
The Role of Municipalities in Planning for a Sustainable Agri-Food System: a Case Study of Surrey, BC

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LIST OF ACRONYMS

AAC – Agricultural Advisory Committee

ALC – Agricultural Land Commission

ALCA – Agricultural Land Commission Act

ALR – Agricultural Land Reserve

AP – Agricultural Plan

DPA – Development Permit Area

CEEI – Community Energy and Emissions Inventory

COS – City of Surrey

CSA – Community Supported Agriculture

DFO – Fisheries and Oceans Canada

DPA – Development Permit Area

EDS – Economic Development Strategy

ELS – Employment Lands Strategy

EMS – Ecosystem Management Study

FAO – Food and Agriculture Organization

GHG – Greenhouse Gas

IPM – Integrated Pest Management

LG – Local Government

LGA – Local Government Act

LRSP – Liveable Region Strategic Plan

OCP – Official Community Plan

RGS – Regional Growth Strategy

Executive Summary

Agricultural land is either no longer present or is in the process of disappearing from the urban and peri-urban landscape all around the world. A sustainable agri-food system is crucial to a healthy, resilient community. However, urban planning increasingly values urban agriculture in its planning. In communities where significant agricultural land still exists, as is often the case in peri-urban municipalities, it is vital to preserve agricultural land and enhance the viability of the agri-food system. Though agriculture largely remains under federal and provincial jurisdiction, municipalities are often agents of change and are increasingly required to be the vehicle for sustainability, which includes a sustainable agri-food system.

The goal of this research is to support the development of municipal strategies for enhancing the agri-food system, stimulate the local agri-food economy and connect the agri-food system to a sustainable, liveable community. This report identifies how the City of Surrey is planning for the agri-food system and where there are strengths and gaps in this planning. The aim of the report is to influence future planning for the agri-food system in the City of Surrey and illustrate to the City of Surrey and other municipalities how they can address the agri-food system in their planning.

This report reviews six City of Surrey planning documents: the OCP, the Sustainability Charter, the Agricultural Plan, the Economic Development Strategy, the Employment Lands Strategy and the Ecosystem Management Study. These documents were selected because they 1) have an identified role in planning for agriculture 2) affect agriculture and, 3) affect overall city development. These planning elements were reviewed according to a framework of criteria identified as either supporting or constraining a sustainable agri-food system. A sustainable agri-food system has been defined as the socially, economically and environmentally sustainable production, processing and distribution of food.

The OCP includes six main policies related to the agri-food system: Promote compatibility between agricultural and non-agricultural land uses, maintaining agricultural activities, enhancing agricultural viability, coordinating farming and environmental protection, managing water use and drainage, and increase agricultural awareness and community involvement. However, this document focuses on preserving agricultural land and increasing the economic viability of agriculture with most actions supporting land preservation. The largest gaps were in addressing the social sustainability and environmental aspect of the agri-food system - which makes sense given this falls under the jurisdiction of the provincial and federal government.

The Sustainability Charter follows a framework that identifies economic, environmental and socio-cultural scope, as well as sphere of influence and timeframe. The agri-food system is identified as an economic and social scope item, addressing the agricultural land base and food security, focused on production and processing.

The Agricultural Plan includes many areas of focus and illustrates the same trend as the other plans already discussed with a focus on economics primarily. It includes many actions under: agricultural viability, encroachment on the agricultural land base, encroachment on agricultural

operations, and to a lesser degree implementation. It is strong in actions to prevent encroachment and addressing the holistic picture in developing the agri-food sector with a need not only to support production but also the agricultural support service industry as well as processing.

The Official Community Plan (OCP), Sustainability Charter and Agricultural Plan were strongest in their planning for the agri-food system. They were strongest in economic and to a lesser degree social goals for production and processing. They were weakest in addressing the environmental aspects of the agri-food system as well as distribution, which is in-line with their jurisdictional power.

The Economic Development Strategy (EDS) and Employment Lands Strategy (ELS) both provide economic direction for the growth of the City of Surrey. However, they both lack substantive direction on how to foster the economic growth of the agri-food system. The EDS provides strong goals and recommends coordination and the creation of an agricultural ombudsman (similar to the Agricultural Program Manager in the Agricultural Plan). The ELS focuses largely on industrial land as well as office, commercial, and institutional but acknowledges the opportunity the City has of supporting the growth of the agri-business sector as part of their “go green” strategy.

In evaluating the City of Surrey planning documents a trend in strengths and weaknesses was identified. The strength of the documents was the inclusion of the agri-food system at a high-level such as vision, principles, goals or key directions. The plans were strong in developing goals of preserving agricultural land and fostering economic development of the production, and to a lesser degree, processing side of the agri-food system. However, the actions identified were, depending on the plan, not enough to achieve the identified goals of the plan. The overall picture is of a City that would like to preserve and increase the productivity of its agricultural land. The City has taken measures to preserve land, increase community awareness of agriculture, and foster support for buying local but needs further measures to assist in making the agri-food system more economically viable.

Barriers to successful agri-food system planning at the City exist, including: the lack of jurisdiction, and the lack of municipal examples of how to integrate the agri-food system into planning. Nonetheless, the City has an opportunity to integrate agri-food system planning into their sustainability approach to planning. This report recommends the City of Surrey completes the Agri-food System Development Strategy, integrates the agri-food system into the pillars of sustainability, and creates an agri-food system staff position within the City of Surrey.

Preface

My background is in community development grounded in agriculture and resource management. To this research I bring a strong belief in environmental stewardship, the bio-regional localization of the agri-food system, municipal support for the agri-food system, and integrated sustainability planning.

This work contributes to the focus of Dr. Kent Mullinix and Dr. Arthur Fallick, from the Institute for Sustainable Horticulture at Kwantlen Polytechnic University on Municipally Enabled Sustainable Agriculture.

These background influences inform the design and application of the evaluatory framework through which the agri-food system planning in the City of Surrey is assessed.

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Dr. Kent Mullinix and Dr. Arthur Fallick, from the Institute for Sustainable Horticulture at Kwantlen Polytechnic University, provided vision and guided me as part of a larger research group working on developing a framework for municipally supported sustainable agriculture. Caitlin Dorward consistently brought the research team together towards the goals.

The content of the final report is solely my responsibility.

1. Introduction

The agri-food system, as all resource systems, is a social and ecological system (Berkes and Folke, 1998). Political decisions on policy and plans either strengthen the resilience of this social-ecological system or weaken it. All levels of government have a role in planning for the agri-food system; though, the federal and provincial governments play a dominant role in agriculture, Local Governments (LGs) in British Columbia have been identified as key players in addressing the agri-food system. This research addresses the conceptualization of the agri-food system at the local level and identifies how municipalities either support or constrain the sustainability of agri-food systems.

Purpose

The goal of this research project is to develop a framework to assess and inform agri-food system planning at the municipal level and to test it with readily available data for the City of Surrey's agri-food system planning.

This report contributes to municipal planning for the agri-food system by assessing institutional processes, including: established goals, plans, and strategies. The assessment identifies strengths and weaknesses of municipal planning for the agri-food system using a sustainability framework. It identifies which aspects of the agri-food system are focused on in local government planning and where there is a lack of planning; and it is intended to be useful in developing policy recommendations to improve the agri-food system where they are most needed. The assessment also illustrates the tradeoffs between social, environmental and economic priorities and illustrates where the municipality is focused. This research has not looked at the complex political and corporate interactions from local to international that complicate agri-food systems research and policy recommendations.

The City of Surrey is a good case study because it has a large agricultural land-base but also faces population pressures and land-development pressures. It is also one of the BC municipalities that have taken measures towards agri-food system planning; and it has a Sustainability Charter that is intended to direct planning.

The next section discusses the agri-food system and how it is conceptualized in the literature. Section 3 defines sustainability and how agri-food systems contribute to it. Section 4 reviews governance systems in relation to the agri-food system. In Section 5 the City of Surrey is introduced as the case study for the assessment. Section 6 describes the methodology for selecting the planning elements reviewed in this report and the framework created for reviewing the planning elements. Section 7 analyzes the identified planning elements and how they address the agri-food system. Section 8 identifies trends from the analysis of each separate planning element. Section 9 provides general recommendations to the City of Surrey. Section 10 summarizes the overall conclusions from this research. Section 11 discusses priorities for future work beyond this research project. The final section explores recommendations to the City regarding agri-food system planning.

2. Background

2.1 What is an agri-food system?

Many terms describe the agri-food system: food system, food chain, food web, and others. The agri-food system is a complex system made up of intersecting systems and sub-systems; they include relationships between food, economy, health, social development, environmental management, community strength and resiliency (Ericksen, 2007; Van Veenhuizen and Danso, 2007). This report does not try to capture all of these relationships; for the purpose of assessing policies and developing recommendations, it focuses on three key components: production, processing, and to a lesser degree distribution. Ericksen (2007) used these components and one additional one: consumption. The model implemented in the present research, is a simplified model when compared to that developed by Sobal et al. (1998), where three subsystems (producer, consumer, nutrition) and nine stages (production, processing, distribution, acquisition, preparation, consumption, digestion, transport, metabolism) are identified.

Regardless, it is a system, and when analyzing it through a simplified model, as implemented in this research, it needs to be recognized that some of the complexity and dynamic nature of the system will inevitably be lost.

For example, production includes inputs such as land, labour, pesticides and fertilizers, and land management techniques for animal husbandry and fruit and vegetable production. This research does not include foraging for food (i.e., mushroom picking), hunting or fishing.

Processing includes the slaughtering of the animals, the packaging of the product and the change of the product from its original to its sold form.

Distribution and retailing includes the transportation activities that move the product from processing to marketing points and the marketing form: large to small grocery stores, farmers' markets, and alternate systems such as consumer supported agriculture (CSA). However, GHG emissions from the transport of agricultural products are categorized under transportation and not agriculture in the provincial Community Energy and Emissions Inventory (CEEI). Therefore, this report does not consider GHG emissions associated with the transportation of agricultural goods as part of distribution.

2.1.1 Evolution of agriculture and food planning

Traditionally, agri-food system research has been focused on developing countries and rural areas (Mougeot, 2000); and in Europe and North America it has also centred on rural areas and agriculture (Pothukuchi and Kaufman, 1999). More recently, the research has switched to a focus on urban agriculture and the role of cities in food systems (Mendes, 2007; Pothukuchi and Kaufman, 1999; Born and Purcell, 2006). Urban Agriculture has grown in use, in current planning dialogue, but its application does not adequately address the importance of agriculture

within the urban system; therefore, the term agri-food system is used for this report. Urban agriculture includes measures that are undertaken when the City has reduced agricultural capacity (Metropolitan agriculture); it focuses on maximizing food production in an urban landscape either through vacant lands or innovative locations such as rooftops. Urban agriculture is a term used to describe an ideological framework; it is a tool of a sustainable agri-food system but not the vehicle to facilitate a sustainable agri-food system.

Municipalities that maintain agricultural land need to proactively plan for the agri-food system; the urban, peri-urban and rural agri-food system strategies will differ with variables such as political, ecological, geographical and social makeup.

2.2 Why is the agri-food system important?

Food Security is when

all people, at all times, have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 1996).

The Food and Agriculture Organization (FAO) divides Food Security into availability, access, utilization and stability. Food Security is an indicator (rather, a suite of indicators) that points to whether the agri-food system is healthy. However, it does not equate that a sustainable agri-food system will create food security, which is also tied to income security.

