Abstract

A farm succession crisis looms due to the ageing farm population, barriers facing emergent farmers, and a lack of succession plans to smoothly transition farms once their operators retire. Additionally, the agricultural sector exhibits a diversity of farm types, practices, markets, and crops, and is simultaneously facing increasing economic, social, and environmental issues. Agricultural planning is a means to address disputes involving agricultural development, farmland protection, and decision-making. Planning may also reconcile the competing interests for access and land base use. It is unclear what avenues exist for emerging farmers to contribute to this political process. To explain the practices employed in the Township of Langley that influence farmer participation levels, this study addressed the following: How are new and young farmers engaging in the agricultural planning process? What factors influence farmer participation? A case study methodology was employed, utilizing interviews with seven farms, a farm practices survey, and a document review. Analysis determined that farmers are contributing to agricultural planning through consultations and informal ways (board members on local nonprofits and farmers groups) that represent lower levels of involvement. Additionally, significant barriers prevented young and new farmer participation, including time constraints, lack of knowledge of how to become involved, and increased effort to find out about engagement processes. Furthermore, new and young farmers are contributing to their local food networks and employing practices aligned with food sovereignty movements. A characterization of policy problems in the Township indicated that more participation is required than currently employed. In order to increase participation, policy makers and planners in the Township must first increase communication flows in order to build trust with farmers.
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<td>AEEC</td>
<td>Agricultural Advisory and Economic Enhancement Committee</td>
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<td>AGRI</td>
<td>Committee on Agriculture and Agri-food Studies</td>
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<td>ALC</td>
<td>Agricultural Land Commission</td>
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<td>ALR</td>
<td>Agricultural Land Reserve</td>
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<td>AVS</td>
<td>Agricultural Viability Strategy</td>
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<td>EFP</td>
<td>Environmental Farm Plan</td>
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<td>FPPA</td>
<td>Farm Practices Protection (Right to Farm) Act</td>
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<td>LFI</td>
<td>Langley Farmers Institute</td>
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<td>LSAF</td>
<td>Langley Sustainable Agriculture Foundation</td>
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<td>MVRD</td>
<td>Metro Vancouver Regional District</td>
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<td>OCP</td>
<td>Official Community Plans</td>
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<td>SES</td>
<td>Socio-Ecological Systems</td>
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<td>TOL</td>
<td>Township of Langley</td>
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Acknowledgements

I would like to acknowledge Colin Dring for his ongoing feedback and support, and for constantly pushing me to challenge my natural sciences background in order to delve into issues outside of the dominant discourse within agriculture. His feedback pushed me to improve my writing and analytical skills and greatly contributed to the quality of this manuscript.

I would also like to acknowledge Lenore Newman for her feedback and oversight on the project.

Furthermore, I would like to thank the farmers who welcomed me into their homes and shared their impassioned views on farming and participation in planning with me. They inspired me and reaffirmed my respect for farmers.

Finally, I would like to thank my family, friends, and partner for their ongoing support, even when I retreated into a cranky writing tunnel and emerged as a brain blob. I promise I will return to normal soon.
Introduction

In Canada, a farm succession crisis is looming, as farm operator populations are ageing, farms are becoming consolidated, and the majority of older farmers lack a succession plan (Government of Canada, 2018a; Laforge et al., 2018). Farming is becoming less viable as agribusiness operations take 95% of farm revenues from farmers, requiring many farmers to have second jobs or alternative revenue streams, and forcing many out of farming (Qualman & National Farmers Union, 2019). New and young entrants to the agricultural sector face significant barriers to sustaining viable farms due to the neoliberalization of the agricultural sector, and are the most vulnerable to the farm and climate crisis due to their relative lack of resources and experience compared to older, more established farmers (Food Secure Canada, n.d.; Key & Lyons, n.d.; Laforge et al., 2018). The dominant food regime has favoured overproduction, corporate control, and unregulated markets, while instituting power structures that contribute to the barriers for those entering farming from a different discourse (Holt Giménez & Shattuck, 2011). Young farmers are forced out of farming at two times the rate of the average farmer due to these challenges (Qualman & National Farmers Union, 2019). Furthermore, in a British Columbian context, only two groups have emerged as a voice to speak to these challenges: Young Agrarian and BC Young Farmers.

Clapp & Cohen (2009) identify that it is largely accepted among scholars that agriculture and food must remain a priority on the global policy agenda. Planners and planning have emerged as actors positioned to incorporate food issues within the public sector, where these issues and interventions play out on the ground (Soma & Wakefield, 2011). Despite overarching planning for food systems issues traditionally being under the provincial or federal jurisdiction, municipalities are where the effects of these challenges are felt and where interventions are often carried out (MaCrae & Donahue, 2013). Agricultural planning is a means to address this wide range of disputes involving agricultural development, farmland protection, and decision-making, and reconcile the competing interests for access and use of the land base (Connell et al., 2013). The agricultural sector exhibits a diversity of farm types, practices, markets, and crops. The sector is simultaneously facing increasing economic, social, and environmental issues, in addition to an ageing farm operator population and increased barriers to new farmers (Laforge et al., 2018). As the field of agriculture has become more politically charged with these disputes and issues, there is an increased discrepancy on what methods to employ to achieve food security and food sovereignty (Giménez & Shattuck, 2011).

These disputes around the nature of issues and appropriate solutions raise the underlying question of how can agricultural planning contribute to the goals of sustainability, agricultural land preservation, climate resilience, equity, and food security in contexts of difference and the farm crisis? What is the role of young and/or new farmers in contributing to agricultural planning, and therefore, to shaping the future of agriculture?
**Problem Statement**
This research project investigated which young and/or new farmers are engaged. Currently, it is unclear which kinds of farmers are actually engaged in local government planning processes for agriculture and what their contributions are. Increased representation from a wide variety of stakeholders that are most affected by the inequalities within food systems, including farmers, may improve the planning process, leading to a more sustainable and equitable agricultural system (Clark et al., 2017). However, without knowing who is contributing to these processes, it is difficult to outline a pathway moving forwards to involve various stakeholders.

**Research Questions**
1. How are new and young farmers engaging in the agricultural planning process?
2. What are the factors preventing the participation of different types of farmers to be heard and incorporated in the planning process?

**Research Objective**
Describe and explain the practices employed in the Township of Langley that influence the levels of farmer participation in agricultural planning processes.

This project is part of the larger research project titled “Agriculture, planning and post-politics – an examination of governance approaches to agricultural planning and conflict” by Colin Dring, a PhD candidate in the Integrated Studies in Land and Food Systems program, Faculty of Land and Food Systems, UBC. The larger research project characterizes agricultural planning frameworks, including laws, regulations, guidelines, public planning processes and rational planning paradigms, employed in British Columbia. It looks at broader governance mechanisms and actors participating in the planning process (not just farmer participation) and also addresses agricultural futures and how these are shaped by politicizing practices.

**Background**

**Description of Agricultural Planning**
Previous attempts to delineate food systems planning identify that traditional planning disciplines fail to adequately address all dimensions of food systems, which includes the food supply chain as well as associated institutions and regulations (Soma & Wakefield, 2011). Similarly, agricultural planning encompasses more than just what is traditionally thought of as rural planning or agricultural land use planning. The day to day activities of agricultural planning can be conceptualized as three main interconnected dimensions: the spatial, governance and
development dimensions (Dring, 2020). These dimensions are situated within the larger ontological pieces of space, time, power and knowledge relations, and difference (Dring, 2020). Several factors exist that inform the process of agricultural planning, including the sociopolitical context (which upholds certain processes and forms of knowledge and marginalizes others), the dynamic biophysical nature of agriculture, dominant hegemonies that influence development, and differences in understandings of how to work towards a ‘better’ agricultural sector (Dring, 2020). Thus, planning for agriculture is a complex field where the political nature of navigating different visions of the future and different approaches to arrive there is at its core (Dring, 2020).

The scope of this research focuses on how farmers can be engaged in the agricultural planning processes related to the governance, spatial, and development dimensions, that are embedded within these larger preconditions for agricultural planning to occur.

**Governance**

The governance dimension relates to the mechanisms of agricultural planning which addresses who makes decisions, whose knowledges are advanced, what and whose problems are deliberated, and what processes are used (Dring, 2020). The governance dimension dictates aspects of the spatial and development dimensions. For example, the procedures that are followed to create a local agricultural plan or strategy are dictated by what priorities are outlined and assumptions about whose input is needed to make these decisions. Governance is changing due to the rise of transnational corporations and global governance institutions; instead of governance just relating to the state, it is now a mix of public and private actors (Higgins & Lawrence, 2007). In British Columbia, the actors that carry out these processes and make these decisions at the local government level include, but are not limited to: elected officials, planners and consultants employed by local governments, agricultural advisory councils, and nonprofit, nongovernmental and volunteer organizations, all of which may be influenced by other private actors. These actors are limited in their scope by regional, provincial, and national policies that they must align with (Mills, 2011; Robert & Mullinix, 2018).

**Spatial**

The spatial dimension is primarily focused on planning for the land base used for agriculture. The spatial dimensions encompass zoning, agricultural land retention, and land use designations that are contested between agriculture and other uses. Official Community Plans (OCPs), land use plans and zoning laws are tools used by municipal councils to direct planning in municipalities, outlining acceptable land use designations (Osler, Hoskin & Harcourt LLP, n.d.), including in urban, peri-urban and rural areas. In the rural context, these plans are often focused

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1 Such as those who are contracted to create agricultural plans (Robert & Mullinix, 2018).
2 For an example, see court claims in the Township of Langley (Claxton, 2019b).
on the agricultural sector to protect agricultural land (OMAFRA, n.d.). Within British Columbia, the Agricultural Land Reserve (ALR) was established in 1973 as a centralized, provincial tool to protect land suitable for farming and is overseen by the Agricultural Land Commission (ALC). In practice, the ALR has been a mechanism to restrict urban growth and development that would have previously gone unchecked (Garrish, 2002; Newman et al., 2015). Land within the ALR and other land zoned for agriculture is subject to the *Farm Practices Protection (Right to Farm) Act (FPPA)*, which outlines what suitable practices are for farmland. Municipalities are able to determine which ALR exclusion applications get sent to the ALC. The local government’s primary role within the context of the ALR is to ensure consistency with their bylaws that affect agricultural land and the Agricultural Land Commission Act’s regulations, and consult with the ALC regarding said bylaws (Agricultural Land Commission, 2018). Failure to do so can lead to legal challenge and the municipality becoming regulated (Agricultural Land Commission, 2018).

**Development**

Agricultural development is the government-led processes that advance agricultural contributions to a region’s wellbeing and dictates how these processes may contribute to food security and food sovereignty. This can be along different orientations or models (ie economic, rural, community development) as dictated through normative processes (Dring, 2020). Practically, this includes the official planning documents such as agricultural strategies and plans that outline goals for the sector and (theoretically) interface with other municipal planning documents, such as OCPs (Dring, 2020). Giménez & Shattuck (2011) use a food regime analysis to characterize the development. In their analysis, the institutions are the actors driving development forward along specific orientations. They characterize different development mechanisms based on their model and orientation (see Table 1). Due to the emergence of the corporate food regime, characterized by globalization and neoliberalization of agriculture, farms are increasingly becoming consolidated to deal with this intensification and market orientation. As such, the definition of ‘farming’ and what constitutes a farm is shifting. Butt & Taylor (2018) note that a farm can be legitimized based on its ability to contribute to the community or overall food production, as demonstrated by the debate on if industrial broiler farms are considered a legitimate form of farming or not. These orientations dictate how the agricultural sector develops and, in practice, is determined by the governance processes that interpret the development documents.
Table 1. A food regime/food movements framework (Modified from Giménez & Shattuck, 2011)

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Corporate/Global market</th>
<th>Development/aid</th>
<th>Empowerment</th>
<th>Entitlement/Redistribution</th>
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<td>Model</td>
<td>Overproduction; corporate concentration; unregulated markets and monopolies; monocultures (including organic); GMOs; agrofuels; mass global consumption of industrial food; phasing out of peasant &amp; family agriculture and local retail</td>
<td>Mainstreaming/certification of niche markets (e.g. organic, fair, local, sustainable); maintaining northern agricultural subsidies; ‘sustainable’ roundtables for agrofuels, soy, forest products, etc; market-led land reform; microcredit</td>
<td>Agroecologically-produced local food; investment in underserved communities; new business models and community benefit packages for production, processing &amp; retail; better wages for ag. workers; solidarity economies; land access; regulated markets &amp; supply</td>
<td>Dismantle corporate agri-foods monopoly power; parity; redistributive land reform; community rights to water &amp; seed; regionally-based food systems; democratization of food system; sustainable livelihoods; protection from dumping/overproduction; revival of agroecologically-managed peasant agriculture to distribute wealth and cool the planet</td>
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**Divergent Discourses**

The dominant regime that has contributed to social and environmental degradation, the food enterprise discourse, seeks to address agricultural issues in an increasingly productivist model, emphasizing the global market and increasingly relying on monopolies, land grabs, and intensification (Holt Giménez & Shattuck, 2011). Several movements have emerged in response to this regime. Food sovereignty, whose definition is currently in flux, represents an alternative to this neoliberal regime. As defined in the Declaration of Nyéléni, food sovereignty “is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems”; this movement places the needs of producers above corporations (La Via Campesina, 2007). While this definition is widely cited amongst scholars and community groups, there is still deliberation teasing out what food sovereignty means and what methods are adequate to work towards food sovereignty (Desmarais & Wittman, 2014; McMichael, 2015; Patel, 2009; Robbins, 2015; Wittman, 2011). Food sovereignty orientations are often connected to the element of localisation, supposing that sourcing locally will dismantle the global, corporate power structures of the corporate food regime and return power back to those communities. However, other aspects besides locality determine if local food initiatives actually contribute to food sovereignty, including character, method, scale (Robbins, 2015) and the underlying goals these initiatives work to advance (Born & Purcell, 2006). Despite localisation representing one aspect of the
alternative to the food regime that emphasizes global supply chains (Holt Giménez & Shattuck, 2011), more components are required to work towards a rights-based, food sovereignty alternative to the corporate food regime.

