li> </ul>
<i>Water/ Irrigation</i>	<ul style="list-style-type: none"> <li>• A few farms have established effective irrigation systems.</li> <li>• Potable water supply is available for small-scale food processing in some Electoral Areas.</li> <li>• Most long-established farms have water licenses for groundwater or surface water.</li> </ul>	<ul style="list-style-type: none"> <li>• Not many farms irrigate (less than 10%) and there is an overall lack of knowledge about irrigation benefits to yields and crop diversity.</li> <li>• Most farms rely on wells and springs which may run dry during a drought event.</li> <li>• Overall lack of on farm water storage.</li> <li>• Tofino’s water supply comes from Meares Island which is a relatively small source given fluctuating seasonal demands.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding exists for water infrastructure studies and possible upgrades.</li> <li>• MAF has been conducting dugout workshops and creating resources for farmers wishing to do on-farm water storage.</li> <li>• The ACRD is investigating water supply options for agriculture.</li> <li>• Very high rainfall that may be used for food production if it can be harvested.</li> </ul>	<ul style="list-style-type: none"> <li>• Not much data has been collected regarding groundwater quality and quantity.</li> <li>• Tourism stresses west coast water system in summer months when demand far exceeds the water system capacity.</li> <li>• Need for freshwater access to process seafoods, including seaweed, shellfish and finfish.</li> </ul>

<b>Food System Component</b>	<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<i>Production</i>	<ul style="list-style-type: none"> <li>• Core base of established, multi-generational farmers exists.</li> <li>• History of farming and homesteaders with regional growing knowledge.</li> <li>• Indigenous-owned businesses and fisheries promote and provide sustainably sourced and responsibly harvested seafoods.</li> <li>• Nuu-chan-nulth knowledge on how to build and manage traditional oyster and clam gardens, as well as harvest from the forest.</li> </ul>	<ul style="list-style-type: none"> <li>• Dependent on imported food from outside the region.</li> <li>• Lack of seasonal, skilled labour.</li> <li>• Cleared ALR land is underutilized for food production.</li> <li>• Lack of consistently locally available feed/ agricultural inputs year to year.</li> <li>• Not all agricultural land is in production.</li> <li>• Underutilized aquaculture licenses in Barkley Sound.</li> <li>• Complex fisheries management policies and licensing systems create barriers for small-scale fishers and First Nations to enter markets.</li> <li>• Restricted access to traditional fishing and harvesting areas affects food sovereignty.</li> </ul>	<ul style="list-style-type: none"> <li>• Forested lands allow for foraging.</li> <li>• Skill development resources are available from the provincial government.</li> <li>• Climate-resilient crops and agricultural practices can be adopted.</li> <li>• Continued growing interest in sustainably sourced kinds of seafood.</li> <li>• Diversification into aquaculture and kelp farming to complement fisheries.</li> </ul>	<ul style="list-style-type: none"> <li>• Aging farming population.</li> <li>• Challenges to increase farming production on private land.</li> <li>• Many producers must work off-farm to make ends meet.</li> <li>• Rising input and operational costs, including farm insurance.</li> <li>• Climate change threatens critical habitat for wild caught seafood species, and existing aquaculture sites are at risk.</li> <li>• European Green Crab threatens juvenile salmon habitat and salmon stocks.</li> <li>• Salmon fish farms harm the health of aquatic environment in Clayoquot Sound impacting wild salmon and other food fish varieties.</li> </ul>
<i>Processing</i>	<ul style="list-style-type: none"> <li>• Some processing and value-added food activities already occurring locally.</li> <li>• Some Farmgate Plus licenses in the region for processing livestock.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of full-scale abattoir.</li> <li>• Limited licensed cut &amp; wrap (butcher) services.</li> <li>• Lack of cold storage.</li> <li>• Lack of production carrying capacity to warrant investment in</li> </ul>	<ul style="list-style-type: none"> <li>• Federal funding initiatives for food infrastructure.</li> <li>• Support from organizations such as the Small Scale Food Processors Association.</li> <li>• Room for more expansion at Dock+ and additional tenants.</li> </ul>	<ul style="list-style-type: none"> <li>• Meat Inspection Regulations, Island Health Food Premises Regulation, and existing abattoir licensing options and costs.</li> <li>• Oyster production must be at scale to afford local</li> </ul>