The agri-food system is growing in importance because of many current problems that can be grouped into two rationales: human and environmental health. Human health includes problems that are generally discussed under Food Security such as lack of access to food, unacceptable food supply, and inadequate food supply. The human factors that are currently emphasized, due to the growing population facing these problems, are: obesity and diabetes, malnutrition, and healthy food (identified by the growing presence of organic agriculture).

Environmental health includes such problems as climate change; water consumption and pollution (Molden and Fraiture, 2004); a decrease in species diversity (Matson et al., 1997); and soil degradation. Energy consumption and emissions associated with the production, processing and distribution of food is important in the environmental sustainability of the food system but not included in the assessment of City of Surrey planning documents (See Section 4.2.22).

The economic problems of the agri-food system are not as well recognised by the public as the social and environmental issues. Economically, the current agri-food system is unsustainable because farms become bigger, more industrialized, more consolidated (Qualman and Tait, 2004), and more reliant on energy (Matson et al., 1997) while farm incomes have decreased. Economies of scale have created larger, more energy-intensive farming which is a concern as small-scale farming becomes less economically profitable.

3. Where we need to get to: a sustainable agri-food system

3.1 Sustainability and the agri-food system

3.1.1 Defining sustainability for this research

Sustainability is globally understood and has been identified as a key planning goal by the international planning community. An internationally accepted definition of Sustainability created by the Brundtland Commission in their final report, 'Our Common Future' in 1987 is:

development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Since the Brundtland report, all levels of government, decision-makers and planners have been attempting to put sustainable development into action. Sustainability is often called the three-legged stool: including social, economic and environmental pillars. Social sustainability means that the unit of analysis is both socially and culturally acceptable and fortifies the sense of community. Economic Sustainability means that it can be financially viable going forward, for all socio-economic groups. Environmental sustainability means that it is within the ecosystem carrying capacity.

Assessments of sustainability planning are no longer focusing on the desirability of the goal but on how sustainability is being defined and integrated into plans and policies and into the methods of how those plans are created (Mendes, 2007).

3.1.2 What is a sustainable agri-food system?

The current global agri-food system paradigm is unsustainable. To decrease GHG emissions associated with the agri-food system, adapt to climate change, and become more sustainable municipalities need to transition towards an agri-food system as envisioned by Mullinix et al. (2008), and supported by Condon et al. (2010), where agriculture is not seen as traditional urban agriculture that spatially fits only into plots and rooftops. Rather, Mullinix et al. conceptualize the agri-food system as:

the full spectrum of ecosystems and spaces linked to food and agriculture...and their inter-connectedness...inclusive of the full range of agri-food systems elements including processing, transport, distribution, consumption and waste handling/utilization (Mullinix et al., 2008).

A sustainable agri-food system must be considered in terms of the same dimensions as sustainability: social, economic, and environmental. Sustainability of the system necessitates sustainability of the system components: production, processing and distribution.

Where we need to get to: a sustainable agri-food system

A socially sustainable agri-food system is one that: has a vibrant farming community integrated into the community; a population educated in farming techniques and respectful of farmland; passing down of knowledge between farming generations; and a healthy, socially acceptable and plentiful food supply. This research focuses on the sustainability of production, processing and distribution and not consumption and as such, social sustainability within this report does not consider health problems or food justice.

An economically sustainable agri-food system is one that: provides adequate income to those involved in the agri-food system, and provides jobs in the industry.

Environmental sustainability can be equated with the following: healthy water supply, healthy soil, reduced air pollution.

A sustainable socioecological and economic system also needs to be resilient, and have the capacity to adapt to gradual change as well as stochastic events (Gunderson and Holling, 2001, Carpenter et al. 2001). Resilience is “the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks” (Walker et al., 2004). Climate change is creating gradual as well as sudden expected changes to the agricultural system (Scheffer et al. 2001). Given the need to be resilient to these changes, adaptive management of the agri-food system is necessary (Folke et al., 2003; Folke et al., 2005).

3.1.2.1 System boundaries

Defining the system boundaries and elements of which you are assessing sustainability or resilience is important (Carpenter et al. 2001).

This research is based on the idea that a sustainable agri-food system, especially in the face of the energy and climate change crisis, is one that is more local than global; and therefore assesses the City of Surrey planning documents for support of the local agri-food system.

Born and Purcell (2006) make the argument that local is not necessarily more sustainable and it has more to do with conditions than scale. However, Mendes (2007) discusses how sustainability planning, and specifically, food planning was enabled by using the appropriate scale.

The ‘local’ boundary does not inherently signify municipal. However, for this report, local is the municipal jurisdiction because the local government has power within its municipal boundaries to act in ways that support the agri-food system. Regional districts are also empowered to direct agri-food system planning through the Regional Growth Strategy (RGS) though the political boundary isn’t necessarily the right scale either to plan an agri-food system.

To have a healthy diet, with a variety of agricultural products, and consider bioregional agricultural advantages, a bioregional scale is most feasible.

3.1.2.2 Social, economic and environment components

Social

Social sustainability of the agri-food system focuses on humans; it is a strong population of farmers with experience and knowledge in farming. Some of the current social issues within the agri-food system are the lack of trained, experienced people wanting to farm, the lack of understanding of farming within the urban community, growing health problems related to diet such as obesity and diabetes, and the lack of access to affordable food.

Economic

Within peri-urban environments, the land market and the pressures exerted on farmland create an economically unfavourable situation for farmers (Yeomans, 1987). For the agri-food system to be sustainable the farmers need to be earning sustainable livelihoods such that new farmers are attracted into the industry. Furthermore, the agri-business incomes need to be competitive with other employment, and production and processing needs to be fostered so as to take advantage of economies of scale. Unfortunately, in determining where processing facilities will locate, market forces exert more power than do municipalities.

Environmental

The environmental sustainability of the agri-food system is about the ability to continue farming and producing, processing and distributing food without harming the natural environment: species, soil, water, and air. Environmental sustainability in production means that in the production of food the resources that are used in production are not unnecessarily depleted; therefore, production methods must change from intensive, pesticide and fertilizer dependent agriculture to less impactful methods.

Furthermore, the agri-food system is energy intensive in production and distribution. Food miles is a term used to understand the carbon footprint of food, usually associated with the number of miles a food product travels. However, GHG emissions related to the production, processing, and distribution of food products are not attributed to the agriculture sector in BC, as per the CEEI and as such, will not be included in this report's assessment.

Pretty et al. support the food miles approach in the calculation of food's impact on the environment and discuss how emissions are mostly from the large distances food travels. While, a study on key New Zealand (NZ) exports to the United Kingdom (UK), provides a life cycle assessment that includes energy use and carbon dioxide emissions associated with production and transport and find that the energy used in UK production outweighing the carbon dioxide produced by travel between NZ and the UK, concluding that production methods are more important than transportation (Saunders et al., 2006). While, Colman and Paster (2007) argument on emissions and the transportation of food is that the carbon life cycle of products should be calculated and they conclude that in the food-miles debate distance is important but type of transport is the most important.

4. Agri-food system governance

4.1 Governmental determinant of the agri-food system

The agri-food system is affected by many, and intersecting, social, environmental, economic and governance determinants (Ericksen, 2007). This report focuses on the government determinants. Government, similar to the agri-food system, functions through national, provincial and local jurisdictions, and either constrains or supports the agri-food system. The meaning of governance varies with the research setting. It can mean the “conditions for ordered rule and collective action or institutions of social coordination [or]...the structures and processes by which people in societies make decisions and share power” (Folke et al., 2005).

This report addresses municipal decision-making through a review of completed plans. Therefore, this analysis does not include external federal, provincial, regional and local institutions and policies that affect local decisions about the agri-food system. It also does not address the power exerted by the various actors in decisions on the agri-food system at the municipal level: council, staff, and the Agricultural Advisory Committee (AAC).

Hoberg’s (2001) policy creation wheel includes many stages that can be addressed: agenda setting, policy formulation, decision-making, implementation, and evaluation stages. This research is focused on decision-making: “the adoption of a particular course of action or inaction;” and the building blocks for implementation: “putting the policy into effect” (Hoberg, 2001, p.4). Therefore, the research does not look at how the issues came to the table or how the policy directions were evaluated according to technical, political, and fiscal feasibility. Assessment of the decision-making stage is focused on the content; with a look at the goals, objectives and instruments assigned to achieve the objectives within the plans (Hoberg, 2001, p.6).

In considering the plans support for implementation, the analysis was on the “determinants of the success or failure of the policy in meeting its goals” (Hoberg, 2001, p.6). Therefore, the research did not include interviews with the planning department or other stakeholders to determine how the plans were implemented. The factors included in the analysis of the framework for implementation, identified by Hoberg (2001), include the identification of tasks, and clear and consistent objectives.

4.1.1 Role of planning

Planners have the difficult job of balancing ecosystem and human needs when making decisions regarding land-use. Typically, the intended use of land and ecosystems for human purposes outweighs other unintended environmental consequences (DeFries et al., 2004). Agriculture, like other resources and ecosystems, is managed for humans such that trade-offs are made between things like food production and clean water for aquatic life (Ericksen, 2007).

In planning, both the approach and content are important. A progressive approach includes a wide range of stakeholders in a meaningful way, not only to review plans but also to provide

insight and technical know-how. A forward-looking plan that is well structured for implementation includes objectives and implementation measures.

The content of the plan needs to be innovative and not traditional. For example, planning for sustainability and ecosystem resilience is not about certainty in the outcome but needs to be a commitment to continual learning and adaptation to a changing world (Carpenter and Gunderson, 2001). Unfortunately, when attempting to plan for more sustainable, resilient ecosystems, management responds more to fast processes (immediate risks) rather than the slower changing variables that support predictions, which has consequences for climate change planning (Carpenter and Gunderson, 2001).

4.1.1.1 Planning, sustainability and the agri-food system

Sustainability is a governance issue and is central to planning. Planning for the food system within the urban environment has only recently become more prevalent and is still not well understood (Pothukuchi and Kaufman, 1999). There are many perspectives on how community and ecosystems should be managed that need to be considered when discussing agri-food system management. Becker, Ostrom et al. (1995) discuss the need for the management of the resilience and sustainability of resources and systems to be observant, interpret processes and also develop social capacity. Adaptive management, an approach to the management of ecosystem services, which are dependent on geography and management, creates better decision-making (Carpenter et al., 2001; Ericksen, 2008). The integrated approach to sustainability planning is a model that can be used for agri-food system planning.

Mendes (2007) highlights the obstacles to planning for food-systems such as the uncertainty within municipalities over how to implement food policy and where it fits administratively and operationally. The difficulties of agri-food system planning include: organizational approach, allocated power, and a fight for dominance within the field – such as food justice versus environmental stewardship. The administrative seat of agri-food system planning is related to how agri-food system issues are perceived; as either a public health, environmental, or food justice issue, which reflects a disciplinary approach to food system planning. Conflict also arises between the approach to agri-food systems from an equality and anti-hunger approach and a sustainable agri-food system approach. The segregated approach to agri-food systems planning is insufficient and does not recognize the connections between the agri-food system and other planning issues such as “housing, transportation, land use and economic development” (Pothukuchi and Kaufman, 1999).

4.2 Municipalities and the agri-food system

4.2.1 How is agriculture perceived in BC?

Agriculture is seen to be in conflict with urban land uses. Because agriculture produces noise and smells it is seen as a nuisance and thus inherently in conflict with urban areas (Handel, 1998; Yeoman, 1987). Municipalities have policies to create buffers between agricultural land and the urban areas to decrease this conflict. Yeoman’s (1987) masters thesis on the rural-urban conflict in three Metro Vancouver suburbs highlighted that agriculture is seen as a planning issue when in conflict with urban and not as an integrated factor to consider in municipal planning.