**Current Trends in Agricultural Planning**

Current trends indicate that agricultural planning is becoming increasingly contested and conflicted. Butt & Taylor (2018) demonstrate the increased politicization in Australia, showcasing how these tensions manifest themselves. In their case study investigating peri-urban zoning of intensive broiler farms, the governance process focused on the technical concerns and managerial processes, but ignored the political ‘other’: planning discourse emphasizes participation and consensus but in practice, the planning process is bounded, prioritising ongoing commercial activities over community input (Butt & Taylor, 2018). What constitutes a real farm in peri-urban areas was put into question, as intensive industrial operations defy the traditional model (Butt & Taylor, 2018). These conflicting definitions of farming demonstrated their effect on the social fabric of the community - the technical definition allows for intensive agriculture to be a legitimate form of farming (Butt & Taylor, 2018). This fact is contested by the community, as their perception of rural life and how farms should contribute to the social and economic fabric of the community differed from those evaluating the appeals (Butt & Taylor, 2018). This brings up the question of what is the function of farming - is it mainly to contribute to economic development or does farming also need to attend to the community’s desires? Overall, Butt & Taylor (2018) highlight that increased politicization in agricultural planning is not captured in the formal structures of the planning process:

> “Persistent concerns about intensive farming proposals (re)introduce the political to planning practice by inviting engagement with issues beyond an established understanding of the boundaries of concern for rural planning.” Butt & Taylor (2018, p.207)

*‘Othering’ as a trend in agricultural planning*

‘Othering’ is a means by which current policies and practices can lead to race, class, gender or other bases of discrimination, even if these policies are not originally discriminatory in their intent (Holifield, 2001), Pulido (1996), in Gibb & Wittman, 2012). Gibb & Wittman (2012) highlight the racist ‘othering’ apparent in the Vancouver food system in their case study. The Chinese parallel food distribution network in Vancouver developed as an alternative to the mainstream food network due to systemic racism and ‘othering’ (Gibb & Wittman, 2013). Similarly, Butt & Taylor (2018) highlight that the political ‘other’ were excluded in the planning process. There was no formal way to voice dissent regarding the ethics of animal-based
agriculture or alternative ideas of agricultural futures; they concluded that consensus-based planning processes exclude external sites of opposition (Butt & Taylor, 2018). However, Butt & Taylor (2018) do not strictly conceptualize the phenomenon as ‘othering’, despite it matching the theoretical definition. With the increased calls for democratization in planning, there is also the increased occurrence and identification of barriers to participation (Gualini, 2015). The shift towards participatory planning has led to viewing planning as not just a technical field, but also an inherently political field (Connell et al., 2013). This shift can contribute to the process of ‘othering’, wherein some perspectives are legitimized while other priorities are hindered. There is an inherent political tension between large scale and small scale farms, between peasant and industrial, and conventional and agroecological methods (Robbins, 2015) that can contribute to this ‘othering’.

However, there is a gap in research on ‘othering’ in agricultural development and governance that this project will try to address. Butt & Taylor’s (2018) example connected to the development aspect of how intensive poultry farming contributes to the economic and social fabric of a community, as well as how this influenced whose opinions and knowledges were legitimized in the planning process. So far, there has not been a thorough analysis of how ‘othering’ influences, or does not influence, farmers in the policy making and planning processes. This project will investigate how the methods of ‘othering’ manifest themselves in the local agricultural planning process, as well as on what grounds the ‘other’ is categorized and excluded; for example social groups, farming practices, marketing approach, and farming ideologies.

**Influence of government on succession planning for new and young farmers**

There has not been an investigation into how agricultural planning can influence new and young farmers. However, it is becoming increasingly apparent that provincial and local governments can play a role in supporting new farmers’ needs (Wilson & Martorell, n.d.). Additionally, government programs may be a key factor in supporting succession planning, as they can provide stability for new farmers to take over from ageing farm operators (Mishra & El-osta, 2008). In the United States, policy was determined to have a key impact on succession planning in the United States as those receiving financial support through government payments are more likely to have a succession plan (Mishra & El-osta, 2008). Laforge et al. (2018) assert that the local government is positioned as an actor to support new farmers and that the national policy should include specific provisions for these farmers. Select funding programs are available for new and young farmers, which will be elaborated upon further in the section *Ageing and Declining Farm Operator Population*. 
Participation in Planning

Public participation can be used to advance the goals of local agricultural government planning in development, land use, and governance. Arnstein (1969, p.216) posits that the “idea of citizen participation is a little like eating spinach: “no one is against it in principle because it is good for you”, indicating that citizen participation is widely accepted as a key component of a democratic system, such as local government planning. However, participation does not always lead to the extension of real power to the groups involved and is often limited to specific groups (Arnstein, 1969). Dorcey et al. (1994) build off of Arnstein’s theory by outlining the spectrum of public involvement as the following, in order of increasing levels of involvement: inform, educate, gather information and perspectives, consult on relationships, define issues, seek advice, test ideas, and ongoing involvement. Hurlbert and Gupta (2015) note that since Arnstein, there has been an abundance of sources stating the need for participation, but a lack of analysis regarding when participation in the planning process will be advantageous. A critical examination of each situation is needed to determine when public participation is beneficial.

Split Ladder of Participation

Hurlbert & Gupta (2015) build off of Arnstein’s (1969) theory to develop a diagnostic and evaluation tool which outlines conditions for when participation in local governance processes is more likely to work to address policy problems and what participation can achieve based on various circumstances (Figure 1). Their split ladder framework argues that participation is not always necessary depending on the structure of the problem (Hurlburt & Gupta). Other factors, including trust, the type of learning required, values, and uncertainty contribute to when participation is necessary. However, in order to build trust, information flows need to be increased and participation must be iterative (Huntjens et al., 2011; Pahl-Wostl, 2009). Hurlbert & Gupta (2015, p. 103) highlight that these information flows can be “one way, two way, ongoing iterative information flows, and information emerging primarily from citizens but in an iterative process.” The types of learning include single, double and triple loop learning. Single loop learning for structured problems refers to incremental change within existing frameworks, whereas double loop learning required for moderately structured problems relies on questioning the assumptions underpinning strategies (Pahl-Wostl, 2009). Finally, triple loop learning for unstructured problems requires questioning the norms that underpins assumptions to glean a deeper understanding in order to change worldviews (Pahl-Wostl, 2009).
This split ladder framework can be used as a diagnostic and analytical tool to determine when participation is needed in planning by positioning policy problems into the quadrants (Figure 1). Depending on the context and goals of stakeholders, issues that arise in agricultural planning can cover all four quadrants. Hurlbert and Gupta (2015) classify sustainable development and climate change adaptation as unstructured problems requiring greater participation (wicked problems). Various issues in the agricultural sector have been characterized as wicked problems such as land use conflicts (Everingham et al., 2016), the tension between access to food for vulnerable people and providing incomes for farmers (C. H. Nelson & Stroink, 2014), and agricultural environmental sustainability (Gieseke, 2016). Additionally, agricultural planning, as outlined above, deals with issues such as how to deal with the effects of climate change on the agricultural producers and the tension between economic development and preserving agricultural land, placing these policy problems in the ‘unstructured problems’ category, where there is a disagreement on scientific understandings and on values. However, these problems can be broken down into smaller, more structured problems, requiring different levels of participation and different forms of learning (Hurlbert & Gupta, 2015). This research characterized some of the disputes that arose in the study area to determine which problems may require increased participation in the agricultural planning process.

*Policy problems vs conflicts and challenges*

Within their framework, Hurlbert & Gupta (2015) note that situating policy problems in these quadrants and identifying when participation is needed may not always lead to consensus. A
policy problem is a “gap between a current situation and a more desirable one” (Robert Hoppe, 2011) ranging in structure and agreement on values and norms. The very identification of a ‘more desirable’ situation can be conflicted, especially in the food system wherein pathways towards a more sustainable future are contested (Fraser et al., 2016) Given this, conflicts between actors within the agricultural sector, as well conflicts between those outside and inside of the agricultural sector, may represent different opinions on how to reach this agricultural future (Butt & Taylor, 2018; Taru & Basure, 2013). Similarly, challenges facing new and young farmers may represent barriers to achieving this more desirable agricultural future (Laforge et al., 2018). Thus, challenges and conflicts may be reframed as policy problems by planners and policymakers (Robertus Hoppe & Hisschemoller, 2001). In the urban planning context, Gualini (2015) highlights that conflict plays an important role in planning by reintegrating the political into urban policy, leading to transformative change at the local policy level. Failing to integrate political contestations within the planning process can lead to resurgence of these issues in other realms (Butt & Taylor, 2018; Gualini, 2015). However, the split ladder framework relies on policy-makers and planners ability to restructure these conflicts and challenges, while maintaining their political nature, into the four quadrants. The framing of policy problems hinges on the perception of reality of those in the position of power to set the policy (Carroll, 1990; Robertus Hoppe & Hisschemoller, 2001).

Farmer Participation in Agricultural Planning

Academic research in farmer participation in agricultural planning in Canada has centred on environmental farm plan creation and adoption, which focuses on individual farms participation in a voluntary environmental awareness program at the provincial level but neglects investigating participation at the local level (Robinson, 2006; Atari et. al, 2008). Robinson (2006) detailed the bottom-up approach (as opposed to top-down approach) that involved farmers in the development of Environmental Farm Plans (EFP); Atari et al. (2008) outlined a similar case in Nova Scotia. Robinson (2006) found that peer pressure within the farming community contributes to farmers overcoming logistical barriers to participate in the EFP program. Those that viewed the environmental program as in line with what was considered ‘normal farming’ or ‘good stewardship’ were more likely to participate (Robinson, 2006). Additionally, another motivation for participating was that farmers feared that failure to voluntarily adopt measures outlined in the plan would lead to the program eventually becoming regulated and mandatory (Robinson, 2006). Atari et al. (2008) found that the following characteristics of participants in the EFP program in Nova Scotia compared to those who chose not to participate: farming longer, moderate level of experience (as compared to high or low), more likely to be livestock producers, and higher gross income compared to non-participants in the program. Research has neglected to investigate farmer participation at the local governance level; as an important exception, see Butt & Taylor (2018) for an example in Australia. Butt & Taylor (2018) claim that
there are farmers participating within the institutionalized system as well as those participating in alternatives to the hegemonic system.

The environmental awareness program examples emphasized the motivation of farmers to participate in EFP development processes since these were voluntary, self-selecting programs (Atari et al., 2009; Robinson, 2006) instead of characterizing who is participating in these processes. Atari et al. (2008) analyzed farmers based on characteristics related to their hypotheses on farmer motivations, including farmer age, experience, education, and type of agribusiness. Robinson (2006) does note some general characteristics, such as the proportion of farmers in Ontario participating and that livestock producers are more likely to participate, but does not offer a full characterization regarding the farms’ practices or scales, or the farmers’ ideology. By failing to analyse who is actually partaking in these voluntary government processes, research is unable to determine why some groups participate and why some do not; it can only ascertain what motivates those who do engage. This may not help reach the goals of designing effective planning processes, if programs and scholars are unable to determine what groups of farmers are currently being served by these processes.