<b>Food System Component</b>	<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<i>Distribution &amp; Storage</i>	<ul style="list-style-type: none"> <li>• Several community kitchens that can act as small-scale food hubs.</li> <li>• Dock+ infrastructure in place and hosting numerous tenants.</li> <li>• Indigenous-owned businesses provide value-added processing in coastal communities.</li> </ul>	<p>larger-scale processing facilities.</p> <ul style="list-style-type: none"> <li>• Lack of fresh water for large-scale seafood, livestock and crop processing.</li> </ul>	<ul style="list-style-type: none"> <li>• Oyster, seaweed and kelpaquaculture holds significant potential in the region.</li> <li>• Seafood processing creates economic opportunities for remote and Nuu-chan-nulth communities.</li> </ul>	<p>shucking infrastructure/equipment.</p>
	<ul style="list-style-type: none"> <li>• Many farms have individual on-farm storage capacity and have established distribution channels to local consumers.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of coordinated/shared distribution vehicles and access to larger distributors.</li> <li>• Lack of local cold or dry storage options (especially in remote/ west coast communities).</li> <li>• Limited distribution systems reduce availability of fresh food in remote communities.</li> </ul>	<ul style="list-style-type: none"> <li>• Investment in additional food hub infrastructure at Dock+.</li> <li>• Room to grow direct sales dockside in community through Fisher’s Vending Licence.</li> </ul>	<ul style="list-style-type: none"> <li>• Hazards like wildfires, flooding, can close Highway 4 and rural roads within the communities.</li> <li>• High costs of delivery.</li> <li>• Long distances to travel to bigger sales markets.</li> <li>• Distribution system to grocery stores and restaurants tailored to import markets.</li> <li>• Inability to use quota-controlled commodities like milk locally if roads are closed and it cannot get to market.</li> <li>• Distribution costs depend on external forces such as BC Ferries.</li> </ul>

<b>Food System Component</b>	<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<i>Retail &amp; Marketing</i>	<ul style="list-style-type: none"> <li>Existing support from smaller local retailers.</li> <li>Farmers' Markets in Port Alberni are popular.</li> <li>One local farmers' market participates in the Nutrition Coupon program.</li> <li>Some producers have established relationships with buyers.</li> <li>Tofino Ucluelet Culinary Guild serves as a CSA of BC food for restaurants and household purchasers on the West Coast.</li> <li>Culinary tourism events including food festivals and fundraisers (e.g., oyster fest, Boat to Tailgate) spotlight west coast food systems.</li> <li>Local CSAs exist with room for expansion.</li> </ul>	<ul style="list-style-type: none"> <li>Difficulty in establishing and maintaining relationships with restaurants, grocery stores, wholesale buyers.</li> <li>Time consuming for producers to focus on marketing products.</li> <li>Lack of coordination between producers and buyers.</li> <li>Farmers market in Tofino is geared towards artisans rather than food.</li> <li>No food or Farmers Market in Ucluelet.</li> <li>Many small, scattered markets in the Alberni Valley result in low sales and vendor fatigue.</li> </ul>	<ul style="list-style-type: none"> <li>Provincial trend toward institutional (e.g. schools, hospitals) local procurement.</li> <li>Some restaurants are interested and open to purchasing local ingredients.</li> <li>Regional coordinating of marketing.</li> <li>Large numbers of tourists as markets for products.</li> <li>Continued growing interest in locally sourced and sustainable seafood supports markets and restaurants.</li> <li>Growing interest in marketability of sea vegetable products.</li> <li>Initiatives like community-supported fisheries (CSFs) foster direct consumer-producer relationships.</li> <li>Ecotourism growth concerning food such as seafood tours and immersive cultural experiences.</li> </ul>	<ul style="list-style-type: none"> <li>Competitive prices for imported goods.</li> <li>Competition with well-known provincial and national brands.</li> <li>Lack of flexibility by larger retailers around shelf space for small-scale, locally-produced foods.</li> <li>Purchasing food mainly happens at large grocery stores.</li> <li>High costs of fresh seafood limit accessibility for lower-income residents.</li> <li>Overly dependent on one retailer (co-op) in coastal communities.</li> <li>Competition from global industrial scale fisheries.</li> </ul>
<i>Community Characteristics</i>	<ul style="list-style-type: none"> <li>Nuu-chah-nulth Nations provide valuable knowledge of sustainable food systems, traditional ecological knowledge, and stewardship.</li> <li>Strong community organizations championing local food.</li> </ul>	<ul style="list-style-type: none"> <li>Households with low incomes direct food purchasing to budget-friendly options.</li> <li>Difficulty obtaining core funding for community run programs.</li> <li>West Coast economy overly dependent on</li> </ul>	<ul style="list-style-type: none"> <li>Build on existing emergency management plans to increase preparedness and response during an emergency.</li> <li>Supporting and building initiatives started by existing community organizations and programs.</li> </ul>	<ul style="list-style-type: none"> <li>Changes in government funding priorities.</li> <li>Larger regional and global economic forces impacting incomes.</li> <li>High regional under employment and unemployment rates.</li> </ul>