Agriculture, and its separation from urban land uses, as compared to real-estate development, economic development and environmental stewardship, is not a primary issue on the planning table. Still, a recent survey shows there is support by the BC populous for the localization of the agri-food system and that agriculture is seen as an important contributor to the BC economy (Ipsos Reid Public Affairs, 2008).

An understanding within the peri-urban planning field of how to integrate agriculture with urban land use has not been established. The agri-food system is a planning issue as it is directly affected by zoning and land use policies and is clearly linked to the urban environment as development encroaches on agriculture, pollutes water and creates increased demand for agricultural products. As such, the agri-food system is not only a planning issue but also integral to urban planning (Born and Purcell, 2006). It is also a planning issue as illustrated by BC residents who value agriculture for primarily local food production but also as a source of green space, wildlife habitat, and nature (Robbins et al., 2009). A study of Metro Vancouver suggests that the public value of natural capital is more than the market value used to value it (Robbins et al., 2009).

Urban municipalities in BC have implemented actions towards food security that take the form of urban agriculture including: the creation of food policy councils, and community projects such as community gardens, community kitchens, food hubs and farmers' markets. Though new comprehensive developments may have rooftop gardens, agriculture has yet to be integrated in a meaningful way. Agriculture is seen in its most traditional frame of reference.

The provincial Agricultural Land Commission Act (ALCA) with the creation of the Agricultural Land Reserve (ALR) preserves agricultural land in British Columbia. Though the ALR preserves land provincially, regional and municipal action is necessary to support the agri-food system. However, viable agriculture requires more than land preservation; enhancing the production, processing and distribution of the local agri-food system is a new area for municipal involvement.

4.2.2 How are BC municipalities empowered to plan for the agri-food system?

Agriculture is largely dealt with at federal and provincial level through the Ministry of Agriculture and Lands and the ALC.

BC municipalities are strongly supported by the Provincial Strengthening Farming Program in their planning for the agri-food system through many actions: provincial support to LGs in the form of Agri-Teams and staff attendance at AAC meetings, and many publications to assist in planning for agriculture such as the Guide for Bylaw Development in Farming Areas.

4.2.2.1 Jurisdictional limitations to Agri-food system planning in municipalities

This report does not have an in-depth analysis of the jurisdictional powers of the three levels of government. This report focused on what municipalities can do to support a sustainable agri-food system within their jurisdiction. Through the Local Government Act, LGs are given the power to regulate land-use through plans, policies, zoning and development permits. Municipalities are

restricted in policy and planning by their jurisdiction and must use these tools within federal and provincial regulations.

The environmental regulation of agriculture largely falls under the jurisdiction of the federal and provincial governments. Fisheries and Oceans Canada (DFO) has jurisdiction over fish and fish habitat under the *Fisheries Act*.

The Provincial government has jurisdiction and governs through: the Code of Agricultural Practice for Waste Management, Waste Management Act, Soil Conservation Act, Pesticide Control Act, Environmental Management Act, the Wildlife Act, the Fish Protection Act, the Riparian Areas Regulation (though it does not apply to agriculture), the Forest Land Reserve Act, the Farm Practices Protection Act and the Agricultural Land Commission Act.

Provincial and municipal roles in agriculture evolve. For example, there was a change to inclusion of the municipal government in the review of applications for exclusion of land from the ALR. Metro Vancouver is presently asking the BC government to take a greater role in restricting the farm home plate – the size and location of housing on agricultural land (Sinovski 2011). When, in 2008, the City of Surrey attempted to pass a bylaw with respect to the same issue it encountered strong opposition.

The role of the market in affecting the agri-food system must be acknowledged. Municipalities can undertake policies and actions to support the agri-food system but the market is a stronger force. Within a market economy the extent of actions the LG can take to exert control over businesses involved in the production, processing, and distribution of food is limited.

4.2.2.2 GHG emissions: the municipal role and agriculture

The Greenhouse Gas Reduction Targets Act (2007) established targets to reduce BC GHG emissions. The Province expects to reduce GHG emissions 33% below 2007 levels by 2020, and 80% below 2007 levels by 2050. Province and municipalities share a common understanding that the effects of climate change are evident across BC, and that municipalities have an important role to play in reducing GHG emissions and meeting the provincial targets.

Municipalities have control or influence over approximately 45% or more of these emissions, and have a role to play at the corporate and community levels. The Climate Action Charter dictates that municipalities must be carbon neutral on the corporate side by 2012. On the community-wide scale, municipalities had to include targets, policies, and actions in Official Community Plans (OCP) by May 2010 and in the Regional Growth Strategy (RGS) by 2011.

Bill 27- Local Government (green communities) statutes amendment act - provides Local Governments with increased power to address climate change, energy and water efficiency. Municipalities are empowered to use DPAs (section 919.9) that impose requirements on developers to protect the natural environment and address water conservation, reduction of GHG emissions and energy conservation. GHG emissions are also addressed in section 920 (sub 10.1 and 10.2) that empower municipalities to require landscaping, siting, form and design, and tree and vegetation placement.

However, Bill 27 does not allocate GHG emissions from production, processing or transportation of agricultural products to the agricultural sector. As such, GHG emissions related to agriculture are very small. Those emissions that are allocated to the agricultural sector are: enteric fermentation or ruminant digestion, manure management, and agricultural soils (e.g., soil disturbance and fertilizer use). Using these categories, the 2007 BC Provincial GHG Inventory Report estimated that agriculture was only directly responsible for approximately 3.5% of BC's total GHG emissions (Ministry of Agriculture, 2011).

4.2.2.3 The peri-urban context and edge planning

The peri-urban environment is a unique planning environment for the agri-food system with significant conflict between urban and agriculture as urbanization and development expands into farmland (Handel, 1998); as such, ideas can be considered from rural or urban environments but they need to be adapted to the peri-urban context.

Lapping and Leutwiler (1988) focus on American right-to-farm laws and point out the need to have laws and regulations to protect farmland, especially in peri-urban areas. Phillips et al. (1999) identify the unique nature of the peri-urban environment and natural resource conceptualization and management approaches. Handel (1998) discusses the many conflicts between urban and agriculture in the California peri-urban environment highlighting the distinctive nature that peri-urban agri-food system planning needs to take. Unlike California, BC has the ALR that restricts development into agricultural areas and nonfarm uses on ALR land that assists with reducing the conflict created by rapid development of agricultural land in the peri-urban milieu.

A 'new focus' of the BC Strengthening Farming Program is on the edge between urban and agriculture. An example of an action targeted at the edge is the designation of a Development Permit Area (DPA) for the "protection of farming" as outlined in the LGA Section 919.1 enabling OCP regulations for landscaping, fencing, and siting of structures, which is considered a form of buffering used to increase compatibility between urban and agriculture. The recent Guide to Edge Planning - Promoting Capability Along Urban-Agricultural Edges looks at how to support the interface between urban and agriculture through the OCP and zoning and farm bylaws. It is a good tool for the physical urban-agricultural interface, which, as it states, "must be recognized as a distinct 'edge planning area'" (Ministry of Agriculture and Lands, 2009). The focus on reducing conflict along the urban-agriculture edges is echoed by planning departments in other locations as seen by the State of Queensland - Department of Natural Resources in their 1997 Planning Guidelines: Separating Agricultural and Residential Land Uses, which focuses on buffers to address noise, pesticide drift, odours, dust, smoke and run-off.

Learmonth et al. (2007) highlight that buffers are not the only approach to deal with urban-agriculture conflict in the peri-urban environment, which also needs to focus on broader strategies for integration and acceptance of agriculture in the peri-urban environment.

5. Surrey: a case study for municipal agri-food system planning

Academics and municipalities are still figuring out how to approach agri-food system planning and policy development at the municipal level. Van Veenhuizen and Danso (2007) identify that “the variety of local conditions and the subsequent diversity of types of [urban agriculture] logically demand a careful analysis of the local context, and carefully designated and differentiated policy measures and action programmes for [urban agriculture].”

5.1 Background on the City of Surrey

The City of Surrey is an important case study in agri-food system planning as it faces huge development pressure and at the same time has some of the most fertile land in British Columbia. Agriculture is both spatially and economically important to Surrey. The City of Surrey is the largest city in Metro Vancouver by area with a rapidly growing population; Surrey’s population is projected to reach 545,000 by the year 2021. A larger portion (2.5%) work in the primary sector (agriculture, forestry, mining) in Surrey than in the rest of Metro Vancouver (1.8%).

The 1984 Economic Development Strategy for Surrey by Ernst and Whinney also highlighted the unique position of Surrey with the appropriate climate, good soil conditions, a strong position in agricultural industry, and a transportation network. The municipality of Surrey historically has a strong farming community within Metro Vancouver and retains a good portion of agricultural land, of which most is preserved by the ALR. Approximately one third (8,692 ha) of Surrey’s total land base is within the ALR, which is 18% of Metro Vancouver’s ALR lands.

Social, economic, and environmental baseline

The City of Surrey has the most agriculture land in Metro Vancouver after Langley. This report does not contain a baseline of the environmental quality of Surrey’s resources and the current impact of agriculture on the environment, nor a look at the social and economic profile of the agri-food system. However, the environmental, social and economic baseline would be an important factor influencing the development of the plans assessed in this report.

It is important to note that agriculture’s impact on the environment is not a major concern in Surrey as no negative impacts have been noted (Kathleen Zimmerman, pers. comm.). This is supported by a 2011 draft report on sediment monitoring in Boundary Bay that found sediment concentrations of metals, PCBs, pesticides, and PAHs remain below different effect levels in marine samples (Tri-Star Environmental Consulting, 2011).

5.2 Surrey planning and the agri-food system

The City of Surrey has a Sustainability Charter guiding them in their planning for a sustainable city. They have identified agriculture as a key element of sustainability and would like to develop ways through which planning can support agriculture in Surrey. The city of Surrey is a good case study of what a peri-urban municipality is doing and can do to foster sustainable agriculture.

The City has many plans that can be referred to when assessing the City's direction towards agriculture: the OCP, Agricultural Plan, Sustainability Charter, Economic Development Strategy, Employment Lands Strategy, and the Ecosystem Management Study. The current OCP was adopted in 1996 and the last review occurred in 2002. The City updates the OCP approximately every five years and it is currently being updated. It is a set of high-level policies and plans that guide land use and community development.

The City is one of thirty-three in the province and seven in Metro Vancouver, including the regional district of Metro Vancouver, which has an Agricultural Plan (AP). The stated purpose of the Surrey AP is to “provide a comprehensive framework for addressing agricultural development issues, resolving rural-urban conflicts, and ensuring the long-term viability of agriculture.”

The City of Surrey appointed a standing Agricultural Advisory Committee (AAC) in 1995 that was charged with developing the Agricultural Plan Implementation Strategy as well as providing advice to Council on agricultural and policy issues.

The Sustainability Charter (SC) provides high-level goals to guide the development of the city. As such, the review of this planning element is focused on providing progressive agricultural goals and the integration of agriculture into other dimensions of planning for the city and a move away from a silo approach to agriculture.

The Economic Development Strategy was prepared in September 2008 by Vannstruth Consulting Group and Eric Vance and Associates. The purpose of the Economic Development Strategy is to build on other City documents and focus on actions. The actions are intended to foster economic growth and promote Surrey as an investment location.

The Employment Lands Strategy (ELS) was prepared by Cushman and Wakefield LePage, Stantec Consulting, and Urban Future in November of 2008 for the City of Surrey; it guides Surrey towards obtaining its vision of a community where residents can both live and work and obtain a more even property tax base. The City does this through guiding principles of sustainability.