There is a need to delineate and characterize the contributions of local food systems to food sovereignty (Robbins, 2015) and identify the role of local agricultural planning and other participatory actors in contributing to food sovereignty (Connell et al., 2013). Connell et al. (2013) highlight the need for research to examine agricultural land use planning processes and investigate what practices used in developing agricultural plans and policies are able to integrate multiple perspectives. This can be extended to include multiple types of farmers’ perspectives as well. A community-based management example found that creating a typology to categorize stakeholders involved in a vernal pond conservation issue resulted in enhanced communications with different groups and allowed for the identification of trusted sources of information (Jansujwicz et al., 2013). Additionally, classifying which farmers are present in this process may also lead to the identification of what farmers who may not be involved.

A Typology to Characterize Farmers

In order to reach a more nuanced view, characteristics outside of motivation, size, revenue and crop or product grown can be used to classify farms (Robbins, 2015), in contrast with the methods of classification typical of Statistics Canada and the methods used in the aforementioned examples. Statistics Canada mainly tracks data related to farm area and area of cropland, number of agricultural operations, number and age of farmers, area of cropland, land tenure, immigration status, and technology use as well as data related to farm financial statistics (income, capital, revenue and expenses) (Government of Canada, 2017b). While these statistics can help add background data to support part of the categories, they fail to paint a robust picture of the specific types of farmers in a region. Monllor (2012) is an exception, as new and young
farmers were characterized by their practices, entry to farming, and methods using New Agrosocial Paradigm Index (NAPI). This study found that new farmers’ attitudes and practices were more aligned with the agro-social paradigm (similar to food sovereignty) (Monllor, 2012). However, this example failed to integrate both adequately characterizing farmers and examining their engagement in planning by solely focusing on characterizing the farmers.

Robbins (2015) developed a typology that was informed by food regimes analysis (Holt Giménez & Shattuck, 2011), Harvey’s (2006) theory of uneven geographical development and Marx’s (Foster, 1999) idea of metabolic rift to define local food systems by placing local food initiatives on a spectrum. Their goal was to analyze how the local aspect of food sovereignty was represented using this spectrum and to determine if, in practice, the localisation dimension of food sovereignty really represents a more radical approach. A critique of their study was that they melded farmers, farms, and production and distribution related activities into ‘local food initiatives’, despite most of the examples provided focusing on agricultural production. This makes their framework more applicable to classifying farm initiatives, as was done in this analysis. By applying this directly to farmers, further refined Robbins’ (2015) typology as an analytical tool.

![Figure 2. Differentiating local food systems using character, method, and scale(Modified from Robbins, 2015)](image)

Capitalist character is a way of thought based on monetary capital and technology, whereas initiatives of a peasant character are rooted ways of thought based on the land. Methods span between productivist and conventional methods are connected to the corporate food regime and industrial agriculture, whereas agroecological and organic systems are tied to traditional and less intensive means of production. Scale can range from small to large scale, however, there are...
many measures of scale including size, network, level, and site. Large-scale operations are characterized as capital intensive and spatially extensive whereas small scale could mean closer to the household level (Robbins, 2015).

From comparing the characteristics and place along the spectrum of farms in the industrial food system to those of the food sovereignty movement, Robbins’ (2015) findings highlight how the implications of ‘local’ food initiatives do not always map onto radical or just methods.

**Ageing and Declining Farm Operator Population**

*Farmer Succession Crisis*

In Canada, the farming population has decreased dramatically: in 1931, 31.7% of the population lived on farms, whereas in 2016 less than 2% of the population lived on farms (Government Of Canada, 2018). Moreover, the average age of a farmer is getting older (current average is fifty-five years old) and only 9.1% of farmers in Canada are under the age of thirty-five as of 2016 (Government of Canada, 2017a), with only 8% of farms reporting succession plans (Government of Canada, 2018a). Many farm operators also work off-farm to diversify their revenue streams; young farmers are more likely to work off-farm than their older counterparts, as 58.5% of farm operators under the age of 40 work off-farm compared to only one third of farm operators over 55 (Government of Canada, 2018b). Farming may no longer be a feasible or attractive career for new and/or young people in Canada - as the farming population continues to age, there may be a lack of trained and skilled farm operators to replace them (Food Secure Canada, n.d.; Laforge et al., 2018). The European Union is facing a similar problem of a shortage of young farm operators and new entrants, and solutions need to be designed to engage with this issue globally (Kontogeorgos et al., 2017). Both young and new farmers are needed to support the succession crisis taking place in Canada and globally, however, the two groups are not mutually exclusive.

*Challenges facing New and Young Farmers*

The major challenges to new farmers in North America are access to capital, land, equipment, and markets (Held, Lisa, 2019; Key & Lyons, n.d.; Laforge et al., 2018). Across Canada, farmland prices, difficulty accessing financing options, low profitability, and access to education resources prove to be significant challenges (Laforge et al., 2018; Wilson & Martorell, n.d.); these challenges were echoed by the *BC New Entrant Needs Assessment* (BC Stats, 2019). Furthermore, some key national funding programs exclude new entrants in their eligibility criteria (Food Secure Canada, n.d.). In addition to the challenges of starting a farm, over half of farmers in British Columbia work a second job outside of farming (Government of Canada,
2017), leading to many farmers juggling multiple jobs, families, and commitments on top of managing a new farm.

**Defining New and Young Farmers**

Farming organizations in Canada have defined a ‘young farmer’ in relation to the ageing farming population. *Young Agrarians*, an organization working in British Columbia and Alberta to support new and young farmers, works with farmers twenty to forty years old to support their entrance into agriculture (*About Young Agrarians*, n.d.); similarly, the *Canadian Young Farmers Forum*, supported by the Government of Canada, defines a young farmer as between eighteen and forty years old (*Membership – CYFF*, n.d.).

In a Canadian context, a new farmer (also called a beginning farmer or new entrant farmer) is generally considered someone who has farmed for less than six years, as outlined by the Government of Canada’s Committee on Agriculture and Agri-food Studies (AGRI) at the national level and in the *New Entrants Needs Assessment* in the British Columbian context (*AGRI Committee*, 2011; *BC Stats*, 2019). AGRI set the definition of ‘new’ or ‘beginning’ farmers based on the average time for a farm to become ‘established’, however, it is unclear what ‘established’ really means (*AGRI Committee*, 2011). If a beginning farmer is generally considered a farmer that needs more support, given the difficult nature of farming and how entrenched some corporations or family operations are (which may have passed down multiple generations of knowledge and capital, in addition to land), it is incredible to believe that a new farmer may be able to achieve mastery and be operating at a similar level with other longstanding farmers in just five years. Furthermore, only considering beginning and young farmers fails to acknowledge the diversity of farmers that could be considered ‘new entrants’ (*Food Secure Canada*, n.d.) and fails to consider other sources of farm operators, such as include immigrant farmers, which are currently increasing in Canada (*Government of Canada*, 2019).

**Support for New and Young Farmers**

Funding programs designed to support inexperienced farmers across Canada vary in their identification of ‘beginning’ or ‘new entrant’ farmers: programs present in Prince Edward Island utilize AGRI’s definition of under six years farming experiences, whereas others narrow the eligibility criteria by only supporting farms that are just starting up and have no experience operating a farm (Quebec, Newfoundland and Labrador), and still others do not support new entrants, choosing to identify eligibility base on the definition of a young farmer (under 40) (Manitoba) (*La Financière agricole du Québec et al.*, 2016; *MASC - AgriInsurance*, n.d.; Newfoundland and Labrador Forestry and Agrifoods, 2019; *PEI Department of Agriculture and Fisheries*, 2020). Several programs across Canada exist to support new farmers with education, access to land and capital, and finances (*Wilson & Martorell*, n.d.). Specifically in the British
Columbian context, the provincial government defines new entrants as “individuals responsible for the management decisions in operating an agricultural or agrifood business for five years or less, or who intend to establish an agricultural or agrifood business” and programs exist to support these farmers (AgriService BC, N.d.), however, it is unclear how effective these are.

As demonstrated above, there are various ways to categorize farm operators who may need additional support for their farming career including beginning, new entrant, new farm operator, young farm operators; these definitions help identify farm operators who are facing unique challenges, however, there are limitations to these strict definitions, such as excluding other farmers who may need support and reinforcing a normative binary. Nonetheless, a working definition was determined based on accepted constraints (see Methodology section), but it is necessary to further characterize these farm operators using Robbins’ (2015) typology to form a more complete understanding of these farmers and how they may be contributing to food sovereignty goals and orientations.

Past research has focused on identifying policies to support new and young farmers, characterizing new and young farmers and the barriers they face, and investigating farmers motivations for participating in voluntary, on-farm governmental programs (Atari et al., 2009; Food Secure Canada, n.d.; Key & Lyons, n.d.; Monllor, 2012; Robinson, 2006; Wilson & Martorell, n.d.). There have also been increased calls for democratization of planning and increased representation of stakeholders in the planning process (Clark et al., 2017; Conell et al., 2016; Gualini, 2015). However, there has not been an investigation into how new and young farmers may actively be engaging in the agricultural planning process to contribute to alleviating these barriers.

Figure 3. Conceptual framework
The conceptual framework is a vital tool to analyse issues within a socio-ecological system (SES) to combine knowledge within ecological and social science fields (Ostrom, 2009). Ostrom (2009) used a nested framework to link subsystems to social, economic, and political systems, and other related ecosystems. The core components of the subsystem are resource systems, governance systems, resources units, and users, that interact with each other to reach certain outcomes (Ostrom, 2009).

Based on Ostrom’s (2009) framing, in the above conceptual framework, I focused on the agricultural resource subsystem. Interactions are noted on the arrows, whereas user groups and systems are in boxes. Using this conceptual framework, I examined how new and young farmers (users) participate (interaction) in the local government’s agricultural planning (governance systems) in order to address conflicts and policy problems (activities) to reach the social performance outcomes of improved sustainability and food sovereignty, as well as increased representation within these governance systems. Analytical framings are indicated in parentheses.

**Methodology**

A case study approach, similar to Yin (2003) and (Creswell, 2013), was conducted. A case study approach is suitable when the researcher has limited control over the behavioural events and when describing current issues contextualized in real-life (Yin, 2003). Case studies can build on knowledge domains in many situations including “individual, group, organizational, social, political, and related phenomena” (Yin, 2003, p.1). The case study approach allows a researcher to delve into complicated social phenomena. Thus it was a suitable means to study farmer participation. I seek to understand the various politicizing processes that contribute to farmers participating and examine the group structures of how these farmers participate in the Township of Langley. Although Yin (2003) highlights that case study research is most suitable for research questions beginning with ‘how’ or ‘why’ (Research Question #1), exploratory case studies are also suitable for ‘what’ inquiries (as utilized in Research Question #2) in order to develop a foundation upon which further research can build, as there has been limited research into farmer participation in planning.

The population of the case study was those engaging in the planning process. A document review of the Regional and District planning documents was conducted (see Appendix C). An ethics application (UBC Behavioural Research Ethics Board H19-00240) was approved in conjunction with the larger project: “Agriculture, planning and post-politics – an examination of governance approaches to agricultural planning and conflict” by Colin Dring. My own biases include growing up in an urban setting and I have not personally interacted with the agricultural planning process, but this point also gives me an outsider’s perspective. Additionally, through my schooling at a progressive, liberal university, many of my courses and peers have depicted
smallholder, agroecological farmers in a favourable light and vilified industrial farms. I regulated my implicit bias against industrial farmers by asking farmers open-ended questions, allowing participants to be unbiased in their answers, and educated myself on the context of Metro Vancouver Regional District (MVRD) by reading planning documents and meeting minutes as well as consulting with experts in the field.

Study Area

Figure 4. Township of Langley within Metro Vancouver Regional District (the Township of Langley indicated in red and Metro Vancouver Regional District indicated in green) (Esri, HERE, NPS, 2020)
Agricultural Profile of the Township

The Township of Langley (TOL) is a municipality located southeast of the City of Vancouver and directly east of the City of Surrey within the Metro Vancouver Regional District (MVRD) on the lands of the Kwantlen, Matsqui, Katzie, and Semiahmoo First Nations (Scheepmaker, N.d). The Township is one of the major agricultural municipalities in the MVRD, as its mild climate and soil conditions make the area ideal for agricultural production (Polasub et al., n.d.). The TOL has the highest value of Gross Farm Receipts in MVRD and is responsible for ~35% of MVRD’s total farm receipts (Lee, n.d.). Approximately 75% (23,423 ha) of the TOL’s land is in the ALR, however, only 10,807 ha are actually in production (Lee, n.d.). The Township’s agricultural land is divided into many small parcels: 73% of parcels are smaller than 4 hectares (10 acres), with 708 parcels of less than 4.2 acres (average size of 2.5 acres) and only 14% are larger than 8 hectares (20 acres) (Lee, n.d.). Moreso, there is an average parcel size of 4.6 hectares (11.4 acres), a minimum regulated size of 1.7 hectares (4.2 acres) and a maximum size of 97.8 hectares (241.7 acres) (Lee, n.d.).
The Township is a provincially regulated municipality, meaning that the Ministry of Agriculture must approve any of the Township’s proposed changes regarding farming in the ALR (Agriculture, n.d.; Jackson, 2014). Regulated municipalities are established under the Local Government Act when a municipality’s intent is to “prohibit or restrict agriculture within a farming area” (Agriculture, n.d.). The TOL was selected as a case study as agrarian and suburban ideals may come into conflict with development demands due to population pressure from the City of Vancouver. Additionally, areas of agriburbia, or peri-urban areas where agriculture still figures prominently into their community fabric, can be areas of dynamism and innovation (Newman et al., 2015; Sandul, 2010).