<b>Food System Component</b>	<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
	<ul style="list-style-type: none"> <li>Existing agriculture and food programs offering life skill building and pre-employment training.</li> </ul>	<p>tourism creating a huge seasonal influx of population.</p> <ul style="list-style-type: none"> <li>Alberni Valley economy still resource industry dependent, creating economic uncertainty as lumber prices fluctuate.</li> </ul>	<ul style="list-style-type: none"> <li>Communicating existing resources to producers.</li> <li>Building on existing programs to increase food literacy in the region.</li> <li>Programs and partnerships emphasizing conservation and stewardship for sustainable fishing practices align with consumer wants and tourism expectations.</li> <li>Seasonal tourism economy.</li> <li>Partner with local non-profits to access grants at the intersection of marine stewardship and food systems.</li> </ul>	<ul style="list-style-type: none"> <li>High cost of land and land-use.</li> </ul>

# 11.0 Conclusions

The ACRD has numerous strengths for increasing food system resiliency. The region’s rich marine ecosystems, high-quality soils and water, and the expertise of multi-generational farmers and Indigenous knowledge holders provide a strong foundation for a secure local food system. Challenges for the region include its unique geography and over dependence on certain infrastructure, such as on Highway 4, and the absence of railway lines, which exacerbate vulnerabilities during emergencies. Water access in times of droughts, underutilized agricultural land, and insufficient processing and storage facilities pose ongoing obstacles.

The ACRD has significant opportunities to expand its food system capacity through initiatives like increasing local food production, investing in climate-resilient crops, and diversifying into aquaculture and kelp farming. Programs to support water infrastructure, skills development, and community-supported agriculture/fisheries) models are opportunities to further enhance regional food security. Additionally, the region's culinary tourism and consumer interest in locally sourced, sustainable seafood and agricultural products offer avenues for economic growth and strengthened connections between producers and consumers.

Moving forward, addressing critical gaps such as coordinated distribution systems, accessible processing facilities, and affordable land-use options is critical. Collaborative partnerships between First Nations, local governments, community organizations, and provincial agencies can help align efforts, secure funding, and implement solutions that reflect the region’s unique needs and opportunities. By building on existing strengths within the food system, the ACRD can mitigate the impacts of future emergencies, protecting local communities and ecosystems.



