

# Research Brief

From the Okanagan Bioregion Food System Project

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## Food Policy Assessment in the Okanagan Bioregion

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### Abstract

Food systems have been largely absent from planning and policy development. At the local level, governments have significant influence over a number of policy domains, such as land use, economic development, social policy etc., yet little attention has been paid to how these decisions impact food system outcomes. As the social, economic and ecological benefits of regional food systems are better understood, local governments and stakeholders are increasingly interested in how policy and planning decisions can positively impact local food systems. This study aimed to understand the alignment between existing policy environments and local food system objectives in the bioregion. A policy evaluation framework was created based on Okanagan food system objectives, developed with input from local stakeholders. A scan of all high-level planning documents, including Regional Growth Strategies, Official Community Plans and Food and Agriculture Plans, was completed to determine the existing areas of policy focus in the bioregion. This study also identified areas for further policy development that could be pursued to advance the local food system objectives. These include 1) farmland access for farmers, 2) prioritizing ecological stewardship in water policy, 3) climate change mitigation capacity in the food system, 4) local post-production sector development, and 5) organic waste management and nutrient recycling. A series of five complementary policy briefs highlight instructive examples from other jurisdictions to inform policy development and local government action in the bioregion.

# Background

In Canada, professional planning agendas have traditionally omitted food systems as an area of legitimate planning interest and policy development (Pothukuchi & Kaufman, 2000; Morgan, 2009). As a field of practice, food systems planning addresses the impacts of the food system on societal and environmental wellbeing. This can include, for example, the influence of the built environment on food access, the effects of farmland loss on the rural economy, the pollution of freshwater from agriculture, or the linkages between food security, poverty, and health. When food systems planning does take place, it has primarily been the domain of provincial and federal governments, driven by interest such as agriculture, food manufacturing, and trade (Lavallée-Picard, 2016; Vitiello & Brinkley, 2014). While the interest in food systems planning has increased in recent years, the industry- focused, and often siloed approach to food policy development at higher levels of government has led to many policy gaps and challenges (Slade, Baldwin & Budge, 2016; FSC, 2015). The impacts of these challenges are often most acutely felt at the local level (MacRae & Donahue, 2013; Robert & Mullinix, 2018; Holt-Giménez, 2017). For example, barriers to food access, pollution, waste management and the viability of rural livelihoods intersect with key areas of local planning, including community health, economic development, and environmental planning.

Embedding food systems planning at the local level can play a critical role in advancing regional food systems. Approaches include public procurement, land use planning, and infrastructure development, among others (Sonnino, 2009; APA, 2007; Pothukuchi & Kaufman, 1999). For example, local land use planning, zoning and regulatory environments influence food distribution, retailing, waste management and farm viability in communities (Haines, 2018; Brinkley & Vitiello, 2014). Neighbourhood design and housing affordability also have profound impacts on household food security and community health (Morgan, 2009; Slade, Baldwin & Budge, 2016).

There are a number of barriers to advancing the emerging field of food systems planning at the local level. These include limited understanding of local level food system impacts and outcomes (Lever, Sonnino & Cheetham, 2019), a narrow scope of food policy (e.g. focus on urban agriculture) (Robert & Mullinix, 2018), divergent interests (e.g. urban vs. rural), and conflicting policy and regulatory environments. In some cases, local governments may be hesitant to advance food systems policy which may involve increasing regulation in an already heavily regulated environment (Allender et al., 2009; Slade, Baldwin & Budge, 2016).

This policy analysis aims to provide a better understanding of the current local food policy environment in the Okanagan bioregion by identifying both areas of existing policy focus and areas for additional policy development that may advance local food system objectives. Additional research was conducted to highlight policy precedents, tools, and approaches from other jurisdictions which could support the development of a bioregional food system in the Okanagan.

## Methods

### Food System Policy Objectives

Our policy analysis was based on a suite of 12 objectives that express desired regional food system values and priorities. These objectives (Figure 1) were derived from feedback collected during local workshops in the Okanagan bioregion in 2019 (See Okanagan Bioregion Food System Stakeholder Feedback Summary).