The population of the Township of Langley has experienced a 12.6% population growth rate in the last census period (2011-2016), a growth rate higher than that of Metro Vancouver (Township of Langley, 2020). These conflicts have come into force through disputes related to conflicting interests of councillors regarding development projects (Claxton, 2019b), competing land use between development and reconciliation with Kwantlen and other First Nations (Claxton, 2020). Additionally, the conflict between agricultural use and development include the competing demands between farming, road development, and housing needs in the case of Wall Farm development (Claxton, 2018), conflict between the Township and MVRD over rezoning ALR land for development (Nagel, 2013), and opposition towards exclusion of land in the Agricultural Land Reserve (Gathercole, 2017; Langmann, 2017). The Township is positioned as an actor to reconcile these unique demands through their role of planning and shaping their community, and exercising their vision through the adoption of bylaws (Ministry of Community Sport and Cultural Development, n.d.). This makes the Township an appropriate case study to investigate the role of farmers as important stakeholders within this context, given how much of the land is protected for agricultural use.

**Research in the Township of Langley**

Past research in the Township has focused on land use and watersheds (Wernick et al., 1998), ecological design and suburban development (Paterson & Connery, 1997), and water security (Norman et al., 2013). Most recently, the Institute for Sustainable Food Systems at Kwantlen Polytechnic University conducted a study on the Township of Langley’s Food System (Polasub et al., n.d.). The report aimed to strengthen the local food system by identifying areas of growth in the Township’s food system based on their computational model that evaluates a region’s self-reliance (Polasub et al., n.d.). This report identified that based on a 2016 baseline, the Township is able to mostly satisfy the area’s needs (>80% self-reliance) for poultry, dairy, and eggs, but this baseline fails to adequately meet the area’s needs for vegetables, fruit, red meat, grains, legumes, fats, and oils (Polasub et al., n.d.). However, the Township could make dramatic increases in food self-reliance in regards to those food groups if underutilized land is brought into production and focused on satisfying local needs (Polasub et al., n.d.). In order to increase food self-reliance and agricultural security in the Township, support must be given to the
producers of these products that show low self-reliance for the area, instead of solely focusing on the industries that are already thriving (poultry, egg, dairy) (Polasub et al., n.d.).

Young and New Farmers

Based on criterion for membership in young farmer groups and definitions widely used by the Government of Canada and the province of British Columbia, under forty was considered a ‘young farmer’ for the purposes of this study. A ‘new farmer’ was determined by the definition used by the New Entrants’ Needs Assessment (BC Stats, 2019) and the USDA’s census (Key & Lyons, n.d.): those with under ten years farming experience (regardless of site) were classified as new farmers, despite the technical definition used by the Government of Canada being under five years, as it is difficult to ascertain at what point a farmer obtains mastery (AGRI Committee, 2011).

Methods - Data Collection

Data was collected primarily through interviews, an online survey administered at the time of the interview, document review, and observations. Interviews were conducted in the Township of Langley in the MVRD or via video call. Interview and survey questions are outlined in Appendix A and B, respectively. Recruitment was through existing organizations (Young Agrarians, commodity groups active in the Township of Langley, other farming organizations), agricultural advisory committees, and through community networking events (ie Small Farm Session hosted by SPEC, KPU). Snowball (convenience) sampling was then used to gather more interview participants by asking interviewees to recommend other new and/or young farmers. Attention was paid to data saturation and high degrees of representation in the interviews. Document review focused on agricultural planning documents as outlined in Appendix 2. Observations were conducted during on-farm interviews. Seven interviews were conducted across the three groups (Table 2).

Table 2: Case study analysis spread based of new and young farmers in TOL

<table>
<thead>
<tr>
<th>Case Region</th>
<th>Case Site</th>
<th>Group</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Township of Langley</td>
<td>Young, &gt;10+ years farming experience</td>
<td>Group A</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Old, &lt;10 years farming experience</td>
<td>Group B</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Young, &lt;10 years farming experience</td>
<td>Group C</td>
<td>1</td>
</tr>
</tbody>
</table>
Limitations
Snowball sampling proved challenging, as many farmers recommended other young or new farmers that had already been identified for interviews, perhaps due to tight knit community connections and limited communication flows with farmers outside of their inner group. Additionally, many farmers that were identified as potential participants were already stretched too thin and unable to conduct interviews, despite being contacted in the down time before the start of the growing season. Reaching out to commodity groups and agricultural advisory committees proved fruitless. Ideally, more interviews would have been conducted (3-4 in each group) to incorporate more perspectives, however, the seven interviews still lend significant insight into the experience of new and young farmers in the Township.

Methods - Data Analysis
The case study method allowed for intra-case comparisons within Group A and Group B, as well as intercase comparisons between Group A, Group B, and Group C. Thematic coding, using NVIVO Qualitative Analysis Software, was based on the nodes outlined in Appendix D (based on pre-existing theoretical understandings of farmer participation) and revised into Appendix E to incorporate the themes that arose in the interviews. Additionally, the planning documents relevant to the Township of Langley were analysed for similar themes (Appendix C).

The analysis delved into the perception of the ‘other’, and the process of ‘othering’ of different social groups (e.g. based on race, indigeneity, farm practices, degree of industrialization, etc.) in the planning process.

I employed Robbins’ (2015) analytical tool to classify and compare the participation of farmers that exist along this typology and determine if different types of farmers’ participation levels vary. As agricultural planning deals with policy problems that can be categorized as unstructured (Hurlbert & Gupta, 2015), then the full range of farmers from different farm types must be participating in order to meet the sector’s needs. A survey was developed (Appendix B) to characterize each farm(er)’s scale, character and methods.

Hurlbert & Gupta’s (2015) split ladder of participation was used to analyse the conflicts that arose in the planning process and the issues that farmers believe agricultural planning is supposed to address, as well as the associated levels of trust and types of information flows. By determining where the conflicts that the agricultural planning process is supposed to address falls on their quadrants, I determine what level of participation is actually required in this process, contributing to the participation literature on planning.
Limitations

Further research is needed to fully operationalize Robbins’ (2015) typology to classify farm(ers) and other local food system components. A more rigorous survey tool may be developed in order to fully quantify and normalize each dimension (scale, method, character). Furthermore, metrics would need to be established to delineate categories for each dimension’s indicators. For example, determining more definable metrics for capital intensity, such as what amount of labour is considered large scale versus small scale depending on contextual factors, may be helpful. This classification still proved useful to delineate the differences between farmers who engaged in the agricultural planning process. This classification could be broadened to analyze other farmers engaging with the planning process and a widespread survey may be helpful to identify those who are supporting food sovereignty and identify potential strategies to engage with them.

Results

In this section, I present the results from surveys, interviews, and analysis of policy documents from the Township of Langley, Metro Vancouver Regional District, and the British Columbia Ministry of Agriculture (see appendices A-C). I begin with a table categorizing the farmers based on their responses to the survey in using Robbins (2015) typology. Then I summarize each group’s interview responses regarding involvement in agricultural planning, conflicts and challenges for the agricultural sector in TOL, farmers’ vision for the agricultural future, and barriers to participation, connecting farmers’ responses to the policy documents as appropriate.

Table 3. Robbins (2015) Typology applied to interview subjects based on survey responses (Appendix 1)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator or Survey Question</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (range, average)</td>
<td></td>
<td>37-39 (38)</td>
<td>51-65 (57.67)</td>
<td>Under 40</td>
</tr>
<tr>
<td>Total Farming Experience (range, average)</td>
<td></td>
<td>10-30 years (17 years)</td>
<td>2-6 years (4 years)</td>
<td>Less than 5 years</td>
</tr>
<tr>
<td>Scale</td>
<td>Total # of acres</td>
<td>2.5 - &gt;50 acres</td>
<td>5-20 acres (10 acres)</td>
<td>1.5 acres</td>
</tr>
<tr>
<td>Farm Ownership</td>
<td></td>
<td>Primarily sole owners, one farmer additionally cooperatively shared 20 acres</td>
<td>Land owners</td>
<td>Leased</td>
</tr>
<tr>
<td>Acres in production</td>
<td>Primarily Locally, direct to consumer, one instance of direct to restaurant/butcher shop (80% of sales)</td>
<td>Primarily, local direct to consumer, one instance of through a distributor (10% of sales) or direct to restaurants (40%)</td>
<td>Locally, direct to consumer (100%)</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
<td>Marketing approach</td>
<td>1.25-30 acres, (16.25 acres)</td>
<td>0.75-18 acres (7.5 acres)</td>
<td>0.5 acres</td>
<td></td>
</tr>
<tr>
<td>Labour</td>
<td>70-120 h/wk (96.67h/wk)</td>
<td>90-160h/wk (123.33 h/wk)</td>
<td>Unavailable</td>
<td></td>
</tr>
<tr>
<td># of Labourers</td>
<td>2-4 (3)</td>
<td>1.5-5 (3.5)</td>
<td>Unavailable</td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td>Organic-practicing (not-certified), crop rotation, soil conservation, Nutrient recycling; farms also applied manure (2), practised water conservation/recycling techniques (2), hedgerows (1), no-till (1), permaculture (1), IPM (1) pasture-based, outdoor, heritage breed focus (1)</td>
<td>Organic Practices (2 practising, 1 certified), conservation tillage, application of manure, water conservation and/or recycling techniques, soil conservation, nutrient recycling, biodynamic (1)</td>
<td>Pastured, Soil conservation, Nutrient recycling</td>
<td></td>
</tr>
<tr>
<td>Range of Farm Practices</td>
<td>Diverse: a market garden (veg only), a livestock (pork, eggs, lamb) operation, a mixed operation w/ high value crops</td>
<td>All mixed productions: a combination of vegetable or forage and livestock</td>
<td>Eggs, Lamb, Pork; Live animals</td>
<td></td>
</tr>
<tr>
<td>Why farming is important (most - least important)</td>
<td>Varied between farmers, with one farmer selecting 8 of the following, another selecting 5, another selecting 0: Provide food for the community, Provide food for your family, Sell to make a profit, Create a viable and productive farm, Have an efficient farm, Contribute to the environmental movement, Provide culturally-appropriate foods for members of the community, Steward the land for future generations</td>
<td>Primary goal for all was to provide food for their family; other shared goals within top five: provide food for the community, mitigate climate change, contribute to the environmental movement, and steward the land for future generations</td>
<td>Create a viable and productive farm, Provide food for their family, Make a living, Have an efficient farm, Steward the land for future generations, Sell to make a profit, Build a successful enterprise that is competitive</td>
<td></td>
</tr>
<tr>
<td>Definition of Farmer</td>
<td>Ranges from just production-focused to more holistic (steward of the land and nourish community; including less visible labour - spouses, employees on larger farms).</td>
<td>Ranges from just production-focused to incorporating ideas of a farmer as being hardworking and underappreciated or using sustainable and environmentally sensitive techniques.</td>
<td>Unavailable</td>
<td></td>
</tr>
<tr>
<td>Additional comments³, unranked</td>
<td>Motivations vary: Creativity, growing food and working outside is satisfying; farm provides an example of what is possible on a small scale, ecologically-minded farm; “Love the land I grew-up on” (only reason listed).</td>
<td>Teach those who do not farm why our food source is important; Preserve heritage breeds; Health issues with the current food system motivated to go into farming with no chemicals.</td>
<td>Independence, living close to the land</td>
<td></td>
</tr>
</tbody>
</table>
| ³ Typed in by survey respondents.
Farmer Classification

Character
Both motivations for farming and how farmers define the term ‘farmer’ allude to the character of the farmer. This can glean insight into if their ideology and motivations are capitalist/industrial or agrarian/peasant oriented. Within Group A, farmers’ motivations varied widely - one farmer had diverse set of reasons aligned with peasant and neoliberal\(^4\), another farmer’s response focused on the peasant dimensions and the third farmer was solely motivated by their connection to the land they grew up on, but their interview demonstrated a strong capitalist line of thought through a strong business and profit-driven goal (in order to sustain their own livelihood). The definition of a farmer provided further insight; the farmer whose responses aligned more with capitalist, market values also focused on the production aspect of the definition, whereas the other two farmers had a more holistic definition that emphasized the land and acknowledged the less visible workers besides the farmer. There was more homogeneity within Group B, as this group prioritized growing food for their family (subsistence production, a peasant value) and other responses that were not profit driven, demonstrating a closer connection to land-based principles. Their definition of a farmer also ranged from a production-focus (more aligned with capitalist values) to those of capital accumulation, including sustainability. The farmer in Group C was a mix of capitalist and peasant motivations, but still prioritized the connection to the land (as demonstrated in the additional comments) (Robbins, 2015).