A draft Ecosystem Management Study (EMS) was finished in November 2009; and was produced by HB Lanarc and Raincoast Applied Ecology. It updates the City's environmental areas mapping and intends, in phase two, to provide a framework for Ecosystem Management

Planning and Policy Development with an expanded focus on how development depends on the environment.

5.2.1 Actions undertaken to support the agri-food system

The City of Surrey has been aware of the importance of the agri-food system for a long time, and created the first AAC in the province. The City has enacted policies such as the Residential Buffering Adjacent to the ALR/Agricultural Boundary (Policy O-23) and in 2004, the Policy For Considering Applications for Exclusion of Land from the ALR (O-51) to provide criteria for the evaluation of exclusion applications from the ALR. There is also a City procedure for planting of landscaped buffers for residential developments adjacent to the ALR/Agricultural designation effective May 2007.

In 2008, with the goal of reducing the impacts of residential development on the ALR, a bylaw was proposed to amend the 1993 bylaw (No.12000) Related to Regulating the Size and Location of Buildings on Farm Lots, but received significant opposition.

The City of Surrey has also supported the establishment of the Surrey Urban Farmers' Market, the local Harvest Box program, signage at ALR boundaries, the Surrey Farm Fresh Guide and the Flavours of Surrey events to support local food. Concrete actions to support agricultural production have also been taken such as the drainage improvements in the Surrey lowlands and the Nature Matters Program that assists in riparian habitat restoration in the ALR.

6. Methodology

This section discusses how the planning documents were selected and reviewed to reach the goals of the research. The research aims to identify where Surrey municipal planning has been thorough in addressing the agri-food system and where it has not been sufficient. Having identified planning strengths and gaps, I recommend actions to improve the sustainability of the agri-food system in line with the goals outlined by the City and the conceptual framework of a sustainable agri-food system.

6.1 Research methods

This research uses a simplified model to identify strengths and gaps in the local institutional context. The framework of this research is geared for local government to affect the sustainability of the agri-food system as a political determinant. The methodology is designed to identify issues for City of Surrey policy resolution rather than root causes.

This review of planning for the agri-food system does not include an assessment of the different roles and influence exerted by Council, the AAC or planning staff in decision-making. This research assumes that these various bodies have provided input into the direction of the selected planning documents. However, without reviewing the role of the different LG units there is a gap in knowledge about which unit is most or least supportive of the agri-food system.

To address the research questions (Section 6.1) the assessment of agri-food system planning at the City of Surrey was based on the information provided in the selected plans (Section 6.3). The City of Surrey website was also used to address questions regarding implementation of plans and actions taken. Though not included in the scope of this assessment, interviews with municipal staff and AAC members would support the evaluation of the agri-food system planning within the City of Surrey.

6.2 Research questions

This research looks at the role of government at the municipal level, in planning for the agri-food system in Surrey. This report reviews the planning documents created by the City of Surrey that frame Surrey's planning for the agri-food system and illustrates where there are strengths and weaknesses. The general question focused on in this research is: How does planning by the City of Surrey address the agri-food system? Specific questions that this project seeks to address are:

- How do the major plans incorporate the agri-food system; and
- What are the strengths and gaps in the plans for the agri-food system in Surrey.

6.3 Selection of City of Surrey planning documents

There are six planning documents in the City of Surrey that provide direction for the agri-food system that are considered in this research:

- Official Community Plan By-law 12900 (updated to May 17, 2010)
- Sustainability Charter (September, 2008)
- Agricultural Plan (October, 1999)
- Economic Development Strategy (September, 2008)
- Employment Lands Strategy (November, 2008)
- Ecosystem Management Study (Draft June, 2010)

These planning documents were selected because they are either 1) the main documents that plan for the agri-food system identified by the City of Surrey, or 2) include specific directions that either constrain or enable the agri-food system. All the documents were written within the last ten years, approximately; the Agricultural Plan adopted in 1999 being the oldest. The Ecosystem Management Study that is underway is also included as, when completed, will include agriculture within its scope.

6.4 Assessment framework

This assessment framework is to assist with a consistent qualitative review of the planning elements. The framework is structured to enable the review of the decision-making and support for implementation of the policy cycle. This report is not a review of how the issues came to be on the table but how the “solutions” are planned.

The analysis addressed the social, economic and environmental sustainability of the system and the system components (i.e., production, processing and distribution) of the agri-food system. This framework was organized by the agri-food system components to assess and define actions that the municipality can take. Also, the framework, including both the sustainability pillars and agri-food system components, makes it easier to integrate agri-food systems into current sustainability planning.

The established criteria used to assess the sustainability of each agri-food system component are identified in Table 6.4-1. The ranking rationale were selected through a review of actions municipalities in North America are taking as well as recommended actions in toolkits and guides for improving local agri-food system. The impact of the action on the sustainability of the agri-food system was considered prior to inclusion as a criterion within the ranking rationale.

Table 6.4-1 Agri-food system assessment tables

Agri-food System Component	Sustainability Pillars	Ranking (1-4)	Ranking Rationale
Production	<i>Social</i>		<ul style="list-style-type: none"> Support a Harvest Box program aimed at lower income residents Public education programs to encourage buying local agricultural products Support for a year-round farmers' market Integration of agriculture into DPAs Support for farm schools Implement edge planning for all urban-agricultural interface areas Acquire and manage land for agriculture Inclusion of agri-food community in creation of agri-food policies and regulations Support housing for seasonal and permanent agricultural workers
	<i>Economic</i>		<ul style="list-style-type: none"> Public education programs to encourage buying local agricultural products Tax breaks for farm land owners Support to develop direct-marketing techniques Bylaws to maintain farm uses of agricultural land and limit non-farm uses Acquire and manage land for agriculture Implement legal tenures for non-owners to LG land Include agricultural land as an amenity contribution in exchange for increased density Promote labeling for locally/regionally produced/processed agricultural products Encourage local food purchasing by institutions Support multiple agricultural uses in one zoning
	<i>Environmental</i>		<ul style="list-style-type: none"> Create a tax exemption for land left in its natural state Encourage environmentally-sensitive practices

Agri-food System Component	Sustainability Pillars	Ranking (1-4)	Ranking Rationale
Processing	<i>Social</i>		<ul style="list-style-type: none"> Acceptance of odour/noise produced by processing facilities in the community Inclusion of agri-food system (production, processing, distribution) into mixed-use developments Inclusion of agri-food community in creation of agri-food policies and regulations
			<ul style="list-style-type: none"> Corporate procurement policy to buy locally produced products with less packaging Support for value-added processing Support to develop direct-marketing techniques Inclusion of agri-food system (production, processing, distribution) into mixed-use developments Include locally-owned processing and marketing facilities as an amenity contribution in exchange for increased density Support an agricultural enterprise zone Promote labeling for locally/regionally produced/processed agricultural products Encourage local food purchasing by institutions Support multiple agricultural uses in one zoning
	<i>Economic</i>		
	<i>Environmental</i>		<ul style="list-style-type: none"> Encouragement of reduced packaging

Agri-food System Component	Sustainability Pillars	Ranking (1-4)	Ranking Rationale
Distribution	<i>Social</i>		<ul style="list-style-type: none"> Support pocket markets and food banks in underserved areas Inclusion of agri-food system (production, processing, distribution) into mixed-use developments Inclusion of agri-food community in creation of agri-food policies and regulations
			<ul style="list-style-type: none"> Support farm gate sales, CSA's, and local farmers' markets Retail tax exemption- lower cost business license or property tax if devoting % of store to local products
	<i>Economic</i>		
	<i>Environmental</i>		<ul style="list-style-type: none"> Public education programs to encourage buying local agricultural products Support farm gate sales, CSA's, and local farmers' markets Encourage food hubs

The documents are reviewed and graded on the sustainability (social, economic, and environmental) of each agri-food system component on a four-point scale (Table 6.4-2). If the criteria are not met in the document it is ranked as a 1 – did not fulfil.

Table 6.4-2 Ranking scale descriptions

Rank	Description
1	Did not fulfil
2	Somewhat fulfilled
3	Satisfactorily fulfilled
4	Successfully fulfilled

6.4.1 Assessment approach

The assessment framework (Table 6.4-1) is used to evaluate the agri-food system planning of the selected plans. It is a highly judgemental and qualitative assessment. An evaluation of the strengths and gaps in the agri-food system planning is performed using the established criteria.

The assessments for each planning document include this table filled in with plan elements that meet the criteria and contribute to the ranking. The four-point scale used to rank the sustainability of the agri-food system components does not directly relate to the number of points from the plans included in the assessment tables for each plan. That is, if there are many plan elements in one section of the table it does not mean that this component will necessarily receive a higher score. The merit of the plan elements is also considered against the ranking rationale.

Also, the jurisdictional ability of the municipality to influence the agri-food system component and sustainability pillar is taken into consideration. Overall, given their jurisdiction, municipalities have less power to influence the environmental aspects of the agri-food system than the social and economic as well as less power to affect distribution. Therefore, less plan elements are required under Environment to receive a higher ranking. Furthermore, the plans are assessed according to the expectations of the planning document. For example, the economic planning documents (EDS, ELS) are not expected to include as many social and environmental actions as compared to environmental actions whereas the SC would be expected to contain strong social, economic and environmental directions.

7. City of Surrey planning for the agri-food system

This section describes how the City of Surrey has planned for the agri-food system. The planning documents reviewed are the Official Community Plan, the Sustainability Charter, the Agricultural Plan, the Economic Development Strategy and the Employment Lands Strategy.

The discussion of each planning document includes 1) a summary of how the agri-food system was addressed in the document 2) a discussion of approach, 3) a discussion of the strengths and gaps of how the agri-food system was included, and 4) an assessment of the agri-food system planning according to the framework.

7.1 Official Community Plan

7.1.1 How is the agri-food system included?

Agriculture is addressed as one of the ten planning strategies in the OCP: Protect Agriculture and Agricultural Areas. This strategy is divided into issues and policies that address six main directions:

- Promote compatibility between agricultural and non-agricultural land uses,
- Maintain agricultural activities,
- Enhance agricultural viability,
- Coordinate farming and environmental protection,
- Manage water use and drainage, and
- Increase agricultural awareness and community involvement.

The OCP designates land for agriculture, industrial, commercial, residential and conservation purposes. The OCP designates 10,000 hectares, 31.5% of land area, as agricultural. The agricultural zones are: A-1 General Agriculture Zone and A-2 Intensive Agriculture Zone. Suburban designation in the OCP addresses the transition between the urban/agricultural interfaces. The City requires a Development Permit (Agricultural Protection Development Permit Area) for developments along the land designated Agricultural by the OCP to reduce land use conflicts and encroachment on agricultural land.

7.1.2 Assessment of agri-food system Content

Approach and implementation

OCPs set out key directions and policies to guide municipalities in their development. The Surrey OCP does not identify if there were stakeholders involved in the creation of the plan. The

plan includes statements regarding coordinated action in implementation that would lead to a stronger agri-food system: “Work with the City’s Agricultural Advisory Committee, the Agricultural Land Commission, and local farmers to develop alternative, higher uses of existing agricultural activities, including agri-industrial uses.” It identifies that the Agricultural Advisory Committee will assist in the pursuit of the objectives and strategies in conjunction with the Agricultural Plan. The Engineering Department will be included in work to decrease drainage impacts.