Existing food policy in the Okanagan was assessed based on its support for these food system objectives. Areas of existing policy focus and potential policy gaps were identified through a systematic scan of local food policy to assess if and how each objective was addressed. This approach is consistent with existing efforts to assess policy foci and gaps within local government support for regional food systems (Robert & Mullinix, 2018; Youmans, 2014).



### Regional Growth Strategies (RGSs)

Strategic plans that directs growth, and long-term planning for regional districts; provides guidance for municipal official community plans. RGSs also provide the basis for decisions about implementation of provincial programs in a regional district (British Columbia, n.d;a)

### Official Community Plans (OCPs)

Long-term planning documents to guide the direction of land use and development for municipalities or designated areas within regional districts (British Columbia n.d;b).

### Agricultural and Food Plans (Ag. and Food Plans)

Strategies outlining policy and planning direction for farmland areas within a community, sometimes extending to other components of the food system. These include planning and policy directives for land use, economic development, waste management etc.

# Okanagan Food Policy Review and Categorization

## Food System Policy Review

The systematic policy review included high-level local government planning documents adopted in the regional districts of Okanagan-Similkameen, Central Okanagan and North Okanagan, and member municipalities/electoral areas (Appendix A). This included, three Regional Growth Strategies (RGSs), 30 Official Community Plans (OCPs), and 11 Agriculture and Food Plans (Ag. and Food Plans). The review was completed in spring-summer 2019. All local government policies were found through official local government websites. Policy not available online during this time were excluded.

The food policy review identified areas of policy focus in the bioregion. Comprehensive planning documents such as RGSs and OCPs set the high-level planning and policy directions for communities across multiple domains, many of which impact food systems directly. Provincial legislation requires these documents be completed and updated by municipalities and regional districts across the province. While local governments have the capacity to implement policies in a variety of ways, greater buy-in and implementation success may be achieved when included explicitly in OCPs and other comprehensive planning documents (Youmans, 2014). While Ag. and Food Plans are not completed by every local government in the bioregion, they are commonly developed in British Columbia to direct the development of agriculture and food sectors and therefore have a meaningful influence on local food system development. In reviewing these high-level planning documents this study aimed to assess the alignment between existing policy and local food system objectives in the bioregion.

## Food Systems Policy Categorization

Once the review was completed, food system policies were categorized according to the food system objectives they addressed (Figure 1). Policies that addressed an objective beyond a general statement of support were coded for a strategy in addition to an objective. For example, a policy categorized under the objective “Preserve agricultural land to be used for food production” may be also assigned a strategy such as “Limit ALR exclusions”, “Support programs for new farmers to access land”, “Regulate and restrict residential uses on agricultural land” etc., depending on the policy intent. If policies directly addressed more than one objective or strategy, multiple objectives and/or strategies were assigned accordingly. Appendix B provides some

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## What is the Okanagan Bioregion?

The Okanagan bioregion is defined by the three contiguous regional districts of the Okanagan - Okanagan-Similkameen, Central Okanagan and North Okanagan. Sixteen municipal governments exist within these regions, with populations ranging from 1,500 to 130,000 people.

- Increase food self-reliance in the bioregion
- Preserve agricultural land to be used for food production
- Develop the local post-production sector
- Increase the local economic impact of the food system
- Enhance the economic viability of farming
- Reduce negative environmental impacts of the food system, including those associated with climate change
- Ensure water use for agriculture does not negatively impact ecological integrity
- Reduce waste associated with the food system
- Protect and enhance wildlife habitat through food system activities
- Increase food security in the bioregion
- Support Indigenous food sovereignty
- Increase opportunities for food system stakeholders to develop personal and organizational connections

Figure 1: Okanagan bioregion food system objectives developed from stakeholder engagement sessions (unranked).

examples of the objectives and strategies used to categorize policy. Researchers followed these steps to categorize each of the food policies in the database:

1. Categorize food system policy according to the objective addressed in the policy.
2. Determine if policies articulate any strategy(ies) to advance the objective and, if so, categorize the policy according to the articulated strategy(ies).
3. If a policy represents multiple objectives, repeat the process for each objective.