Method
Again, there was more homogeneity within Group B, as all farmers ran mixed vegetable and livestock operations, used organic practices and ecological methods. This group was closely aligned with the ‘agroecological’ end of the spectrum. The farmers in Group A were also closely aligned with the agroecological side, however, these farmers exhibited less biodiversity as each of their operations were more focused. The farmer in Group C was less aligned with the agro-ecological pillar, due to the lack of diversity and the fact that they were not organic practicing or certified, but they were still not aligned with conventional methods as they did not select the associated survey options\(^5\) and they ran a pasture-based operation (Robbins, 2015).

Scale
Given the parcelization of the Township’s land and that the minimum regulated size is ~4 acres, less than ~4 acres is considered very small scale, greater than 20 acres is considered large scale, as only 14% of farms in the TOL are greater than 20 acres (Lee, N.d.). Interpolating, 4-12 acres is small-scale, and 12-20 acres is considered average. Based on this distinction, the farmer in Group C is considered very small scale. Range was exhibited within the farmers in Group B as

\(^4\) Peasant (related to land) options: Provide food for the community, Provide food for your family, Contribute to the environmental movement, Provide culturally-appropriate foods for members of the community, Steward the land for future generations. Capitalist options: Sell to make a profit, Create a viable and productive farm, Have an efficient farm.

\(^5\) Ie use of pesticides, herbicides
two of the farmers are considered small-scale and one is considered average. Similarly, range existed between farmers in the Group A: one was considered very small scale, one very small scale and the other large scale. For scale as a level, all of the farmers were closer to the household level; the farmers in Group B grew food primarily for their families, but the majority of participants sold directly to consumers, indicating their alignment with small scale definitions (Robbins, 2015).

**Farmer Engagement**

Based on the interviews with farmers, the main modes of farmer engagement with the agricultural planning process included participation in public consultations, development applications, and informal processes, such as involvement in volunteer or nonprofit organizations (including the Langley Sustainable Agriculture Foundation (LSAF), Langley Environmental Partners Society (LEPS), Langley Small Farm Network, and the newly formed Langley Farmers Institute). Five of the farmers were engaged in the Langley Farmers Institute and the Small Farm Network to some capacity (two in Group A, two in Group B, and the farmer in Group C). Many farmers also participated in engagement processes outside of the Township of Langley (ie in-person and online consultations at the provincial level; Environmental Farm Plans), but these were outside of the scope of this project. None of the farmers that were interviewed indicated engagement in formalized planning processes such as through participation in Agricultural Advisory Committees and more involved longstanding public consultations.

These modes of participation can be qualified using Dorcey et al.’s (1994) spectrum of public involvement. Involvement in research included farmer’s consulting on agricultural issues, where their opinions and findings were reported back to the Township. LSAF and LEPS help to define agricultural issues and test out new ideas with some collaboration on behalf of the Township, as councillors sit in on their meetings and act as advisers. For example, a “learning farm” was recently approved by council that will be managed by LSAF and LEPS (Uytdewilligen, 2019). LSAF and LEPS are also organizations that educate the public and other farmers, as sometimes the Township provides funding for some of their events. The consultations identified were meetings discussing how ‘rural living’ could be improved in the Township with farmers and

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6 The Langley Sustainable Agricultural Foundation is a nonprofit foundation that hosts workshops on food and farming for various food system stakeholders in the Township in order to increase awareness and education on matters related to farming (Langley Sustainable Agriculture Foundation, n.d.)

7 The Langley Environmental Partners Association is an organization that works with various business, community, and government partners to achieve its goal of “protecting and restoring the natural environment through education cooperation and action” (Langley Environmental Partners Society, n.d.)

8 The Langley Small Farm Network is an informal community on Facebook that also hosts events - through a Facebook group farmers and community members share resources. The Langley Farmers’ Institute has emerged from that group, although it is open to all sizes of farmers as a voice for farmers in the Township (Revisiting resurrection of farmers’ institute for Langley, 2019)
other dwellers of the rural areas. This consultation allowed the Township to gather information from residents. Although the LFI does not have a formal role as it is still emergent, it is seen as a potential voice for farmers to use to define issues and provide a voice for farmers to the Township (Ministry of Agriculture, n.d.).

**Farmer Engagement by Group**

The Farmers in Group A were often involved in ongoing processes that were higher up on the spectrum of involvement, but in diverse ways including research, informal networks, attending public consultations, and volunteering with nonprofit groups such as LSAF and LEPS as board members. Through these ongoing engagements, they are able to define issues and offer advice to the Township, while maintaining ongoing iterative communication flow with the Township (Dorcey et al., 1994; Hurlbert & Gupta, 2015).

The Farmers in Group B were less regularly involved in decision making or ongoing roles, as their primary method of engagement was in public consultations and as general members of farmer groups (like the Small Farm Network), where their primary mode involvement was being informed of the Township’s policies as well as the Township gathering their opinions (Dorcey et al., 1994).

Incidentally, Group C could be considered somewhat exceptional in regards to farmer participation in agricultural planning, as their other mode of employment related to agricultural planning in the Township (in addition to their farm operation). They had ongoing involvement through consultations, involvement on nonprofit boards, and involvement in the farmers groups. Thus they were involved in testing ideas, seeking advice, gathering information and perspectives, and defining issues in the agricultural sector of the Township (Dorcey et al., 1994).

All but one farmer, who was in Group B, primarily heard about these opportunities through word of mouth or social media. All farmers, except for the farmer in Group C, were unaware or had a very limited understanding of the implementation of the Township’s agricultural plan, the Agricultural Viability Strategy (AVS).

**Barriers to Participation in Local Government Planning**

Several barriers were identified by participants that were interconnected: time constraints, low level of understanding of policy and agricultural planning processes and document, and effort to attend and find out about opportunities to be involved.
Time Constraints

The majority of farmers in Group A and C work a second job (all but one), contributing to the fact that time constraints and the effort to engage in these extra meetings was a major factor. A farmer in Group A highlighted this challenge:

“I just can’t make it to all the meetings I want to be a part of, because I have a family, I work a night job to pay for my farming, and I am physically and mentally exhausted from the amount it takes to try and farm.”

-Farmer in Group A

Another farmer in Group A offered that engaging with the local boards “take[s] up time that you could spend on a farm if you wanted to.” illustrating that there is an inherent trade off between participating in these engagement processes and working on the success of your farm.

Level of Understanding & Comfort

In contrast, all of the older farmers (Group B) often had previously high paying jobs or are currently retired, and knowledge or awareness of where farmers can get involved was a larger barrier. When asked about the role of farmers in municipal planning, a farmer in Group C answered that “I’m not well enough informed about the farming community, having not been a farmer for most of my life, how they’re involved with the function of regulation and policy”. This indicates that there might be a knowledge gap of how these regulatory processes function and the avenues farmers can be involved in. A farmer in Group C highlights that they have noticed that the biggest barrier for other farmers engaging is “the barrier of understanding what the planning and regulations actually are, they are pretty unreachable in terms of what the zoning is.”

One farmer in Group A highlighted that it may be a combination of comfort and level of knowledge, as being involved on some of these boards “requires a certain breed of people to be involved… and to do it on your own time without pay…”.

Interestingly, many of the farmers (two thirds of the farmers in Group A, one farmer in Group B, and the Farmer in Group C) that were more involved already had an interest in these political process, as exemplified by previous or current work in the government or legal system, or current studies of governance structures; this demonstrates how farmers who feel comfortable in
these organized spaces (as opposed to those who lack this experience) are more likely to engage in these processes, as these barriers appear lower.

**Effort to identify and attend engagement opportunities**

A similar interconnected challenge was the effort it takes to find and attend engagement processes. One farmer illustrated this:

> “I’m just working to keep my head above water and keep my business running but I do care. And if there was an easy way to participate I absolutely would.”

*Farmer in Group A*

Communication flows were identified as an associated barrier by five of the seven farmers (two in Group A, two in Group B and the farmer in Group C) to finding out about these engagement opportunities and how to get more involved, as there does not appear to be a centralized source of information. There is also evidence of a division of communication between different farming groups in the Township. This is proving to be a barrier to get different types of farmers involved in the Langley Farmers Institute that is open to all types of farmers. Farmers involved with the LFI indicated that their engagement thus far has been with primarily smaller scale producers (i.e., those who were existing members of the Small Farm Network).

One farmer outlines the challenge of communicating with this other group of farmers:

> “There’s definitely a whole cohort of farmers, particularly the commercial farmers, ones that are producing commodity products, that don’t use social media because they don’t need to promote their products, they don’t have a public brand. The only way I’ve found to reach them is through farmers that I know... So I would say there’s really distinctly been two groups of farmers in Langley in terms of communication.”

*Farmer in Group C*

This indicates that there may be a whole other set of new and young farmers that are engaged in the planning process that may experience other barriers to participation based on these communication flows.

**Conflicts Identified by Farmers**

Several conflicts emerged through the interview process. When asked directly about conflicts, many respondents struggled to identify conflicts within the agricultural sector or conflicts between the agricultural sector and those outside of the sector. Instead, several responses focused on challenges farmers are facing.
Conflicting Definitions of Farmer & Farming

Across groups, all interviewees identified how the definition or legitimacy of a farmer was contested in regulatory and public participation settings, as well as contributed to conflict in the area. Three farmers (1 in Group A, 2 in Group B) identify that legislation outlining ‘normal farm practices’ and a ‘bona fide farm’ does not necessarily match their operation and is not inclusive of farms that do not fit within the bounds outlined in the regulation (such as mixed or smaller scale operations). One farmer in Group A highlighted how farmers can receive complaints from their (non-farming) neighbours and are “put through the stress and financial burden of having to defend [their] farming practice” causing unnecessary emotional and economic hardship, whereas a farmer in Group B expressed their frustration with legislation defining a ‘bona fide’ farmer.

One farmer highlighted this dispute:

“When I saw the definition of this ‘bona fide’ farm, I practically fell off my chair. Because I thought it’s interesting when the average parcel size in the Township of Langley is less than 10 acres, and [the legislation outlines] 350 hogs, … 240,000 chickens… The only thing [the legislation recognizes] as a farm is basically industrial farming.”

-Township of Langley Farmer in Group B

Furthermore, some farmers were implicitly given more legitimacy by other farmers in consultations and group meetings due to the scale of their production and the seriousness of their business; this was an implicit assumption across Group A and C. In response to the question “Who are some of the more influential voices?” (referring to voices in various engagement processes) one farmer responded “people who are serious about farming as a business, which I was surprised to find is a fairly limited pool in Langley.” (Farmer in Group C, interview). Regarding a similar question about a public consultation on rural living, another farmer highlighted that “obviously the more productive a farm is, the more weight they might have in

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9 Normal Farm Practice are established as “a practice that is conducted by a farm business in a manner consistent with (a) proper and accepted customs and standards as established and followed by similar farm businesses under similar circumstances, and (b) any standards prescribed by the Lieutenant Governor in Council,” under the Farm Practices Protection (Right to Farm) Act (FPPA); the BC Farm Industry Review Board uses this definition to deal with complaints regarding farm practices (British Columbia Ministry of Agriculture, 2020b). This legislation is applicable for farm operations on ALR land, land locally zoned for farm use, areas designated for aquaculture, or Crown land that is designated for farming (British Columbia Ministry of Agriculture, 2020b)

10 The British Columbia Assessment Act defines a ‘bona fide farmer’ based on eligible land and specific qualifying agricultural uses as well as different income classes based on farm size (BC Assessment, 2020; British Columbia Ministry of Agriculture, 2020a).

11 The farmer would be defending their practices to the BC Farm Industry Review Board under the FPPA.
the conversation” (Farmer in Group A, interview). Farmers that had participated in public consultations on rural living or meetings with the agricultural volunteer organizations (two farmers in Group A and one in Group B, including the farmer the quote came from) indicated no one voice dominated in the meetings they participated in. However, the aforementioned quotes demonstrate that there may be implicit biases between farmers based on their scale and ideology, and those who are more productive or capitalist minded are more likely to have their logics upheld.

Additionally, two farmers in Group B conjectured that intensive, non-agroecological farm operations that did not support food production (such as marijuana and horse farms) did not fit within their personal definition of farming which places more emphasis on sustenance and supporting the community and environment, despite aligning with regulations:

“For the small farmers it’s sort of like, yah right we can’t have mobile put on for our family or for our workers but you guys can take over a whole section of land, basically concrete it over and put buildings and say you’re growing cannabis, healthy cannabis, which it’s not, it’s all hydroponics with chemicals, and call that farming.”