*Figure 13. Farm Infrastructure in the Alberni Valley, September 2024.*

## Appendix A

### List of key documents reviewed

Title	Author / Organization	Year
2024-2027 Strategic Plan	ACRD	2024
ACRD Emergency Services Program	ACRD	2024
Council for Agricultural Water Supply and Producer Led Watershed Data Collection Project	ACRD, Real Estate Foundation BC, Climate & Agriculture Initiative BC, Tropospheric Measurement Systems Inc.	2023
Alberni-Clayoquot Regional District's (ACRD) System Change Project	ACRD, Vancouver Foundation	2023
Memorandum of Understanding Supporting Evacuees with Hobby Farm Animals	ACRD and the Alberni District Fall Fair	2023
Clayoquot Sound Biosphere Region's Vital Signs Report: 2023	Clayoquot Biosphere Trust	2023
Alberni-Valley Food Community Offerings	Alberni-Valley Food Security Society (AVFSS)	2023
Sovereign at heart: photovoice, food mapping and giving back in Alberni-Clayoquot	Curtis, M. J., Bulkan, J., & Soma, T	2023
Agricultural food sufficiency in Alberni-Clayoquot, Canada: an applied history approach	Meagan Joan Curtis, Forestry, University of British Columbia	2023
Communicating Through Wildfire, An Introduction on How To Improve Outcomes for Agriculture & Local Governments	Columbia Basin Trust, Regional District of Kootenay Boundary, Regional District of East Kootenay, and the provincial & federal program: Canadian Agricultural Partnership	2023
Coastal Agricultural Roundtable Strategic Plan_2023	Alberni Clayoquot - What's on Your Fork, Clayoquot Biosphere Trust	2023
Farm Water Supply and Conservation Resources	BC Ministry of Agriculture and Food	2023
Local Government Climate Action Program Survey Submission Report	ACRD	2022
Nuu-chah-nulth Food Sovereignty - Learnings of the Alberni-Clayoquot Regional District	Keefer Ecological Services Ltd.	2022
(Template) Emergency Plan for _____ Farm Preparing for and Responding to Emergencies	ACRD	2021
Farm Emergency Plan Guide to Completing the Template	ACRD	2021
Climate Change Adaptation Plan	District of Ucluelet	2021
Octopus Garden Summary Package 2021	ACRD	2021

ACRD Covid-19 Mitigation and Action Plan for Agriculture (MAP-A)	ACRD	2020
Together for Climate Project Report	Port Alberni	2020
Alberni-Clayoquot Regional District Coastal Communities Food Policy Forum: Final Report	Emily Hansen, Institute for Sustainable Food Systems, KPU	2020
Climate Change Adaptation Program, Regional Adaptation Strategies: Vancouver Island	BC Agriculture & Food Climate Action Initiative	2020
Reactivation vs. Decommissioning Cost Review of the McKenzie Road Water Supply Pump Station	Koers & Associates Engineering	2020
Vancouver Island Adaptation Strategies Plan	BC Agriculture and Food Climate Change Adaptation Program	2020
Alberni-Clayoquot Regional District Climate Change Scenarios	BC Agriculture and Food Climate Change Adaptation Program	2020
Coastal Addendum to the Alberni Agriculture Plan	ACRD	2018
Alberni Water for Growth Report	Heather Shobe	2017
Beaver Creek Water System Infrastructure Assessment Update	Koers & Associates Engineering	2017
Alberni-Clayoquot Regional District Abattoir Feasibility Study - FINAL REPORT	Janco Associates Business Consulting; funding provided by AAFC through IAF	2016
Alberni Valley Food Security Action Plan Framework	Alberni Valley Transition Town Society (AVTTS)	2016
Agricultural Land Use Inventory Alberni-Clayoquot Regional District	BC Ministry of Agriculture and Food	2016
Building a Resilient Food System for the Alberni Valley - A Community Food Assessment (CFA)	Alberni Valley Transition Towns Society	2012
Alberni Valley Food Charter	Port Alberni Farmer's Market. Endorsed by: Alberni Clayoquot Regional District, City of Port Alberni, Alberni Valley Social Planning Council, Alberni Valley Transition Town Society, ACRD Agricultural Development Committee	2012
Alberni Valley Agricultural Plan 2011-2031	Agriculture and Agri-Food Canada (AAFC), the BC Ministry of Agriculture (BCMA) and the Investment Agriculture Foundation of BC (IAF)	2011
Clayoquot Biosphere Region Food Action Plan	Ucluelet Community Food Initiative, Clayoquot Biosphere Trust	2010
Alberni Valley Regional Water Study Update Final Report	Koers & Associates Engineering	2010