## Results and Discussion

### What’s on the planning agenda in the Okanagan?

The policy scan and categorization assessed to what extent local food system objectives (Figure 1) are represented in food system policy in the Okanagan bioregion. While the analysis does not directly evaluate the effectiveness of current policy approaches, it identifies thematic areas that are currently receiving planning and policy attention. Areas of food policy focus were determined based on how frequently project objectives are represented in each plan type (RGS, OCP and Ag. and Food Plans). It is important to note that the number of documents for each plan type is not equal. Therefore, frequency of representation for each objective was calculated separately for each plan type. This representation is shown as a percentage of documents that address the objective in question out of the total number of documents reviewed for each plan type. Table 1 conveys frequency of representation for each objective across the three plan types.

Policy focus areas were identified by reviewing the frequency of representation across three different types of high-level, local government policy documents. Based on this analysis, the most highly represented objectives across all plan types were, 1) preserving agricultural land, and 2) enhance the economic viability of farming. This reflects a planning agenda focused around the capacity and viability of the agricultural sector in the bioregion. Increasing local economic impacts of the food systems is also often represented in all plan types.

### How are communities advancing food system objectives?

The analysis in the previous section identified the areas of food policy focus by determining if food systems objectives were represented in high-level policy documents in the Okanagan bioregion. A secondary analysis reviewed the strategies articulated by food system policies in order to assess how objectives are being advanced. This section does not assess the effectiveness of these strategies at advancing each objective.

#### Increase food self-reliance in the bioregion

There is limited focus on food self-reliance as a policy goal in the bioregion. For the purpose of this scan, strategies that increased or diversified local food production for local consumption were considered to address this objective. Policies supporting increased local food production primarily focused on community level food production through urban agriculture. Common strategies included land inventories to identify space for food production, and encouraging food production on residential properties. These strategies aim to increase food production on lands not currently zoned for agriculture or within the ALR.

Policy Representation:	
RGS	67%
OCP	47%
Ag. and Food Plans	36%

#### Preserve agricultural land for food production

Agricultural land use planning is a well-established area of local government responsibility. While the provincial Agricultural Land Commission establishes many of the regulations for the protection of farmland, local governments have significant influence in the application and enforcement of policy, as well as the ability to further regulate a number of land uses. Strategies for farmland protection at the parcel level through land use regulation are widely supported in the bioregion. At a larger scale, strategies for protecting farmland and promoting

Policy Representation:	
RGS	100%
OCP	87%
Ag. and Food Plans	100%

Table 1: Representation of Okanagan bioregion food system objectives in the Okanagan policy landscape, by plan type.

	RGS Total (3)	RGS %	OCP Total (30)	OCP %	Ag. and Food Plans Total (11)	Ag. and Food Plans %
Increase food self-reliance in the bioregion	2	67%	14	47%	4	36%
Preserve agricultural land to be used for food production	3	100%	26	87%	11	100%
Develop the local post-production sector	2	67%	11	37%	8	73%
Increase the local economic impact of the food system	2	67%	17	57%	10	91%
Enhance the economic viability of farming	3	100%	26	87%	11	100%
Reduce negative environmental impacts of the food system, including those associated with climate change	2	67%	11	37%	10	91%
Ensure water use for agriculture does not negatively impact ecological integrity	3	100%	6	20%	10	91%
Reduce waste associated with the food system	1	33%	6	20%	8	73%
Protect and enhance wildlife habitat through food system activities	0	0%	8	27%	6	55%
Increase food security in the bioregion	2	67%	8	27%	3	27%
Support Indigenous food sovereignty	0	0%	1	3%	2	18%
Increase opportunities for food system stakeholders to develop connections and partnerships	1	33%	11	37%	10	91%

High representation

Low representation

its viability commonly include land use planning tools such as urban containment boundaries and development permit areas. Support for the amalgamation of parcels is another widely represented strategy. Many local governments support stable ALR boundaries and discourage or restrict ALR exclusions, however the strength of the language around this support and related conditions varies considerably across the bioregion.

### Develop the local post-production sector

High-level policy in the Okanagan bioregion provided moderate support for developing the local post-production sector. Ag. and Food Plans provided the most support for this objective in the form of support for food processing infrastructure and value-added opportunities for producers. Other components of post-production, such as locally-oriented storage and distribution infrastructure, received less policy attention.