-Farmer in Group B, regarding marijuana operations in the Township

Another farmer in Group B echoed that discrepancy, but from a different standpoint:

“I consider myself a farmer in the sense that what we are doing is obtaining from this piece of property substance and sustenance. [However], in the context of the culture in which we live I could add that question. I would say I’m sort of a farmer-kind of but it’s not my main source of income; it’s my main activity in the sense that this is what I do most of the day”.

-Farmer in Group B, highlighting the internal conflict of defining themselves as a farmer

This farmer went on to compare themselves to their relatives who are farmers operating larger-scale farms and obtaining their sole income from farming. Because of the framing of how they perceive society to define a farmer, they believe they do not fit into this definition as they do not do it for their main source of income, despite still identifying with their personal

[12] Marijuana production is allowed on ALR land, although the Township have attempted to introduce bylaws to place extra constraints on marijuana operations (Claxton, 2019a) and there have been complaints regarding smell across the province (Hopes, 2019). Horse farms account for a significant amount of agricultural land in the Township, as the Township has the most horse farms of any British Columbia municipality and Langley is known as the ‘Horse Capital of BC’ (Don Cameron Associates, 2013).
definition of a farmer as well as meeting the regulatory definitions. This differs from the other members of Group B - despite holding similar definitions of farming as contributing to personal sustenance, this farmer still defers to more established farms as meeting the criteria to be outwardly labelled as a farmer.

Conflicting Permitted vs Ethical Land Uses

The Agricultural Land Reserve (governed by the Agricultural Land Commission) was another point of contention, as farmers were frustrated by property owners abusing the system that was supposed to preserve farmland. All farmers identified housing (including house size and second residences) on ALR land as a conflicting point but farmers fell across the spectrum of support. Some farmers in Group A (1) and B (2) expressed the need for farmers to have second residences to support the viability of farming.

“I think misconception over the large mansions. Like everyone thinks that’s such a big problem, which it is, but to restrict people to 5000 sq ft is a huge hindrance it ultimately kills the farms in BC.”

-Farmer in Group A

Other farmers in Group A and B were against large housing on ALR land in order to preserve agricultural land. One farmer in Group A highlighted this how the ALR system causes problems at the neighbourhood level:

“But it’s well known that people abuse the system to not pay taxes which harms the Township as a whole. And I personally think that the structure of that is severely flawed… [The tax break is] a huge incentive for people to not actually farm. Or to not farm in a financially sustainable way which hurts people like me and does cause conflict.”

-Farmer in Group A, referring the the ALR system

Finally, a member of Group B and Group C each provided a more neutral view, acknowledging that it is a complex topic with no easy answer.

In connection to the housing conflict, another farmer in Group A highlighted more generally that the housing conflict represents a larger conflicting view between what is “proper land use” in this peri-urban setting:

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13 This is largely in response to Bill 52, which limited the total floor area of a residence to 500 m² on ALR land and sought to reprioritize agricultural land protection (Agricultural Land Commission, n.d.)
“That’s I think the biggest conflict, proper land use. And that’s just unfortunate, there’s a lot of people who like to live in the countryside and have their big place and then they... no idea what it means to actually operate and the means of that... People think, oh you go to the country and it’s all quiet. But if you live in the country it’s not always quiet, because you have tractors in the spring... or people working away on the land all the time.”

-Farmer in Group A on land use within the ALR

In summary, these quotes highlight that the housing conflict represents a larger conflict between those wanting to farm for agricultural purposes who view the ALR as a tool to support farming and food security, whereas others may want to live out on the land to experience rural living or to receive the tax break. Some farmers viewed housing as viable to support for the feasibility of farming as a second residence for their family or to provide housing for workers, whereas others viewed the allowance of large houses on ALR land as a threat to farming, as it leads to conflict at the neighbourhood level.

Distrust in Township’s Role in Administering ALR land

Farmers also noted the conflicting and confusing role that the Township had in administering ALR land. All farmers in Group A highlighted this as a conflict, as well as one farmer in Group A and one in Group C.

“Usually it’s the ALR restricting everything in our lives but the Township actually restricts that which I find really odd. Because you think the Township would jump on anything the ALR has.”

-Farmer in Group A on how the Township restricts the number of cabins, whereas the ALR permits a greater number

This challenge is especially topical now as Bill 15 comes into effect, which no longer allows individual property owners to apply for exclusion from the ALR; this application will come through local governments (Bill 15 – 2019, 2019). This is especially relevant given the fact that the Township is a regulated municipality and their planning efforts have been at odds with farming in the past (British Columbia Ministry of Agriculture, 2020b; Nagel, 2013). A farmer comments on how land has been excluded from the ALR in the past:

“One thing I’ve noticed in Langley is part of how farmland gets taken out of the ALR is it's deemed not good enough to farm, they call it “marginal land” and the questions that I would be asking the Township is ‘says who?’... according to an industrial system or according to someone like me who could build that pasture up and make it a carbon sink and actually mitigate the flooding. So those are from
a policy point of view locally, I view that classification of farmland as a knife edge that’s really starting to chunk off parts of our ALR. Which is crucial. And we need the Township’s support in fighting for that... The more that the Township... can support us, in protecting that... That’s one of our most precious resources here locally.”

-Farmer in Group A on the Township’s role

Other farmers in Group A and C more indirectly state an implicit distrust of the Township through statements such as “Again, the planning is really just, not very modern, seems to be more influenced by the developers who were funding some councillors for the re-election.” These farmers highlighted how there exists a distrust between farmers and the Township, as the Township has used their planning tools and power to mitigate opposing views on what is necessary for farming.

Challenges to Farming

Access to Livestock Processing Facilities

Farmers across Group A (2), B (1), and C (1) indicated that access to processing facilities was a particular challenge for livestock farmers. Previously in 2018, a farmer had applied to set up an abattoir in the Township and the application was blocked, despite the British Columbia Ministry of Agriculture allowing slaughterhouses based on their zoning regulation\textsuperscript{14} (Gathercole, 2018). Another local farmer (who was unavailable for an interview at this time) has most recently been working to allow an abattoir for small-scale producers in TOL and has allegedly also been blocked by the Township. Interviewees indicated that current abattoir regulations do not support small-scale producers as they do not do custom cuts and, by law, are required to meet large minimums regarding the number of animals. This finding is supported by a report on processing facilities in the Township that identified a lack of processing facilities for small-scale producers (Batra & Robert, 2018).

Economic Feasibility & Reduced Profitability

All farmers outlined how farming is becoming less economically feasible; all farmers interviewed either work a second job, previously worked a well-paying job or had revenue from property before transitioning to farming, or are retired (none of them fully sustain themselves off of their farming revenue). One farmer in Group B recently made the decision to stop farming due to rising costs associated with how labour intensive their operation is and their inability to compete with other cheaper produce options. They identified that one of the main challenges contributing to them quitting farming was the “government [allowing] all this food to be

\textsuperscript{14} This is further complicated by the fact that the Township is a regulated municipality.
imported from Mexico and the US, from really cheap places” which has led the public to be used to low food prices (despite this farmer selling direct to consumer and not competing directly with these commodities). This point notwithstanding, several farmers indicated that it was challenging to run a profitable farm.

**Regulation**

Furthermore, some farmers indicated regulation plays a large part in decreasing the viability of farming, as regulation was perceived to complicate the farming process. Specifically, the farmer in Group C indicated that navigating regulation is challenging for most farmers and farmers in Group B acknowledge that regulation (from both the Township and ALC) can be a hindrance to farmers and how when regulation is contrary to what is actually happening on farms, it leads to farmers losing trust in the government. This farmer in Group B indicated that the “biggest threat to farmers is actually the ALR” and that the government “went too far” and “crossed the line of anyone’s ability to function”, suggesting how oppressive the regulation feels for farmers already struggling with the economic feasibility of farming.

**Role of the Township in addressing conflicts and challenges**

Many farmers in Group A and C were unable to identify the role the Township and local planning tools could play to address these challenges and conflicts in order to support new and young farmers. Even the farmer in Group C, who has had arguably the most exposure to the agricultural planning process, was at a loss as to how the Township could address some of these conflicts, stating “I don’t know, I’m not really clear on what the agricultural planning process is in Langley, so no idea”.

When asked “Who determines the status of these conflicts?”, a farmer in Group A acknowledged that before there were farmers’ groups, “you run around like a chicken with your head cut off trying to figure out what to do”, suggesting that it is unclear how the Township actually figures into these challenges and conflicts.

**Working Towards a Vision for Agricultural Future**

While farmers were unsure of how the Township could address conflicts, many were certain that farmers needed to be a part of the local planning processes. A clear theme emerged that many farmers are already implementing practices that they view as future-oriented (ecologically sound, supporting biodiversity, producing nutritious food for the community) without the support of the local government. Farmers identified that this change towards this vision will come from the farmers and grassroots action.
When articulating their ‘vision’, many farmers in Group B decentered themselves in how to achieve this vision and failed to envision a larger future than just individual farm practices. For example, one farmer stated that this change will come from “banning of glyphosate” and another farmer highlighted that the regulatory definitions need to change to “recognize that not just the organic farmer, but the regenerative farmer”. In this sense these farmers are not suggesting to organize or come together around these shared struggles, despite their involvement in organizations like the Small Farm Network and the LFI. Another farmer in Group A highlighted a similar notion, that many farmers are already working towards a vision of agricultural future through “smaller lots producing nutritious food in an ecologically sane way” but that it is “without a lot of support from the government”. They rest in the assumption that it is up to the regulation to change to allow these practices more easily, pointing to a disengagement with the political aspects of agricultural planning and a focus on the technocratic and permissive regulations.

However, young farmers in Group A and C acknowledged that this change comes from “people coming together, forming institutes, getting group voices together to push change” (Farmer in Group A) and this change must be “grassroots… [and] it really has to come from the farmers” (Farmer in Group C). Another farmer in Group A noted that due to the “government just going that step too far” led to “more people..getting more organized”. In this sense, some farmers are looking to organize and find a common voice to represent these views that are in conflict with regulation and the Township.

Discussion

Situating Policy Problems within the Split Ladder of Participation

As demonstrated above, there is a lack of new and/or young farmer participation in formalized planning processes or through ongoing dialogue or higher levels of involvement. The exception is through newly formed farmers’ organizations that are beginning to organize farmers and have the potential to interface with local governments. However, planners may not be formally involving farmers to solve these problems yet. Farmers’ inability to identify conflicts in the sector speaks to the fact that many farmers may not be at a point where they can consider these broader conflicts between farmers or between the farming community and those outside the community, as they may be too focused on their own livelihoods. Past research in Canada on EFPs supported this notion, as farmers that had moderate amounts of experience and higher gross incomes were more likely to have the flexibility to engage in programs (Robinson, 2006). In this case, planners may be able to play a role in reframing the perceived challenges and conflicts identified by farmers as policy problems to be able to identify the amount of participation required, however, this still requires the initial identification of these challenges through engagement.
As indicated in the Background, the structure of a policy problem and trust that stakeholders (farmers) have in decision-makers dictate the amount of participation required and the associated communication flows (Hurlbert & Gupta, 2015). To demonstrate, I situate a selection of the perceived conflicts and challenges identified by new and young farmers into Hurlbert & Gupta’s Split Ladder Framework (2015) (see Figure 1 in the Background) based on the structure of these policy problems.

Example 1: Conflicting Definitions of Farmer & Farming

The legitimacy of different farm practices and whose logics are upheld, and how these manifest themselves within the regulation can be considered a moderately structured problem. Interviews with farmers noted that there was a distinct disagreement on the values or ideology that informed - farmers often cited a desire to improve community food security and steward the land as there motivation for farming, and their methods of achieving this (small-scale, diversified farms) did not align with regulatory definitions that were more well-suited to larger scale, less diversified operations. This moderately structured problem fits into Quadrant Three, where high participation, high trust, double loop learning, adaptive governance, and higher levels of trust are required.

Example 2: Access to Livestock Processing Facilities

This problem can be characterized as well-structured in Quadrant Two as there has been agreement from various sources that TOL is lacking processing facilities, particularly for small-scale producers (Batra & Robert, 2018). Policy problems in Quadrant Two require high amounts of problem solving, lower amounts of participation, and single loop learning. Despite this agreement, the Township has failed to address this policy problem potentially due to the lack of trust, as problems within Quadrant Two require high levels of trust. In order to address this policy problem, public involvement may still be required to test and hypothesize ways to address this policy problem within the normative framework of the municipality’s OCP or Agricultural Viability Strategy (AVS).