The supportive agri-food system policies include: supporting agricultural practices, enhancing agricultural viability, and increasing agricultural awareness and community involvement. However, these policies are vague and do not address how they intend to be implemented. The agricultural zoning and the Agricultural Protection Development Permit Area, landscaped buffer between residential and agricultural land, and the Policy for Considering Applications for Exclusion of Land from the Agricultural Land Reserve are mechanisms that assist with the preservation of agricultural land. But, there is not an indication of the extent to which the municipality is prepared to take further action to support the agri-food system.

Strengths

The plan outlines that land will be preserved and farming promoted. Most of the policy directions are focused in the economic growth of the agri-food system rather than on the social sustainability of the agri-food system. The strongest area of the plan is the connection between the agri-food system and the economy for production, processing and to a lesser degree distribution. The City states that it will support agricultural practices and enhance agricultural viability with support and encouragement for local production, processing and distribution. Policy B-8.1 Promote Agriculture as an Economic Growth Sector is a positive direction for Surrey to take with the development of value-added and service industries. Other policies support this goal through supporting agri-industry and value added agricultural activities as well as on-farm processing and retail. This is strong policy creation to support the preservation and economic viability of local agriculture and requires city action to implement.

The environmentally focused policies in the OCP are on production and go to the extent of drainage and a generalized acknowledgement of farm practices: Policy F-1.4 Support sound environmental farm practices, wildlife management and habitat protection. Environmentally, a weakness in the plan is that it does not address climate change adaptation, but this is likely due to the date of the OCP.

Weaknesses

Most of the policies focus on land preservation rather than fostering agri-food system viability. The weakness of the agri-food system content was its lack of addressing the social sustainability of the agri-food system. The only mention of the social sustainability of the agri-food system was Policy F-1.6: Increase agricultural awareness and community involvement.

The indicators identified in the plan are not sufficient to judge the goals set out; they are measuring area of active farmland, amount of designated agricultural land, amount of land in the ALR, amount of land zoned for agriculture and not economic success or development of

processing and local distribution. There are no indicators that assess the sustainability of the agri-food system such as workforce employed, income, techniques used or percentage goods sold locally.

Table 7.1-1 Assessment of Agri-Food Content in the OCP

Production is most supported in its economic sustainability within the OCP. Agriculture is seen as an economic growth sector. Control of the growth of the city is through densification rather than sprawl, which signifies an acknowledgement of the need to preserve agricultural land. There is acknowledgment of the need to support not only preservation of land but also agricultural activities. The environmental aspect of production is also addressed through drainage and support of “sound environmental farm practices, wildlife management, and habitat protection.” Though the OCP has a policy to increase agricultural awareness and the social sustainability of the agri-food system its approach to balancing urban with agriculture is buffering one from the other.

Agri-food System Component	Sustainability Pillars	Ranking (1-4)	Ranking Rationale
Production	<i>Social</i>	2	<ul style="list-style-type: none"> Key Direction A-3 identifies balancing suburban lifestyles with future development potential where its relationship to agriculture is “buffers,” suburban is to “form an edge between the urban and rural or agricultural areas” Policy F-1.6 increase agricultural awareness and community involvement
			<ul style="list-style-type: none"> Policy B-8.1 Promote Agriculture as an Economic Growth Sector: “...development of value added and service industries...” Key Direction A-2 Focus Growth Within Compact Urban areas - Links preserving land to managing growth and compact communities Policy F-1.1 discourage linear developments through ALR land and limit recreational uses on agricultural lands Policy F-1.2- Maintain Agricultural Activities includes limiting subdivision, support agricultural practices Policy-1.3- Enhance agricultural viability- support and encourage local production, processing and distribution
	<i>Economic</i>	4	
	<i>Environmental</i>	4	<ul style="list-style-type: none"> Serpentine-Nicomekl lowlands drainage and flood control standard Policy F-1.4 Support sound environmental farm

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			practices, wildlife management, and habitat protection
			<ul style="list-style-type: none"> Policy F-1.5 Manage water use and drainage- effects of urban on agriculture

The strongest dimension of **Processing** present in the OCP is economic with the social and environmental aspects not being addressed. Policies exist to enhance local processing (as well as on-farm processing), support agri-industry, increase demand, and provide local value-added processing and agricultural support services.

Processing	<i>Social</i>	1	<ul style="list-style-type: none"> N/A
			<ul style="list-style-type: none"> Policy B-8.1 Promote Agriculture as an Economic Growth Sector: Policy B-8.1 “facilitate the location and development of existing and future businesses that enhance demand or provide value-added processing for local agricultural products” and “provide essential agricultural support services” Policy F-1.3- Enhance agricultural viability- support and encourage local production, processing and distribution Policy F -1.3 sub 3,4- support agri-industry and value added agricultural activities (processing) as well as on-farm processing
	<i>Economic</i>	4	
	<i>Environmental</i>	1	<ul style="list-style-type: none"> N/A

Distribution is the agri-food system component that is the least addressed in the OCP. It is mentioned in support of local distribution and farm retail operations.

			<ul style="list-style-type: none"> Policy-1.3- Enhance agricultural viability- support and encourage local production, processing and distribution
Distribution	<i>Social</i>	2	<ul style="list-style-type: none"> Policy F-1.3 sub 2 support farm retail operations
			<ul style="list-style-type: none"> Policy-1.3- Enhance agricultural viability- support and encourage local production, processing and distribution
	<i>Economic</i>	3	<ul style="list-style-type: none"> Policy F-1.3 sub 2 support farm retail operations
	<i>Environmental</i>	3	<ul style="list-style-type: none"> Policy F-1.3 sub 2 support farm retail operations

7.2 Sustainability Charter

7.2.1 How is agri-food system included?

The Action Framework of the Sustainability Charter (SC) is divided into the same pillars of sustainability used in this assessment: socio-cultural, economic and environmental as well as spheres of influence and three time frames. The SC includes a vision of a sustainable Surrey in fifty years where it identifies that “it is a city that fosters local employment opportunities and “green” businesses including a sustainable agricultural base and local food security.” This statement is further explained as Surrey being a leader in preserving ALR and increasing the productivity of agricultural land. To do this the City will promote urban agriculture and sustainable agriculture with a focus on local production and processing as a value-added part of the economy. The SC identifies the vision for a food secure community with adequate food being available to all people and agriculture is a priority. One area that was identified relates directly to agriculture: Protect and support Surrey’s agricultural land base and enhance food production.

7.2.2 Assessment of agri-food system content

Approach and implementation

The Sustainability Charter included the local population in the process of defining priorities for the City of Surrey; which includes a sustainable agricultural base and local food security in the long-term vision for the City. The SC also identifies that the City will work with the agro-business, the agricultural, commercial and industrial sectors which is an indication of a participatory approach to defining appropriate and relevant actions.

Appendix 3 usefully identifies if the item falls under socio-cultural, economic or environment as well as corporate operations, municipal jurisdiction or influence others while also identifying where there are overlaps. This highlights that each scope item does not address each pillar of sustainability nor fall only under municipal jurisdiction.

The SC is structured such that it will be a strong document to plan and implement integrated actions. At this stage it is an overarching policy document that provides an action framework, to support implementation that clearly outlines the pillars, the jurisdiction and the timeframe. Therefore, there is an expectation in the review of the document for high-level policies and no actions. The Implementation Strategy will be an important document to assess as it will “set priorities, establish targets, measure progress, and identify roles, responsibilities, resources and timeframes.” The annual reports on the Implementation Strategy will be a useful way to review how the SC is implemented and what targets and indicators are set.

Strengths

The agri-food system is identified as both a social and economic scope item within the Sustainability Charter: SC14 Support Food Security, and EC12 Surrey’s Agricultural Land Base. Food security is defined in the Sustainability Charter as “ensuring that sufficient healthy food is accessible locally at a reasonable cost and that there is a secure supply of food for the future that is produced by sustainable practices.” Actions identified support the agri-food system such as developing policy to support local food production, and promoting buying local farm products.

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The Sustainability Charter most strongly addresses the economic aspect of the agri-food system and the need to work with the agro-business sector. A specific economic goal of the charter is:

Protect the integrity of the City's ALR and industrial land base for food production, employment and agro-business services that support the local economy. Work with these sectors to find ways to enhance the productivity of ALR lands in Surrey.

The City identifies many municipal actions to improve the use of agricultural land under the scope area: Surrey's Agricultural Land Base. These actions vary from encouragement for buying local, to developing policies to reduce non-agricultural use or the non-use of agricultural land, to addressing agricultural uses that are not soil-dependent, and incentives to actively farm agricultural land. The Charter also addresses the need to address the economic aspect of local processing as well as production. There is support for processing facilities in the community, and using industrial land for agro-business services. The City includes working with the agricultural community to promoting opportunities for value-added processing businesses and then promoting Surrey's agricultural products locally and outside of Surrey.

There is also the development of the social aspects of the agri-food system within the Sustainability Charter. The City identifies the need to support a stable and strong population of skilled farmers and agriculture training, which includes the action of educating the younger generation on the importance of agricultural careers. The Charter also includes actions to develop local appreciation for the agricultural community and local agricultural products, which would contribute to the social sustainability of the farming community.

Weaknesses

The SC does not utilize agri-food system actions to achieve goals that are not directly agriculturally related. For instance, the agri-food system is not integrated into other areas such as Sustainable Land Use Planning and Development Practices (EN9). Nor is it directly addressed under Land, Water and Air Quality Management (EN16); however, this falls under "Influencing Other Spheres" so has a less direct role for Surrey. For instance, an indicator of the importance of the agri-food system to the city would be if the integration of agriculture into development were part of the Sustainability Checklist for new development that the city is developing. Not including the agri-food system with other scope items indicates a segregated perception of agriculture.

The Sustainability Charter is weaker on the environmental sustainability of the agri-food system. The environmental aspect of the agri-food system is addressed in two ways: "work with the region and the province to protect the City's ALR, designated agricultural land base, and the quantity and quality of agricultural soil" (EC12), and "maintaining ALR farmland and promoting food self-sufficiency and production without negatively affecting existing natural areas" (Specific Environmental Goal 1c).

If the City plans to support and increase the economic role of the agri-food system within Surrey; there needs to be a clear outlook on how this is going to be done in a way that is environmentally sustainable.

The reader does not know specifically what the City’s approach is due to a lack of clarity in wording. For instance, the City will “promote ...new methods for efficient food production;” it is unclear what is meant by “new methods for efficient food production” (SC14).

Table 7.2-1 Assessment of agri-food content in the Sustainability Charter

Production is the strongest supported agri-food system component in the SC as well as the best supported (second to the AP) within all the plans. Socially, the City states that it will “encourage a stable and skilled local agriculture employment base,” and support agricultural education. The City also identifies low-hanging fruit with educational campaigns, farmers’ markets and tours, and a “buy local” campaign.

Production is seen as a growth area for economic development within the City. The City will work with the agricultural sector to increase the viability of agricultural land, accommodate non soil-dependent agriculture, reduce the amount of non-agricultural use of ALR land, and support local food production.