Policy Representation:	
RGS	67%
OCP	37%
Ag. and Food Plans	73%

### Increase the local economic impact of the food system

Economic viability of farming is widely supported among the local planning documents reviewed. However, policies focused on increasing the local economic impact of the food system as a whole are less common. When present in policy, support for this objective takes the form of support for local retailing opportunities for producers such as farmers' markets, farm gate sales, and community supported agriculture (CSA) programs. Promotion of local food through marketing and branding campaigns is another policy focus, but is not widespread.

Policy Representation:	
RGS	67%
OCP	57%
Ag. and Food Plans	91%

While farmers' markets represent one opportunity for direct marketing, there are other avenues for increasing the local economic impact of the food system by targeting regional demand across the food supply chain. Policy attention to alternative marketing channels such as local institutional procurement, and centralized food hubs for aggregation, storage, processing and distribution of local products is limited.

### Enhance the economic viability of farming

Economic diversification through agri-tourism was identified as a common strategy for supporting farm viability. Mitigating conflicts between agricultural and non-agricultural uses is also commonly linked to farm viability in the bioregion. These policies most frequently takes the form of support for agricultural edge planning to reduce physical proximity, and limit interactions between agriculture and other activities.

Policy Representation:	
RGS	100%
OCP	87%
Ag. and Food Plans	100%

### Reduce negative environmental impacts of the food system, including those associated with climate change

Policy targeted at reducing the environmental impacts of the food system were moderately represented in high-level planning documents. The most commonly articulated strategy to advance this objective was support for agricultural best management practices for manure and pest management. Many policies focused on encouraging farmers to participate in the Environmental Farm Plan to address farm level impacts.

Policy Representation:	
RGS	67%
OCP	37%
Ag. and Food Plans	91%

The bioregion's food policy most frequently addressed climate change in the context of adaptation in the agriculture sector. Policy addressing climate change mitigation within the food system is less common, although a few examples do exist. These include ecological goods and service programs and site-specific farm scale mitigation plans. It is worth noting that climate change policies (e.g. Community Energy and Emissions Plans) were not included in the high-level document review, and there is the possibility that relevant food system policy may exist in these plans.

### Ensure water use for agriculture does not negatively impact ecological integrity

The most common strategies related to agricultural water use focus on support for irrigation efficiency, conservation, and best management practices in the sector. Other strategies include support for participation in watershed level governance and data collection. Strategies that specifically reference healthy watersheds and broader ecosystem water needs such as environmental flows, are addressed in some Regional Growth Strategies, but relatively absent from other plan types.

Policy Representation:	
RGS	100%
OCP	20%
Ag. and Food Plans	91%

## Reduce waste associated with the food system

Relatively few strategies were articulated to advance this objective. Existing strategies were primarily addressed in Ag. and Food plans, with a focus on mitigating the negative environmental impacts of agricultural waste (i.e. manure and crop residue). It was common for these strategies to be connected to broader greenhouse gas emissions reduction targets, and waste-to-energy projects. Existing policy also encourages farmers to adopt best management practices, and participate in the Environmental Farm Plan program to improve agricultural waste management. In some cases, plans propose municipally-supported shared disposal solutions, such as mobile chippers for dealing with tree waste from orchard removal. The reviewed policy also recognized the potential to maximize the value of agricultural wastes, particularly through energy production.

The reviewed plans rarely articulated support for reducing food waste at the institutional and household levels. When present, supporting strategies included improved waste diversion through infrastructure and services (e.g. curbside collection) and encouraging home or onsite composting. It should be noted that there are a number of local government waste management plans in the bioregion that address food waste along with other solid waste management issues that were not included in this review.

Policy Representation:	
RGS	33%
OCP	20%
Ag. and Food Plans	73%

## Protect and enhance wildlife habitat through food system activities

Some policies within the reviewed documents acknowledge the relationship between agriculture and wildlife habitat. Common strategies to support conservation efforts include support for the use of conservation covenants, or recognition of agricultural landscapes as wildlife corridors. Other policies mention protection of natural areas (e.g. grasslands and wetlands), pollinator habitats and the quality of aquatic habitats. In contrast, there are also examples of policies that prioritize the exclusion of agriculture from conservation efforts. In some cases, the provincial Right to Farm Act places priority on agricultural uses over conservation objectives, and is cited by local government.