Example 3: Conflicting Permitted vs Ethical Land Uses

This problem can be situated within Quadrant Three as a moderately structured problem - there is a low agreement even within farmers as to what is considered an ethical use and this comes into conflict with the current regulations. This problem also requires high participation, high trust, double loop learning, adaptive governance, and higher levels of trust.

As outlined in the Results, farmers spoke to a low level of trust towards the Township. When looking at the structure of the policy problems, it becomes necessary to increase levels of trust in
order to effectively complete single and double loop learning. Not all problems require increased amounts of participation. However, because many new and young farmers are not engaged and are unaware of how to receive information from the Township, even the lower rungs of the ladder may still be inaccessible.

**Information Flows**

The interviews with farmers supported the concept that lower levels of farmer involvement were connected with decreased trust and lower information flows (Hurlbert & Gupta, 2015). The ways that farmers were engaged in the agricultural planning process were primarily on the lower levels of participant involvement (Dorcey et al., 1994) including gathering information and perspectives (consultations), defining issues and testing ideas in the case of LEPS, LFI, LSAF, or consulting (as in the form of research that then goes back to the Township). Many of these processes relied on one way information flows, as there was no apparent follow up from the consultations. Some of the engagement between the Township and the volunteer organizations involved two way information flows, as the Township will provide feedback to the organizations, however mistrust is still evident. One individual had ongoing involvement in a consulting position, but that was anomalous among responses.

The process of planning in the Township lacked transparency for the farmers engaging in ongoing involvement. There was greater uncertainty in the Township of Langley’s ability to address these conflicts or issues and increased uncertainty in how farmers can be involved in these processes. The Township of Langley does not seem to be at the informed level or one-way information flow (ie from farmers to the Township), since many farmers are still unsure of how to get involved or how to communicate to the Township. A study on trust in environmental governance in Korea found that clear communication flows were essential for building trust in order to tackle complex policy problems (Tsang et al., 2009). Pahl-Wostl (2009) and Huntjens et al. (2011) identified that in order to build trust, increasing information flows and iterative processes of involvement are necessary, however, farmers are unclear what avenues this may take. Due to this lack of trust and limited information flows, it is difficult to iterate and move up in the spectrum of public involvement in order to integrate the voices of farming in the agricultural planning process.

**‘Othering’ in Farmer Participation**

While past examples have found that ‘othering’ was based on racial dimensions (Gibb & Wittman, 2013), ‘othering’ manifested itself differently in the Township. There was evidence of ‘othering’ based on farm practices and scale, as many of the interviewees found that regulation was not inclusive towards their farm practices and the scale of their operations, as outlined above. Similar to the results of Butt & Taylor (2018), there was evidence of a disconnect between what was considered farming or not, and this impacted perceived participation as certain farmers deferred to more productive operations. This phenomena also manifests itself within the communication flows - it was unclear to interview respondents how industrial farmers were
represented within these processes as many did not attend the same engagement processes and the more food-sovereignty oriented farm operations did not know how to communicate with them. Further research could target these industrial or commodity farms that were not captured in this study in order to determine if young and new farmers are further being excluded in the local agricultural planning process in relation to these more intensive farmers, or if these farmers are not being formally engaged in the process at all.

**Connection of Localisation to Food Sovereignty**

Utilizing Robbins’ (2015) typology helped identify that many of the new and/or young farmers who participated in the planning process supported the goals of food sovereignty. Their contributions included selling direct to local markets and farming using agroecological practices while upholding peasant or agrarian ideals and often on small scale farms. This finding is also consistent with another study on new farmers in Ontario and Spain, which identified that new entrants aligned closer with an agro-social paradigm that aligns closely with food sovereignty principles (Monllor, 2012). All of these initiatives were still working within the neoliberal, capital-driven society in order to maintain their livelihoods, impacting motivations and ideologies behind farming, however, this typology highlighted the nuance between these farmers’ ideological motivations, which indicated that many farmers were primarily farming to support their communities and sustain themselves.

Similar to the results of Robbins (2015), these farms did not match the idyllic type of farm that perfectly supports food sovereignty (which the definition of is influx regardless) or the capitalist model, but exhibited dimensions of both, given that these farms still operated within a neoliberal capitalist context (Laforge et al., 2018). Many farms sought to create a somewhat parallel supply chain to the dominant industrial one, as many farmers chose to sell directly to consumers and/or restaurants, supporting the localisation dimension of food sovereignty, similar to the findings of Robbins (2015) and Gibb & Wittman (2013). Robbins (2015, p.454) highlights that local food systems are not enough to combat the global industrial system and that a local food system that meets the characteristics of “ideal food sovereignty” may still not achieve food sovereignty. In order for food sovereignty to be achieved, then power structures and social relations upholding “sexism, patriarchy, racism, and class power” must be transformed (Patel, 2009). If this is the case, then the typology is only useful to determine the localisation dimension and further analysis is needed to determine how these farmers may work within a network to transform these power structures.

As demonstrated through the Split Ladder Framework, agricultural issues can require higher levels of participation (Hurlbert & Gupta, 2015). While diversity was represented across the typology, further analysis is required to determine how other farmers may be engaged (or not
engaged) in the planning process. A more widespread use of this typology can help characterize the farmers and stakeholders engaged in the planning process, and potentially reintegrate different viewpoints in relation to scale, method, and character of farming.

**Farmers as Passive Actors within Agricultural planning**

As evident in the *Results*, many farmers are implicitly aware of the power relations and ontological barriers to farmer participation through their identification of the conflicting definitions of a farmer. Other studies investigating environmental and natural resource governance have pointed to the need for a greater attention to be paid to the power dynamics inherent to socio-ecological systems (Nelson, 2010; O’ Riordan et al., 2019; Shinn, 2016). The farmer interviews point to a need to address the power relations between the farmers and the Township, as well as between different types of farmers. Within their visions of agricultural futures, some farmers pointed to organizing through the Farmer’s Institute (namely the young farmers in Group A and C) and strongly believe that farmers need more representation in the agricultural planning process. But these options are still pathways through the current representative democratic process, which favours the dominant hegemonic structures that have silenced dissent in the past (Barlow, 2015; Butt & Taylor, 2018). Furthermore, besides the creation of the Farmers Institute, the suggestion of more engagement or more support for farmers through regulation continues to take the onus off of farmers to engage politically and placing it back onto the Township. In some senses, farmers have absolved themselves from getting politically engaged in these issues.

**Conclusion & Implications**

Through a case study methodology of seven new and young farmers utilizing interviews, a farm characteristics survey, and a document review, new and young farmers contributions to agricultural planning in the Township of Langley, as well as barriers to participation, were determined. Based on Robbins’ (2015) typology, it was found that these farmers existed on a range of scale, character, and method, however, they all were more closely aligned with food sovereignty characteristics. New and young farmers were primarily engaged through one-time public consultations and involvement in boards and farmers’ organizations that interface with the Township. Through these involvements, the Township was able to gather information and consult on relationships, which are primarily lower levels of involvement (Dorcey et al., 1994). Significant barriers exist for new and young farmers to be involved. These include time constraints to participate for young farmers who work second jobs or have young families, as well as level of knowledge or understanding of policy for older, new entrant farmers, as they have less familiarity with agricultural governance structures. The effort to find out about how to
get involved and provide feedback to the Township was a significant barrier for both new and young farmers.

Farmers recommendations for how to improve the agricultural planning process included more engagement of farmers on farmers’ terms, better communication flows and centralized information sources, including a liaison between the Township and young and new farmers in the Township, and supporting the Langley Farm Institute as an independent voice for farmers to the Township.

Based on the analysis, moderately structured and structured policy problems exist within the Township, requiring more engagement and trust then what currently exists between farmers and the Township council and planning staff (Hurlbert & Gupta, 2015). Conflicts and challenges, such as increased regulation and the conflicting legitimacy of farm practices, have also pushed farmers to self-organize into the Langley Farmers Institute. While the Farmers Institute was emergent as a potential actor, it is unclear if participation will reflect the range of farmers that exist in the Township, which may contribute to the Farmer’s Institute’s voice being marginalized.

In order to stave off the farm succession crisis, the democratization of the planning process and increased participation is necessary to involve the range of new and young farmers who will continue to support goals of food security and food sovereignty. Based on this analysis, moderately structured, and structured policy problems face new and young farmers and increased participation is needed to address them (Hurlbert & Gupta, 2015). In order to support this, double and triple loop learning is necessary to question these underlying assumptions that contribute to these challenges (Hurlbert & Gupta, 2015). Trust must be built between the Township and farmers through increased communication flows and transparency to support increased participation (Huntjens et al., 2011; Pahl-Wostl, 2009). But, with increased participation considerations must be taken to not reinforce the same structural inequities facing emergent farmers (Clark et al., 2017).
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Appendices

Appendix A: Interview Guide

Title of Study

Agriculture, planning and post-politics – an examination of governance approaches to agricultural planning and conflict

Description of Study

This research will examine development approaches in agricultural planning used to address conflict in British Columbia. Through interviews with farmers, I will collect information about farmer participation in the development of agricultural plans, as well as agricultural conflicts in the region, the impacts of these conflicts, the formal and informal planning processes employed to address these conflicts. The questions in the guide below will specifically address farmer participation in these processes, as well as issues related to farmers who were not selected for participation.

SEMI-STRUCTURED INTERVIEW GUIDE SAMPLE QUESTIONS

A. PARTICIPATION IN AGRICULTURAL PLANNING

1. In what capacity have you been involved in the agricultural planning process? If not at all, switch to Interview Guide Questions - B
   a. Go through each section individually (then tailor other questions based on this)
      i. Shaping, implementation, and evaluation of the agricultural plan
      ii. Bylaw amendment / creation
      iii. Official Community plan
      iv. Zoning (ie conflicts)
      v. Development Applications
      vi. AACs
      vii. Open houses
      viii. online/in-person interviews
      ix. Written submission to councillors
      x. Online feedback
      xi. Direct contact with councillors
      xii. Informal processes

1b. To what degree were you involved? What was your role? In what format did the consultation take place? How did the planning process include you? Can you provide an example?
   a. Representing others?
   b. Did you feel comfortable to speak in this format?
c. Inform – Educate – Gather info/perspectives – Consult on relationships – Define issues – Seek advice – Test ideas – Seek consensus – On-going involvement – Increasing levels of involvement

2. How did you find out about the development of an agricultural plan and/or any stage of the agricultural planning process? (flows of inclusion)
   a. Other forms include Attending consultations, Written submission to planners/councillors, Online feedback, Direct contact with councillors, Informal processes, Direct involvement in the consultation process for agricultural plans

3. Describe how you were recruited or selected to contribute to the agricultural plan and/or agricultural planning process?
   a. Stage of Inclusion
   b. Farmer Selection Criteria

4. What did the Township staff do to make it possible for you to be involved? Was it helpful?
   a. What did other members of the consultation do?

5. What barriers did you experience participating?

6. Are there any other ways your participation could be encouraged?

7. Who would you say were the most influential voices in shaping the agricultural plan and/or agricultural planning process?
   a. Who makes decisions? Who has the final say?
   b. Trustworthiness of these voices?

8. Who would you say were the least influential voices in shaping the agricultural plan/in this process?

9. What farms/farmers were absent from the planning process?

10. What other stakeholders were included in the planning process?

11. What other stakeholders were absent from the planning process?

12. Any other comments regarding your participation in the planning process?

B. NOT PARTICIPATED IN AGRICULTURAL PLANNING

1. Did you hear about the development of an agricultural plan?

2. Were you recruited to participate in the agricultural planning process at any point?

3. Why haven’t you participated in the agricultural planning process? What barriers did you face to participating?

4. Have you attempted to get involved in the process?

5. Did City Staff do anything to try to make it possible for you to be involved? Was it helpful?

6. From an outside perspective (depending on how much they’ve heard about the process)
   a. Who would you say were the most influential voices in shaping the agricultural plan?
i. Who makes decisions? Who has the final say?

ii. Trustworthiness of these voices?

b. Who would you say were the least influential voices in shaping the agricultural plan?
c. What other stakeholders were absent from the planning process?
d. What other stakeholders were included in the planning process?
e. Were there planning processes outside of the formal state planning system that were legitimized?

7. Assuming that the planning process plays a role in influencing agricultural futures, what role do farmers of your demographics play in this process? How could the planning process be made more inclusive?

C. CONFLICT & DISSENT

1. What are the main conflicts in agriculture in your region within the farming sector?
   Prompts: Farm size, Farm practices, Interpersonal, Cultural/social, Land ownership, Land access, Market access, Financial support, Labour access, Other

2. What are the main conflicts in agriculture in your region between farming and those outside of the farm sector?
   a. Environmental
   b. Urban/farm interface
   c. Nuisances – e.g. noise/odour
   d. Land speculation
   e. Land tenure
   f. Agricultural development
   g. Decision-making
   h. Other

3. What is the relative status conferred to these conflicts? How is this determined? As in, whose concerns, conflicts or issues are considered more important?