Agri-food System Component	Sustainability Pillars	Ranking (1-4)	Ranking Rationale
			<ul style="list-style-type: none"> ▪ “Encourage a stable and skilled local agriculture employment base, including the engagement and education of young people on the value of agricultural careers” (EC12) ▪ “Work with the City’s two universities to develop them as world class institutions with a variety of programs that serve the future of the region and City and build on the City’s strengths, such as agriculture, transportation and health care” (EC17) ▪ Work with the agricultural sector to promote Surrey’s agricultural products, both through “buy local” programs and promotion of products outside of Surrey” (EC12) ▪ Farmers’ markets, annual farm tours and “Flavours of Surrey” food festival to increase awareness of Surrey’s agricultural base and encourage residents to “buy local” (immediate actions) ▪ Using educational campaigns, such as road signage, brochure development and participation in community events to promote local agriculture through the Nature Matters Program (immediate actions)
Production	<i>Social</i>	4	
	<i>Economic</i>	4	<ul style="list-style-type: none"> ▪ Includes agricultural production as an opportunity

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		<p>for economic development (EC2)</p> <ul style="list-style-type: none"> ▪ “Protect the integrity of the City’s ALR and industrial land base for food production, employment and agro-business services that support the local economy. Work with these sectors to find ways to enhance the productivity of ALR lands in Surrey.” (Economic Goal) ▪ The City will: “develop policy and research ways to support local food production” (SC14) ▪ “Promote buying local farm products, urban agriculture and new methods for efficient food production” (SC14) ▪ “Develop policies, regulations and programs that will help to reduce the amount of land in the ALR that is used for non-agricultural use or is out of agricultural production” (EC12) ▪ “Work with the agricultural sector to enhance the productivity of ALR lands and to encourage increased production of ALR lands in the City that are not now used for agriculture due to these being unused or used for non-agricultural purposes” (EC12) ▪ “Work with the agricultural, commercial and industrial sectors to accommodate agricultural uses that are not soil-dependent in other employment areas, such as the construction of greenhouses on industrial roof tops, to free additional land for soil based agricultural production” (EC12) ▪ “Increase taxation of agriculturally designated land that is not in active production” (EC14- influence other spheres)
<i>Environmental</i>	3	<ul style="list-style-type: none"> ▪ “Work with the region and the province to protect the City’s ALR, designated agricultural land base, and the quantity and quality of agricultural soil” (EC12) ▪ “Maintaining ALR farmland and promoting food self-sufficiency and production without negatively affecting existing natural areas” (Specific Environmental Goal 1c)

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Processing is strongest in its economic and social dimensions. The strongest action they put forward to support the social sustainability of the agri-food system is to work with the universities to develop education in the agricultural sector. Economically, the City will promote buying local products and protect not only the land but also the industrial land base for food production and agri-businesses and promote value-added agri-food processing businesses. Environmental policies for processing are not present which is due to the difficulty of influencing environmental practices of businesses – which is true for all the plans assessed.

Processing	<i>Social</i>	2	<ul style="list-style-type: none"> ▪ “Work with the agricultural sector to promote Surrey’s agricultural products, both through “buy local” programs and promotion of products outside of Surrey” (EC12) ▪ “Work with the City’s two universities to develop them as world class institutions with a variety of programs that serve the future of the region and City and build on the City’s strengths, such as agriculture, transportation and health care” (EC17)
	<i>Economic</i>	4	<ul style="list-style-type: none"> ▪ “Protect the integrity of the City’s ALR and industrial land base for food production, employment and agro-business services that support the local economy. Work with these sectors to find ways to enhance the productivity of ALR lands in Surrey.” (Economic Goal) ▪ “Work with the agricultural sector to promote Surrey’s agricultural products, both through “buy local” programs and promotion of products outside of Surrey” (EC12) ▪ “Promote opportunities for “value-added” processing businesses related to local agricultural products” (EC12)
	<i>Environmental</i>	1	<ul style="list-style-type: none"> ▪ N/A

Accessibility of food – a social dimension of ***distribution***, is addressed, as the City will support food distribution to the vulnerable population. The promotion of buy local campaigns is an economic aspect of distribution and will assist with the local marketing of agri-food system goods to the local population.

Distribution	<i>Social</i>	3	<ul style="list-style-type: none"> ▪ Support Food Security. The City will: “support the distribution of food to those who need it” (SC14)
	<i>Economic</i>	3	<ul style="list-style-type: none"> ▪ “Work with the agricultural sector to promote Surrey’s agricultural products, both through ‘buy local’ programs and promotion of products outside of Surrey” (EC12-5) ▪ “Farmers’ markets, annual farm tours and the

		“Flavours of Surrey” food festival will increase awareness of Surrey’s agricultural base and encourage residents to “buy local” (EC12)
		<ul style="list-style-type: none"> ▪ “The Nature Matters Program promotes the importance of local agriculture to the community through educational campaigns, such as road signage, brochure development and participation in community events” (EC12) ▪ “Support initiatives and projects that introduce agriculture into the urban and the industrial areas of the city through means such as community garden plots, green roofs with agricultural capacity, “vertical farming” and other initiatives (EC12-8)
<i>Environmental</i>	3	

7.3 Agricultural Plan

7.3.1 How is the agri-food system included?

The actions identified in the Agricultural Plan cover a range of factors. The key issues are grouped into three categories:

- Requirements for continued agricultural viability,
- Encroachment on the agricultural land base, and
- Encroachment on agricultural operations.

Key actions are divided into four categories: agricultural viability, agricultural land base, farming operations, and implementation. Agricultural viability addresses agricultural land use efficiency, rural-urban conflicts, demand and marketing of local agricultural products, agricultural service industry support, and farm succession. Encroachment on agriculture focuses on the ALR and addresses the conversion of ALR land for non-farming purposes, the impact of ownership by non-farmers and residential development in the ALR and the conversion of agricultural land not within the ALR for non-farming purposes. Encroachment on agricultural operations includes recreational access; wildlife depredation of crops; drainage, irrigation and flood control; pesticide drift and chemical usage; fish habitat protection, and safe farm vehicle movement.

7.3.2 Assessment of agri-food system content

Approach and Implementation

There was a Survey of the farming community performed for the Farm Community Background report, which is a background piece to the AP. The Public was further involved in a workshop identifying rural-urban issues and the AAC was consulted; however, there was no direct consultation with farmers that was listed in the report. Nonetheless, the AP highlights the importance of participation of stakeholders.

The AP identifies the issues, the recommended prioritized actions, financial implication, and participant roles and responsibilities. It is strong in its identification of multiple actions that can be taken per stakeholder. Two main actions to assist in the implementation of the AP is the recommendation for the creation of an Agricultural Program Manager and an Agricultural Plan Implementation Strategy. The plan also identifies the need to coordinate between departments and the farming community. The Agricultural Plan Implementation Strategy should detail what is needed to implement the Agricultural Plan, however it was never written.

Strengths

The strength of the AP is that it identifies specific actions the city can take beyond preserving land, which is one component necessary for viable agriculture. Its framework is strongly focused on the economic aspect of production, which includes the preservation of agricultural land, the optimal use of land, and the growth of the production and processing industry including the agricultural support service industry. This approach is strong in that it is recognized that production cannot grow sustainably without the growth of the agricultural support sector. The City is provided with a variety of actions they could take to develop the agricultural support service industry. This focus on the economic growth of agriculture is clear in the implementation strategy. The Agricultural Plan addresses the demand for local agricultural products with actions focused on attracting businesses that would use the local products as well as increasing local demand and the share in the regional market. Suggestions include: on-farm direct marketing facilities, subscription marketing, permanent farmers' markets, and educational and promotional materials including a logo for Surrey fresh produce.

The other main strength of the AP is that it identifies and extensively addresses encroachment on the agricultural land base as the most immediate threat to the agricultural land base through: conversion of land within the ALR for non-farming purposes, impact of ownership of ALR land by non-farmers, impact of residential development within the ALR, and conversion of agricultural land outside the ALR for non-farming purposes. The AP addresses the need to preserve agricultural land, and reduce the loss to non-farming purposes and includes actions such as “encourage non-farm purchasers of ALR lands held for unspecified purposes to prepare farm plans for the continuance of farming,” and “make suburban developments in the A-1 zone adjacent to the ALR a ‘conditional use’ subject to ‘agricultural plan compatibility’ assessment.” The AP also addresses that land outside the ALR is important and should be identified, and assessed for its agricultural importance.

The AP is strong in addressing the rural-urban conflict and the need to have a socially sustainable agri-food system, which includes acceptance of farming as well as a stable, skilled agricultural worker population. Recommended actions include information bulletins to those living on the urban-rural divide, apprenticeship initiatives, and providing incentives to farmers to take on apprentices.

One strength of the environmental component of the AP is with respect to fish habitat protection. Fish Habitat protection is addressed with actions such as using “common sense approaches,” which is weak, as well as compensation to the farmer for stream buffers and riparian setbacks. Agriculture is exempt within the provincial regulation protecting riparian areas and the City has

taken measures to address fish habitat protection. This shows good initiative in protecting the environment from agricultural practices; however, this mostly falls within provincial and federal jurisdiction.

Also, the plan addresses pesticide drift and chemical usage: “supporting markets for local organic farm produce, encouraging farmers to adopt integrated pest management techniques, and encouraging pesticide free production practices in sensitive areas,” though this is not under local government jurisdiction.

Weaknesses

One of the weaker elements of the plan is also the lack of inclusion of goals to further include processing within the City beyond “attract the value-added food processing industry.”

The plan is not written from an ecosystem perspective; “encourage ‘environment or urban friendly’ production systems” could infer that there is not a deeper understanding of the need for an environmentally sustainable agri-food system or more likely, be due to the fact that the AP was produced in 1999. There are no identified actions to incite environmental stewardship and environmentally sensitive agricultural practices which is most likely due to when the plan was completed (1999) and the provincial and federal jurisdiction.

Table 7.3-1 Assessment of Agri-Food Content in the Agricultural Plan

Production is the largest focus in the Agricultural Plan and is successfully fulfilled in the social and economic dimensions of sustainability. The plan addresses the social arm of production through the acknowledgement of the importance of farm succession and recommending “farm operator apprenticeship initiatives and new entrant farm management skills training.” It also addresses the needs of farmers by recognizing the need for adapting roads for safe farm vehicle movement.

The support for the economic sustainability of production is strongest in the plan. Recommendations are varied with service sector support, ensuring that leasing terms promote agricultural arrangements, and requiring farm plans to accompany new residence building applications.

There is support for organic markets and encouragement for farmers to adopt Integrated Pest Management (IPM) and pesticide-free techniques even though this is not within LGs jurisdiction.

Agri-food System Component	Sustainability Pillars	Ranking (1-4)	Ranking Rationale
Production	<i>Social</i>	4	<ul style="list-style-type: none">Marketing of local agricultural products: “promotion...educational materials, a Surrey logo”Farm succession: “farm operator apprenticeship initiatives and new entrant farm management skills training”Safe farm vehicle movement: “adding pull-outs

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		and widening, enforcing speed and parking regulations on farm roads..."
<i>Economic</i>	4	<ul style="list-style-type: none"> ▪ Agricultural land use efficiency: "encourage the optimal location for agricultural activities and allied industry by providing infrastructure in desired areas" ▪ Agricultural service sector support: "designated areas within Surrey to attract new support services" ▪ Conversion of land within the ALR for non-farming purposes: "adoption of a 'no-net-agricultural-loss' criterion" ▪ Impact of ownership of ALR land by non-farmers: encouraging new owners to prepare farm plans for the continuance of farming, ensuring that leasing terms promote agricultural arrangements, and making non-farming land purchases 'reviewable uses' under the ALCA." ▪ Impact of residential development in the ALR: "requiring farm plans to accompany new residence building applications in the ALR and restrictions on the size and location of residences on ALR properties" ▪ Conversion of agricultural land outside the ALR for non-farming purposes: "inventory of agricultural land and operations outside the ALR...and ensuring that successful farming operations outside the ALR are protected in the rural-urban fringe" ▪ Recreational access (3a): "establishing of a joint Agricultural Advisory Committee-Parks, Recreation and Culture Commission sub-committee to review recreation-agriculture issues, undertaking agricultural impact assessments..." ▪ Wildlife depredation of crops: "financial assistance for wildlife-resistant equipment...developing programs to control pest wildlife..." ▪ Drainage, irrigation and flood control: Serpentine-Nicomekl Lowlands Flood Control (SNLFC) Project, monitor fill, research improved irrigation technology
<i>Environmental</i>	4	<ul style="list-style-type: none"> ▪ Pesticide drift and chemical usage: "supporting markets for local organic farm produce, encouraging farmers to adopt integrated pest management techniques, and encouraging pesticide free production practices in sensitive areas" ▪ Fish habitat protection: "development of compensation programs for sensitive agricultural lands lost or alienated for stream buffers and riparian setbacks"

Processing was not strongly addressed in the AP. The actions were to “attract the value-added food processing industry” and develop markets for off-grade processing product. While these are the direction the City needs to take there could have been more directions focused on processing.