Policy Representation:	
RGS	0%
OCP	27%
Ag. and Food Plans	55%

## Increase food security in the bioregion

Policies referencing food security primarily focus on increasing physical proximity of residents to affordable food retail. Other strategies identify community food production and urban agriculture as a strategy for addressing food insecurity. Within the reviewed policy, there is very little focus on addressing the socio-economic issues impacting food security. In some cases, policies support the ongoing work of food security groups, committees, and organizations to address food security issues. High-level planning documents rarely expressed food security as a long-term planning goal.

Policy Representation:	
RGS	67%
OCP	27%
Ag. and Food Plans	27%

## Support Indigenous food sovereignty

There were no high-level planning documents in the Okanagan bioregion that recognized or articulated support for Indigenous food sovereignty. In a few cases Indigenous communities themselves, as well as Indigenous governments are recognized as partners in the development of policy for local food systems.

Policy Representation:	
RGS	0%
OCP	3%
Ag. and Food Plans	18%

## Increase opportunities for food system stakeholders to develop connections and partnerships

This objective recognizes the potential of local food systems to increase social capital by developing networks, relationships, and trust among food system stakeholders. In the Okanagan bioregion, policies addressing this objective primarily focus on celebrating and increasing public awareness of local food and agriculture. Existing strategies include support for the ongoing work of grassroots organizations, and establishing local government partnerships with these groups. Other policies aim to bring together food system actors in various committees and planning processes to leverage their work in support of local government objectives.

Policy Representation:	
RGS	33%
OCP	37%
Ag. and Food Plans	91%

# Food System Policy Development in the Okanagan

## Identifying priority areas for policy development

This analysis identifies areas for further food system policy development. Additional research was carried out to better understand the challenges and possible strategies to advance food system policy in these areas.

Areas for further policy development were selected based on the following considerations:

**Existing areas of food policy focus:** The existing strategies used to address each of the project objectives was a key consideration in determining areas for further policy development. For example, fulfilling the objective “Preserve agricultural land for food production” requires both protecting farmland and promoting its use for agriculture. While the objective received widespread support across policy documents, the majority of the supporting strategies focused on agricultural land protection, and few articulated support for the use of farmland for agriculture, or access for farmers. As such, the extent to which existing strategies support a given objective was a consideration in determining areas for further policy development in the Okanagan bioregion.

**Scope of local government influence:** Some aspects of the food system are more readily impacted by the range of tools traditionally available at the local government level, including land use, zoning, property taxes, development permits and procedures, business licensing etc. Similarly, some dimensions of the food system fall more readily within the local government jurisdiction, such as community planning, waste management, sensitive ecosystem protection, etc. Therefore, the degree of potential local government influence was also considered in defining priority areas for additional policy development.

## Advancing policy development

Based on these considerations, five areas were identified for further policy development:

- Supporting farmland access and use by farmers
- Prioritizing ecological stewardship in water planning and policy
- Climate mitigation in the food system
- Supporting local post-production sector development
- Manage organic waste and improve nutrient cycling

For each of the five areas of policy development, a complementary policy brief explores precedents adopted in other jurisdictions [link]. The policy briefs aim to provide instructive context and considerations for local-level policy makers working in these areas.

### Supporting farmland access and use by farmers

The policy review found widespread support for farmland protection within high level policy documents. A number of land use strategies are used to restrict urban encroachment, regulate activities on agricultural land, and mitigate conflict between farming and non-farming land uses. However, the policy review revealed limited support for increasing access to farmland for local food production.

Local governments can adopt additional measures to limit speculative ownership of farmland, maintain the agricultural viability of small parcels, and connect new entrant farmers with land access resources to promote the use of protected farmland for agriculture.

### Prioritizing ecological stewardship in water planning and policy

Water use for agriculture is addressed in current high-level planning documents, however the goal of ensuring ecological integrity as part of water management policy is largely absent.



While the provincial government is the primary Crown authority responsible for fresh water law and regulation, local governments have significant impact on freshwater systems. Local governments impact these systems through the delivery of water utilities, the maintenance of related infrastructure and services, the establishment of water prices and metering and, importantly, through land use planning. The importance of connecting land and water decision-making is a critical avenue of local government policy development to protect the ecological integrity of freshwater resources (Brandes et al., 2020). This will require integrating water-based impacts within local governments' land-based decisions, including zoning, density changes, alterations in paved surfaces, etc. Additionally, while many regulatory planning tools must be triggered at the provincial level, local knowledge, advocacy, and action is essential to their successful development and implementation.