4. What is the role of agricultural planning in addressing these conflicts, if at all?
   a. What do you think the Township’s expectations are with regards to agricultural planning’s ability to deal with those conflicts?
   b. Agricultural development
   c. Agricultural governance
   d. Public good – conservation, food security, environment, health
   e. Future of agriculture

5. If these conflicts were not addressed in the agricultural plan, which conflicts did come up in the agricultural plan?

D. PLANNING IMPLEMENTATION AND EVALUATION
1. If known, what actions of the agricultural plan or strategy were implemented?
   a. Who implemented these actions?
   b. Do you know of anyone or any organization that was involved?
   c. Did the activities identified for implementation in the plan reflect the needs of the farmers you’ve spoken with/your own needs?

2. Generally speaking, do you think that the agricultural plans and/or agricultural planning is effective? Why?

3. Thinking of specific issues/concerns that you have:
   a. What was the impact, if any, of the agricultural plan on addressing issues of concern to you?

4. How could agricultural plans be more effective?
   a. What would you change?
   b. What would you keep the same?

E. FUTURE CHALLENGES AND OPPORTUNITIES
1. How do you think that change happens in the agricultural sector?
   a. Change at what scale? Who are the drivers of this change?

2. What is your vision for the future of the agricultural sector?
   a. What do you think the role of the municipality/municipality’s planning branch in realizing that future?
   b. How does the next generation factor into the agricultural planning process?

3. Do you know of any other farmers who have been involved in planning in some capacity (or who may be interested) who I should reach out to for an interview?
Appendix B: Farm Classification Survey

Title of Study
Agriculture, planning and post-politics – an examination of governance approaches to agricultural planning and conflict

Description of Study
This research will examine farmer participation in agricultural planning, as well as agricultural conflicts in the region, the impacts of these conflicts, the formal and informal planning processes employed to address these conflicts. The questions in this survey will document information about your farm size, farm methods, and ideologies to help categorize farmers who participate in agricultural planning processes (including but not limited to: strategy design, consultation, agricultural advisory committees, implementation and evaluation of agricultural plans).

Description of Benefits and Risks
The results of this study will help government staff, decision-makers, farmers, organizations, researchers, and policymakers better understand the current state and trajectory of agricultural planning and governance in the region. There are no perceived risks to the study. Your identity will be anonymized in research summaries and publications unless you specifically request to be identified.

Protection, Storage & Disposal of Data
To further protect your confidentiality, I will assign you a number and/or pseudonym so your name or any other identifying features will not be included in the data files. All information collected in the surveys will be confidential and stored in a secure location. All digital files will be coded, encrypted, and stored securely on a password-protected device.

Procedures for Withdrawal of Participation
You can withdraw your consent to participate at any time, and at your request, any survey data will be destroyed. If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

For additional information about the study and to request research results
A summary of overall project results will be provided to all interested participants. For further questions about the study, you can contact the principal investigator at [hannah.wittman@ubc.ca](mailto:hannah.wittman@ubc.ca)
Farm Information

1. Name (First & Last) (this will be deidentified in the study’s findings that are publicly available)

2. Your selecting of the box below indicates that you have read the survey in full.
   a. I have read the waiver in full and agree to its terms (check box)

3. Please sign below
   a. [electronic signature]

4. Name of the farm (this will be deidentified in the study’s findings that are publicly available)
   a. ________________

5. Size of the farm
   a. Total # of acres ________________
   b. # of acres - owned ____________
   c. # of acres - leased ____________
   d. # of acres - shared/cooperatively owned ________
   e. # of acres in production ________________

6. Where is your farm located? (select one)
   a. Township of Langley
   b. Other ____________

7. How old are you?
   a. ________________

8. How long have you been farming (years)
   a. At this location ________________
   b. In total ________________

9. What types of crops does your farm produce and sell?
   a. ____________________________________________

10. What are your top five crops and what percentage of your income does your crop represent?

<table>
<thead>
<tr>
<th>Crop Name</th>
<th>Percentage of income, %</th>
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11. Does your farm have any livestock? If so, please indicate what types and how many. (please distinguish from the type of livestock and different by-products; ie chicken would go on one row, eggs on another)

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<tr>
<th>Type of Livestock</th>
<th>Percentage of income, %</th>
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</table>

12. Does your farm produce anything besides crops or livestock? Please indicate what else you produce
   a. ____________________

13. What is your marketing approach? (percentage of sales)

<table>
<thead>
<tr>
<th>Marketing Approach</th>
<th>Percentage of Sales, %</th>
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</thead>
<tbody>
<tr>
<td>Internationally, through a distributor</td>
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<tr>
<td>Locally, direct to consumer</td>
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<tr>
<td>Locally, direct to retailer</td>
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<tr>
<td>Locally, through distributor</td>
<td></td>
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<tr>
<td>Wholesaler</td>
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<tr>
<td>Other (please indicate)</td>
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14. Do you have any additional remarks on the type of farm you operate?
Farm Practices

1. Which of the following describes your farm practices?
   a. Organic certified
   b. Industrial
   c. Conventional
   d. Organic practising (not certified)
   e. Biodynamic
   f. Other ____________

2. Which of the following techniques do you use on your farm? (circle all that apply)
   a. Conservation tillage
   b. Application of chemical fertilizers
   c. Application of manure
   d. Pesticide use
   e. Organic practices
   f. Water conservation and/or recycling techniques
   g. Monocropping
   h. Improving biodiversity
   i. Use of hedgerows
   j. Crop rotation
   k. Integrated Pest Management
   l. Soil conservation
   m. Nutrient recycling
   n. Other ______________________

3. Labour (include paid and unpaid labour, including family members, relatives, etc)
   a. How many people work on your farm? (including yourself)
      i. ______________
   b. On average, how many hours per week does this group of people work over the growing season? (including yourself?)
      i. ______________
   c. On average, how many hours per week do you work over the growing season?
      i. ______________

4. Who is the main decision-maker on your farm?
   a. Myself
   b. Someone else, please indicate
      i. ___________

Farming Importance
1. Why is farming important to you? (check all that apply; then rank from most important to least important)
   a. Provide food for the community
   b. Provide culturally-appropriate foods for members of the community
   c. Contribute to the environmental movement
   d. Mitigate climate change
   e. Continue on the family tradition
   f. Provide food for your family
   g. Make a living
   h. Sell to make a profit
   i. “Create a viable and productive farm”
   j. Have an efficient farm
   k. Build a successful enterprise that is competitive
   l. Feed a growing population
   m. Steward the land for future generations
   n. Other ________

2. Additional comments on why farming is important to you
   a. ________________

3. How would you define a farmer?

4. Do you self identify as a farmer?
   a. Yes
   b. No

Participation
1. What has your participation in the agricultural planning process been (select all that apply)
   a. Attending consultations
   b. Written submission to planners/councillors
   c. Online feedback
   d. Direct contact with councillors
   e. Informal processes (please elaborate)
      i. ________________
   f. Direct involvement in the consultation process for agricultural plans
      i. ________________
   g. Other ________________

2. Do you belong to any agricultural organizations or groups? (including co-operatives, unions, associations)
   a. Yes
   b. No
3. If yes, what is your level of involvement?
   a. ________________

4. Do you have any additional comments or questions about this survey?

Thank you for your participation in this survey. If you have any questions about the contents of this survey, please contact me at meryn.corkery@ubc.ca, 780-953-8126.

Thank you for your time,
Meryn Corkery
## Appendix C: Documents for Review

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Document Name</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Township of Langley</td>
<td>Sustainability Charter: Building a Sustainable Legacy</td>
<td>A high-level policy framework to guide decision-making for the TOL’s Council in order to meet sustainability goals.</td>
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<tr>
<td></td>
<td>Official Community Plan (2008)</td>
<td>Consolidated bylaws for all the neighbourhoods in Township of Langley that details the long term vision for the region; Bylaw 1979 NO. 1842</td>
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<td>Agricultural Viability Strategy: Phase 3 (2013)</td>
<td>Outlines future actions for the TOL to take in order to reach its agricultural potential.</td>
</tr>
<tr>
<td>Metro Vancouver Regional District</td>
<td>Metro Vancouver 2040: Shaping our Future</td>
<td>Regional Growth Strategy (Bylaw No. 1136, 2010); adopted by the Greater Vancouver Regional District Board on July 29th 2011. Updated on July 28th, 2017.</td>
</tr>
<tr>
<td></td>
<td>Regional Food System Strategy (February 2011)</td>
<td>Outlines goals and strategies for all levels of government, private sector, and civil society to take to create a sustainable food system in Metro Vancouver.</td>
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<tr>
<td></td>
<td>Regional Food System Action Plan (2016)</td>
<td>Specifically outlines the actions for local governments to take to reach the goals of the Regional Food System strategy.</td>
</tr>
<tr>
<td>British Columbia: Ministry of Agriculture</td>
<td>Guide for Bylaw Development in Farming Areas (2015)</td>
<td>Identifies the provincial standards that farming areas (including the TOL) must adhere to in the development of their</td>
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<td>bylaws.</td>
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<tr>
<td><strong>Farm Practices Protection (Right to Farm) Act (FPPA)</strong></td>
<td>Legislation designed to protect farmers from complaints if the complaints are due to “normal farm practices”, as defined in the Act.</td>
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<tr>
<td><strong>Local Government Act (LGA)</strong></td>
<td>Designed to encourage policy and bylaws that support farming and allows the agricultural minister to set regulations related to farming.</td>
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Appendix D: Initial Coding Framework

- farm types (Robbins, 2015)
  - Size of farm (scale)
  - Ideology of farmer (character)
  - Farm practices employed (method)
- agricultural strategy or plans
- type of planning process
  - Direct stakeholder consultation (interview, focus group)
  - Written submission (online or offline)
  - Public consultation (open house, event, booth)
  - Presentation (committee or council)
- Conflict and Policy Problems
  - types of conflict
  - farmer legibility
  - representation / relative contributions
  - unstructured problems - high disagreement on values/norms and on science
  - disagreement means/bargaining - high disagreement on values/norms, low disagreement on science
  - moderately structured problems- low disagreement on values/norms, high disagreement on science
  - structured problems - low disagreement on values/norms, low disagreement on science
- selection process for involvement
  - inclusion criteria
  - exclusion criteria
- Spectrum of Farmer involvement (Dorcey et al. 1994) (Hurlbert & Gupta, 2015)
  - Increasing levels of involvement
  - On-going involvement
  - Seek consensus
  - Test ideas
  - Seek advice
  - Define issues
  - Consult on relationships
  - Gather information and perspectives
  - Education
  - Inform
- Information Flows (Butt & Taylor, 2018)
  - Information emerging primarily from citizens but in an iterative process
  - Ongoing iterative information flow
  - Two-way information flow
  - One way information flow
- Trust
  - High levels of trust
○ Existence of social trust in citizens participating in decisions
○ Trust-building activities
○ Low levels of trust
Appendix E: Revised Coding Framework

- Barriers to Participation
  - Effort
  - Level of Understanding
  - Pointless
  - Time Constraints
- Conflict and Challenges
- Farm Type (Robbins, 2015)
  - Character (ideology)
  - Method (farm practices)
  - Scale
- Information Flows (Hurlbert & Gupta, 2015)
  - Information emerging primarily from citizens but in an iterative process
  - Ongoing iterative information flow
  - Two-way information flow
  - One way information flow
- Related to Agricultural Plan (AVS)
- Role of Planning
  - Farmer Perception of Agricultural Planning
  - Recommendations from Farmers regarding TOL agricultural planning
    - Communication Flow
    - Encourage Participation
    - Help facilitate business
    - Increased Transportation
    - Liaison between farmers and Township
    - Increased Engagement
- Selection Process for involvement
- Spectrum of Farmer Involvement (Dorcey et al. 1994) (Hurlbert & Gupta, 2015)
  - Increasing levels of involvement
  - On-going involvement
  - Seek consensus
  - Test ideas
  - Seek advice
  - Define issues
  - Consult on relationships
  - Gather information and perspectives
  - Education
  - Inform
• Trust (Hurlbert & Gupta)
  ○ Information emerging primarily from citizens but in an iterative process
  ○ Ongoing iterative information flow
  ○ Two-way information flow
  ○ One way information flow
• Type of Farmer Involvement
  ○ AACs
  ○ Bylaw Amendment or Creation
  ○ Development Applications
  ○ Direct contact with councillors
  ○ Informal processes
    ■ Research
    ■ Nonprofit or volunteer organizations
  ○ Official Community Plans
  ○ Online Feedback
  ○ Online or in person interviews
  ○ Outside of Township
  ○ Public Consultations
  ○ Written Submission to Councillors
  ○ Zoning (conflicts)
• Why Farmers Participate
  ○ Vision for Agricultural Future