Processing	<i>Social</i>	2	<ul style="list-style-type: none"> Marketing of local agricultural products: “promotion...educational materials, a Surrey logo”
			<ul style="list-style-type: none"> Demand for local agricultural products: “attract the value-added food processing industry” and develop market for off-grade processing product
	<i>Economic</i>	3	<ul style="list-style-type: none"> Marketing of local agricultural products: “promotion...educational materials, a Surrey logo”
	<i>Environmental</i>	1	<ul style="list-style-type: none"> N/A

Distribution is somewhat addressed with recommendations centred on promoting various forms of distribution such as on-farm direct marketing, farmers’ markets and subscription marketing.

Distribution	<i>Social</i>	2	<ul style="list-style-type: none"> Marketing of local agricultural products: “promotion...educational materials, a Surrey logo”
			<ul style="list-style-type: none"> Marketing of local agricultural products: “promotion on-farm direct marketing, farmers’ markets...subscription marketing”
	<i>Economic</i>	3	
	<i>Environmental</i>	3	<ul style="list-style-type: none"> Marketing of local agricultural products: “promotion on-farm direct marketing, farmers’ markets...subscription marketing”

7.4 Economic Development Strategy

7.4.1 How is agriculture included?

Agriculture is part of the Economic Development Vision: Protecting the city’s large agricultural land base and supporting more intensive use of these lands for food production. The agri-food system is also identified as one of the main objectives of the Economic Development Strategy (EDS): Strengthen Surrey’s dual role as a vibrant urban economy and centre for agricultural production (Objective 3). The EDS recognizes the important role of agriculture and the need to develop the City Centre as a metropolitan core. Strategy 17: Continue to protect Surrey’s agricultural land base and enhance the viability of agricultural enterprise is one of the five highest ranked strategic priorities. The strategy recognizes the importance of agriculture in contributing to food security.

7.4.2 Assessment of Agriculture Content

Approach and implementation

The Process to create the plan included key informant interviews, two focus group sessions and two meetings with a stakeholder committee and many meetings with a staff committee. During this process only two agriculture representatives were included in consultation: one from the Ministry of Agriculture and Lands and one from the Surrey Agricultural Advisory Committee. The Strategy outlines that the economic objectives will not be obtained without cooperation from community organizations, business groups, institutions and other governmental units. Potential partnerships identified in the implementation of the agricultural objectives of the EDS include: the AAC, Surrey Farmers Institute and/or individual agricultural producers, Tourism Surrey, Eat BC! Campaign, Get Local, BC Speciality Food Directory, BC Farms, Fraser Valley Farm Direct Marketing Association, British Columbia Restaurant and Food Services Association and BC Food Processors Association.

To facilitate economic growth of the agri-food system the EDS Highlights the need for a staff person to act as an “agricultural ombudsman” as well as completing the Surrey Agricultural Development Strategy that would be focused on four key issues: agricultural land efficiency, demand for local agricultural products, marketing of local agricultural products, and agricultural service industry support. The Agricultural Ombudsman and Agricultural Development Strategy are similar recommendations to those made in the Agricultural Plan: an Agricultural Program Manager and Agricultural Implementation Strategy, and are likely designed to fulfil the same role.

Strengths

There is a strong presence of agriculture in the vision and objectives and as a key strategy within the EDS. The agricultural sector is seen as a priority that provides economic benefits such as greater local employment opportunities. Within the EDS Surrey’s agriculture is respected as having a strong role in improving local and regional food sustainability. The Strategy lacks specific actions related to the agri-food system. However, one positive aspect of the EDS is that under Strategy 14- Ensure city has efficient policies and regulations, it includes the action: ensure that the needs of the agricultural community are fully incorporated into all regulatory reviews. This action indicates that there are intentions to include the agri-food system in the plan.

The Strategy is strong in one area, identifying potential coordination and pre-existing programs to build on. It identifies the need for two important actions for the implementation of supportive agri-food system actions: partnerships and coordination with Surrey farmers and pre-existing agriculture and food-related organizations, and an Agricultural Development Strategy. The Agricultural Development Strategy is one of the ‘key initial actions’ within the EDS and will guide the implementation of agri-food system measures at the municipal level.

Weaknesses

Though there is focus on the importance of the agri-food system at the higher level (vision and objectives), within the strategies there was a lack of well-defined actions to facilitate the economic growth of production and processing as seen in the list of actions under Strategy 17. This could be due to the lack of representation in the stakeholders who participated in the consultation as well as the lack of an Agricultural Development Strategy. As a document that provides economic direction, it is strongly lacking in concrete actions to take in the agri-food

system sector. The EDS does not develop initiatives to improve the economic viability of agriculture or promote agriculture as a location for investment in Surrey, which is also seen in the lack of performance monitoring indicators related to agriculture.

Table 7.4-1 Assessment of agri-food content in the Economic Development Strategy

Production is the strongest area of the Economic Development Strategy. Socially, the EDS recognizes that the agricultural community should be incorporated into regulatory reviews. Economically, agriculture is not identified as a competitive strength within Surrey. Actions are focused on encouraging residents to buy locally and potentially increasing agri-tourism.

Agri-food System Component	Sustainability Pillars	Ranking (1-4)	Ranking Rationale
Production	<i>Social</i>	2	<ul style="list-style-type: none"> No mention of agri-food system skill training within Strategy 11- Continue to build the education and skill profile of Surrey's resident workforce Strategy 14- Ensure city has efficient policies and regulations includes the action: ensure that the needs of the agricultural community are fully incorporated into all regulatory reviews "Investigate whether Surrey's farmers could benefit from closer cooperation with the Fraser Valley Farm Direct Marketing Association"
			<ul style="list-style-type: none"> "Ensure that the Farm Fresh Guide produced by the City of Surrey is distributed to all potential partners who can help promote Surrey's farmers" "Continue to host events such as "Flavours of Surrey" to promote locally grown products" Agriculture is not identified as a competitive strength within strategy 2: Direct targeted sales and marketing efforts at desirable businesses that fit Surrey's competitive strengths Agri-tourism is identified as a potential area for development under strategy 9- continue to support expansion of tourism "Encourage inclusion of Surrey's farmers into publicly available databases of food producers/small scale food processors" Include a staff member from the Economic Development Office as a member of the AAC
	<i>Economic</i>	2	
	<i>Environmental</i>	1	<ul style="list-style-type: none"> N/A

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Processing is not addressed within the Economic Development Strategy except for an action under Strategy 17 focused on enhancing the viability of agricultural enterprise. The action is to encourage not only the inclusion of producers into a publicly available database but also small scale food processors.

Processing	<i>Social</i>	1	<ul style="list-style-type: none"> ▪ N/A
			<ul style="list-style-type: none"> ▪ “Encourage inclusion of Surrey’s farmers into publicly available databases of food producers/small scale food processors” ▪ “Continue to host events such as “Flavours of Surrey” to promote locally grown products” ▪ Include a staff member from the Economic Development Office as a member of the AAC
	<i>Economic</i>	2	
	<i>Environmental</i>	1	<ul style="list-style-type: none"> ▪ N/A

Distribution is not strong within the Strategy, though it does address the promotion of Surrey’s farmers.

Distribution	<i>Social</i>	2	<ul style="list-style-type: none"> ▪ “Ensure that the Farm Fresh Guide produced by the City of Surrey is distributed to all potential partners who can help promote Surrey’s farmers”
			<ul style="list-style-type: none"> ▪ “Ensure that the Farm Fresh Guide produced by the City of Surrey is distributed to all potential partners who can help promote Surrey’s farmers” ▪ Agri-tourism is identified as a potential area for development under strategy 9- continue to support expansion of tourism
	<i>Economic</i>	2	
	<i>Environmental</i>	1	<ul style="list-style-type: none"> ▪ N/A

7.5 Employment Lands Strategy

7.5.1 How is the agri-food system included?

Surrey's vision in the Employment Lands Strategy (ELS) of employment in the year 2028 includes: "...the development of employment lands reflects principles of sustainability, including greater land use efficiency. In keeping with its focus on sustainability, Surrey values its agricultural land base and the social, economic and environmental benefits it provides." One of the guiding principles is that the agricultural land base is important to Surrey and contributes to the economy which influences the recommended strategy: the integrity of Surrey's agricultural land base shall be protected for agriculture and agro-industrial activity as per existing City policy.

7.5.2 Assessment of agri-food system content

Approach and implementation

The ELS was carried out through supply and demand analysis, planning analysis and consultation. Consultation included staff advisory meetings, business and community stakeholder meetings, a council workshop and an open house to discuss key issues, provide information, and receive feedback.

Recommendations as well as planning directions are provided in the document per community by office, industrial, commercial, and institutional employment lands. Future directions are also provided per employment land (institutional, commercial, industrial, office, and agricultural).

Strengths

The Employment Lands Strategy recognizes the importance of agricultural production and processing to the economy. In reviewing the OCP it recommends that policy should be amended such that it encourages "innovation in agro-industry practices, with an emphasis on sustainability" as well as that "the integrity of Surrey's agricultural and agro-industrial lands shall be protected." It is strong at recognizing the importance of protecting agricultural land while focusing on the densification and efficient use of other employment lands. The ELS recognizes that there is an opportunity to develop the processing employment sector on farms and in industrial areas.

The plan recognizes the opportunity for the City to support the greening and growth of the agri-food industry in "production, processing and distributing organic and local food" as part of the move towards a more sustainable community

Weaknesses

The ELS is focused on industrial land; it is clear that agriculture is not a key element in regards to the ELS, which is in contrast to the focus on the economic aspect of the agri-food system in the Economic Development Strategy, the Sustainability Charter, the Agricultural Plan, and the OCP. The economic goal of the Sustainability Charter is:

create a local economy that builds upon our natural advantages and uses our land base and human resource efficiently to create a broad range of environmentally friendly businesses that provide attractive local employment opportunities for residents, a wide range of useful goods and services and a sustainable revenue base for the City

The ELS does not prioritize agriculture nor maximize the “natural advantage” of the agricultural land base to achieve this goal. The plan fails to address its purpose of developing a strategy that manages the growth of employment locally because it does not include agriculture as a key sector while the City recognizes it as a growth sector. The strategy does not address agricultural employment on a short, mid and long-term basis or recommend strategies to strengthen the agricultural employment and prevent erosion of the employment in the sector. Within the recommended strategy options agriculture is only included as the protection of the agricultural land base for agriculture and agro-industrial activity.

Similar to the EDS, there is a lack of concrete actions in the ELS in support of the agri-food system. Employment lands are categorized as industrial, commercial, office, and institutional within the ELS; and agriculture was not addressed in the assessment of employment land by community. The ELS does not deliver actions to develop the agricultural employment lands. The lack of actions could be because of uncertainty in direction of agriculture as the ELS identifies that there is a changing scale of farming and that it is both large-intensive and small-scale which may provide opportunities for future employment.