### Climate change mitigation in the food system

Within the Okanagan bioregion, as in many other regions, there is an increasing focus on climate change planning at the local government level. This food policy review revealed that, while there is recognition for the need to adapt agricultural practices in response to climate change, there is little policy attention paid to advancing mitigation strategies across the food system.

Globally, the food system is responsible for 35% of greenhouse gas emissions which contribute to climate change. At the same time agriculture and food system activities are impacted by climate change. Local governments can play a role in advancing necessary climate change mitigation initiatives while also contributing to building more sustainable local food systems. Strategies include building carbon capture potential in soils, supporting sustainable diet choices and developing waste-to-energy infrastructure.

### Supporting local post-production sector development

A post-production sector that processes and distributes food locally is essential to realizing the food self-reliance and economic outcomes of a bioregional food system. While high-level support for the post-production sector including food processing, storage and distribution exists within Okanagan food policy, few strategies are identified to operationalize this support for development of a local post-production sector.

Local governments can support the development of a local post-production sector with planning tools like agricultural enterprise zones, tax incentives for post-production businesses, business development and incubator programs, funding programs and support for skilled labour access and training.

### Manage organic waste and improve nutrient recycling

Food loss and waste have gained international attention as core food system challenges. This has led to global commitments to reduce food waste by 50% over the next 10 years (NZWC, 2018). As a result, food and organic waste is increasingly on local planning agendas. Much of the existing policy addressing food waste in the Okanagan is focused on reducing the amount of food and organic waste in landfills as a strategy for decreasing local GHG emissions and reducing stress on municipal waste management infrastructure.

Local governments have significant influence in the management of municipal waste, including food and organic waste from commercial, institutional and household sources. These organic waste streams contain important nutrients that could support crop production. However, if not properly managed, organic waste streams can lead to nutrient pollution, ecosystem degradation, and increased greenhouse gas emissions. Operationally, strategies to reduce waste and improve nutrient cycling could include new waste management regulations for industrial and commercial sectors, public education, and municipally-supported composting and nutrient recovery infrastructure.

## Additional policy development

The policy areas outlined above target issues that can be meaningfully addressed by local governments and advanced through public policy. However, there are other critical objectives that require broader coalition building, community leadership, and structural change. While these areas have not been selected for further research in this assessment, they remain critical areas of work to advance regional food systems.

The first such issue relates to Indigenous food sovereignty. The scope of this policy review was too narrow to address the many interrelated policy components that can influence Indigenous food sovereignty. It is important to note that this objective was not addressed in any of the reviewed policy documents. While Indigenous food sovereignty must be determined and established by Indigenous Nations themselves, Canada's colonial legacy and ongoing colonial practices within settler society and governments have direct bearing on the ability of Indigenous communities to practice their chosen foodways. These include, but are not limited to, seizing Indigenous land and denying Indigenous people access to their traditional hunting, fishing and gathering grounds, the confinement of Indigenous peoples to increasingly smaller and economically marginal areas, active efforts to erode Indigenous culture and knowledge, systematic exclusion from the agriculture sector, and the social and economic marginalization of Indigenous communities (Truth and Reconciliation Commission of Canada [TRC], 2015; Daschuk, 2013 ). While addressing these injustices requires societal shifts and policy at federal and provincial levels, local governments have a critical role to play as well. Prioritizing conservation and environmental protection in land use planning, increasing support for Indigenous food programs are two suggested pathways (Morrison, 2008). Additionally, the Truth and Reconciliation Commission of Canada's Report addresses municipal governments within their 94 Calls to Action (TRC, 2015.)

The second such issue is food security. While the dynamics impacting food security are complex, it is recognized that poverty and income inequality are the primary causes of household food insecurity in Canada (Tarasuk, Mitchell, and Dachner, 2014). As such, policy advancing food security must address income, wealth inequality and purchasing power. Given the policy scan was limited to planning documents that directly addressed the food system, social and economic policy with critical impacts on poverty reduction were beyond the scope of the study (e.g. affordable housing, accessible transit, childcare). While this assessment does not pursue further research in this area without this important contextual information, food security remains a critical area of public policy development.