The agri-food system is recognized and addressed, but largely by way of acknowledging the need to preserve agricultural land even when in conflict with industrial, commercial, office and institutional. When assessing the employment floor space and land for office, industrial, commercial, institutional and agricultural there is no assessment of the amount of agricultural land per community or other relevant factor important to the development of the agri-food sector. There is no technical background research to support the growth of the agri-food economic sector as compared to institutional, commercial, and to a larger degree, industrial sector. Within the recommendations and planning directions outlined on a community basis the lack of inclusion of the agri-food sector is a major oversight, especially in communities such as South Surrey. When discussing future directions for agricultural land the ELS identifies that agriculture will potentially be introduced into the urban area. This discussion, in this section, of the integration of agriculture into the urban environment, hopefully indicates a move towards further integration of agriculture within the City.

Table 7.5-1 Assessment of agri-food content in the Employment Lands Strategy

The Employment Lands Strategy is weak in providing actions for sustainable *production*. The plan recognizes the need to protect land and agro-industrial land, increase densification, and consider the ALR in future development to “ensure appropriate interfacing and environmental protection.”

Agri-food System Component	Sustainability Pillars	Ranking (1-4)	Ranking Rationale
Production	<i>Social</i>	1	<ul style="list-style-type: none"> “Policy should continue to support an appropriate interface between agricultural and residential uses adjacent to Campbell Heights i.e. through buffer requirements.”
	<i>Economic</i>	2	<ul style="list-style-type: none"> The city will remain committed to protecting land and the densification and efficient use of industrial land (2.5.6) Recommendation to amend OCP policy to identify that Surrey’s agricultural and agro-industrial lands shall be protected
	<i>Environmental</i>	1	<ul style="list-style-type: none"> “ALR and environmentally sensitive features in Campbell Heights must be considered in future development to ensure appropriate interfacing and environmental protection.” Identifies the agri-food system as a venue to ‘go green’ for the city

Though *processing* is recognized as an avenue that can be pursued on industrial lands as well as on agricultural land there is no inclusion of analysis or actions to foster processing on the industrial lands.

Processing	<i>Social</i>	2	<ul style="list-style-type: none"> Recognition that processing could occur on City’s industrial lands or on the farm
	<i>Economic</i>	1	<ul style="list-style-type: none"> N/A
	<i>Environmental</i>	1	<ul style="list-style-type: none"> Identifies the agri-food system as a venue to ‘go green’ for the city

Though the City identifies that the agri-food system is a sector for the city to pursue green development there are no actions to foster sustainable *distribution*.

Distribution	<i>Social</i>	1	▪ N/A
	<i>Economic</i>	1	▪ N/A
	<i>Environmental</i>	1	▪ Identifies the agri-food system as a venue to ‘go green’ for the city

7.6 Ecosystem Management Study

The Ecosystem Management Study (EMS) is in progress and remains to become a plan – as such its inclusion of the agri-food system is not fully assessed within this report. It is a first phase identified in the Sustainability Charter to manage the City’s ecosystems and will inform the OCP update. The purpose of the EMS is to update the City’s environmental policies and create an integrated ecosystem asset management, or Green Infrastructure Network. It provides an update on the mapping of environmental areas that will support the protection of important ecosystems and the prioritization of investment in ecosystem management.

7.6.1 How is the agri-food system included at this stage?

The agri-food system is addressed within the update and public consultation report (June 7, 2010) to Council with the inclusion of agriculture as a field within the maps. The Green Infrastructure Network is made up of hubs, sites, corridors, and urban and agricultural land. The report acknowledges agricultural lands, cultivated and fallow, contribute to biodiversity and wildlife movement while its priority will be for food production. Agriculture is identified as a less natural element within the green infrastructure similar to recreational parks and gardens. Agriculture is divided into six categories: pasture, old field, seasonally flooded, row crop, corrals, and bare ground.

The EMS, 2010, states that agricultural lands are “functioning as both a hub and a large corridor – supporting wildlife populations and allowing relatively free movement – which allows wildlife to adapt to agricultural practices and co-exist with active farming. Restricted public access to private agricultural land also provides a refuge for wildlife.” While, at the same time the EMS illustrates the importance of the ALR by stating that corridors in the ALR are only “‘conceptual wildlife routes’ and are not intended to restrict agricultural practices.” The study points to road and utility crossings on agriculture as areas that where barriers to wildlife passage should be removed to promote passage.

For a study with a focus on ecosystem asset management and mapping of environmental areas the degree of inclusion of agriculture at this stage seems satisfactory. The EMS states that cooperation with the farming community will be necessary to facilitate wildlife passage in Surrey and respect primary agricultural activities. There is representation for the AAC in the consultation, which is a positive sign that agriculture will be represented in the EMS.

8. Overall City of Surrey planning for the agri-food system

8.1 Discussion of trends

Strengths

All the planning documents reviewed illustrate an awareness of the importance of agriculture. It shows strength in agri-food system planning that the agri-food system was addressed not only in the agricultural planning document (the AP), and major City planning documents (OCP and SC) but also in the economic planning documents (EDS and ELS).

Through the assessment of the planning documents the strongest sustainability planning for the agri-food system is in the Sustainability Charter, the Agricultural Plan, and the OCP. The documents, especially the OCP, Sustainability Charter and Agricultural Plan, were strongest in including measures to improve the economic sustainability of production. The secondary focus on the agri-food system was in the economic sustainability of processing and thirdly, in building the social and environmental sustainability of production.

Preservation of agricultural land and the growth of agricultural production are incorporated into the vision or the goals of the various planning elements. The City has taken many actions to support the agri-food system in areas where they have jurisdiction. Actions developed were primarily associated with preserving land for production and in this way supporting the economic sustainability. The second focus was then on actions for supporting the economic viability of processing within the community. The last major focus of actions was on supporting the social and environmental sustainability of production.

Gaps

The City of Surrey shows support for agriculture and agricultural land in policies and high-level planning documents. The main gap between all of the documents is the lack of a cohesive implementation strategy for these policies.

Given the focus of the agri-food system as an economic issue within Surrey (as illustrated in the Sustainability Charter), the planning for agriculture from the economic standpoint is weak. Both the EDS and ELS do very little in the way of providing actions to foster the economic sustainability of local agri-food business.

Lastly, though the agri-food system is present at a high-level within all the plans there is a lack of real integration of the agri-food system into other goals and priorities. The agri-food system is included as a stand-alone goal but does not seem to be integrated into the City's conceptualization of sustainable land-use planning and a healthy community.

Table 8.1-1 Overall ranking by plan and sustainability pillar of the agri-food system

	OCP	Sustainability Charter	Agricultural Plan	Economic Development Strategy	Employment Lands Strategy	Total
Production - Social	2	4	4	2	1	13
Production - Economic	4	4	4	2	2	16
Production - Environmental	4	3	4	1	1	13
Processing - Social	1	2	2	1	2	8
Processing - Economic	4	4	3	2	1	14
Processing - Environmental	1	1	1	1	1	5
Distribution - Social	2	3	2	2	1	10
Distribution - Economic	3	3	3	2	1	12
Distribution - Environmental	3	3	3	1	1	11
Total	24	27	26	14	11	

8.2 Barriers and SWOT analysis

A simple Strengths, Weaknesses, Opportunities, and Threats Analysis (SWOT) is a way to represent how the City of Surrey could move forward, considering the challenges it will have to overcome.

<i>Strengths</i>	<i>Weaknesses</i>
<ul style="list-style-type: none">▪ Awareness of the importance of agriculture and desire to improve local agri-food system	<ul style="list-style-type: none">▪ Lack of jurisdiction▪ Lack of other municipal examples to draw from
<i>Opportunities</i>	<i>Threats</i>
<ul style="list-style-type: none">▪ Integrating the agri-food system into planning through sustainability approach▪ Provincial support for municipalities in agri-food system planning	<ul style="list-style-type: none">▪ Resistance from stakeholder groups▪ Planning issues that receive more public support than the agri-food system

With the review of the main planning documents for the agri-food system, the apparent barriers preventing implementation are:

- The lack of development of an implementation strategy
- The lack of a holistic picture of the agri-food system and its economic potential
- The lack of outside pressure to support the agri-food system economy
- The pressure from land developers and property owners
- The lack of integration of agriculture into the understanding of sustainability
- The lack of municipal examples on how to integrate the agri-food system into planning

9. Recommendations for agri-food system planning for the City of Surrey

9.1 Recommendations

The following set of recommendations assume municipal jurisdiction and are based on the assessment of the planning documents included in this research. Most of these recommendations are not made in the other documents, whereas some of them, such as the completion of the Agricultural Development Strategy, are included below specifically because they are referred to repeatedly within other documents.

1. Integrate the agri-food system as a key component of the three pillars of sustainability (environmental, socio-cultural, economic) and include within the Sustainability Checklist
2. Complete the Agricultural Development Strategy with specific, implementable actions
3. Develop an agri-food system staff position
4. Put together a technical committee with ecosystem services, biological, agricultural and sustainability knowledge to guide decision-making and adaptive management at the City
5. Assume an adaptive management strategy to address sustainability planning (including the agri-food system)

10. Conclusion

With current threats such as the energy crisis and peak oil it is becoming increasingly important to plan for a sustainable agri-food system: socially, economically and environmentally sustainable in its production, processing and distribution.

The Province actively plans for the agri-food system and municipalities in British Columbia are also becoming more involved. The City of Surrey is a unique municipality with a growing population and the second largest agricultural land base in Metro Vancouver.

The City of Surrey has been addressing the local agri-food system with concerted effort through the appointment of the AAC, policies, bylaws, Development Permit Guidelines and drainage programs that support the agri-food system. Within the scope of its guiding policy documents: the OCP, the Sustainability Charter, the Agricultural Plan, the Economic Development Strategy, and the Employment Lands Strategy, agriculture and the agri-food business sector was highlighted as an important aspect of the community vision, guiding principles or key directions.

However, though the City values agriculture and is actively attempting to plan for the agri-food system, the assessment of the plans show that the agri-food system is often acknowledged at the higher principled level and at times not at the action level. When addressed, the actions largely focus on developing the economic growth of production and processing but not distribution or the environmental and social aspects of the agri-food system components. However, this is largely due to the lack of municipal jurisdiction or control over market forces.

With the current trend in sustainability planning the agri-food system needs to be integrated into the three pillars of sustainability: socio-cultural, economic and environmental for it to be recognized and truly integrated into municipal planning.

11. Future Work

This report looked at the decision-making and implementation stage of agri-food system policy development at the City of Surrey through the review of planning documents. There is an important gap in looking at the role of social forces in driving the presence and importance of agri-food system issues within the City of Surrey.

Also, this research did not include a review of Neighbourhood Concept Plans, which could be a next step in seeing how the neighbourhood planning documents embody the goals and priorities outlined in the larger planning documents.

Further still, an indication that the agri-food system in Surrey is not sustainable is the continued application for exclusion of land from the ALR. Further work could examine the causes for these exclusions and municipal trends related to the ALR. The ALC gathers information at the regional level and not at the municipal level. This would be an important area of research to see what the trends are between municipalities. It would also be interesting to see how Surrey's 'policy for considering applications for exclusion of land from the ALR' has affected the number of applications and area excluded from the ALR.

Finally, if a sustainable agri-food system is more localized, work on bio-regional agri-food systems is a next step.

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