## Federal and provincial policy in food systems planning

While this analysis focuses on local government policy interventions, provincial and national policy can present critical opportunities and barriers at the local level through policy directives, regulations, or funding opportunities. For example, the recent Food Policy for Canada outlines a number of national food system priorities and funding support. At the provincial level, Ontario's "Waste Free Ontario Act" sets the goal of zero waste by 2050, which includes policy direction for food and organic waste management and recovery. Policy at other jurisdictions can also restrict local food system development. For example, Meat Inspection Regulations in BC present a number of barriers to accessing suitable slaughter and processing for smaller scale, regionally-focused livestock producers (BC Ministry of Agriculture, 2020; NFU, 2020). Understanding the opportunities presented by other jurisdictions, including the opportunities to advocate for policy change, are important aspects of local-level policy development.

## Conclusion

Local government policy and planning initiatives can have significant impacts on food systems. Land use planning, procurement, social policy, economic development, and sustainability planning are some of the domains that are critically linked to local-level food system outcomes. Centering food systems in planning work, particularly in high-level, comprehensive planning is an important part of advancing regional food system development.

This policy analysis aimed to better understand the Okanagan food policy landscape with the goal of identifying existing areas of policy focus and key areas of additional policy development to advance local food system objectives. Objectives to protect agricultural land for food production and increase the economic viability of farming are most widely represented in high-level planning documents in the bioregion. These policy priorities demonstrate a policy agenda focused on advancing a viable agricultural sector in the bioregion.

The second part of this study identified areas for further food system policy development. These include 1) farmland access and use for farmers, 2) prioritizing ecological stewardship in water policy, 3) climate change mitigation capacity in the food system, 4) local post-production sector development, and 5) organic waste management and nutrient recycling. Supplementary policy briefs provide precedents to illustrate how other communities are advancing food policy in each of these areas. Increasing food security and supporting Indigenous food sovereignty, while outside the scope of this assessment, are additional critically important area for food system intervention.

This assessment looked at high-level policy across the Okanagan bioregion. This geographic scope includes many diverse communities with unique needs and priorities. These findings and conclusions are not limited to any single community, but instead aim to provide insight to advance food systems planning as an emerging area of policy development in the bioregion. Advancing local food system objectives will also require extensive collaboration between communities and across traditional planning boundaries.

## Suggested Citation

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# Appendices

Appendix A: Table of documents included in policy scan, by jurisdiction.

Jurisdiction	Population*	RGS	OCP	Ag. and Food Plan
<b>Regional District of North Okanagan</b>	<b>84,400</b>	yes		yes
City of Armstrong	5,100		yes	
District of Coldstream	10,600		yes	yes
City of Enderby	3,000		yes	
Village of Lumby	1,800		yes	
Township of Spallumcheen	5,100		yes	yes
City of Vernon	48,000		yes	
Electoral Area B & C: Silver Star and BX	7,000		yes	
Electoral Area D & E: Cherryville/Trinity/Creighton Valley	3,700		yes	
Electoral Area F: Grinrod/Grandview Bench/ Ashton Creek/Kindfisher/Mabel Lake/Mara	4,000		yes	
<b>Regional District of the Central Okanagan</b>	<b>194,900</b>	<b>yes</b>		yes
City of Kelowna	127,400		yes	yes
City of West Kelowna	32,700		yes	yes
District of Lake Country	12,900		yes	yes
District of Peachland	5,400		yes	
Electoral Area;: Central Okanagan East	3,800		yes - South Slopes	
			yes - Ellison	
Electoral Area:Central Okanagan West	11,000		yes - Bent Road	
			yes - Trepanier & Rural Westside	
<b>Regional District of Okanagan-Similkameen</b>	<b>83,000</b>	<b>yes</b>		
City of Penticton	33,800		yes	yes
District of Summerland	11,600		yes	yes
Town of Oliver	4,900		yes	yes
Town of Princeton	2,800		yes	
Village of Keremeos	1,500		yes	
Town of Osoyoos	5,000		yes	yes
Electoral Area A: Osoyoos Rural	1,900		yes	(same as Town of Osoyoos)
Electoral Area C: Oliver Rural	3,600		yes	
Electoral Area D: Skaha East & Vaseux	5,900 (D & I combined)		yes	
Electoral Area E: Naramata	1,900		yes	
Electoral Area F: Okanagan Lake West & West Bench	2,000		yes	
Electoral Area H: Princeton Rural	2,000		yes	
Electoral Area I: Kaleden, Apex Twin Lakes & St. Andrews	5,900 (D & I combined)		yes	
<b>Total Number of Documents</b>		<b>3</b>	<b>30</b>	<b>11</b>

\* Statistics Canada Census profile, 2016, population rounded to nearest 100.

## Appendix B: Example of framework used to categorize food policy according to objective and strategy(ies).

### Example 1:

#### **Objective: Preserve agricultural land to be used for food production**

##### *Strategies identified to support objective*

- a. Develop agricultural zoning and protect zones with agriculture as a primary use
- b. Support (innovative) farm and food production uses on small and/or underutilized parcels
- c. Limit and restrict ALR exclusions
- d. Encourage and allow agricultural impact assessment policy and review the impact of development of farmland
- e. Reference and enforce regulation on agriculture land (ensure use compliance with local and provincial regs.)
- f. Review and revise farm class status regulation and other agricultural taxation
- g. Support/ consider adjustments of the ALR boundary that demonstrate a benefit to agriculture
- h. Promote the amalgamation of farm parcels/restrict subdivisions (including establishing and enforcing a minimum parcel size)
- i. Explore, develop and support alternative land tenure types (i.e. long term leases, land trusts, land co-ops etc.)
- j. Support and develop programs to help new farmers access land including leasing
- k. Land use planning to protect agriculture land and encourage farm use (e.g. growth management, Urban Containment Boundaries, Development Permit Areas for the Protection of Farming etc.)
- l. Restrict and regulate residential uses on agriculture land (including considerations for Agri-tourism accommodations)
- m. Restrict/regulate non-farm uses on agriculture land, including expanding servicing, roads, and institutional uses, ag.buildings, recreational uses)
- n. Restrict removal and deposit of soil on ALR lands
- o. Target actions to reduce speculative agricultural land ownership

### Example 2:

#### **Objective: Develop post-production sector capacity to support the type and scale of primary food production**

##### *Strategies identified to support objective:*

- a. Mobilize land use tools to support local post-production e.g. permissive zoning, home-based food related business, agricultural industrial land use, zoning for markets
- b. Support development of post-production infrastructure in specific underserved agricultural sectors (e.g. meat, grain)
- c. Support/encourage partnerships to expand post-production sector opportunities
- d. Encourage innovative structures to improve local food processing and distribution e.g. coops, food hubs, community kitchens
- e. Support on-farm processing where consistent with ALC regulations (excl wineries and cideries)
- f. Support for wineries and cideries on ALR consistent with ALC regulations
- g. Support for on-farm sales
- h. Information gathering and research to support the post-production sector

## About the Institute for Sustainable Food Systems

The Institute for Sustainable Food Systems (ISFS) is an applied research and extension unit at Kwantlen Polytechnic University that investigates and supports sustainable agriculture and regional food systems as key elements of sustainable communities. We focus predominantly on British Columbia but also extend our programming to other regions.

Our applied research focuses on the potential of regional food systems in terms of agriculture and food, economics, community health, policy, and environmental integrity. Our extension programming provides information and support for farmers, communities, business, policy makers, and others. Community collaboration is central to our approach.

## About the Okanagan Bioregion Food System Project

Communities and governments are increasingly looking to strengthen regional food systems as a way to address many complex agriculture and food challenges. The Okanagan Bioregion Food System Project explores the social, economic, and ecological outcomes of a regional food system in the Okanagan. This multidisciplinary research project, initiated by ISFS and regional partners, can guide conversations among communities and decision-makers seeking to advance their regional food system.

The Okanagan Bioregion Food System Project considers and builds upon existing food system planning and other related work to support local and regional food systems in the bioregion.

For the full report and more research briefs visit: [www.kpu.ca/isfs/okanagan-bioregion](http://www.kpu.ca/isfs/okanagan-bioregion)

## Project Funders

